LOCAL Reports of the results of the survey amongst students (Part II)

SPAIN (Aula de Mayores de la Universidad de Málaga)

We present the evaluation of the results of the distribution of questionnaires to a representative sample of students in the Aula de Mayores of the University of Malaga (Spain).
We have measured the correlation between sex, age and the variable if 'live alone', with the knowledge and use of communication technologies and information.

**Relation Gender – ICT elements at home**

The proportion of women is overrepresented in the sample, as in the universe studied. With all, the technological equipment has a segregated distribution. Women have a greater proportion of mobile phone, computer, Internet access and digital camera, whereas males have a higher percentage of peripherals such as printers and scanners. It can be deduce from these data that women are making greater use of technologies that are related to communication, whereas men use the technologies that enable the storage and playback of data.
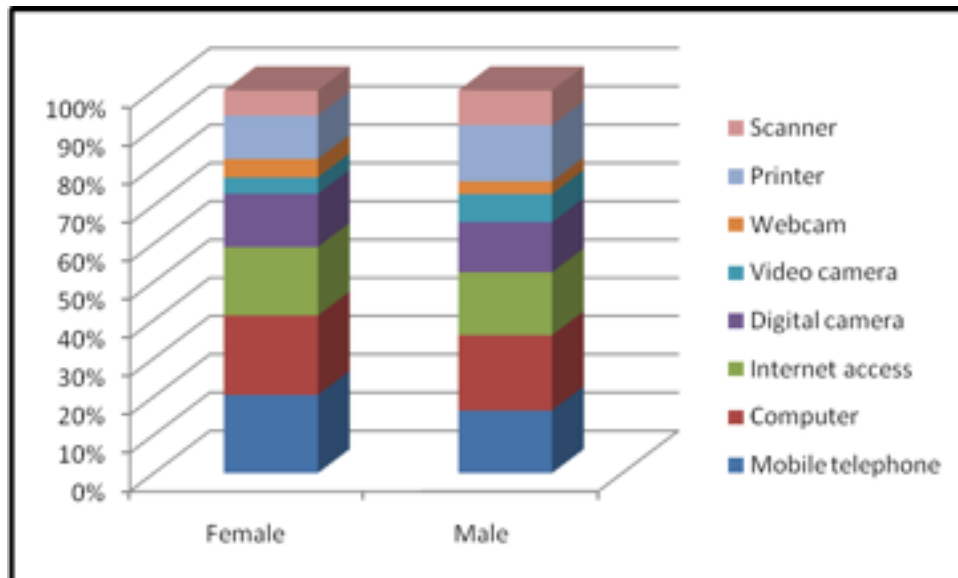
With reference to handling the word processor, the percentages are divided between those who make a basic use of this tool or handle it easily, and those who don't use it and are not interested or those who would like to learn. Among boys, positive responses have a higher percentage. Similarly, the result indicates that the age range between 50

and 54 years correspondes to those who make the most use word processing application on a basic level, followed by the age range from 70 to 74 and after those from 75 to 79 years. Most interested in learning this tool today but do not use it are students between 65 to 69 years. A possible explanation for this could be facing the transition between work and retirement and the rebuilt of practices and activities.

The differences increase when describing the use and knowledge of other applications such as Spreadsheet, database (eg, Excel, Access). The results of the questionnaires reveal a more concern among men, especially among students aged 45 to 54 years .
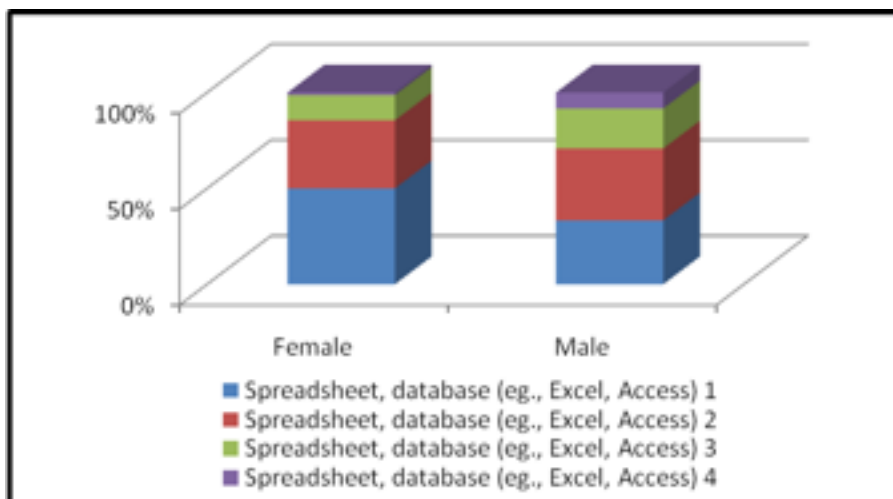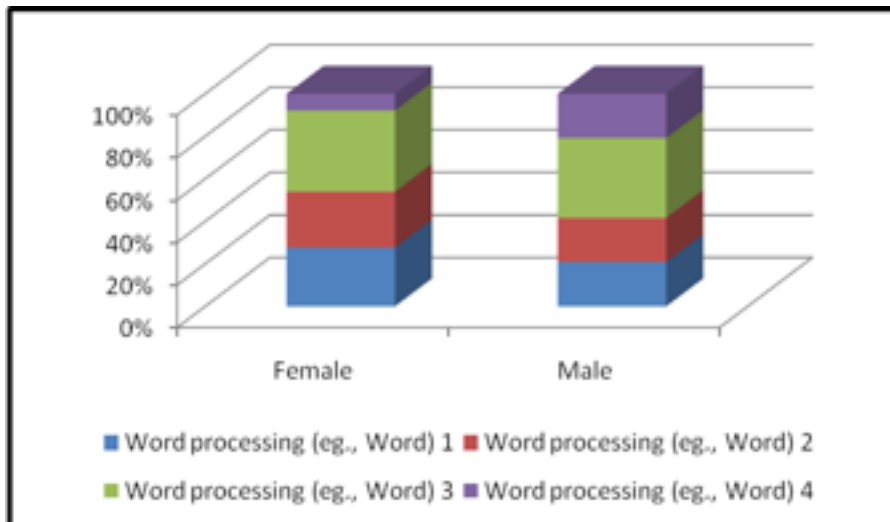

