

UNIVERSITY OF NORTHUMBRIA at NEWCASTLE
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Author Michela Bricoli

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To Mario and Linda

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Declaration

This dissertation is the sole work of the author, and is developed as a thesis of the MSc International Information Studies.

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1 Introduction

1.1 Context

In recent years, we have witnessed the revolutionary advances of Information Technology and Telecommunications, the diffusion of the learning society, the general tendency to live longer and longer and the increasing number of older people.

In Europe today there is a new impetus being given by Governments to the concept of the learning society. This is due in part to the impact of the convergence of the communication and information technologies, but its roots lie in a response to the message that the only viable option for developed economies in the new global economy is to compete on the basis of high skills and high productivity [Dixon 2001, p. 8]. Although Governments are especially interested in the economical and productivity-linked aspects, learning is also strictly tied to the concern of democratisation and fairness (elimination of socio-economic, gender and geographic inequities). Learning is an instrument for improving the quality of life, and must be closely linked with the needs of everyday life [Knapper - Cropley 1985, pp. 14, 16].

In fact, technological progress is now rapidly leading us to a new concept of an Information Society, where citizens with different abilities, requirements, educational and cultural backgrounds and preferences, will need to perform, in the context of their everyday life activities, multi-modal interactions with multi-media applications and telematic services. This unstoppable technology push offers new opportunities for all citizens in society, including disabled and elderly people. However, it may also introduce new barriers, human isolation and

alienation, if the different requirements of all potential users are not taken seriously into consideration [Staphandis 1997, p. 1].

One fact that needs to be considered carefully is that the Information society is for us all. Everyone should have access to information technology based applications and services that provide them with assistance in their everyday lives. But presently still many groups of citizens seem to be outsiders and even in danger of exclusion of the benefits that the Information Society may offer to them. The older generation is one of these groups [Campbell - Dries - Gilligan 1999, p. 3]. As Habib *et al.* [1997] state, three social groups are at risk of exclusion in the Information Society, whether or not they experience poverty: women, ethnic and racial groups, and older people.

Despite the possible exclusion of older people in the new technological context, the application of Information and Communication Technologies (ICTs) and the Information Society promise great opportunities to older people for greater access to information, learning, social activities, communication and in social life generally. Computer technology and the Internet have a consistent potential to broaden the lives and increase the independence of people with disabilities. The Internet can play an important role in maintaining the health, quality of life and longevity of older adults. As Noer [1995, p. 240] says, "the use of the Internet can help the older people to come out of isolation, to maintain contacts with the real life, to obtain new information and knowledge, to maintain their mind active and to win psychological problems".

Considering that the most older people have no contacts with educational or working places, and do not have the possibility to be part of the new information environment, the public library must educate them in the use of these new

technologies, and guarantee that all the people, with no exclusion, have access to the information resources and the tools offered by the Internet and the new technologies in general. In the new social context, topics as democratisation or equality must be taken into serious consideration, and the public library can have an important role in offering information and learning to people of all ages and backgrounds.

1.2 Purpose of the study

Due to the fact that the large amount of numerical data on older people's Internet use, although useful, fails to assess the motivations, attitudes, and concerns that influence Internet usage, an in depth study on these topics appears to be very important. Given the lack of information on the impact of the use of the Internet technology in the life of older people, I decided to carry out an exploratory investigation of a training experience specifically addressed to them, the project "Nessuno Escluso". The ten participants of this project were selected because of their computer literacy. This condition allowed the study to begin to look at the role of computers in the life of older people.

The aim of this study was as follows:

- to explore if and how the use of the Internet tools can change the life of the older adults.

1.3 Objectives of the study

The above aim was to be achieved by the following objectives:

- to examine the effective daily use of Internet tools by older adults;
- to investigate the approach and feeling of older adults to the new technologies;

- to identify the most frequently used Internet services;
- to explore the motivations to access the Internet tools;
- to explore the positive/negative aspects of the Internet from the perspective of older adults;
- to investigate how the Internet can be made more accessible to older adults: the public libraries' role.

1.4 Significance of the study

Although the study is small-scale, its results could be used by researchers, policy makers and practitioners:

- to enable informed decisions to be made on the provision of the Internet resources and services specifically addressed to the older adults;
- to provide information on the use of the Internet by older people;
- to provide a clearer picture of the effective role the new technologies can have in the life of people with special needs.

Furthermore the study, although limited, indicates areas for more extensive research.

2 Background

2.1 Introduction

This chapter provides a conceptual framework for the study. The first section presents briefly the new tendencies of older people in the new society. The second section discusses the older people and the new technologies, discussing the role of public libraries in the provision of services specifically addressed to this kind of users. The presentation of a concrete public library programme, the project "Nessuno Escluso", closes the discussion.

2.2 The older people in the new society

2.2.1 New attention to the older people

Today's older adults form a population that demands attention. Contemporary society has to carefully consider old age, the general tendency to live longer and longer and the increasing number of elderly people. The concept of ageing has to be re-examined. Agencies charged with long-term planning must redefine priorities, adapt the delivery of services and adopt a positive view on the aged [Mates].

This is also a political fact: Governments and local administrations have to consider it and, in fact, the EU policy is moving in this direction, but with some misconceptions. In fact EU policy aims at the creation of an inclusive European information society, but there is very little specific reference to the inclusion of older people. "Inclusion" in EU policy focuses on young and unemployed people. Education and training are priorities, but in an employment context only. The concept of life-long learning is implicitly defined as working life-long learning. This leaves a policy gap regarding the learning needs of older people who are no longer economically active [Campbell - Dries - Gilligan 1999, p. 9]. Furthermore practical

initiatives addressed to older people are mainly targeted at both older people and disabled people, and are situated in the adaptive technology sector¹.

Italy is late in adopting this type of social policy, but something has started to move in recent years. The report presented last May to the Italian Parliament concerning the condition of the elderly in Italy² and the law on the accessibility of Public Administrations websites presented by the MP Lucio Stanca³ and part of the CABI⁴ (Campagna per l'Accessibilità delle Biblioteche in rete - Campaign for On-Line Library Accessibility) Project of the Marciana National Library are example of this new trend.

2.2.2 The number of older people

People in industrialised countries are living longer and longer, and the average life span has increased. The UN's report *World Population ageing: 1950-2050* reveals a dramatic situation saying that:

- currently, the growth rate of the older population (1.9%) is significantly higher than that of the total population (1.2%), and by 2025-2030 forecasts indicate that the population over 60 will be growing 3.5 times faster than total population (2.8% compared to 0.8%) [p. 11];
- the proportion of older persons is expected to more than double world wide over the next half century [p. 12];
- Europe is currently the world's largest area with the highest proportions of older persons; about 37% of the European population is expected to be 60 or over in 2050, up from 20% in 2000 and almost 30% is expected to be 65 or over, up from 15% in 2000 [p. 12].

¹ For details about the EU policy visit the site <http://europa.eu.int/index_it.htm>

² The document is available at <<http://www.minwelfare.it/News/RapAnz03.htm>>

³ Information on the law can be found through the specific mailing list pdl3486@itlists.org. General information about the mailing list is at <<http://itlists.org/mailman/listinfo/pdl3486>>

⁴ Information on the the CABI can be found at <<http://marciana.venezia.sbn.it/CABI/>>

Italy, like all developed countries, has become an ageing society. The Italian population, with an old age index of 127.1% is the oldest in Europe [ISTAT 2002, p. 33].

Although older people are sometimes regarded as a homogeneous group, they are a heterogeneous social group. Considering that the older adult group, between 55 and 100, can easily cover two generations, many commentators use terms such as "older elderly" for those over 75 and "active elderly" for the younger group [Linley 2000, p. 386].

2.3 The older people and the new technologies

There is a perception that persons aged 50 years and older have not had access to or the opportunity to learn how to use computers. Although it is a fact that younger persons have greater access to computer technology, such as in schools, older people are beginning to make some headway in the area of computer utilisation [Thompson 1996, p. 85]. Encouragement and opportunity are two major ingredients in changing the attitudes of older people to new technology [Williamson - Bow - Wale 1996, p. 161].

Elderly people risk finding themselves on the wrong side of the digital divide as the delivery of services goes online. Despite a large number of "silver surfers" now using the Internet, the overwhelming majority of over 65s have never logged on, according to a report by the National Audit Office (NAO) [BBC 2003]. But, as Sir John Bourn, head of the NAO, said "If government is to take full advantage of the potential of technology, it must make sure its e-service are accessible to all", considering the potential great boon to older people of these e-services.

Prevalent ideas that computers are for the young can affect the viewpoint of older adults towards technology, as well as limit the opportunities open to them [Manheimer et al. 1995, p. 161].

The initiatives taken all around the world to increase Internet use and knowledge among the older people are numerous⁵.

2.3.1 Use of the new technologies

Although learning computer technologies and accessing the Internet may be more important for the older people than any other age group [Mates 2003, p. 63], seniors on the Net represent a relatively small number of users. But the numbers are increasing a lot. According to the Pew Institute & American Life Project study only 13% of Americans over the age of 65 have access to the Internet. However those that do use computers use them almost every day (69%), compared to 56% of all Internet users. The study also reveals that many of the "computer savvy" seniors state that, while computers may have intimidated them at first, they do not know how they would live without them. But the numbers of older old people who are using computers is nevertheless small compared with other age groups.

⁵ Particularly significant appear to be: the Web Aware Project, a three-year partnership between Age Concern and Barclays; the Age Resource project within Age Concern <<http://www.ace.org.uk/ageres>> which has started a programme to take computer taster sessions into day centres, nursing homes, residential care homes and sheltered housing units in England; and the Webwise campaign launched in the spring of 1999 by the British Broadcasting Corporation (BBC) to increase public understanding of the Internet. Many local authorities offered Webwise taster sessions through their public libraries⁵. For details about the practical realisation of the project in public libraries, consider the following articles: Clarkson, T. - Bradford, S. [2001] *It's never too late to learn how to surf the net*, Library Association, 2001, available at <<http://www.la-hq.org.uk/directory/record/r200102/article4.html>> for the Chepstow Library & Information Centre; Flatten, K. [2000] *Internet access for older adults in public libraries*, available at <<http://www.monmouthshire.gov.uk/leisure/libraries/report.html>> regarding the experience in the Monmouthshire Public Library

The annually CENSIS report on the social situation in Italy says that the use of the computer and the Internet connection (27.8%) has increased greatly in Italy in recent years. But the older people remain in the class the report calls "poor of media" [CENSIS 2002].

Also if the computer and the connection to the Internet are not widespread among the elderly, recent Italian research highlights their interest in the new technological environment: a great number of older people interviewed declare their wish to learn how to use a computer [Palomba et al. 2001].

2.3.2 How the new technologies can help the older people live

Computer technology can provide a way to experience the world for a large segment of older adults who may not otherwise be capable of mobility, specifically, the homebound, disabled and institutionalised elderly [Thompson 1996, p. 90].

As Swindell [2001, p. 23] states, the Internet can offer individuals in their Third Age a new set of options for improving their quality of life. The Internet provides seniors with information that can educate, entertain, increase productivity and enable socialisation: it's a massive resource for seniors [Lawbon et al. 1996, p. 196]. It makes easy to communicate, obtain information, and broaden one's horizons.

Recent research conducted by ICM Research about the Internet and Older People, on behalf of Age Concern and Barclays founded that two thirds of IT users (55+) agreed that the Internet had a positive impact on their lives. This suggests that almost all people who give IT and computers a try, realise the

relevance of IT and the potential it has to improve their lives [Age Concern 2002].

To summarise, the Internet can help older people:

- in their daily life;
- in the search for information;
- to communicate and interact with other people;
- to stay in touch with real life;
- in the case of physical or psychological disabilities.

2.3.3 The role of public libraries

Public library services can play important roles in the lives of older adults [Kendall 1996, p. 16], but the interest given by them to this particular kind of user is different, in both terms of time and from country to country, and it's often only a principle declaration without concrete effects and adequate political strategies [Revelli 2000, p. 60].

As Kendall [1996, p. 18] highlights, "given the necessary infrastructure investment, public libraries could play a valuable role in providing access points for online and other services through the Internet" specifically addressed to older adults. As many older people do not want to be burdened with maintaining PCs at home, it is vital that there is access to the Internet in public places, especially public libraries, and that older people are encouraged to use such facilities - that is if older people are not to be excluded from this technology [Blake 1998, p. 1].

The services and the environment offered by the SeniorNet should be guaranteed by public libraries. In fact, as Ito and al. [2001] say, the aim of the SeniorNet community is to offer social interaction and identification, support and caring,

technical help, a way of sharing interests and experiences, a warm, welcoming and supportive atmosphere, a comfortable place to spend time, encouraging active participation.

But the reality is completely different. Today only a few libraries are developing programming specifically addressed to older people, who are one of the largest of the poorly served library populations [Mates 2003, p. 1].

Public libraries must re-examine the older stereotypes and misconceptions of ageing and redefine services for this rapidly growing group, based on positive realities. But unfortunately "a look at the innovative programs and creative services that are being developed by other senior-based organizations and that we could and should be offering reveals how libraries have failed to understand the changing needs of the older adult population" [Kleiman 1995, pp. 32 - 33]. The author continues to highlight the need for libraries to position themselves as "leaders" in offering informational, recreational, and cultural services [p. 34]. Although some libraries throughout the world are conducting interesting programming initiatives for seniors, there is still much to be done⁶.

Libraries have the opportunity, as well as the obligation, to focus on the new configuration of the older population, developing programming initiatives which will bring older adults into libraries. One logical place to start is with computer training. In fact, although computer labs and computer classes are becoming popular among the libraries, only a small percentage of them have classes designed to focus on the needs of older adults [Mates].

⁶ For a list of 5-star programs for older people, see appendix 3 of the more recent Barbara Mates' book presented in the references.

2.3.3.1 Medical model

Librarians have been criticised for interpreting the needs of older adults in a narrow, stereotyped way, using a medical model of old age to concentrate on providing a limited range of services for those unable to leave their homes or living in communal homes [Kendall 1996, p. 17] [Linley 2000, p. 388]. The stereotypical view of older people results in provision of a limited range of services by public libraries [Linley 2000, p. 395].

Resources have mainly concentrated on setting up domiciliary services and services to centres and homes. The most significant - in quantity and quality - services of the public libraries are addressed to disabled, to the infirmity aspect of old age. On the contrary there have been relatively few initiatives in designing programmes to attract older active people into libraries [Heeks - Kempson 1985, p. 7] [Lewin 2001].

The medical model is also the predominant model in the web sites, as Allardice states: "Senior citizens are finding a bit of chore to track down web sites of interest to their generation. Seniors want fun web sites to visit. Seniors want to travel, they want to be interested. But wait. You say there are web sites for senior citizens? Oh sure, there are those geriatric sites that mean well, but address issues associated with the downside of aging like osteoporosis, Alzheimer's, or hearing loss, or offer handy-dandy tool kits for wheelchairs" [Allardice 2001, p. 24].

On the contrary, accordingly with Kleiman's opinion, libraries must be capable of offering more than deposit collections to the housebound or large print book collections [Kleiman, 1995, p. 34]. As the ALA and RUSA manuals for adult programs point out, programming for adult effectively meeting informational,

educational and recreational needs of adult library users are essential [Lear 2002; RUSA-SUPS 1997].