The use of visual applications are practically avoided in both men and women. And the same circunstances happens with media activities (video, music, ...). However, the use of management practices concerning everyday economic, - bank accounts, accounting, etc, correspondes to males: the results show that more than half the men handles the computer in these issues with good level. Concerning women, the vast amount of them are not interested, preferring traditional practices and customs, like going to the bank branch instead of using Internet.

With reference to Internet, uses in men and women are emerging. The largest proportions are in options 1 and 3, although the perception is proactive because both expresse their interest. The most common use of the Internet as a source of information related to leisure, is particularly significant among women. In the Aula de Mayores at the University of Málaga some of the exercises you learn in the course of the Internet is to buy airline tickets / train, etc.. However, the proportion of men who use the Internet at an advanced level is higher than in women, although the age distribution shows a high interest in all groups.

The option of online courses does not have wide acceptance among students of the Aula de Mayores, who prefer presentiality significantly; we understand that they appreciate not only the training activity but the relational aspect. However, self-learning on their own initiative over the Internet offers other interest rates in women and men. Regarding age range, students from 55 to 59 years and to a lesser extent the rest are usually more interested in self-learning in general terms, without adherence to any online course. Half the respondents between 70 and 74 years do not usually use the Internet for these purposes. Finally, the youngest, 45 to 54 years have asserted that they don't use Internet in these areas but would be interested in discovering new possibilities.

Extend my knowledge by self-learning; and not taking on-line course.

- Extend my knowledge by self-learning; and not taking on-line course. 1
- Extend my knowledge by self-learning; and not taking on-line course. 2
- Extend my knowledge by self-learning; and not taking on-line course. 3
- Extend my knowledge by self-learning; and not taking on-line course. 4
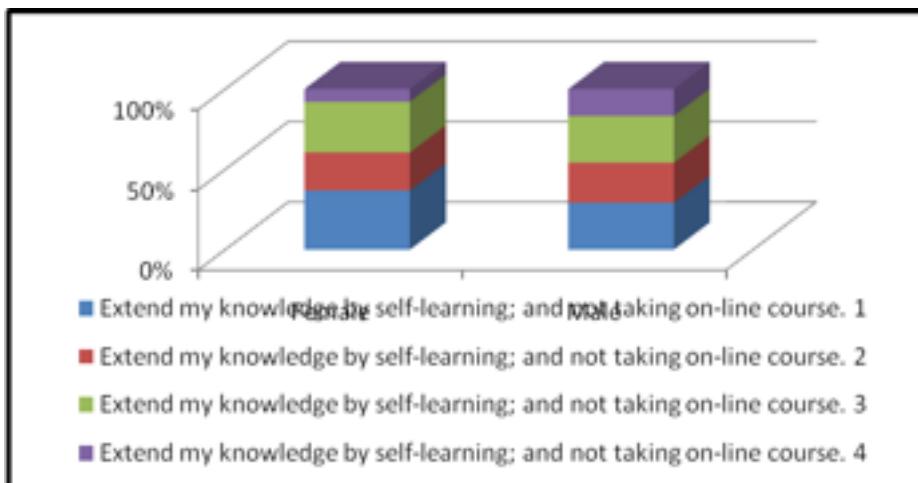
The online newspaper reading, listening to online radio and watch TV program on the Internet are merely testimonial activities. The gender differences are comparable to the use of media in the traditional manner with the highest percentages in male in reading news and in females in listening to radio and watching television.

The participation in social networks, forum and chats is negligible, although more women than men use them. In this context we can conclude that the use of social networks is still an unknown activity but some indicators suggest that possibly in later years this interest will grow, especially linked to the exchange of specialized information on any subject or sector.

Online shopping does not involve an activity that draws attention to the students of the Aula de Mayores. The percentage of those who use this tool for buying is very small, most pronounced in women than in men, although the traditional role of providing resources to the family is an activity deeply feminized.

However, concerning e-working, there is a huge difference between men and women, and they are the ones that make a more regular and an advanced level of Internet, while women are not interested.

Work at home (at that is my ordinary workplace).
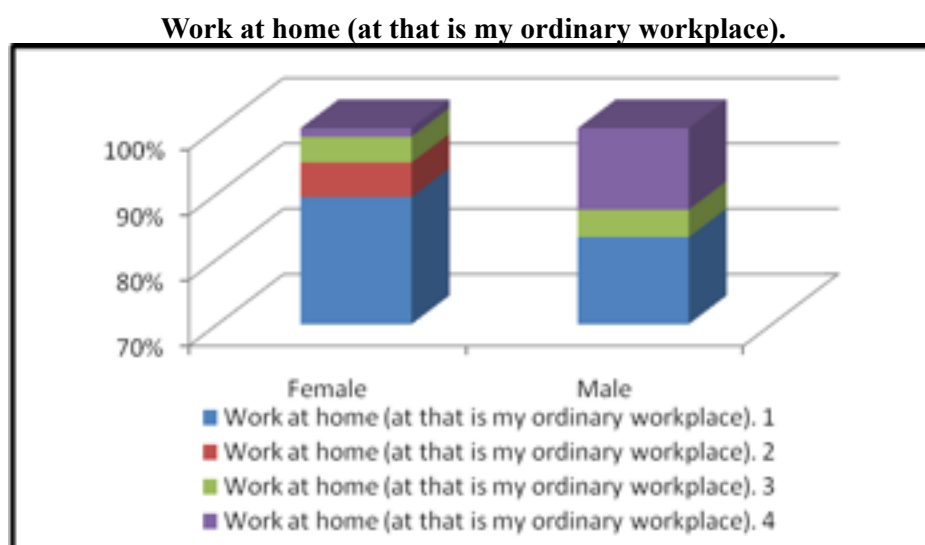
Hours in Internet

The number of hours per day using the Internet has equal proportions of men and women although there are some differences. Women use Internet between two and five hours while men spend more time at intervals ranging from six hours, even more than ten. By age, the time is varied, preferably between two and five hours is the average of students aged from 55 to 74 years. The group that doesn't use Internet are those of the age range from 75 to 79 years, not exceeding an hour. Only certain minimum percentage of students aged 55 to 74 years use Internet more than ten hours. The percentages of the Internet connection are homogeneous to the results for the entire Spanish state in the 13th AIMC survey of Internet users (AIMC, 2011).
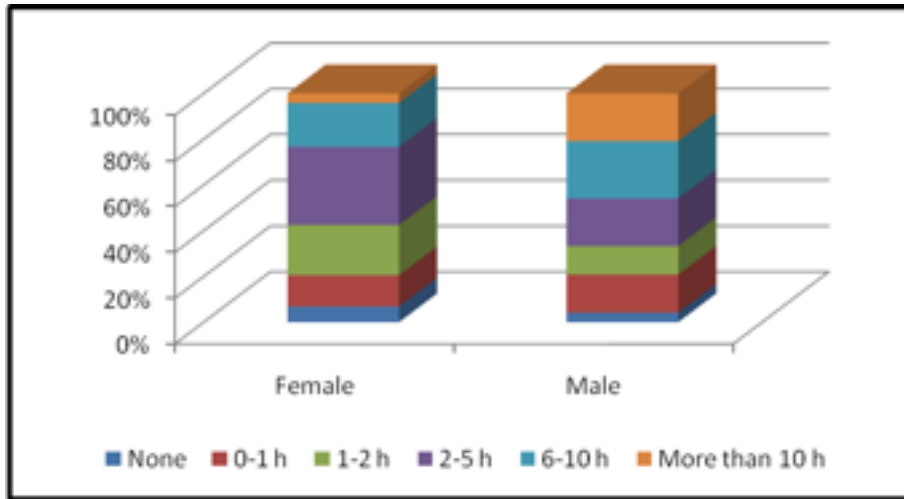
Regarding the possibility to apply knowledge in professional training, students from 65 to 69 years appreciate most this option, followed by those aged 55 to 59 years, and thirdly, those in the age between 60 and 64. It could be interpreted that thy appreciate the opportunity to continue in the job market or apply their knowledge to a correlated activity. On the second answer, respondents who have reviewed this statement, that is, they feel more secure, meet with people preferably 70 to 74 years. Also, respondents between 55 and 59 think so too. Although in general there is disparity in the responses and the percentages are fairly distributed among all the options.