2.3.3.2 Active elders' needs

Recently research into the psychological processes of ageing are allowing the librarians to look more closely at services to all older adults and not just to those who are housebound. In this field, North America is advanced where the interest on the active elderly, in the stimulation and extension of reading interests, the involvement of senior citizens in the planning and operation of library programmes are common [Heeks - Kempson 1985, p. 20].

In fact, not only is the proportion of older people growing, but current economic policies are lowering the age at which people permanently leave the labour force. This implies more leisure time for many people who may only be in their fifties and who can expect another 20 years or so of active life. For many the additional time associated with retirement provides an opportunity to explore new horizons, by travelling, studying or developing their interests [Blake 1998, p. 4]. The increasing leisure time is an opportunity to pursue existing interests or to develop new ones through public library services [Kendall 1996, p. 16].

As Cullen [1997, p. 111] says "older people are increasingly coming to terms with the concept of retirement as a time of opportunity". But are the libraries keeping up with the massive changes that have occurred in the area of retirement? The vitality of seniors needs to be promoted and listened to. And, certainly, one of the best places for seniors to learn new skills is the library [Mates 2003, p. 3].

As leisure becomes more significant with the increase in the number of older people, the question of charges for leisure services needs to be addressed. Also if

the medical model is still the norm for librarians, some libraries are experimenting with services for active elders. And the success of the University of the Third Age demonstrates the extent to which older adults may be interested in using their increased leisure time for educational, intellectual and creative self-development [Kendall 1996, pp. 17-18].

2.3.3.3 Training courses

Computer application is prevalent in all segments of daily life. Thus, seniors need information on the benefits and limitations of this technology. They need to become computer literate, which means they need to develop the ability to operate computers successfully, become aware of computers and their capabilities and learn and develop a basic knowledge of computer systems [Lawbon et al. 1996, p. 196].

Considering that older computer users are burdened by both the generational technology gap and the fact that their needs are ignored by most computer software designs [Morris 1994, p. 542], the library can be of assistance in helping older adults cross the digital divide [Mates 2003, p. 40].

A number of teachers and researchers have written of their experiences in Internet training to older people. The most common impression referred by them is that the response of the older adults was higher than expected [Burwell 2001, p. 40] [Clarkson - Bradford 2002] [Flatten 2000] and the initiative a success [Puacz 2000, p. 53]. Senior citizens are generally the most satisfying of all classes taught [Mates 2003, p. 72]. Erickson's [2000] words reveal how positive a training experience of this kind can be: "helping my grandfather learn to use the computer and get online has been a frustrating but ultimately very rewarding experience. When I first started helping him he didn't even know what "click"

meant. It was fascinating to learn about and wonderful to see his excitement at the computer actually working!"

From these experiences, a general trend can be seen and some recommendations can be made. In fact, as Van Fleet and Antell [2002, p.150] say, "as the older learn in a different way, public libraries must adopt different strategies for more effective older adult computer training".

Fig. 2.1

GENERAL TENDENCIES

once the initial fear is over, older adults can be very positive about the Internet and in some cases very enthusiastic [Morris 1994, p. 542]
[Williamson - Bow - Wale 1997, p. 12]

one necessary ingredient for older adults' successful learning is a positive initial experience with a computer to combat their technological alienation [Morris 1994, p. 548]

there is a considerable aversion to the idea of paying for Internet training: the older people are more interested in free training on the Internet, perhaps because of their lower income [Williamson - Bow - Wale 1996, p. 167]

participants prefer a simple introduction which give them just enough information to get them started on the Internet [Williamson - Bow - Wale 1996, p. 167]

Fig. 2.2

PRACTICAL SUGGESTIONS

the learning environment, and course content and materials should be adapted to meet the needs of older people [Campbell - Dries - Gilligan 1999, p. 20] [Mates] and accessible [Van Fleet - Antell 2002, p. 150]

the most obviously successful courses to date are those which are targeted specifically at older people [Campbell - Dries - Gilligan, 1999, p. 20] [Puacz - Bradfield 2000, p. 50] [Adams 2001, p. 39]. Many older adults do not wish to learn in an environment that places them in direct comparison with young people [Morris 1994, p. 542]

the context must be relaxed [Puacz - Bradfield 2000, p. 50]

the most pedagogical methods among older people include explanations relevant to the daily life [Campbell - Dries - Gilligan 1999, p. 20],

consider mental and physical changes in seniors that affect the learning process [Johnson et al. 2001]

as far as the session last is concerned opinions are diversified: one hour is the maximum time a session should last [Johnson et al. 2001]; classes that last between one and two hours [Adams 2001, p. 39]

begin each class with a review of the subjects covered in the previous class [Burwell 2001, p. 41]; [Mates]

go level by level [Burwell 2001, p. 42]

demystify the Internet and the computers in general [Burwell 2001, p. 41]

try not to schedule more than two people to share a computer [Adams 2001, p. 39] and no more than three persons per instructor [Mates]

provide students with a printed document of everything they need to remember [Mates]; [Erickson 2000] with step by step instructions [Van Fleet - Antell 2002, p. 150] [Johnson et al. 2001].

find out what their interests are and help them come up with ideas for what they could do [Erickson 2000]

getting the settings accordingly with their needs [Erickson 2000]

be prepared to explain and explain again. Patience is key [Erickson 2000]
[Van Fleet - Antell 2002, p. 150]

emphasise hands-on practice [Van Fleet - Antell 2002, p. 150]

utilise peer trainers [Van Fleet - Antell 2002, p. 150]

Peer group teaching has been found to be the most successful approach. Another is to introduce group activities around certain content areas, e.g., a morning tea for people interested on gardening information on the Internet.

A number of librarians offer free access to the Internet but have no time for training the public. This problem can be overcome by using tutorials on the Internet, using the library's web site as a training tool [Mates 2003, p. 71], or by stimulating a computer club for users to help each other [Blake 1998].

As Ito et al. say [2001, p. 17], "the digital divide metaphor suggests a single crossing, a single moment of transition from no access to access. But it is not just newcomers who need technical help, since Internet technologies and service continue to change rapidly. Crossing the digital divide is something that has to be done many times, not just once". That's why the library training activity must be continuous and repetitive. The use of volunteer peer trainers can be a solution to guarantee a continual training activity.

2.3.3.4 Reference service

In general the information needed by older adults will be as varied as that needed by the population as a whole. However, as people grow older, they will need

additional information for particular situations not previously experienced: social security benefits and entitlement, health, housing, residential and nursing home care and how to pay for it, support services for people at home [Kendall 1996, p. 18].

Also if the electronic reference service to older people is the newest and the most difficult to find in the libraries, librarians could contribute to a more effective Web by using their expertise in the organisation of information.

The production by libraries of local directories to sources of help could be a valuable service to older people themselves and, in some cases, to carers and professionals working with them [Kendall 1996, p. 19]. According with the CLA's Guidelines on Library and Information Services for Older Adults, libraries have to "develop a library Web site for seniors, that selectively provides links to the sites of senior's organisations, government departments and agencies serving older people, full-text seniors' newspaper and other Web sites whose focus is older adults" [CLA 2000]. The selection of web sites presented by Laurich [2002] has the aim to offer to the librarians a starting point for the creation of a bookmark for ready reference to this population. As Adams [2001, p. 2001] points out, the basic information to offer to the elderly through various options, such as a selection of links from a web site or presentation of on-line resources, is about health.

2.3.3.5 Accessibility aspects

The debates on web accessibility are very intense, as they are starting to be considered in every industrialised country⁷. Having started with the International Program Office for Web Accessibility launched in the fall of 1997 by the World

⁷ Mates [2003, pp. 78 - 79] makes basic, easy-to-adhere-to suggestions for making library web sites friendly for the entire community summarising different guide on this subject

Wide Web Consortium (W3C),⁸ the initiatives have become more and more. Designers need to take the time to understand the needs of older adults when designing web-based and computer-based training to balance these new technologies with solid design principles and usability and to understand that not everyone has the same capabilities [Christopher 2000].

As far as the web sites are concerned, in Laurich [2002, p. 174] the perspective with the continued growth of senior citizen usage of the Internet, the special needs of this user group have been identified, and Web sites are being specifically marketed towards them. This is controversial and, if it's true in the U.S., the reality in other parts of the world, such as Italy, is very different. After reviewing over 400 Web sites whose intended audience is the over 50 user, the author selected a list of sites for their ability to serve this group, taking into account the guidelines for creating a senior-friendly Web site, established by the National Institute on Aging (NAI) and wishing to represent the best available on the Web.

Barbara Mates [2000; 2003] seeks to guide information providers in establishing accessible Web sites and acquiring the hardware and software needed by people with disabilities, and affirms [2000, pp.3 - 4] that librarians and information specialists must help to make the Internet accessible to all: "the first thing to do is making sure their Web site is accessible, then, they can be sure that they have adaptive computer available in accessible locations". The aim is to design libraries for Universal Access, which means designing and acquiring services, buildings, materials, and equipment that can be used by a wide range of the population with various abilities and disabilities.

⁸ Information from the W3C can be found at <<http://www.w3.org/2002/03/tutorials>>

Libraries need to take a critical look at their web sites too, and be sure that their web sites are accessible to the entire community [Mates 2003, p. 76]. But for libraries that provide users with all the tools they need to access the Internet and the WWW, unless the sites are accessible seniors will still have difficulties using them. The study⁹ conducted by Nielson [2002] on Web access by seniors reveals that that the majority of today's Web sites are twice as hard to use for seniors than for non-seniors. And creating a web site that is accessible to seniors means it will be accessible to all visitors [Mates 2003, p. 77].

The interesting studies conducted by Williamson through interviews and observations among older users suggest that there are a number of ways in which the Internet could be made more accessible by public libraries [Williamson - Bow - Wale 1996, 1997].

2.3.3.6 Policy strategy

If libraries are to be successful in providing an Internet service to the elderly, they need more than just facilities. They need a policy that both encourages older adults to use the Internet and facilitates their use through proper instruction, keeping in mind the problems specific to the age group. "If special efforts are made, it is certain that public libraries will be able to make a significant contribution to a very important community service: assisting older people to adapt to the information and communication revolution" [Williamson - Bow - Wale 1997, p. 12].

⁹ A summary of the study can be found at <<http://www.useit.com/alertbox/20020428.html>>. The entire report is available for purchase and includes 46 guidelines for designing Web sites for seniors

Some Governments believe in the role that public libraries can play in the new IT environment. The USA project "Next Generation Internet" <<http://www.ngi.gov>> has the aim to make available the Internet by the most diffused institutions, schools and public libraries. In the UK, the People's Network is a project to connect all public libraries to the Internet, as part of the Government's commitment to give everyone in the UK the opportunity to get online <<http://www.peoplesnetwork.gov.uk/>>.

The benefits for the libraries that offer special services to older adults can be multifaceted. By holding presentations at local senior centres and retirement communities, the library is reaching out and helping to foster goodwill in the community and thus meeting a goal of its mission statement. Many of the seniors specifically trained are more comfortable with the new technology available in the library, and many are coming back on a regular basis to practice and to improve their skills [Puacz - Bradfield 2000, p. 53].

Although they are the key factor of a successful older adult policy strategy, generally staffing levels are not good, with staff having responsibility for several client groups, and a tendency to make extensive use of volunteer workers in their services to older adults. On the contrary, as the *CLA's Guidelines on Library and Information Services for Older Adults* recommends, it's essential "appoint a librarian to act as co-ordinator of senior services, or a senior liaison officer, ensuring that there is at least one designated staff member monitoring and developing the library's collections and services with older adults in mind" [CLA 2000]. The importance of a senior services co-ordinator is also stressed by Mates [2003, p. 28].

2.3.3.7 Co-operation

Although the value and the opportunity of co-operation is largely recognised and recommended, most of the experiences of services addressed to older people remain isolated. While there are an encouraging number of successful initiatives to introduce older people to ICT, the lack of co-ordination or sharing of knowledge among the organisations means that there is a risk that the knowledge and experience gained are lost. According to the RUSA Library Services to Older Adults Guidelines, library programs and services for older adults should not replicate those of other agencies, but can complement and support them [RUSA 1999].

But unfortunately, where it exists interagency co-operation is mainly informal or even casual, and often restricted to occasional meetings between departments at authority level; there are few examples of managed co-operation. Social services, education departments and library services have a common interest in the needs of older people. This common interest should be emphasized with more managed co-operation between the statutory departments [Dee - Bowen 1986, pp. 113, 117].

The importance of developing good relationships with older people's organisations and gaining feedback from users is essential to help avoid the dangers of making assumptions about the services which people want. Librarians can organise staff awareness-raising sessions with the help of local age groups such as Age Concern [Kendall 1996, 18] [Linley 2000, pp. 395, 397].

2.4 The project "Nessuno Escluso"

"Nessuno Escluso" is a project of the Cologno Monzese (MI) Public Library. Its aim is to develop and offer multi-medial services to the citizens who are technologically disadvantaged, primarily the disabled and older people.

2.4.1 The context

The Cologno Monzese Public Library serves the users of a small town of 47,983 citizens (data at 31/12/2002), about ten kilometres from Milan. Thanks to a new site (in 1992), the number of staff increased and the organisation of new services integrated with the use of new technologies, the Library has decided to play a more active and central role in the local community. The 2002 statistical data shows a positive tendency of the service. Book loans (75,734) have increased by 7% compared with the previous year, and multi-media loans (66,803) by 33%. The trend of active users is also positive: 8,290 have renewed their library cards.

2.4.2 The project

"Nessuno Escluso" was born in correlation with the project of the new Library Computer Room, in the summer of 1997, and thanks to the financial help of the Lombardy Region through their regional decision no. 35/95. The only computer data available at the time spoke clearly: the Internet was not used by senior citizens. It was decided to adopt concrete strategies to develop familiarisation and use of the Internet and the new technologies in general for this kind of citizen, which would otherwise risk exclusion from the new IT context.

In order to decide on the strategy to develop the project "Nessuno Escluso" the library staff tried understand the needs of older people, to work in co-operation with other professionals (social services, experts in adaptive technologies). Furthermore, other national and international public library experiences were analysed¹⁰.

The main phases of the project "Nessuno Escluso" are:

- the organisation of a properly equipped Computer Room, which now has 10 computers with a fast Internet connection and specific adaptive technologies for disabled people;
- Internet training courses specifically addressed to the over 55s. After the participation of one advanced and intensive course of about one hundred hours, a permanent group of tutors has been formed, who continue to form their peers. The library guarantees a continual up-to-dating for them, offering courses to follow new IT-related topics¹¹.

2.4.3 The "Amici della Biblioteca" Association

The group of over 55 tutors decided to found the Association "Amici della Biblioteca" that, born with a specific deed dated 24 January 2001, aims to

¹⁰ In particular, as an example it was decided to follow the SATIN programme (Seniors Access to Information Networks), offered in 1998 by some Moreland City (Australia) public libraries to introduce about 86 seniors to using the Internet.

¹¹ In 2003 the library staff planned to offer courses on: on-line legal resources, communication through the Web, on-line purchases, business information and the news in Internet

continue the Internet training courses for the older and disabled people and to promote the library's services, joining the people who can frequent the library.

Fig. 2.3

Data about the Association

	Members	Women	Men	Average age
2001	32	60%	40%	56
2002	41	59%	41%	58

2.4.3.1 The Association activity

2.4.3.1.1 Internet course

The free Internet course is the basic activity of the Association. The training, offered by ten tutors, is carried out on a one-to-one ratio and according to the specific abilities of each person. The initiative continues to be a success: there's a continuing waiting list of people that wish to be trained and the waiting time can be as much as three months. The course is offered not only to the elderly but also to disabled people, foreign people, housewives and the unemployed.

Fig. 2.4

Data about the Internet course

	Trained people	Teaching hours	Hours/people trained average	Oldest people trained
2001	98 (45% women; 55% men)	710	7	83
2002	90 (55% women; 45% men)	700	8	72

2.4.3.1.2 Internet on-line, e-mail courses

There is also a course available to the disabled and their assistants. The Association members assist the participants in the computer and Internet use. In 2002, two volunteers trained 3 disabled people for a total of about 70 hours.

2.4.3.1.3 Other activities:

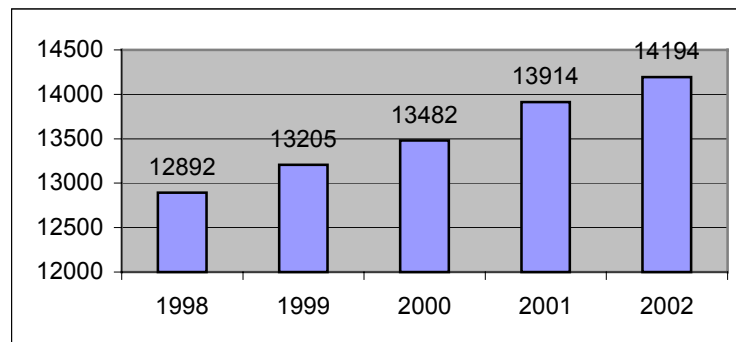
- readings at disabled centres and to the housebound;
- readings for children at nurseries and primary schools, and in the children's section of the local library;

- the project "Biblioteca a casa" to bring home books and other library documents for people that can go to it;
- creation and revision of the Association's web site;
- supportive activities for the newspaper library and the music library.

2.4.4 Cologno Monzese, the Public Library and the elderly

Although the population of Cologno Monzese has over the past few years seen a progressive decrease (from 49,359 in 1998 to 47,983 in 2002), in accordance with the national and international data, the elderly population continues to increase considerably.

Fig. 2.5 The population over 55



Older people are assuming a more and more important role among library users. The retired active users continue to increase (1991: 1.3%; 1999: 2.1%; 2000: 3%; 2001: 3.9%; 2002: 4.2%). If we compare the percentage of the loans by each professional category and the corresponding number of users, the retired appear among the users who most use the loan service (4.9%). Furthermore the over 55s appear to be about 5% of the number of Computer Room users (1999: 5.3%; 2001: 5%; 2002: 5.2%). The data on the Computer Room use shows the success of the initiatives promoted by the library to make Internet familiar among senior

citizens. The project "Nessuno Escluso" also provides free Internet connection for the over 55s.

3 Methodology

Doing research is hard work. It also is fun and exciting. In fact, nothing can compare to the joy that comes from discovery.

Anselm Strauss and Juliet Corbin

4.11 Introduction

This chapter provides a rationale for the research methods chosen for this study, describing each step of the research process in relation to the objectives of the study.

The purpose of this research is to explore the role of IT in the life of older people. A better understanding of the effective daily use, the approach, feeling and motivations to access the Internet from the perspective of older people will be able to provide a clearer picture of the effective role new technologies can have in their life.

This study adopted a qualitative methodology within the interpretivist paradigm, applying constructivist enquiry in order to provide rich, contextual information from the perspective of the older people themselves, which can contribute to a general understanding of the topic under investigation.

4.12 Choice of paradigm and methods

As Gorman and Clayton say [1997, p. 23], "qualitative research is a process of enquiry that draws data from the context in which events occur, in an attempt to describe these occurrences, as a means of determining the process in which

events are embedded and the perspectives of those participating in the events, using induction to derive possible explanation based on observed phenomena". That's a way of trying to make sense of personal stories.

The study is qualitative, since depth rather than breadth of understanding was the overall aim. I did not wish only to know how many e-mails were sent, on average, and to whom, but to gain understanding of the role played by a computer in the lives of older people.

I chose a qualitative approach in line with the nature of the research problem and as the most proper way:

- to understand people and the social and cultural contexts within which they live [Myers 1997] [Gorman - Clayton 1997, p. 24];
- to try to make sense of their personal stories [Glesne - Peshkin 1992, p. 1];
- to approach the inherent complexity of social interaction [Glesne - Peshkin 1992, p. 1];
- for its holistic and developmental perspective [Patton 1990, p. 39].

The qualitative approach lies within the interpretivist paradigm, which focuses on social constructs to understand and interpret how the participants construct the world around them. This interpretivist focus permits a more flexible understanding of complex and evolving social constructs [Gorman - Clayton 1997, p. 31].

4.13 Constraints

Given that in qualitative enquiry the researcher is the main research instrument, my own lack of previous experiences can be considered, together with the lack of time available to conduct the research, as the basic constraint on the scope and methodology of the study.

The small number of the people investigated represents a limit in covering the aspects of the problem set by the research questions and in guaranteeing the transferability of the research findings. To overcome this limitation, the research process tried to explore in depth the interviewees' perspective to offer rich information.

Considering my personal involvement in the topics of the research, in the analysis phase it was difficult to maintain an objective position and not to be influenced by my "cultural categories" [McCracken 1988, p. 32]. It was not always easy to be flexible and sensitive to the words and actions of respondents and to maintain a balance between objectivity and sensitivity [Strauss - Corbin 1998, pp. 7, 42].

4.14 The research strategy

The choice of methods within this research had, as the main goal, to produce an in-depth, holistic case study, giving the reader sufficient contextual and environmental descriptions to allow them to transfer the case based on conceptual applicability. A constructivist case study based on qualitative data was used to provide rich pictures of the ten individuals involved in the "Nessuno Escluso" project.

In the research process I tried to adopt a broad research strategy and be open to the setting and subjects of the study, allowing these to inform the process and to modify general research plan [Gorman - Clayton 1997, p. 38]. That's what

Parlett and Hamilton [1976] call "progressive focusing" and Stake [1995, pp. 20, 22] "emic issues", "emerging issues".

Qualitative enquiry designs could not be completely specified in advance of the fieldwork. The design was partially emergent as the study occurred [Patton 1990, p. 61]. The naturalistic, inductive and user-driven nature of the inquiry makes the research dynamic and interactive. For this reason models developed during the study evolved as the study progressed, and with very real input from the research subjects themselves [Banwell - Dixon 2000, p. 34]. This is why the research process is both linear and recursive [Gorman - Clayton 1997, p. 40].

4.15 The research process

3.5.1 Literature review

Background reading allowed me to become confident with the subject and its vocabulary and to obtain further bibliographic indications. By reading articles and review articles, the most appropriate key words and search terms were defined. In this process the use of the English and American Dictionaries to check the definition and spelling of search terms was of great value. There are, in fact, diversities in terminology:

- the expression 'older people' is used in preference to 'the elderly' in the UK. Other common terms are 'third age', which is applied to people at the stage of life following full-time employment or full-time parenting, and "fourth age", which refers to a period of extreme frailty shortly before death;
- in North America, 'seniors' is the most commonly used word, although 'third ager' is becoming increasingly popular.

The number of different words used was a problem when searching databases or the Internet. In the literature research process were used:

- tertiary literature sources: the bibliographic on-line databases ERIC, ZETOC, LISA plus;
- the Internet, with the search engine Google and the meta-index Metacrawler;
- e-mail contacts with a lot of librarians (co-ordinators of the older people section of public libraries or working in public libraries offering special services), associations (Council on The Ageing - Australia, Concern of Age), library associations (CILIP, CLA's "Library Services for Older Adults" interest group, ALA, PLA, IFLA) and researchers (Monica Blake, Cristina Giavoni) involved in the ageing sector all over the world;
- "Ask a librarian" services of the Library of Congress and the UK's electronic reference library.

3.5.2 The case study approach

As a particular type of qualitative research, this study adopted a case study approach to investigate in-depth a discrete entity, and to derive knowledge of the wider phenomenon from it. Yin [1994, p. 13] defines the case study as "an empirical enquiry that investigates a contemporary phenomenon within its real-life context [..]". The history of case study research is marked by periods of intense use and periods of disuse. It is the subject of criticism regarding its methodology and its relevance, as documented by Hamel et al. [1993], but it is also the most common qualitative method used in the information system.

It is commonly assumed that the greatest strength of a case study is simultaneously considering multiple factors. In this research the case study approach was adopted as form of research allowing:

- "to simultaneously see the whole and the parts or to move the parts around to create different combinations" [Chaiklin 2000, pp. 47 - 48];

- to understand in depth some special people involved in a specific situation identified as case rich in information - rich in the sense that a great deal can be learned from the phenomenon in question [Patton 1990, p. 54];
- to appreciate the uniqueness and complexity of the case study and interaction with its contexts [Stake 1995, p. 16];
- to bring out the details from the viewpoint of the participants by using multiple sources of data.

3.5.2.1 Triangulation

In line with Stake [1995, p. 107] "common sense is working for us, telling us when to look again and where to ask for clarification, but common sense does not take us far enough. In our search both for accuracy and alternative explanations, we need discipline, we need protocols which do not depend on mere intuition and good intention to "get it right". In qualitative research, those protocols come under the name triangulation".

Among the four types of triangulation identified by Denzin [1984], in this case I used multiple sources of data as suggested by Yin [1994, p. 78] to increase the reliability of the data and the process of gathering it. In this way the weaknesses in each single data collecting method were compensated by the counterbalancing strengths of another [Amaratunga - Baldry 2001, p. 101] and the data obtained was less conditioned by the methods used [Bradley 1993, p. 442].

3.5.2.2 Transferability and trustworthiness

In constructivist enquiry the goal is to allow for transferability of the findings. That is why the basic aim of the research was to provide rich pictures of the people under investigation and the topics of the research itself. To overcome the problems of the investigation of a small case study, during all the phases of the

research process I paid great attention to recording the procedures used and the development of the research itself. The use of a research diary helped me in this direction. Furthermore, in the analysis phase I monitored and reported the analytical procedures and processes as fully and truthfully as possible [Patton 1990, p. 372].

3.5.2.3 Gaining entry

During a preliminary meeting with the librarians and a representative of the tutors involved in the "Nesunno Escluso" project, I presented the research project and received full and unqualified consent, obtaining total access to the library and the documents and the support of all the people involved.

3.5.2.4 Selection

The ability to do a case study is something that does require "that one be bothered enough by something so that they want to find out about it" [Chaiklin 2000, p. 56]. The best approach seems simply to choose a case that is accessible and interesting, allowing others to determine whether it is possible to generalise from this case [Gorman - Clayton 1997, p. 84].

The selection of cases inevitably involves discretion and judgement [Amaratunga - Baldry 200, p. 100]. The project under investigation was chosen to maximise what could be learned, in the period of time available for the study. In this case the choice was ready-made. The selection of this case study community for study was an easy one, as it is one of the most significant projects in Italy regarding older people and the new IT context. According to Gorman and Clayton [1997, p. 84], "when there is only one instance of a phenomenon being studied, the researcher is saved the agony of choosing where to base the investigation".

3.5.2.5 The case under study

The goals of this study were exploratory/descriptive [Tellis 1997]. Exploratory in the sense that very little is known about the subject under investigation, and the present study can be considered a prelude to other social research. Descriptive to cover the depth of the case in order to maximise what can be learned.

The approach was of a single holistic case, both intrinsic and instrumental case: the case is of importance and the interest was in it but also in the general understanding of the subject under study [Stake 1995, p. 3].

The strategy approach and the methodologies chosen were flexible and centred with the interpersonal contact to give the older people the sensation of a social event and not of a study.

The data collection methods applied:

- focus groups with the course participants: 2 of about 5 people;
- in-depth semi-structured interviews with the course participants;
- diaries of the course participants.

To deeply explore the context and to obtain rich information about the case under study the help of the following was of great importance:

- key informants: the librarians involved in the project;
- statistical data regarding the course and the library services use by the old age population.

Fig. 3.1

Outline of the research strategy

RESEARCH PHASE	OUTPUT
Literature review	To focus the topic To assist in developing a research design and choosing an appropriate methodology Although this marks the beginning of the research, it is a continuous process throughout the research process
Study testing	To test the operationability of the objectives and constructs identified in the literature To refine the data collection plans Conducted with the help of my supervisor and the key informants
Focus group	To provide preliminary research on specific issues To refine research questions To provide a useful starting point for individual interviews To devise the interview schedule
Phase one analysis	Initial qualitative findings to create the guide interview
Semi-structured Interviews	To find out what is in and on someone else's mind To enter into the other person's perspective To bring the interviewer into his or her world To promote dynamically a positive interaction To keep the flow of the conversation To motivate the subjects to talk about their experiences and feelings
Diaries	To capture the richness of everyday life To verify reality To obtain additional information
Phase two analysis	In depth analysis of qualitative research to examine, interpret, reconstruct the data into a recognisable reality

3.5.3 Data collection

3.5.3.1 Focus group

3.5.3.1.1 Definition and purpose

Morgan [1997, p. 6] defines the focus group, a "broad umbrella" or "big tent" that can include many different variations according to the specific purposes of the research project. As a form of qualitative research, a focus group is basically a group interview. Its hallmark is the explicit use of group interaction to produce data and insights that would be less accessible without the interaction found in a group [Morgan 1997, p. 2].

Also if it can be used as a self-contained mean of collecting data, in this "multi-method study", it was associated with other means of gathering data in order to use each method so that it contributes something unique to the researcher's understanding of the phenomenon under study. The possibility of the focus group interaction to provide insights into participants' opinions and experiences was considered of particular value in an investigation involving older people who are generally pleased to be listened to and to speak with other people.

In line with the exploratory perspective of the investigation, I chose a less structured approach regarding the interview, the moderator involvement and the group discussion. This choice allowed to better hear the interests of the participants themselves and to give the participants more opportunity to pursue what interests them, letting them speaking for themselves [Morgan 1990, p. 40].

3.5.3.1.2 Selection of topics

Key findings from the literature review and the cultural background of the researcher formed the topics for discussion at group interview.

3.5.3.1.3 Questions and interview process

The focus group was conducted in the first phase of the investigation to provide preliminary research on specific issues, refine research questions, provide a useful starting point for individual interviews and devise the interview schedule [Morgan 1997, pp. 2, 17, 22].

The discussion was moderated by a guide of topics to be covered throughout the flow of conversation, determined by the researcher in line with the goals of the investigation, to facilitate the discussions and maintain the balance between the researcher's focus and the group's discussion [Widdows et al. 1991, p. 354].

The guide was organised in this way:

- a brief introduction of myself, the topic of the research and a few ground rules;
- discussion-starter question, easy to respond to, presenting the basic topic for the session and throwing the discussion open to the group [Morgan 1997, p. 49];
- an agenda of relevant key topics to be covered moving from general to specific [Krueger - Casey 2000, p. 43].

Once the focus group guide was completed, I sent it to my supervisor and my key informants to get feedback from others. The guide appeared to be appropriate and the topics explained in a proper and easy way.

The group of ten people involved in the "Nessuno Escluso" project was divided into two groups of five. I considered this group size the most adequate to maintain an

active discussion, thanks to the participants' high level of involvement with the topics and their respect for each other. Furthermore smaller groups are easier to manage and require a lower level of moderator involvement [Morgan 1997, p. 42]. Each interview lasted approximately one hour and half and took place by prior e-mail arrangement in the Cologno Monzese Library, during closing day to provide a quiet and relaxed environment.