Finally, the variable 'live alone' and the use of ITC reveals the following evidence. Regarding the use of technological devices such as mobile phone, computer, Internet access, digital camera, video camera, webcam, printer and scanner is higher in students not living alone. However this result is contaminated in the sense that most of our respondents live with family members. Thus, it should be noted a slight increase of computers in students who live alone whereas in the opposite case, students living with other family members have a greater use of video cameras, webcam and scanner. The profiles indicate a relational use in the first case and a shared use in the second.
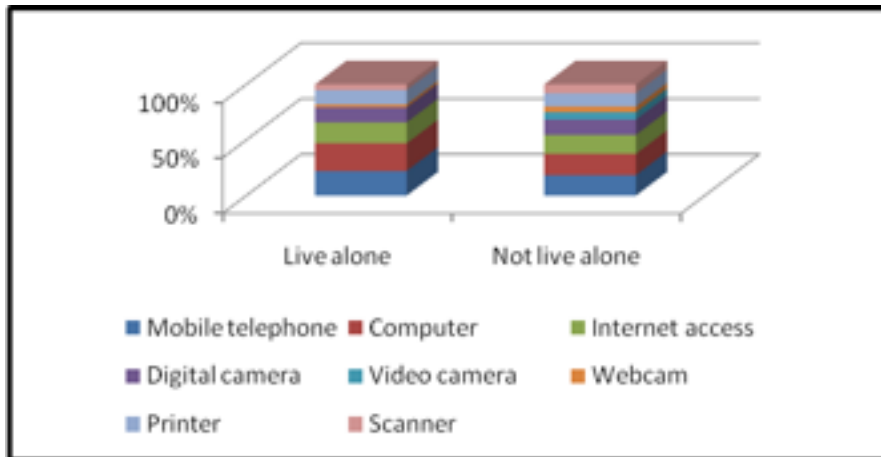
Typing this up to the results of the questionaire, it is difficult to support the hypothesis that relates intensive use of ITC and social isolation. It is true that there are some tendency replacement but also correlated with the age factor. Thus students living alone are more interested in learning. With these premises, the function of entertainment increase these uses. Leisure time and lack of company impose an alternative use of the computer, that is, for enjoying.

The relationship between the number of hours on the Internet and the variable "living alone" doesn't have differences in the time intervals studied except the consumption of one to two hours. This range of time shows that students who live alone just makes more frequent use in this interval than those who live with somebody.

Finally, the application of the potential of ITC to e-working is apparent both in one and the other subgroup. Respect those who live alone have expressed their full conviction of the possibilities E-working, over those who live in the company. We understand that the increase of possibilities related to the increase of time available, a prerequisite for the use of ICT is both intensive and extensive.
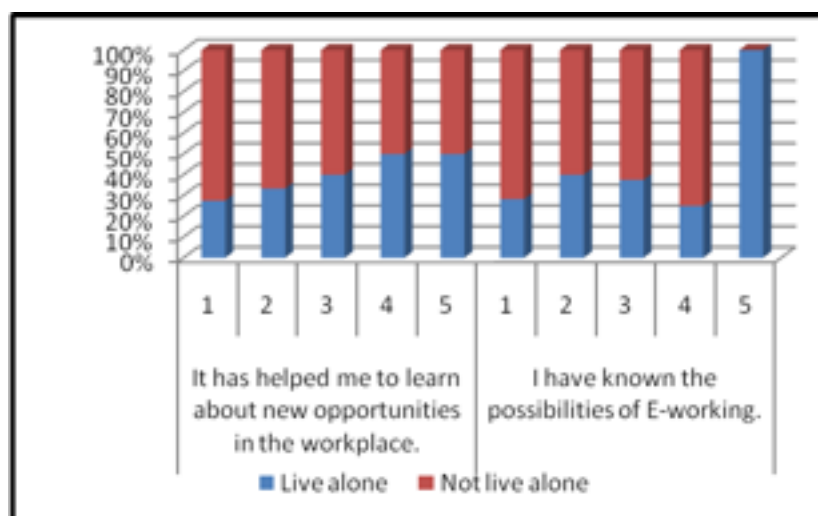
Study of ICT usage

Respondent group

Age structure changed in Hungary from 1901 to 2050, especially because of the growing size of the elderly population. The average age of population also rises and the proportion of children is decreasing. T he old-age life expectancy is continuously increasing, but working population is decreasing , and the consequences of this have to be handled by societies.