During the conversation I tried not to be intrusive and to maintain the focus of the research stopping dominant talkers, soliciting the shy ones and probing for more information if necessary [Krueger - Casey 2000, p. 111].

3.5.3.2 Interviews

3.5.3.2.1 Definition and purpose of interviews

According to Patton [1990, pp. 278 - 279], the purpose of interviewing is to find out what is in and on someone else's mind, to enter into the other person's perspective, to bring the interviewer into his or her world. With this aim, I chose the interview as a means of collecting in-depth and source of rich illuminative data, even though it is very time consuming and difficult to analyse [Banwell - Dixon 2000, p. 48]. To capture the multitude of subjects' views of a theme and to picture a manifold human world, the kind of interview adopted was the life world interview conversation defined by Kvale [1996, p. 5] as "an interview whose purpose is to obtain descriptions of the life world of the interviewee with respect to interpreting the meaning of the described phenomena".

No fixed rules of sequence in organising the interview, but an informal, flexible and responsive conversational interviewing was adopted. The semi-structured

interview - neither an open conversation nor a highly structured questionnaire - was conducted according to an interview guide that focused on certain themes and that included suggested questions. In this way it was possible to promote dynamically a positive interaction, keep the flow of the conversation and motivate the subjects to talk about their experiences and feelings [Kvale 1996, pp. 27, 130]. The construction of a series of "prompts" was also a way to impose order and structure to the interview [McCracken 1988, p. 22].

3.5.3.2.2 Selection of topics

Key findings from the literature review and the preliminary analysis of the focus groups formed the topics for discussion at interview.

3.5.3.2.3 Questions and interview process

I carefully considered which questions to ask, their sequence, their word order, details to solicit and how long to make the interview. The questions adopted in the flow of the conversation were [Patton 1990, pp. 290 - 295]:

- at the beginning of the interview, experience questions about what a person does or has done to grounding feeling and opinions in relation to experiences;
- opinion/values questions to understand the cognitive and interpretive process of people, to know what people think about some issue and to know people's goals, intentions, desires, and values;
- feeling questions to understand the emotional responses of people to their experiences and thoughts;
- knowledge questions to find out what factual information the respondent has;
- background/demographic questions to identify characteristics of the person being interviewed: as less as possible and spaced strategically and unobtrusively throughout the interview;
- probes questions - if necessary - to investigate deeper some topics.

In the wording of questions, great attention was paid to ask open-ended questions to minimise the imposition of predetermined responses and to permit respondents to respond in their own terms, neutral, singular and clear to avoid confusion and an uncomfortable and hostile environment.

The format for each interview was one-to-one. Each interview lasted approximately one hour and took place by prior arrangement in the Cologno Monzese Library.

3.5.3.3 Diaries

As this represents the least dominant section of the study, the diary methodology is discussed in rather less detail than the interview process.

Although within applied qualitative research, the use of diaries is relatively rare [Elliot 1997] I chose the diary as a way to collect data able to capture the richness of everyday life, in which people are often confronted with important issues in a much more continuous way [Kolar 2002]. In fact, as the author says, "in order to understand why people think the way they do, we believe that it is important to look at the ever-changing nature of daily life with its continuous flow of events [..]".

The form used in the research was structured diary, which is a kind of listing of events, in which informants were invited to log items for a period of one month about:

- Internet use;
- e-mail sent and received;
- Web sites assessed;

- e-services used.

Resistance constitutes one of several patterns of typical reactions to the requirement of writing a research diary [Unterbruner 2001], but the ten people investigated accepted to do this. To facilitate their task I gave them a sample to follow. At the end of this recording period I elaborated the data obtained and I tried to obtain quantitative information on a sample week basis.

3.5.3.4 Modes of recording data

3.5.3.4.1 Diary

Throughout the research process I maintained a diary to record, step by step, the investigation process and any reflections, ideas or questions about the investigation itself. As Newbury [2001] says "the reason for keeping a research diary is to facilitate the research process through recording observations, thoughts and questions as they happen, for later use by the researcher, and to stimulate reflective thinking about the research".

3.5.3.4.2 Audio tapes for individual and group interviews

Although it is known that tape recording could serve as a constraint upon candour and openness, and result in the accumulation of large quantities of data of limited relevance, the researcher decided to adopt it:

- because it is of help in a study undertaken by a single person;
- to concentrate on the topic and the dynamics of the interaction.

But the use of the tape recorder did not eliminate the need for taking notes. Notes were helpful to formulate new questions, to facilitate later analysis and, as a kind of non-verbal feedback, to pace the interview [Patton 1990, pp. 348 - 349].

3.5.4 Data analysis

Interviews were scheduled so that sufficient time was available for data clarification, elaboration and evaluation. The period after an interview is critical to the rigor and validity of qualitative enquiry [Patton 1997, p. 352]. Immediately after the sessions I checked to see if the tape recorder captured the comments and I prepared a brief written summary of key points [Krueger - Casey 2000, p. 120] that represented the first step of the analysis process [Morgan 1997, pp. 57 - 58].

In this study the grounded theory approach is applied [Charmaz 2000]; this is becoming increasingly common in IS research literature, because it is extremely useful in developing context-based, process-oriented descriptions and explanations of the phenomenon. Strauss and Corbin [1998, p. 12] defines the grounded theory as “[..] theory that was derived from data, systematically gathered and analysed through the research process. [...] Grounded theories, because they are drawn from data, are likely to offer insight, enhance understanding, and provide a meaningful guide to action”. In this approach data collection, analysis, and eventual theory stand in close relationship to one another and the concepts are grounding in data.

In the analysis process I tried to make sense of massive amounts of data, reduce the volume of information, identify significant patterns, and construct a

framework for communicating the essence of what the data reveals [Patton 1990, pp. 371 - 372]. I paid great care to presenting solid descriptive data, in such a way that others reading the results can understand and draw their own interpretations [Patton 1990, p. 375].

To organise the analysis I drew from the research questions generated during the conceptual phase of the study and the analytic insights and interpretations that emerged during data collection [Patton 1990, p. 378].

I conducted a transcript-based analysis using unabridged transcripts of the focus groups supplemented with field notes taken during the interview process. Transcripts were analysed using the "long-table approach" suggested by Krueger and Casey [2000, pp. 132 - 137] to identify themes and categorise results. The process involved identifying categories of information from the transcripts, allocating units of meaning from each transcript to the categories, identifying patterns by comparing and contrasting and writing a descriptive summary for each of the questions. The authors suggest using a flip chart or newsprint paper to capture the data. However I preferred using the word processor to cut and paste relevant sections of transcripts into separate documents, considering it a helpful tool to perform the analysis. When necessary, in relation to particularly significant paragraphs, I conducted a detailed line-by-line analysis defined by Strauss and Corbin [1998, pp. 57 - 71] as "microanalysis" to scan a section of an interview.

Considering the small-scale nature of the study and the lack of academic research into the use made of the Internet by older people, the aim of this study is not

building theory but conceptual ordering. As Strauss and Corbin [1998] sustain "high-level description and conceptual ordering also are important to the generation of knowledge and can make a valuable contribution to a discipline. The content analysis was conducted by the open and axial coding process presented by Strauss and Corbin [1998, pp. 101 - 142].

I decided to begin with case analysis, writing a case study for each person interviewed using all the data for each person and then to proceed with the cross-case analysis analysing different perspectives on central issues [Patton 1990, p. 376].

4 Interviewees' "personal stories"

4.1 A.'s "personal story"

A. is 58; he used to work as a company quality manager. He used the computer a lot at work, and also used the Internet. He previously attended courses to learn the use of Word, Excel and Access. He had a computer with an Internet connection when he joined the Association. When he retired, in 2001, he tried to find some way to spend his free time, and came across the "Amici della Biblioteca" Association. Although he didn't attend the intensive Internet course, he joined the Association and started his role as trainer. He is particularly involved in training disabled people.

Thanks to his use of the computer at work, he didn't experience any difficulty in approaching the Internet. He was however rather frustrated about the long download time, and is waiting for the installation of a cable connection for faster access.

He started using the Internet for practical reasons. In fact, as his wife had a rare disease, thanks to Internet he obtained a lot of information that he also passed on to the doctors. But for him, using the Internet is basically a way of satisfying his curiosity and finding helpful information when needed. He does research for his wife (who doesn't use the computer) and some friends. He tried to buy something on-line, but he was not satisfied. Furthermore he doesn't feel sure about using his credit card on-line.

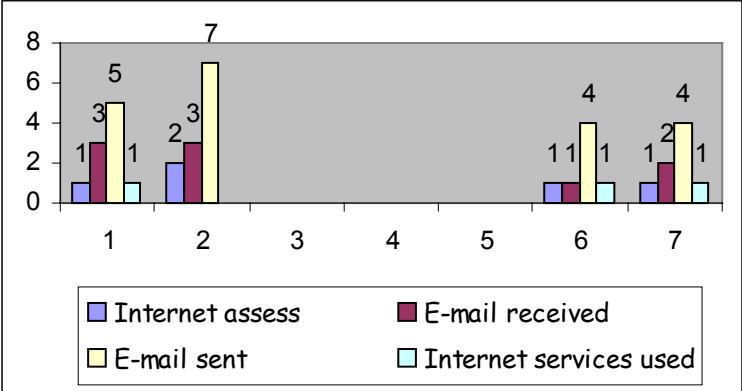
A. uses Internet in an *"immoderate way"*. As he suffers from insomnia, he often surfs the Internet until long past midnight. If he's at home, he uses the Internet for two hours every night. He generally starts with Virgilio or Yahoo and then

goes everywhere, without no limits. Thanks to the Internet, he has greatly increased his interests. He also uses e-mail to stay in touch with friends, and using the services offered by the Internet he found a relative who moved to Brazil some years ago, and also tried to find some school or military friends, but so far without success.

The basic change in his life since he has been using the Internet is the increase in personal interests. He has become interested in and familiar with many subjects, including classical music, tai chi and many, many other things.

He thinks that resistance in older people towards the Internet is due to a poor level of education and, consequently, lack of interests is the determinant factor. Moreover many older people experience some technical problems in using the computer, such as using the mouse. To make the Internet use more familiar among them, the access procedures should be facilitated, accelerated and clarified. Considering that the Internet training courses offered by the Association are generally charged for, A. is sure that the public libraries role is essential to familiarise the older with the new IT context.

Fig. 4.1 A's Internet weekly use



The Internet services used by A. were music download and firm house booking.

4.2 Ce.'s "personal story"

Ce., who is 58, is a housewife. She is R.'s wife. She decided to attend the Internet course because she was interested in it, and then she was driven to join the Association. Because of her shyness, she didn't think she would be able to teach something to other people. But now she is very happy to have accepted, because this experience has helped her to open up.

She started to use the Internet after attending the course. She uses the Internet basically to search topics of interests. She doesn't use it much, not more than a couple of hours a week. When she has some free time, she can access the Internet and search what she needs, for example a particular recipe or information about her passion, philately.

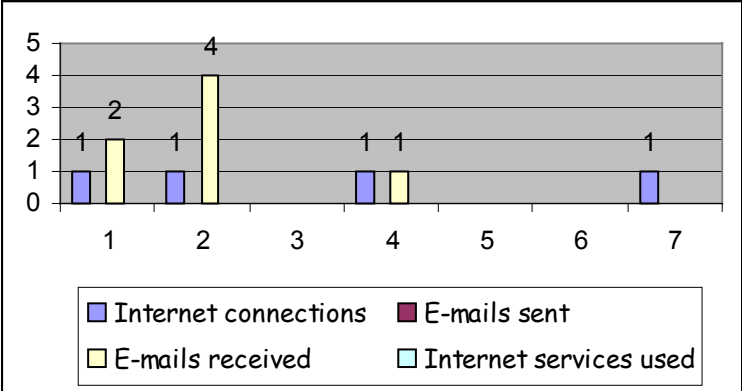
As far as the Internet approach is concerned, Ce. finds some difficulties in the research process. In fact web sites are often confusing and the research can become tedious. And the waiting time to access the sites or to download files from them is sometimes excessive.

The Internet use has increased her interests, but she hasn't changed her daily life. She uses the e-mail as a way of communication, especially to be in touch with relatives who live abroad. In this sense the use of the Internet is practical. But it hasn't had a great impact on her life. And when she is older, she will probably continue to search the Net, also because she will have more free time.

She thinks that Internet is better for older people than for the young. For older people, it is a way of keeping up with the times, and is a helpful tool for everyday life. Considering that the using the Internet is not very common among older people, the public library role is essential in diffusing it.

Curiosity is the main reason for using the Internet. This is true also from older people's point of view. But very often, curiosity is strictly linked to a certain cultural background. That's what Ce. thinks can make the difference in older people's use of the Internet.

Fig. 4.2 Ce.'s Internet weekly use



4.3 C.'s "personal story"

C., who is 63, was supervisor at the Philips Accounting Centre. He used the computer at work, but only for specific procedures, nothing else. Thanks to the "Nessuno Escluso" project and the Internet, he increased his computer knowledge and decided to buy a computer. He was a library user, but he found out about the project only by chance, when he was browsing on the municipality site. He decided to take part in it to better understand and use the computer. Then, after the course, he joined the Association to share his knowledge with others. Furthermore, as he was retired it was also a way to spend his free time helpfully.

He wasn't able to transfer his computer literacy to family members or friends. His wife is not interested, and only sometimes does she ask him to find some recipes for her on-line.

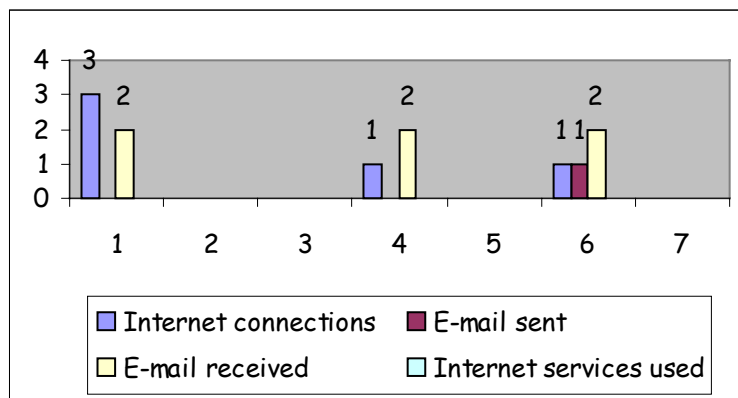
Basically, he uses the Internet as a Stock Exchange, to find share quotations, although he does not operate on-line. Furthermore when he needs it, to solve everyday problems or to obtain information. But the Internet is also a pass time for him. It has replaced the TV. It has become a way to spend his free time, for example for games. It is a way to train the mind. He doesn't use the Internet a lot, not more than four or five hours a week. He sends about ten e-mails a week.

He believes that generally older people are resistant to the Internet. This is for several reasons, but mainly he thinks that it is not easy to find the required information in Internet. There's too much information, and it's easy to get lost in it. The only way to solve this problem is to know exactly which Web sites cover the topics of interest and to search them. Otherwise Internet becomes very difficult to use, especially for older people.

And there is also fear of computers. He thinks that older people tend to be inhibited by the computer itself. At the beginning he also had some problems with the computer.

In C.'s opinion, one way to make the Internet more accessible to older people could be to offer more Web sites specifically addressed to them. Now there are very few. But older people could be more relaxed and interested in browsing easy to use sites, which are rich in helpful information and offer the possibility to be in touch with peers.

Fig. 4.3 C.'s Internet weekly use



4.4 Ed.'s "personal story"

Ed. is 64 and he was an administrative manager in a company. Although he has always used the computer at work, he became interested in it only thanks to the Internet, and bought a computer. His first approach to the Internet was self-taught, during his first year of retirement. He used the Internet to obtain information about tai chi and to send some e-mails. Then, one thing led to another, and he expanded his knowledge about the Net and used it for everything.

So when he decided to attend the course he was already Internet literate, but he wanted to increase his knowledge and, first of all, to learn how to create web sites. In fact, as a member of a local older people's association, he hoped to learn how to create the web site for it. And that is exactly what happened. His web master activity has since increased, he has also created other web sites, including the one for the "Amici della Biblioteca" Association. Thanks to his experience in this sector he's very sensitive to the aspects of WWW accessibility from an older perspective.

Despite his passion for computers and the Internet, he has not been able to involve his wife. She is not interested in it.

He considers the Internet an entertaining way of passing the time, rather than a necessity, a different way to find the information he needs. He uses it about ten hours a week to up-to-date the web sites, and every day after 6.30 p.m. (to reduce the costs) to check his e-mail account. And of course for other reasons: for example to organise trips. In fact with his wife and another couple of friends he likes visit the cities, or go to an exhibition during the week. And before going, he find the information he needs on the Internet. Another thing he searches for

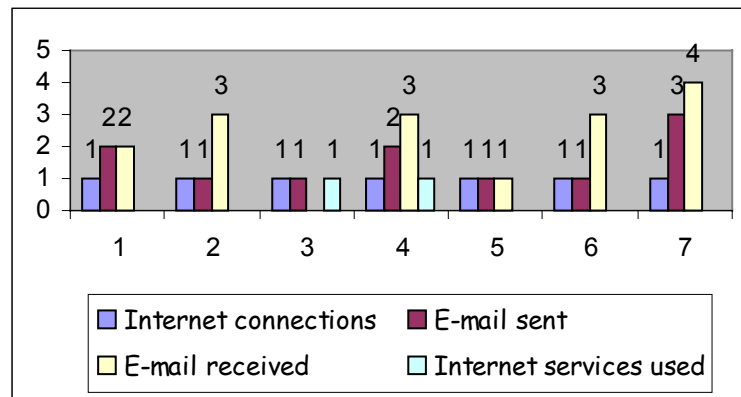
are the Portuguese newspapers. As he's trying to learn Portuguese because of his passion for Brazil and Brazilian music.

He doesn't use on-line services. He prefers to operate traditionally and he experiences a general mistrust toward the on-line use of the credit card. But he considers it a limitation. Maybe the use of pre-paid cards, which limit the risk, could make some improvement.

He basically uses the e-mail for the Association, for which he has created a newsletter, which is sent to all the Internet students. In fact Ed. sustains that we have to create the opportunity to use the e-mail. Thanks to the services offered through the Internet to search for friends, he found an old school friend, with whom is now in contact. And through the SEQ he has been in touch with a Taiwanese biologist from whom he obtained some information about Sars, a Brazilian musician and an Egyptian who studies the Italian language.

He thinks that to extend Internet knowledge and use among older people, institutionalised advertising done by the Government could help, as well as easier and cheaper technological tools. He refers to a "*kit del vecchietto*", "*the oldies kit*". And of course the basic problem is to offer services that are really useful for them.

Fig. 4.4 Ed.'s Internet weekly use



The Internet service used by Ed. in both the case was free on-line insertions.

4.5 E.'s "personal story"

E. is 63 and he worked in a company. He used the computer at work, but in a repetitive way. Then he approached the Internet because he's always interested in new things. But he didn't attend the course because he found out about it after the signing up date. Nevertheless he decided to learn the Internet basic principles alone, and started to use the computer, which he already had, finally with satisfaction.

Then he decided to join the Association because the learning experience gives him the opportunity to browse the Net, to keep up-to-date on the new IT context and to maintain an active mind. And of course because he likes to share his knowledge.

He considers the Internet a fantastic tool. A way to broaden personal horizons and to increase one's own interests. He basically uses it to satisfy his curiosity, without limitations. He browses the Net everywhere, he searches all kind of arguments and he is often fascinated by topics that he has never been interested in and surprised about what he finds. This is also a way to feel active and independent and a part of the current social reality. This is a personal satisfaction.

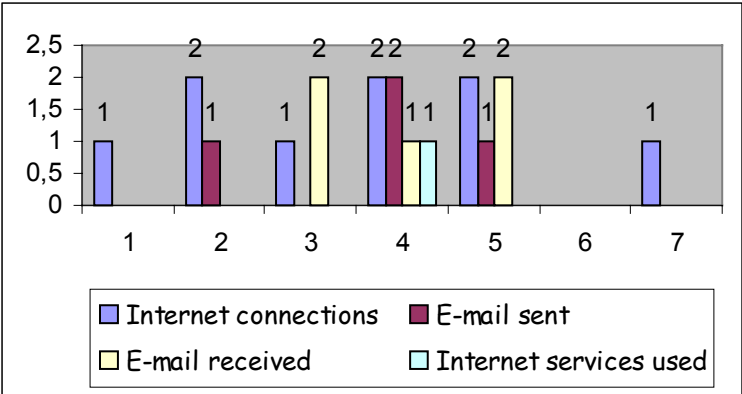
He doesn't use the Internet a lot, about 5 hours a week. At the beginning he had some computer fear and some problems in remembering all the procedures. His son tried to help him, but without much success because of the different mental approaches. Similarly, he was not very successful in trying to involve his wife or some friends in the computer or the use of the Internet.

He uses the e-mail only when he needs it, because his son lives two kilometres away, so they generally phone or meet personally, and basically he prefers to look

the people he's talking to in the face. But sometimes using e-mail can be helpful, for example to write to organisations, to ask for information or to be in touch with relatives which live in another town. He writes to his niece who lives in Trento. Sometimes he suggests she visit some interesting URLs and they share photos. He has never used on-line services.

He thinks that the main resistance of older people towards new technology is their mental approach. In fact they generally live in a personal world made of ritual and simplicity. They fear all things new. He considers it a question of laziness and lack of self-confidence, but this is a terrible handicap. And the problem is also that to approach the Internet, as with every new thing, older people have to change their mental approach to reality and to learn a new language. But the Internet could be very helpful for the elderly, at least to increase their cultural knowledge and to stay active.

Fig. 4.5 E.'s Internet weekly use



The on-line service used by E. was a bank service.

4.6 Fr. 's "personal story"

Fr. is 62, and she has always kept the books for small companies. Although she is retired, she continues to work a few hours every week in the last company she worked before retirement. She used the computer at work, but only book-keeping software, nothing else. She was a library user. She has always been interested in computers and when she found out about the library initiative she was very happy to participate. She had never used the Internet before the course, but she took part in a public presentation of it in the library and she was fascinated.

She had participated in a basic computer course and another to learn Word some years ago, and at first she experienced some computer fear, but her curiosity got the better of her.

She was able to involve her husband in using the computer (she has no children), who is now computer literate, and has recently bought a very powerful computer to edit the films he makes. They now have three computers at home: one for each of them, plus a notebook to access the Internet while they are on holiday.

After the course, she decided to join the Association to share what she has learnt with others. As she found Internet so exciting and helpful, she was sure that other older people would also appreciate it.

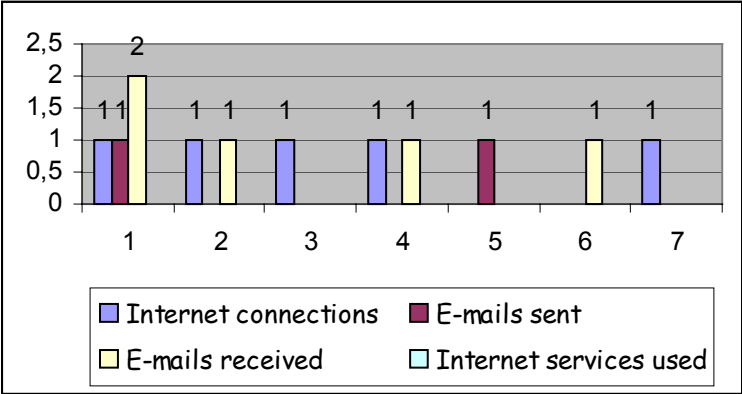
She considers Internet a very helpful tool as well as a leisure activity. Through it she searches and she obtains a lot of information: the local cultural events, travel timetables, arts, literature, news. Last year she made her tax returns on-line, and she found it very easy and practical to do. But she doesn't use any other on-line services.

She doesn't consider her Internet use a pass time, more a practical interest. In fact she does not have a lot of free time. She continues to be occupied with work and her interests. She's member of a botanical group, and every week she goes to a cineforum. Because of her lack of free time, she doesn't use the Internet a lot. Generally she uses it one hour a week, or a little more if she needs it for particular reasons. Also her use of e-mail is limited, also because she doesn't have many friends who use the computer with whom she can communicate by e-mail. She's in touch with some relatives who live abroad. Now she even has a web cam.

Since she has been using the Internet, she feels surer, because she knows where to obtain all the information she needs. She considers it a basic help in her daily life.

She thinks that the way to make Internet more accessible to older people is to offer programmes like "Nessuno Escluso". But very often, older people are inhibited to use it, because of a lack of interests deriving from a poor level of education. When she is older, she is sure that the Internet will have a more important role. In fact, when she has more free time, she will certainly use it more to pass the time, and she would also use some on-line services.

Fig. 4.6 Fr.' Internet weekly use



4.7 F.'s "personal story"

F. is 64. He was a manager at Montedison, and he used the computer perfectly at work. He did not however know or use the Internet. In fact he retired in 1996, when it was not very widespread in Italy, and his company had an Intranet. He knew the project through the library where he was a user, and he decided to take part in it to spend his free time after his retirement. He was also interested in the Internet. After the course, he decided to join the association (of which he is now Chairman), because he experienced the usefulness of the Internet by himself.

Although his son is a computer programmer, and a computer science expert, he has not helped his father at all. And his wife is absolutely incapable of using the computer, even though she needs it a lot for work. He does every thing she needs from the computer for her. He was able to involve some of his friends in the Internet, and some of them were taught by him.

He already had a computer, but he started to use to Internet connection only after the course. Now he has a connected computer also in his house in the country. Thanks to his previous work experience, he didn't find it very difficult to get used to. He doesn't use Internet a lot, no more than four or five hours every week, but he communicates a lot by e-mail. In fact he manages the Association e-mails, and has many friends he keeps in touch with regularly by e-mail, and with whom he shares documents.

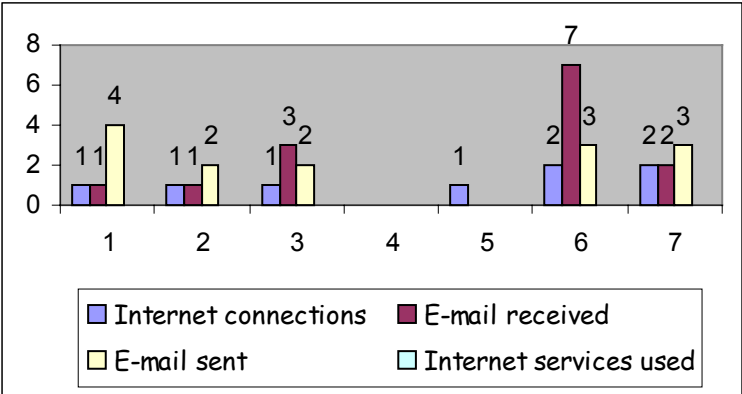
Thanks to his use of the Internet, he can find information on his share quotations and operations on-line and find out about the cultural activities in Milan or in the area where he has a country house. And for many other things besides: to look

after his roses or his vineyard, and to expand his interests. He has a password to operate his postal account, his old-age pension and his insurance.

Since he has been using the Internet his daily life has changed. He has different data points and help in his daily activities. The Internet use helped him to get over a difficult period after his retirement. It helped him to rediscover the enthusiasm in life, the things around him and the other people.

He is sure that the Internet will become more and more important as he gets older. He finds the Internet very helpful, especially for older people. Through it, they could obtain a lot of information and services, and have a safer life. The problem is the lack of understanding of the potential benefits of the Internet by the Public Administration, the lack of co-operation among the services to operate and promote the use of the Internet among older people and the poor interests that the majority of older people have. He thinks that in this scenario, the role of public libraries is essential.

Fig. 4.7 F.'s Internet weekly use



4.8 L.'s "personal story"

L. is 61, he had his own small company, and had computers at work but didn't use them. He started to use the Internet alone, about ten years ago, when because of an accident he had to stay in hospital for a long time and one of his nephews showed it to him. He was a library user and when he found out about the project he decided to increase his knowledge of the Internet. Then he joined the Association to share what he had learned.

When he started to use the computer, he had some fear too. But fortunately one of his friends helped him, by giving practical advice. He had previously attended a course on the use of Excel. Now, the problem that he's experiencing in using the Internet is the long access time. He has an ISDN line, but he is waiting for the fast web.

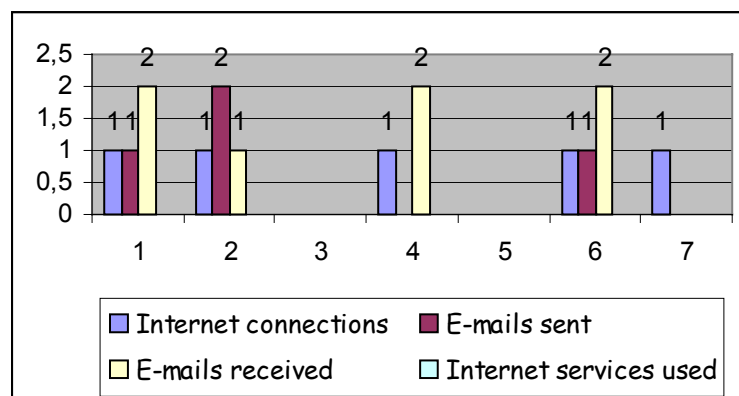
He tried to involve his wife in using e-mail but without success, even though using the on-line communication would be very practical when he's abroad. He was more successful with some of his friends, but generally there is a lot of resistance.

He found Internet an extraordinary instrument, offering many things and information. Sometimes the problem is to know where to obtain the required information. Basically he uses the Internet as a means of communication. In fact after retirement he joined different associations that give help to the third world countries. Thanks to this, he is in touch with people he knew during the trips he made to check the implementation of the projects in these countries. They share documents that, otherwise, he wouldn't be able to obtain in a reasonable time. Furthermore he uses the Internet to search for the information he needs. But his weekly Internet use is very limited. He has never used on-line services.

The Internet use makes communication easier and, in some cases, possible. In this way his life has changed since he has been using it. As he gets older he's sure that the Internet will become more important, as a pass time, a source of information and of keeping up with the times.

He thinks that the Internet could be especially helpful for older people. But to make it more accessible to older people, the problem is to facilitate the access procedures such as the mouse and the keyboard. The biggest resistance to overcome is the computer fear that the majority of older people experience. Projects like "Nessuno Escluso" would be the solution to train older people in using the Internet. But this runs the risk of being only an isolated experience, as the reality in other public libraries he frequents is completely different. Furthermore a lot of older people share the problem of a lack of interests.