ICT is a core component of the knowledge society and a tool for modernisation and improvement , that's why the education of ICT-skills over 45 became very important.

The Hungarian respondents to E-com 45+ study were mostly from the capitol or nearby, as the study was carried out among the older students attending various courses. We had 22 participants, 50% men, 50% women, but it was different between the beginner and the intermediate courses.

From the analysis of the age groups resulted that the age interval was larger in case of men participating in the training than in case of women participants. The oldest participant in the men's group, an 80 years old man was a member of the beginner group. Among women, most of the participants belonged to the 55 – 65 years old age group. In the beginner group male participants were mainly older than 60, in case of the intermediate group male participants were mainly aged about 50. The youngest participant at the course was female.

During the first half of 2010 we organised 2 ICT courses in Nagykovácsi. The participants were divided into two groups based on their ICT knowledge: beginners and possessors of basic knowledge and skills (intermediate group). The course lasted 25 lessons, 2 times a week for 8 weeks, the last lesson is the exam - 3 questions via e-mail and they have to send the answer via email back.

68% of the participants at the courses were married. There was 1 widower in the group, but the percentage of this marital status did not have a significant importance in the group.

The biggest number of students will be motivated to learn ICTs for becoming more active in life and improve their social network and activites.

According to the answers to the first question the proportion of those married was 68%, and most of the participants, 86%, lived in a relationship. A high percentage of participants living in a relationship were married. Only 10% of the learners lived really alone.

The learners possessed different educational backgrounds. All participants had at least middle level studies. There was a high percentage (41%) of people with university studies. In the beginner group the percentage of graduates was higher than in the intermediate group. In the intermediate group there were several learners with only middle level studies. This data will be relevant for taking into account their background knowledge and potential motivations.

Internet use – gender differences

It is interesting to note that the amount there is no difference between the computer usage of

men and women, and there is only a little difference in the internet access.

Internet use – hours

Male respondents answered that they are using internet more actively than female respondents. 63% of men were using internet for 6 or more hours per week. For the women around 50% were using internet less than 2-5 hours.

Compared to the various categories and age groups who use the Internet, people spend a great deal of their day by using the Internet. The most popular activities on the Internet are:

- correspondence (both sexes)
- **reading digital newpapers, watch TV or listen to radio online mostly in the circle of men**
- participate in social networks (men)
- working at home as that is their ordinary workplace) (men)

The less common activities on the Internet:

- On-line banking operations
- buying goods over the Internet - online shopping
- online administrative operations
- chat rooms and participating in discussions
- working at home (their workplace being somewhere else)
- creating websites and blogs

Use of different IT-equipment

According to the analysis of the chart, the hungarians aged 45-64 years have facilities to use all the IT infrastructure equipment which were proposed by the authors of the study except video camera, webcamera and scanner which are used only less than the 50% of the participants.

The ICTs devices the students use most frequently are:
- (a) mobile phone, a group of 95,5%,
- (b) PC, a group of 82%,
- (c) internet, a group of 86,5%,
- (d) digital camera, a group of 64%,
- (e) digital videocamera, a group of 45%,
- (f) webcam, a group of 23%.
- (g) printer, a group of 68%, and
- (h) scanner, a group of 28%.

These results give evidence that the group is confident with new technologies and enhance the motivation to follow the E_com45 course to better ICT skills.

Interest in learning

Most of the people is interested and would like to know more about mobile phone, computer, internet access, digital camera, printer but they are not really interested in video camera, and they do not want to know anything about webcam and scanner.

Conclusion

On the basis of an analysis of the survey, it turns out that the hungarians generally open to adopt new technologies and are also willing to use these technologies in everyday life. Men in older age group are more active in internet use than women and are also more willing to enhance their knowledge about various technologies.

ITALY (FNP-CISL)

1. Organization general information
The National Federation of Pensioners (FNP) is the Union for the retired and the elderly people affiliated with the Italian Confederation of Workers' Trade Unions (CISL). It was founded in 1952. The FNP is one of the most active members of the European Federation of Retired and Elderly People, FERPA, located in Brussels. There are over 2,201,150 members in the FNP living in Italy and other countries.
The FNP represents an opportunity for senior citizens and retired individuals to continue to commit themselves and to participate in important activities.
Besides offering services like the Union itself, bargaining and labour dispute protection at local and national levels (municipalities, districts, departments, NHS trusts and transport firms), the FNP provides a variety of services and is concerned with developing and carrying out intensive scientific, training and research activities.

2. Training activities
The courses and training activities are focused on trade union issues, such as bargaining and dispute, FNP organization and structures, socio-healthy politics, welfare, and so on. Most of them are taught in the Florence National Studies Centre, the CISL training centre founded in 1951. In 1990 was created the "FNP School for Union Training", which offers long life learning and training courses for FNP cadres and executives.