Fig. 4.8 L.'s Internet weekly use



4.9 P.'s "personal story"

P. is 62. He worked as computer programmer in a multinational company. He was not a library user. He was informed about the project by the local council, which sent a letter to everyone over 55. He has always been interested in computers, and he has his own pc at home. He didn't use the Internet at work, but started to know and to use it through the project, and then decided to get an Internet connection for his pc. He decided to attend the course to keep up with technological innovation, and to increase his knowledge of computers. Also, despite the fact that he had always used the computer at work, he had some problems in his approach to the Internet. He did not find it easy to read the sites or to understand how to obtain what he needed.

He is trying to involve his wife in using the computer, but has not had much success. He explained all the procedures for reading e-mails to her, but she cannot do this alone, and is not interested in it. He thinks that the reason for accessing the Internet is always a concrete motivation, for example home banking. This is true also for some of his friends.

When he retired, after a period of confusion, he found a new balance in life: he plays tennis a lot, he is a member of the CAI mountaineering association and is involved in it. He is in charge of the CAI communication, and sends the programmes on activities and excursions and so on by e-mail.

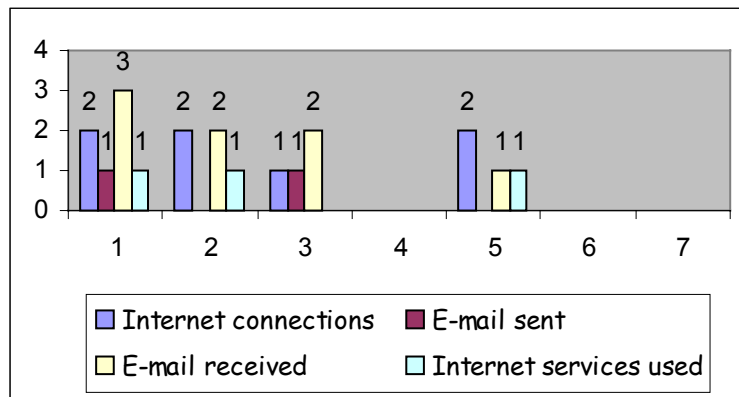
He uses the Internet basically for home banking and for consulting the Stock Exchange. The use of the Internet has greatly simplified his banking and financial operations. He can buy and sell securities by himself, when he wants, and obtain a lot of useful information through the Internet. Thanks to this, he has more free

time available for other activities. The Internet is a way for him to organise his day differently.

Every day he connects to the Internet at least once. But he doesn't use it to surf the net or as a pastime. He uses the Internet only when it is helpful, for example to check trains times or to organise excursions. He doesn't receive a lot of mail. He keeps in touch with some friends living in France and in Brazil. Otherwise, without the e-mail, he wouldn't be in touch with them. He also stays in touch with his other friends from the CAI. He has never tried to chat. He bought something on-line, but he doesn't think it is safe to use his credit card.

He thinks that the Internet could be made more accessible to older people through easier technological tools; in fact, for many of them the mouse is a problem. But first of all, people need a particular motivation and not general curiosity to use the Internet. With general curiosity alone, the Internet is simply a tool that gets boring very quickly. And, of course, the cultural background is a critical factor. He doesn't think that the Internet could be more helpful when he is older. Only to stay in touch, but at the moment there are no services for the elderly. It would be, of course, helpful to book a medical visit on-line, but this is not yet possible. That is a cultural problem; Italian society is not ready.

Fig. 4.9 P.'s Internet weekly use



The Internet services used were in all the cases bank services.

4.10 R.'s "personal story"

R. is 59, he is Ce's husband. He was a technical manager at Pirelli and, through his work experience, had already gained a deep knowledge of computers. He was a library user and when he decided to attend the course his aim was to keep up with the times, to not be excluded by the new IT context and to continue to be in touch with the real world.

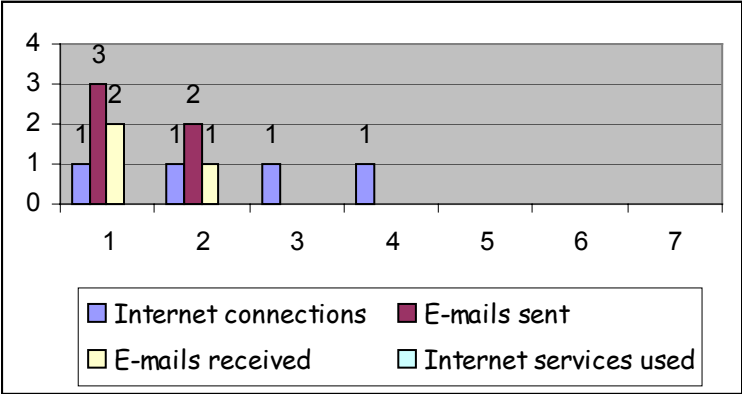
He doesn't use the Internet a lot, about 5 hours a week. He basically uses it for cultural and historical research and when it's helpful. Thanks to his use of the Internet he has cultivated his interests. He has created a numismatic association that has a web site <<http://utenti.lycos.it/aCNM>>. And he can improve his knowledge about this topic of interest thanks to his on-line research.

In the creation of the Association web site, R. has tried to offer an easy and accessible web site. In fact he thinks that older people are no longer used to seeing lots of information. They need large letters, not too many images, and simple, fast-to-download web sites. This is what he needs too. Despite his deep computer knowledge, he sometimes finds it difficult to read and understand the WWW contents. These considerations are confirmed by the numerous visitors of his web site (about 800 every month). That's why it's simple to read, rich in information but clear and well organised.

He also uses e-mail a lot, both for the association and for personal reasons. Thanks to the association, he is in touch with a lot of people also in other countries, who he has never met. The Net is an extraordinary communication tool offering the possibility to share documents and information. He is also in touch with relatives and friends who live abroad.

He thinks that the basic resistance that older people experience towards new technologies is at a mental level. In fact older people, whatever their level of education, are used to using the same mental approach to meet their objectives. The Internet forces them to return to a child's approach in learning a new and completely different logic to do things. Apart from personal resistance, the Internet use could be very helpful for older people, especially if the local authorities offered services through the Net.

Fig. 4.10 R.'s Internet weekly use



5 Analysis findings

This chapter summarises the key findings of the research process.

5.1 Older people's approach to the Internet

5.1.1 What tends to inhibit older people's Internet use

Generally, older people are considered to have some resistance towards the use of the Internet (C.). This assertion is common in the scientific literature, and also emerged from this study. They experience different barriers to the computer and the Internet, which can be summarised as follows.

5.1.1.1 Technological fear

5.1.1.1.1 Computer fear

The computer is always considered by older people to be an adverse and strange object, something they may be afraid to touch for fear of causing problems. They have the general distrust towards an unknown object (F., C.).

"If the elderly didn't use the computer at work, they have a basic distrust toward the new technologies". (F.)

5.1.1.1.2 The mouse

The mouse often appears to be a big problem for older people. All of the interviewees, in their role as peer tutors, have experienced this kind of barrier. The mouse, the keyboard and the access procedures are the main technical problems that older people have in using the computer and, consequently, the Internet.

5.1.1.13 Internet sites' lack of clarity and simplicity

The Internet is often compared to a *mare magnum* to highlight the immense amount of information it contains. In this enormous universal on-line database, it is easy for anyone to lose the focus of the research. Maybe, for older people, who are generally not familiar with this kind of technology it is even easier (C., P., Ce., R.).

5.1.1.2 Personal resistance

5.1.1.2.1 Lack of interests/motivations - cultural background

What generally inhibits the use of the Internet is the lack of interest older people have, which is often strictly linked to a poor cultural background. Without interests and motivations, any attempt to make technology familiar to them is useless. All the interviewees agree with this assertion. Lack of interest does not always depend on the level of education, it seems to be more a personal characteristic. But also the level of education is, for some of the interviewees, crucial in the approach to something new.

"Maybe the level of education contributes, but I don't think it's the determinant element. To have interests is essential". (L.)

"If you are a curious person you will always learn something new. And this is not dependent on the level of education". (E.)

But often the curiosity comes from a basic cultural level (Ed.). And this allows people to expand their personal interests and to explore further the possibility offered by the Internet (P.)

"Generally uneducated people don't have many interests, and I think that the Internet is made primarily for people with some interests". (Fr.)

"Curiosity first of all. And of course people with a certain cultural background are more motivated to approach the Internet". (Ce.)

"The people who attend the course are generally library users. It means that they have a basic cultural level and interests, often derived from an adequate level of education". (E.)

"Also the level of education makes a difference. When we are young, everything is ok, but as we grow older our interests and cultural background become more evident". (A.)

The lack of interests is often associated with a lack of motivation. If the approach to the Internet is a general curiosity, and not a concrete motivation, it tends to become boring very quickly (P., Ed., E.). Motivation can also be something banal, like having to speak with your children who live in another town, but without this simple thing everyone tends to lose interest in the Internet immediately (P.).

5.1.1.2.2 Misconceptions regarding the Internet

Older people tend to have misconceptions regarding the ease of use and potential benefits of the Internet. They have a distorted vision of it that comes from wrong information. For this reason the Internet is often regarded as a dangerous thing, full of terrible things like pornography, paedophilia (L.), viruses and sites requiring payment (R.), a waste of time (A.), something only for the young (Er., F.) and so on. This depends on a general anxiety that older people tend to have towards the new (Er., L., Ce.) and also on misinformation regarding this

technology, which focuses only on the legendary dangers and not on the services offered or its beneficial aspects (E.).

5.1.1.2.3 Mental approach

Older people often live in a personal world made of ritual and simplicity. They are afraid of the new, and prefer to use and do the same things that they have always used and done, instead of experiencing something new. It is a question of laziness (Er.) and of mental rigidity (F.).

"But this is wrong. I think that they are not self-confident and don't believe in themselves. This is a terrible handicap for older people". (Er.)

On the other hand, it is essential to approach the Internet, as every new thing, with an open mind and the wish to expand one's personal knowledge. The problem can be that older people have to change their mental approach to reality and learn a new language (Er.).

"Older people, whatever their level of education, are used to using the same mental approach to meet their objectives.

But I think that the Internet forces them to return to a child's approach to learning a new completely different logic to do things". (R.)

Other problems that emerged during the discussion, but with lesser relevance are:

- ECONOMIC PROBLEMS: cost is an important aspect that the majority of older people have to take into serious consideration (R., E.);
- LACK OF POSSIBILITY TO USE THE COMPUTER (R., C., P.);

- LANGUAGE: the lack of knowledge of the English language forces us to use only Italian search engines, and limits the possibility for information (F., E., Ed.). This is not an insurmountable problem, of course, but a limitation.

5.1.2 Accessibility aspects

The problem of the Internet being more accessible to older people is a large one, and maybe the most difficult to solve. Several aspects have to be taken into serious consideration. Technological and political aspects are the most critical ones. The problem is that often web sites are not addressed to the elderly and there is a lack of a general political action to make Internet known to them. In the course of the conversations a lot of suggestions emerged, some of them very interesting.

5.1.2.1 Technological aspects

5.1.2.1.1 Easier technology

As the access procedures are generally a problem we have to try to simplify them, to solve the limitations coming from the use of the mouse or of the keyboard (A., P.). But technology is changing faster and faster and new simpler tools are on sale every day. That is why this aspect could be solved in the future with innovative solutions.

"If the Internet could be used as a telephone, or activated by the sound of the voice without touching anything, it would be extraordinary". (L.)

Not only easier but less expensive too. There could be a free-phone number to reduce costs, or what Ed. calls a "*Kit del vecchietto*" - simpler and cheaper technology that should be offered to all older people.

5.1.2.1.2 Easier web sites

Although in the WWW there is a lot of useful information for the elderly and there could be a considerable number of these Internet users in the future, but the web sites are not designed for them. The web masters don't take into consideration this kind of users. That's why the sites are generally complicated to read, focusing on special effects and not on the information. The problem is that older people are not yet considered an economic target, even if they could be (F.).

All the interviewees agree that the Internet (considered as the language of web sites) is not for the elderly. Often the sites have too much information, publicity and images. This is for economic reasons (P.). They aren't clear and for a lot of older people they are too difficult to understand. Sometimes, even the web sites specifically addressed to them are not well designed, using too small characters and too many frames (Ed.).

"Older people are no longer used to seeing all these words. They need large letters, not too many images, fast to download and simple web sites". (R.)

R. has put these considerations into practise in his web sites. In fact he created a simple web site on numismatics that has about 800 visitors every month. That is because it is simple to read, rich in information but clear and well organised.

5.1.2.1.3 Specifically addressed Web sites

As C. says *"there would be more web sites specifically addressed to them"*, easier to use (P.) and with helpful information.

5.1.2.2 Political aspects

5.1.2.2.1 The public library role

But the problem is that very often that older people don't know what the Internet can offer them. Its effectiveness and benefits are not understood by this kind of users. Maybe because the advertising focuses on aspects that don't interest them.

"What we need is institutional advertising, made not by IBM, the Internet providers or the web masters but by the Government.

A good well designed ad". (Ed.)

The Government should support the spread of the Internet financially. Offering simpler and cheaper technology: this could be a solution! But, of course, Government policy has to move in this direction. And public libraries have to play a considerable role as learning promoters and Internet providers.

All the interviewees consider the role of the public libraries essential in the diffusion of the Internet among older people. Projects like "Nessuno Escluso" seem to be the right solution, but they are not so widespread, and are very poor in number (A., L., Fr.). At least in Italy! In fact they are the only institutions, thanks to their public nature, that can offer free training courses and can invest time in diffusing it among their users. Other associations offer Internet training courses, but at high costs (A., Ce.).

"The means is the library. But a library user is a person who reads and has some basic interests. The problem is to reach the other people. Otherwise, if I reached someone without interests, would he use the Internet? Probably not". (F.)

Co-operation, perhaps, could be a solution. Co-operation among services and institutions, co-operation in sharing the poor financial resources available and ideas, co-operation to plan a relevant policy and to act adequately. But, unfortunately, also at local level, all the associations involved for different reasons in older people's lives, tend to work separately, without any interests (again!!) for something new. For this reason trade unions and parishes - for example - are not interested in sharing their resources to make the older people familiar with new technologies (F.).

5.1.2.2.2 Services offered through the Internet

Older people could really appreciate the benefits of the Internet only if services were offered through it. This would be very important for them: to be able to book medical visits, be in touch with their doctor, obtain a document, receive medicines at home and so on.

"Like Esselunga [a supermarket], which brings your shopping home for you". (Ed.)

"If some services were offered through the Internet it would be a big challenge for older people to access it. They would be the first users. The young can move, sometimes the older not". (F.)

"Older people are worried about the future, and the services they have today have to be guaranteed also in the future. The Internet would allow this if there were enough social awareness. Which today is lacking". (F.)

Unfortunately Public Administrations are slow to understand the Internet's potential (R., P.). That is a problem of general culture. A widespread Internet use by the local municipality to communicate and offer services would force every one

to approach it. Without considering the faster and simpler procedures for both the employees and the citizens (L.). Something is changing and moving (R.) but it all depends on the ability and initiative of the people and not on a general political policy and on a shared standard (F.). The services offered by Public Administrations could be clearer and easier to use (Ed., A.).

"As always, the enemy has been identified. That is the Public Administration". (F.)

5.1.3 How the Internet can help/support the older people

"I think that the Internet is helpful, first of all for older people.

This is a resource that they must not lose". (L.)

The Internet is generally considered by the interviewees to be a basic help for the elderly. It is a source of information, a means for obtaining services and to pass the time actively. But first of all it's a security. And for the elderly it is very important to have securities, to know how to obtain the information they need and how to solve their problems independently, without the help of anyone else. Also because, very often, the elderly live alone and they don't have any help. To be self-sufficient to obtain what they need would be very important for them. And for the society too.