2. Target group
The Italian study group (23 people), is composed by members of the National Federation of Pensioners (FNP), a trade union for retired and elderly people. Around half of the survey participants was employee of the FNP headquarter in Rome, with ICT skills adequate to their job tasks. The remaining, our specific target group, were retired people, still very active in their social life, that collaborate on voluntary basis in the smallest local structure of the trade union, called "lega".

3. Age and marital status

The average age of the participants strictly involved in the project is 60, ranging from 58 to 68 years old. Although the majority is represented by females, the gender composition of the group attending the course is more balanced.

In our case, there is a very high percentage of married people, 74%. We have to consider that FNP has a Catholic inspiration, so marriage is still considered an important institution, even more in the age group involved in the project.

Only one person in the target group declares to live alone. So, we can infer that, besides the married people, the large majority of widowed, divorced/separated or single people live with someone else, within the family, with children or relatives or chose some cohabitation model.

4. Educational level

The majority of students are undergraduated, with a secondary high school educational level. It reflects, on one hand, the average situation of the retired people in Italy and, on the other hand, a low percentage of graduated trade unionists, especially of the "old" generation. Nowadays, the situation is gradually changing and a high educational level is becoming an important requirement, but for a long time the main appreciated skills and qualifications have been gaining experience in the field, that is to say, the trade unionist action and activity in the work place.

<u>Results of the analysis</u>

5. Motivation to attend the course

Considering that the main motivation of the group who attended the course was to develop the ICTs skills and to keep pace with new technologies and communication tools, the course given tried to improve their own confidence toward the ICTs instruments.

As far as it concerned the reason to improve their own ICTs skills, the participants expressed the need to feel better in their current activity, to feel more integrated in society, as well as they have considered ICTs a mean to widen their field of activities. It is interesting to notice that the use of ICTs is related to leisure time in a very low degree. One reason of this narrow preference could be that the target group has not yet a deep knowledge of the possibilities offered by ICTs even to better, enrich or to ease the own free time. The age and the role of the target people in FNP lead to concentrate the replies on two main aspects: the contribution that ICTs can give to improve the performance of the job and social inclusion.

6. Use of ICTs instruments

The ICTs devices the students use most frequently are:

(a) mobile phone, a group of 95%,
(b) PC, a group of 89%,
(c) internet, a group of 84%,
(d) digital camera, a group of 68%,

(e) digital videocamera, a group of 42%,

(f) webcam, a group of 47%.

(g) printer, a group of 47%, and

(h) scanner, a group of 42%

These results give evidence that the group is confident with new technologies and enhance the motivation to follow the E_com45 course to better ICT skills.

7. Crossing data analysis

The data analysis has focused to cross some characteristics of the target group (i.e. age, gender, level of education...) with ICT interests, habits and the competences owned by the interviewees. This section presents the most relevant results concerning such an analysis.

For the specific nature of the Italian target group, the most interesting and relevant crossing data are the ones which include "age" as comparison element. Therefore, we tried to concentrate upon those graphics which better reflect the peculiarities and features of the case study group, i.e. uses of computer and Internet.

As for the use of computer, a high percentage has a basic knowledge of word processing, spreadsheet and database. However, we noticed that getting older they are more interested in tools such as Photo retouching (Photoshop, Gimpa) and Bank management/Accounting. This is especially true in the range age 65-69, where almost a half declares not to use them but expresses a desire to learn, while the other half declares to use them in a basic form. It seems elderly people want to become more independent and reach more awareness of the bank and expenses processes, as well as they want to approach technology tools for familiar or personal interests, for example to collect or modify sons and nephews picture, or their own pictures.

Relation Age – Uses of Computer

1: I do not use and does not interest me.

2: I do not use but want to learn

3: I use this basic form.

4: I use it pretty well.