"For the elderly the Internet would be an extraordinary thing if the Governments understood the perception of security they could obtain. Because for them it is important to know where to obtain the information they need, how to present their tax returns, how to know the constituents of their medicine, the chemists that are open or your old-age pension conditions.

If they have securities like these,

they would feel safer and have greater peace of mind". (F.)

This would mean the guarantee of sources of information and services.

Furthermore a way to check and compare the news they get from the TV (F.). But the Internet is also a help to pass the time, to use free time in a more active and satisfying way. Because for a lot of them, the lack of an occupation is dramatic and especially in the towns older people are often in a condition of waiting for death (F.).

"I think that the biggest problem for older people is how to use their free time in the best way". (E.)

"Anything is better than sitting on a park bench waiting to die, everything, even ten hours sitting in front of a computer game". (F.)

Only P. is sceptic about the Internet's benefits for the elderly. But that is a problem of the lack of services offered. It would of course be helpful for them to book a medical examination. But, as this is not yet possible, the Internet is not so helpful for older people.

"As the Internet is not widespread among older people, services are not offered. But we should start, and then the Internet would certainly spread". (P.)

5.2 Internet use

5.2.1 The approach with the computer and the Internet

5.2.1.1 Computer use at work

All the interviewees - except Ce. who is housewife and L. - used computer at work. Some of them (R., A., P.), through their work experience, had a previous deep knowledge of computers. Others had only a mechanical approach to it.

5.2.1.2 The first approach to the Internet

None of the interviewees - except A. - used the Internet at work. They started to use it after their work experience. In fact, the majority of them left work around the beginning of the 90s, at the time of the first diffusion of this technology in Italy. Thanks to their interest in computers, when they had more free time, they approached the Internet. Some of them alone, through self-teaching (Ed., L.), but most of them with the "Nessuno Escluso" project.

Some of the interviewees, who had worked with the computer for years, thanks to their knowledge and the use of the Internet became keen on computers.

"Internet has fascinated me more than the computer itself". (Ed)

"With Nessuno Escluso I started to have passion in the computer". (C.)

5.2.1.3 Computer ownership

The majority of the interviewees had a personal computer before the start of the project but began to use the Internet connection or decided to connect to the Internet after attending the course. Only a few of them bought a computer recently, when they became Internet literate thanks to "Nessuno Escluso" (C.).

Fr. And F. bought a second pc for their country house:

"Then, two years ago, I bought a notebook because I asked myself: how can I go on holiday without a computer, without the Internet?". (Fr.)

5.2.1.4 Son/daughter's help

As far as the help given by their children is concerned, all the interviewees share the same experience. The young are all computer literate but seem to be unable to help the older generations. The F's son, who is a computer programmer, has never given any sort of technical advice to his father.

And when there is at least an attempt to help, there are comprehension problems between two different languages.

"He helps me, but in his way. Everything is expected. But I didn't know much, and for him it was all expected". (E.)

"When I asked her something, the speed of her explanation was much greater than my learning capability. Impossible". (R.)

5.2.1.5 Previous courses

Only a few of the interviewees attended previous courses. Ce. attended a basic course in computers and the Word programme three or four years ago, L. an Excel course and A. a Word, Excel and Access course in his company.

5.2.2 The use of the Internet in daily life

5.2.2.1 The daily time used to browse the Internet

Although the average weekly use of the Internet appears to be four or five hours there are big variations. Fr. and C. use it about only an hour a week, or more if they have to search something in particular.

A. states that he uses it in an *"immoderate way"*. Because of his insomnia, he generally browses the Internet late into the night, with a musical background, and spends about 195 € every two months. If he's at home he uses the Internet two hours every day - or rather, every night!

Other interviewees connect to the Internet once a day, at least, as a daily ritual, to check their e-mails (Ed., R., F.), to buy or sell securities (P.) or to read the newspapers (F.).

5.2.2.2 What is searched on the Internet

Personal interests are, of course, many, and consequently the subjects searched through the Internet are numerous. But among the wide variety of them, there are some topics that occur frequently.

The most frequent reasons to search the Internet appear to be:

- the organisation of trips (ED., C., A., P.);
- information on the local cultural activities (Fr., F.);
- information on what's happening around the world (Fr., F.);
- financial operations (F., P., C.);
- transport timetables (Fr., P.).

Particularly the first is a search experience shared by almost all the interviewees.

"With my wife and another couple of friends I like to visit cities, or go to an exhibition during the week. And before going, I get information from the Internet, I download the map of the town, I find out where to eat or sleep..". (Ed.)

"Instead of going to the travel agency..". (C.)

Other arguments of interest searched for on the Internet are: art and literature (Fr.), crochet or lace work (Fr., C.), the weather forecast (F.), computer science (E.), cookery (C.), numismatics (R.), philately (C.), viticulture (F.).

And some of the interviewees used the Internet in very particular circumstances or use it for particular interests.

"Furthermore it [the Internet] was important for a damned disease of my roses. Through the Internet I found how to treat it". (F.)

"Another thing I search are the Portuguese newspapers. I'm trying to learn Portuguese because of my passion for Brazil and Brazilian music. I download and save the newspapers, and then I read them on Sunday". (E.)

Other people, like E. and A. have no limits in the Internet browsing.

"I generally start with Yahoo or Virgilio, then it depends. [...] When I find an interesting subject I enter to see if I like or not the site". (A.)

5.2.2.3 Internet services used

The Internet services do not seem to be very popular among the interviewees. Only home-banking has a considerable diffusion. Other services, like on-line booking and purchases, are only possibly tried, but nothing more.

Fr. made an on-line tax return, which was very easy and useful to do. F. has a password to operate his postal account, his old-age pension and his insurance. On the contrary, E. considers on-line operations more expensive than going personally to the post office, and he prefers the traditional way, while he still can.

5.2.2.3.1 On-line purchases - credit cards

If we consider it as an order only, it's generally considered favourably. But if it implies also payment by credit card it loses all its attraction. Only two of the interviewees, A. and P., state that they have bought something on-line in the past, but that it wasn't a very positive experience. On the contrary services like that offered by Esselunga (a supermarket) which allows to order on-line shopping, to receive it at home and to pay for it by cash, or by cash card, are considered very helpful, but none of them have used it yet. It is not a necessity now, but in the future, it will certainly be used (F., E.).

There's a general mistrust towards the on-line use of the credit card. It is not considered safe to give credit card details through the Net. Maybe using pre-paid cards, that limit the risk, some attempts could be made (Ed.).

5.2.2.4 The use of e-mails

During the conversations some interesting considerations emerged about the e-mail, its use and its positive or negative aspects.

For R. the e-mail is a way to know people, to understand their character without having ever seen them. But L. considers the e-mail a limitation when compared with personal communication. It lacks the personal touch, the voice, the emotions. Therefore if it has an *"extraordinary value for long distances, it has no advantage when we write to our neighbour: that's limitative"*. (L.)

Considering that when we start to use the electronic way of communication it could be difficult to continue to use the traditional one (F.) especially for older people, it is important to continue to have personal touch, to have occasions to meet other people. For this reason the CAI (the association P. belongs to), that considered the possibility of informing their members of the periodical activities or excursions by e-mail, at last decided to continue to meet once a week: *"for people, like us, who have a lot of free time, it's great to have a weekly appointment to discuss excursions and other things"*. (P.)

Generally the interviewees use the e-mail only moderately. The problem is the lack of people to communicate with electronically, and the preference for the human touch.

"I use it when I need it, because my son live two kilometres away, so we phone or he comes here. But I prefer to look the people I'm talking to in the face". (E.)

"Not a lot, because I don't have many friends who use the computer". (Fr.)

C. sends about ten e-mails a week, E. checks his account every day and R. and F. use it a lot. R. for his numismatic interests and for his site on the subject, and F. for personal reasons and for the "Amici della Biblioteca" association for which he manages the e-mails.

5.2.2.4.1 The reasons for using the e-mail

Basically, the reason for using the e-mail is to be in touch with friends and relatives who live abroad or, at least, in another town.

"I write to my niece who lives in Trento. She's a young girl. Sometimes I suggest she visit some interesting URLs, she asks me for something or we share photos". (E.)

"I'm in touch with my nephews who live in Canada. They send me photos of their child". (Fr.)

"My cousin's daughter lives in the Mauritius Islands. She sends me photos of her child and I send her photos of home. It's helpful and easy to use". (C.)

The e-mail is a way to be in touch with people with whom it would be impossible, or at least very difficult and expensive, to communicate.

"Some friends in France and in Brazil. Otherwise we wouldn't still be in touch". (P.)

"Basically, I use the Internet as a means of communication. I'm a member of some associations that help the third world countries. I'm in touch with the people I knew during the trips I had made to check the implementation of the projects in this countries. We share documents that, otherwise, I wouldn't be able to obtain in a reasonable time". (L.)

Some of the interviewees have used the services offered by the Internet to search for a friend. E. has found one of his school friends, and A. a relative who

moved to Brazil some years ago, and has also tried to find some school or military friends but without success.

And some of them use other communication tools or software. Fr. has a web cam and in the past, used Net-meeting to meet her Canadian nephew and her brother-in-law who live in the Marche (Italy) on-line. While E., through the SEQ was in touch with a Taiwanese biologist from whom he obtained some information about Sars, a Brazilian musician and an Egyptian who studies the Italian language. But chat seems to be unpopular among the interviewees. They generally state that they do not use it.

To summarise what the interviewees think about e-mail, we can report the words of Ed.:

"Sometimes we have to invent reasons to use it".

5.2.2.5 Difficulties in using the computer and the Internet

5.2.2.5.1 Initial anxieties about the computer

Although the majority of the interviewees had always used the computer at work, some of them remember some initial problems they had in starting to approach it. The problems encountered are different. E. had some difficulties in remembering all the procedures and took note of everything. L. didn't have an easy approach to the computer but, fortunately, he could phone one of his computer literate friends who helped him when necessary.

*"Yes, at the beginning some anxiety and fear,
but the curiosity has always been stronger". (Fr.)*

5.2.2.5.2 Difficulties in using the Internet

The majority of the interviewees state that they had little difficulty using the Internet thanks to their long computer use during their working life. This is true, at least, for what concerns the hardware and software aspects. But as far as the Internet's language and organisation is concerned, some people say they had some problems.

P. says that he had a difficult approach to the Internet. Although he worked as a computer programmer, he found some difficulties in understanding the different language of the Internet, the organisation of the sites and to find what he really needs: *"we see everything except the information we need and we don't know how to proceed"*.

Similarly R. says:

"I open a page and I think: and now? How can I read all this?"

And the glasses, and the video and the too-small words that I can't see and the language which is sometimes too difficult".

Research problems are experienced also by Ce., who doesn't always find what she wants even after having restricted the search keys. A particular problem mentioned by R. is the risk of downloading a virus, or connecting to payment sites.

But the most frequently mentioned problem is the slowness of the access, the long waiting time and the problematic download of some sites (A., C., L.). L., who is using an ISDN line, would like to have an ADSL one. Faster technology: this seems to be what they need. Not an easier one!

5.3 Impact of the Internet use

5.3.1 Motivations to access the Internet

The motivations to access the Internet are, of course, many. The things done through it are equally many. Basically the interviewees use the WWW to search for interesting or helpful things, when they need particular information, such as a pass-time, to satisfy their curiosity and to keep in touch with the times.

Research seems to be very important for a lot of the interviewees. Some of them search for topics of interest (R.), others prefer to use this technology only to find helpful information (C., Ed., P.), and others for both of these reasons (Ce., A.). For a lot of them, the Internet was of help in numerous circumstances. And some of them search for information for family members (Ed.) or friends (A.).

But the Internet is also considered a leisure activity (C.), a way to spend time actively and with satisfaction (C.), to expand personal interests (A., E.) and to satisfy one's own curiosity (Ed., Ce., A., E.).

"Very often, during the night I access the Internet and I start to surf without any specific aim. I can start with music and finish with a completely different topic". (A.)

"My wife sometimes say me: come to sleep! Because I forgot to go to bed. The Internet completely captures my attention". (E.)

Some of the interviewees use the Internet for particular reasons, like listening to music (R., A.), sharing documents (R., L.), creating web sites (Ed., R.). And others use it for practical matters, such as home-banking (P.) or communication (L.).

But for the practical reasons, the motivation to assess the Internet was for a lot of the interviewees to find a new way to spend time after retirement.

"I approached it after retirement to find something different from dancing or playing cards". (A.)

5.3.2 Positive and negative aspects of the Internet

The positive and negative aspects that the interviewees find in using the Internet are numerous. Most of them are discussed in the general discussion presented above and below. Here we try only to summarise the most relevant aspects that emerged during the conversations.

Positive aspects:

- facility to be in touch with other people;
- facility to be informed;
- possibility to use it everywhere;
- means of satisfying curiosity;
- helpful tool;
- immense database;
- leisure activity.

In the course of the conversations the interviewees spoke about the Internet as *"a magic thing"*, *"an extraordinary instrument"*, *"fantastic"* and *"funny"*.

Negative aspects:

- violation of privacy;
- pornography and paedophilia;
- "traps";

- high cost;
- unsure on-line payment;
- unclear explications;
- too much information: difficult research;
- limitations in e-mail communication;
- risk of losing personal contacts;
- need for subscription to some web sites;
- unclear web sites.

5.3.3 The benefits of Internet use

All the interviewees declare to have experienced some benefits since they have been using the Internet. They are different but all equally important.

5.3.3.1 Mental challenge, memory improvement

Accessing the Internet is a way to maintain the mind and the memory active and efficient. For Er. it was also a way to start reading books and magazines again, after a long period of inactivity. Furthermore the WWW offers some games, such as poker and billiards, to help the mind and the memory (A.).

"The brain remains active. On the contrary watching TV I tend to fall sleep". (C.)

"Every day I learn something new". (Fr.)

But if on a mental level using the Internet can be of help, the same cannot be said at physical level. The interviewees have not perceived any physical improvement, rather...

"It's better to ride a bike or to go for a walk. When I use the computer too much I get a pain in my shoulders". (A.)

5.3.3.2 Independence and security

To access the Internet is also a way to feel independent and able to do the same as other people (Ce., E., Fr., F., P.).

"It gives me a sense of omnipotence because I can search for anything". (Fr.)

5.3.3.3 Personal satisfaction

Some of the interviewees refer to the Internet as a "*satisfying*" tool (E., Ed., A.).

"That's a satisfaction in discovering that you have no personal limits, that you can always learn something new.

Not to feel your age or mental limits, it's satisfying". (E.)

"When I learn something I haven't done before I say myself: well done!". (Ed.)

"That's my satisfaction, a personal satisfaction. I'm also in competition with my daughter. I'd like to know more than her and teach her something". (A.)

5.3.3.4 Keeping up with the times

Internet use allows to keep up with the times in different ways. In fact it allows us to cultivate our previous activities or interests (R.), to expand our own technological knowledge (R.) and to be in touch with what's changing all around the world (Ce., E.).

"It allows me to cultivate my passions and not lose the evolution of modern society. My previous technological knowledge has become a leisure experience. Furthermore it gives me the chance to advance technologically and to keep up with innovations". (R.)

5.3.3.5 Pastimes

To assess the Internet is also a pastime, a way to occupy one's free time actively and enjoyably. One of the life aspects shared by all older people is a large amount of free time, and for some of them filling it can become a problem. To browse the WWW is a way to use time with satisfaction (Ed.) and to satisfy one's own curiosity (A., E.).

"What is important is to spend the time with satisfaction. When you have finished [surfing the Net] you feel satisfied that you have known a certain topic. This is good". (Ed.)

5.3.4 The impact of the Internet on the quality of life

During the focus groups I asked this question: An American research revealed that: "many of the computer savvy seniors state that, while computers may have intimidated them at first, they do not know how they would live without them". What do you think?

The majority of the interviewees agreed with this statement (Fr., R., L., Ce. E.). Even the more reluctant declare that, now, they would miss the Internet if they couldn't use it (P., F., Ed.). This confirms the important role that the Internet has assumed in their life. Maybe the problem is starting to use it, but once it is known it could be difficult to act without it on a daily basis.

"When I'm at my friends' home the first thing I do is to look for a computer". (R.)

"It depends. If you find the Internet helpful it is true, otherwise not". (F.)

"This is true but in the American culture. They have a lot of services through the Internet and live at enormous distances. For us it's questionable. One of the more frequent assertions I hear about it is: I've always lived without it, I won't certainly die without it. But of course if I couldn't use it I would miss it". (P.)

"I couldn't do without it". (A.)

5.3.4.1 Changes in daily life

The use of the Internet has modified the life of some of the interviewees. The modifications are of course different. They may consist only in a more frequent use of the e-mail instead of the telephone (Ce.), in a different way to do the same things they have always done (P.) or they would do differently (L., Ed.). But they can also be more significant regarding the daily life approach.

"I have different datum-points. Considering also the fact that if I have a free half an hour, I can access the Internet and browse it". (F.)

"I felt surer because in the past if I needed something I didn't know where to find the information, even stupid things. It's an important help". (Fr.)

"It has changed some procedures. Thanks to it I can operate financially on-line without having to go to the bank every day. I save a lot of time and I can do other things and organise my day differently, in a more functional way". (P.)

"It's more a pastime, not a necessity. A different way to obtain the information I would have differently. I can get information even without the Internet.

It's just an additional opportunity". (Ed.)

5.3.4.2 New interests

For the majority of the interviewees, surfing the Net is also a way to extend their interests. This is particularly true for the most curious of the groups that use the Net, first of all, to satisfy their curiosity and to pass the time actively. But also those who have a more "helpful" approach to the Internet declare to have increased their interests, at least in the computer (Fr.).

"Certainly. I don't set any bounds. If I find something interesting, I look it even if it's about a topic that has never interested me". (E.)

"As far as the interests are concerned, the Internet woke up me. I'm a chemist, I love chemistry. But I discovered that I can spend a lot of wonderful days without speaking about it and finding interest in many other things". (A.)

Only L. says that he has not expanded his interests, *"rather new opportunities of contacts and research that before I didn't, of document sharing that before I hadn't or I had but with a lot of complications"*.

5.3.5 The role the Internet will play in life as we get older

Generally the interviewees considered the role of the Internet more important as they get older. In fact it will be a basic way to pass the time (E.), to do satisfying things (L.) and, if some physical problems arise, a fundamental source of help (F.). Wishing that a lot of services will be supplied through the Net, as the possibility to be in touch with the emergency services or the doctor (Ed.).

"I think that as I get older the Internet will progressively become more and more important as a pastime, to be informed and to see new things". (L.)

"Having more free time, it will have a more important role.

It will be a big company because the TV..". (Fr.)

"It will be more and more important. Today I can move, maybe tomorrow I'll use the e-mail. Today it is an optional because I can choose to do other things, but tomorrow I don't know. Since I know that Esselunga [a supermarket] brings shopping home I feel more tranquil". (F.)

Only P. is sceptic about the role that the Internet could play as he gets older:

"I don't honestly think it will be very helpful.

Just to be in touch with other people". (P.)

I'd like to conclude the section about the impact of the Internet on daily life with F.'s words:

"It helped me to overcome a difficult period after my retirement. It helped me to rediscover my enthusiasm for life, the things around me and other people".

5.4 An encouragement for older people to start accessing the Internet

"You are in touch with other people, you can communicate with other. You can have the news without going out, you can check what the TV says". (Ed.)

"With Internet you can find a lot of things about what's interesting for you". (L.)

"Through the Internet you can access some services, discover a lot of things and, most of all, invest your free time. You can read all the newspapers, all the magazines, have a lot of free things, spend your time actively instead of stupidly watching the TV". (F.)

"Find a concrete motivation to not lose interest". (P.)

"If you want expand your curiosity and go deeper in your knowledge, Internet is the ideal thing. It's a universal library". (A.)

"You can communicate by e-mail and search for information about what you are interested in". (C.)

"Start on it. You will find a lot of things that meet with your interests". (Fr.)

"You could be in touch with other people, search for things of interest and spend your time actively". (Ce.)

6 Conclusions

6.1 Older people and the Internet

6.1.1 The resistance of older people to the Internet

The research reveals that the resistance experienced by older people to new technologies, and the Internet in particular, are numerous and diversified. But, contrary to the general scientific literature tendency, the focus is not at a technological level but seems to be the lack of interests and motivations generally strictly linked to a poor cultural background. Of course also an easier and more accessible technology could influence older people's Internet use, but what emerges from the research seems to be that if supported by interests and concrete motivations, all technological fear can be overcome. Other problems, such as economic problems, lack of possibility to use the computer and the English language barrier, emerging in other studies have only been mentioned by the interviewees but without great relevance.

On the contrary, other scientific studies are focusing especially on technological fear and difficulties in use [Trocchia - Swinder 2000] [Williamson 1996, 1997] [Johnson et al. 2001]. But some of them reveal that illiteracy is the basic element in generating the digital divide [Hull 2003], a factor that causes resistance is the education level [Christopher 2000] and that wire seniors are more likely than their offline peers to be highly educated [Mates].

6.1.2 Accessibility aspects

In accordance with the relevance of accessibility problems in conjunction with the older people's involvement in the new IT context, during the data collection procedures a lot of considerations about this topic emerged.

Several aspects should be taken into serious consideration. Technological and political ones are the most critical. The problem that web sites are not generally addressed to the elderly seems to be strictly linked to a general lack of political action to make the Internet known to them. Also in this case the research findings are especially focused on political and cultural aspects, rather than technological ones. The offer of easier technology and easier and more accessible web sites specifically addressed to older people need of course to be taken in great consideration. But if they could be offered without difficulty thanks to the continuous technological advances, the political aspects are certainly more difficult to be solved.

The Government should support the Internet diffusion financially, and public libraries have to play a considerable role in this policy of Internet diffusion. Cooperation among services and institutions in sharing financial resources and ideas and planning a relevant policy should be encouraged. But most of all, the elderly can really appreciate the benefits of the Internet only if services were offered through it. The possibility to book a medical visit, be in touch with the doctor, and obtain a document on-line are be really important for them. If services like these were guaranteed it would be a big challenge for the elderly to access the Internet. But unfortunately the Public Administrations seem to be slow in understanding the potential benefits of the Internet.

Also in relation to the accessibility aspects, the focus of the scientific literature is generally on the technological implications. Guidelines for the creation of accessible web sites, suggestions for adaptive technologies and for good practice addressed to public libraries for the application of universal access are numerous (see section for more details). But the discourse doesn't go far in investigating the need for a general policy strategy to make the elderly familiar with the new

IT context and to support its diffusion. This not with excellent but isolated programmes, but with a more continuous and concrete political action.

6.1.3 The Internet support to older people

In line with the conclusions made by many geriatricians and researchers, the study findings reveal that the Internet is of basic help for the elderly in different ways: as a source of information, a means to obtain services and to pass the time actively, and first of all a security. It represents the security to obtain the required information, to have help in solving practical problems and a way to act independently, without the help of anyone else.

Furthermore the interviewees declare to have experienced some benefits since they have been using the Internet, which can be summarised as follows: mental challenge, memory improvement, feeling of independence and security, personal satisfaction.

6.2 The Internet use

Although the Internet use appears to be very diversified among the interviewees there is a general tendency to access it daily. This tendency is confirmed also by other recent researches as the Pew Institute & American Life Project that reveals that the elderly Internet users use it almost every day (69%), compared to 56% of all Internet users.

As far as what is searched for on the Internet is concerned, the personal interests are, of course, many and consequently the subjects searched for are numerous. But apart from the wide variety of them, what emerges with most emphasis is that the basic interest is not in the health and assistance sector. On the contrary the interviewees appear to be more interested in trips, music,

literature, cultural activities and hobbies in general. Other studies confirm this [Age Concern 2002] [Opalinski 2001] [Pew].

The e-mail use appears to be grounded but not very diffused. Although the American research reveals that the basic motivation to access the Internet is for older people to be in touch with family and friends, the cultural and geographical Italian situation reduce the benefits of e-mail. Generally the traditional ways of communication are preferred, especially by the elderly who have a lot of free time.

Internet services are not very popular, only home-banking has a considerable diffusion. As Mates says "seniors are the least likely group to have tapped into the Internet revolution - and those seniors who do have Internet access are less likely than any other age group to have sampled all the Web has to offer. They are enthusiastic about some online activities and relatively indifferent to others". And a general diffidence towards the on-line use of credit cards explains the basic resistance toward some of the on-line services.

The motivations to access the Internet are diversified, but basically it is used to search for things of interest or helpful, to obtain particular information, as a pastime, to satisfy personal curiosity and to keep in touch with the times. The studies mentioned above confirm this tendency and reinforce the conclusion that the elderly are not only interested in health information. On the contrary!

Furthermore this research, as others on these subjects, finds that the elderly computer literate and Internet users affirm that the Internet use has a positive impact on their life. The use of the Internet has modified some aspects of daily life, has increased personal interests and provides an important help.

To sum up, the Internet use is considered a very positive experience with a very positive impact on life.

But sometimes the problem is to offer to the elderly the possibility to familiarise with the Internet, to use it and to appreciate its potential benefits. And, as this research suggests, public libraries should have a basic role in this action. Projects like "Nessuno Escluso" should be common, and not exceptions in a general context ignoring the elderly' needs.

A critical issue for libraries is the extent to which they remain key players in the range of national networking developments. An enhanced understanding of the relationship that exists between inequality, ICT and libraries will have an impact on the perception of libraries by users and other agencies [Willson, J. 1999].

We have to recognise that there is still a long way to go in the move from book delivery services for the housebound to comprehensive library service for older adults.

"It's essential for the leaders and policy makers of the library to understand that service for older adults is not a fad; that the need and demand for library services will only increase; that the stereotypical perceptions about older adults and libraries no longer holds; and that nothing short of a total moral and financial commitment to library services for older adults will meet the needs and demands of the present and future older library users" [RUSA 1999].

7. Recommendations

The recommendations in this chapter are divided into sections according to the specific audiences they are addressed to. Where possible, the recommendations include suggestions for good practice in using the Internet.

7.1 Public libraries

Should:

- develop an ICT strategy, to ensure that use of the Internet is integral to appropriate and considered use of ICTs;
- provide staff with training in using the Internet, focusing on the specific needs of older people;
- analyse the needs of older people and evaluate the level and scope of services and programmes offered;
- co-operate with other services and institutions to offer programmes to older people;
- be aware of any particular needs of older users;
- promote Internet training courses specifically addressed to older people;
- make new technologies familiar among older users;
- spread the knowledge of the Internet among older users, focusing on the interesting aspects in their perspectives and on the concrete motivations to assess the Internet;
- provide information about the ease of use and potential benefits of the Internet;
- provide computer labs equipped with specific adaptive technological tools;
- develop an accessible and useful web site;
- offer VRD specifically addressed to older people.

7.2 Local authorities

Should:

- promote the use of the Internet among older people by specific marketing actions;
- support the diffusion of the Internet among them financially;
- solicit co-operation among services and institutions;
- offer services through the Net;
- use the technological tools to communicate with the citizens and to offer them services themselves.

7.3 Internet providers and hardware/software developers

Should:

- consider older people as an economical target;
- develop web sites specifically addressed to older people;
- consider accessibility when developing the Web site;
- develop easier technological tools;
- develop cheaper technological tools.

7.4 Recommendations for further research

1. a qualitative case study research on the impact of the Internet on the daily life of older people: further research on this topic would allow a comparison of findings and larger amount of information;
2. qualitative case study research on older Internet users compared with peer non users;
3. a survey of the range of programmes strictly tied to the new IT context specifically addressed to older people and offered by public libraries;
4. a survey of the needs/expectations/fears of older people in relation to the new IT context;

5. a survey of the international policy strategies for an inclusive Information Society focusing on the role of older people;
6. a qualitative evaluation of Web sites specifically targeted to older people and the production of a guide for good practice in the creation of Web sites that would cover both content and technical features;
7. a qualitative evaluation of the Internet training experiences addressed to older people by public libraries or other organisations.

8 Reflective Review

This chapter reflects on the adequacies and inadequacies of the research process, and is intended to give suggestions for further studies.

8.1 Literature review

The most significant problem I have met in my research project was the lack of documents in either paper or electronic format. There is little information on this topic and, in some cases, it is not up-to-date. There is a lot of numerical data about older people's Internet use, but there appears to be very few studies into the use made of the Internet by older people.

Although the information available on this topic is numerous, only some of it appeared to be really relevant. This caused a waste of time, by having to read a lot of documents that were not pertinent to this research. The books are generally from the mid 1980s, and refer to an old environment not to the new Information Society. Only a few refer to the new IT context. For these reasons the literature review process appears to suffer due to:

- the uniformity of ideas of the authors about this topic;
- the impossibility to make interesting comparisons between different points of view.

8.2 Data collection methods

8.2.1 Focus groups and interviews

Overall the interviews, both group and personal, appeared to be appropriate for this kind of research and provided a lot of relevant and complex information.

In both cases I tried to experiment with semi-structured interviews with the help of a guide focusing on relevant topics. I paid great attention to the structure of the interview guide.

Due to my lack of previous experience, it was not always easy to moderate the discussions. Although I was able to create a relaxing and challenging atmosphere, I sometimes found it very difficult to capture the flow of the conversations. Especially during the focus groups, the lack of continuous concentration caused some moderating problems. For this reason, the use of a tape-recorder appeared to be of fundamental help in the analysis phase.

Despite the attention paid to being as non-intrusive as possible, I tended to interrupt asking leading questions, and I sometimes found it hard to ask open and neutral questions.

Transcribing the interviews was a long and tedious process. The time required to transcribe should therefore not be underestimated.

Ideally, interview data collection and analysis should have occurred simultaneously so that the results from one interview could provide useful information for the next, but this was not possible due to the pressures of time. As a result, the design was not as emergent as had been hoped.

8.2.2 Diary

I considered the diary only as a complementary way to obtain information on the effective daily Internet use of the ten people investigated. And, perhaps, I didn't pay enough attention to the sample structure to be used for logging the data. This caused the data to not always be pertinent and to be difficult to analyse. I found

it very difficult to capture tendencies from the data obtained by this collection method. But for these problems, the information obtained was relevant for tracing a clearer picture of older people's Internet use.

8.3 Extent to which aims of the study were met

The research work was long and articulated. The approaches used in conducting the research process was multiple and diversified. Overall, the aims of the study were met successfully. I uncovered a broad but detailed picture of the current use of the Internet by older people, and I began to trace the impact that the new technologies could have in their lives. I suggested areas of good practice, making a number of recommendations for action based on the research findings, and I identified a number of themes for further research.

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