Photo retouching (Photoshop, Gimpa)
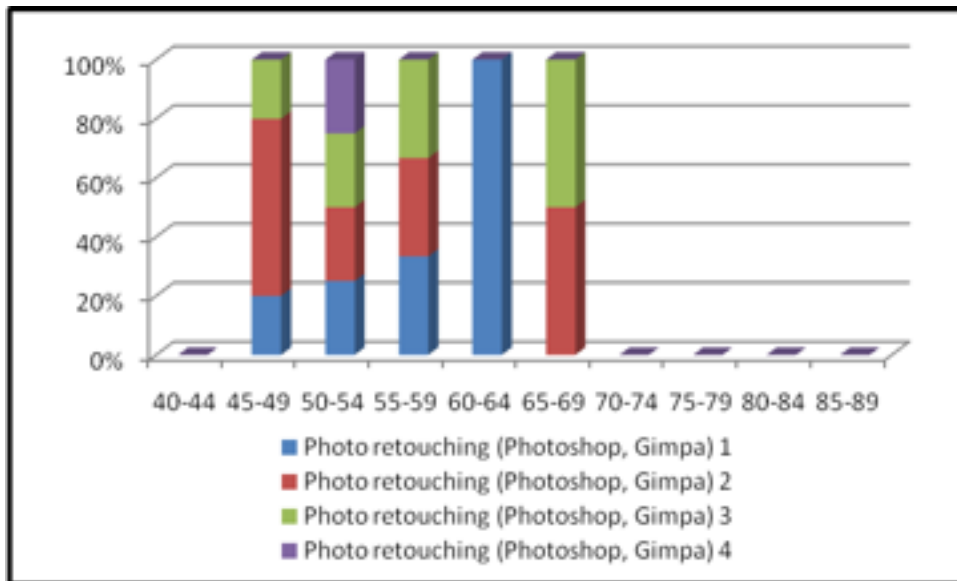
Bank management/Accounting
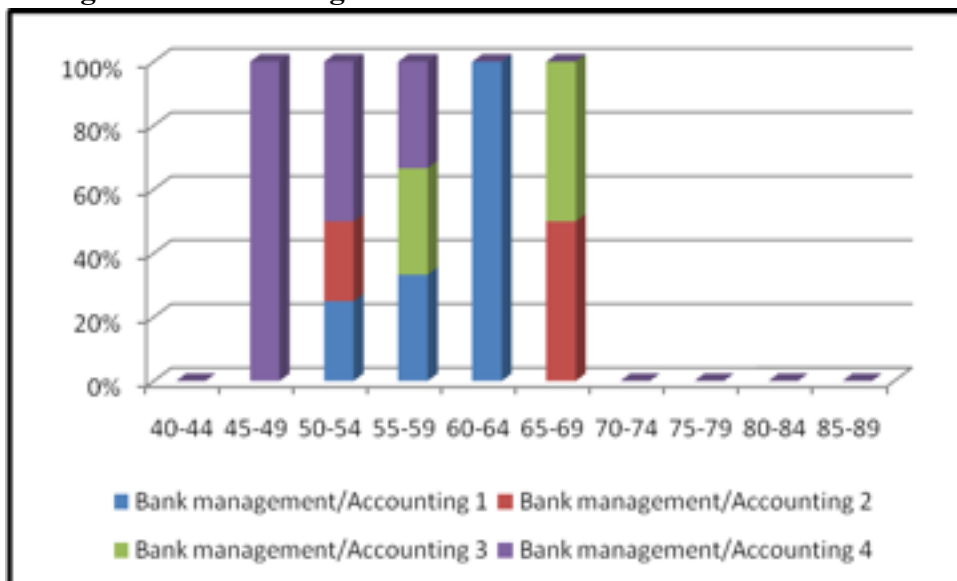
With regard to the relation *Age – Uses of Internet*, we can say the most used tool is the e-mail, passing from the 50-54 years old range group, that uses it pretty well, to the 65-69 years old range group where half of them use it pretty well and the other half in a basic form. It is important to focus that it is quite common using the e-mail as a widespread way to communicate.

It is to be noticed also that from 65 to 69 years old people, grows the interest in participating to social network too, as well as in using internet for on line banking operations or to buy goods and services. In this age group, some of them are already

able to use internet for this purpose, and others are not able would like to learn. In this case, especially in relation with on line banking operations and good and services purchasing, people demonstrate to prefer home banking than standing in the queue at the bank, one important reason being the mobility problems involved with the ageing process.

Participate in social networks.
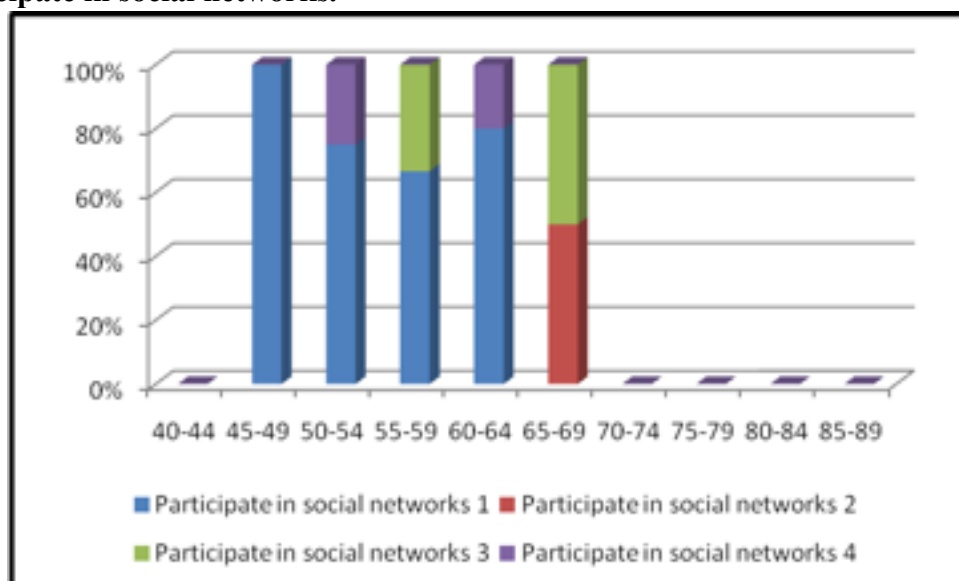
On-line banking operations (payments, transfers, etc.)
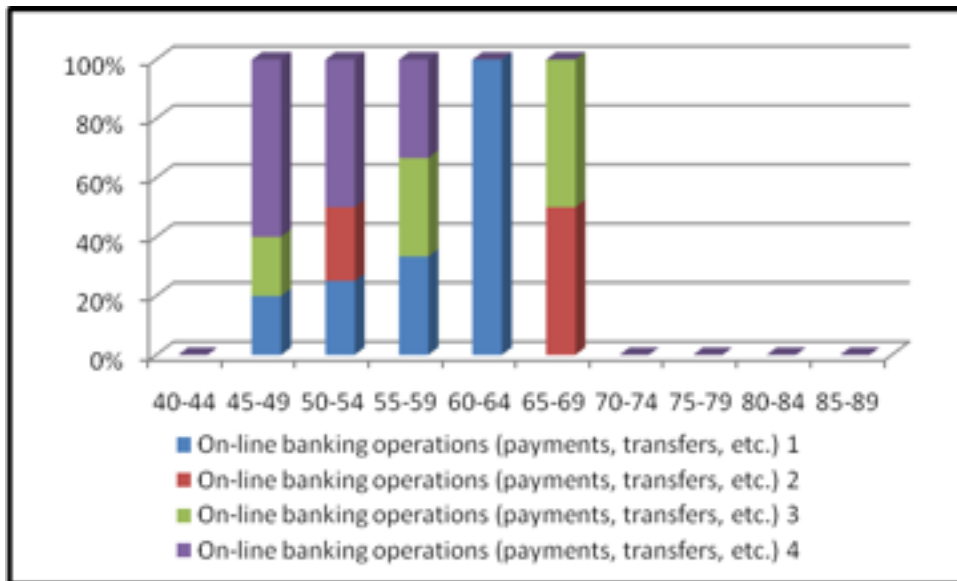
Buy goods and services on-line
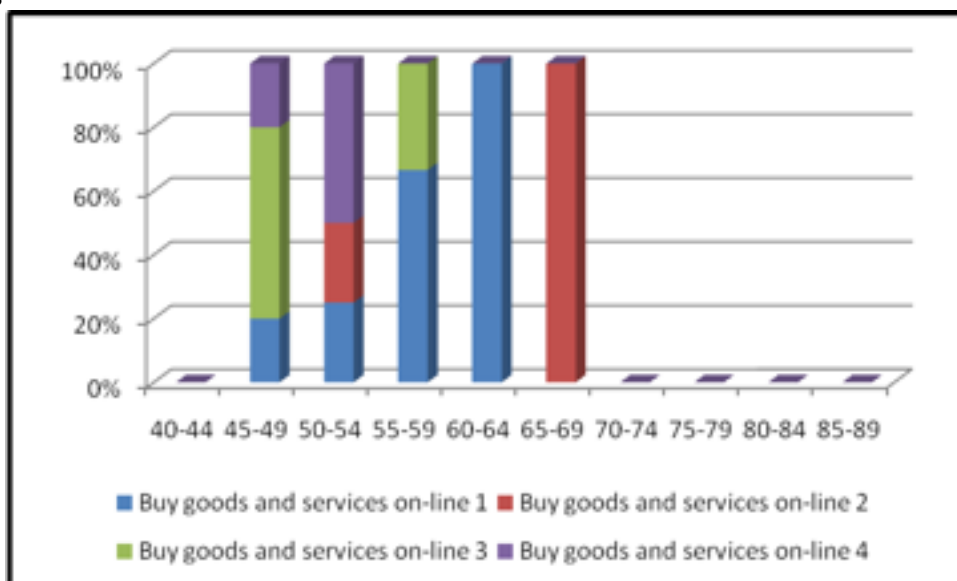
Another relevant point is the relation *Age – Weekly hours in Internet* from which it is possible to infer that the older you get the more you use internet, almost all people over 55 declare to spend an average time from 6 to 10 hours to surfing.

Relation Age – Hours in Internet
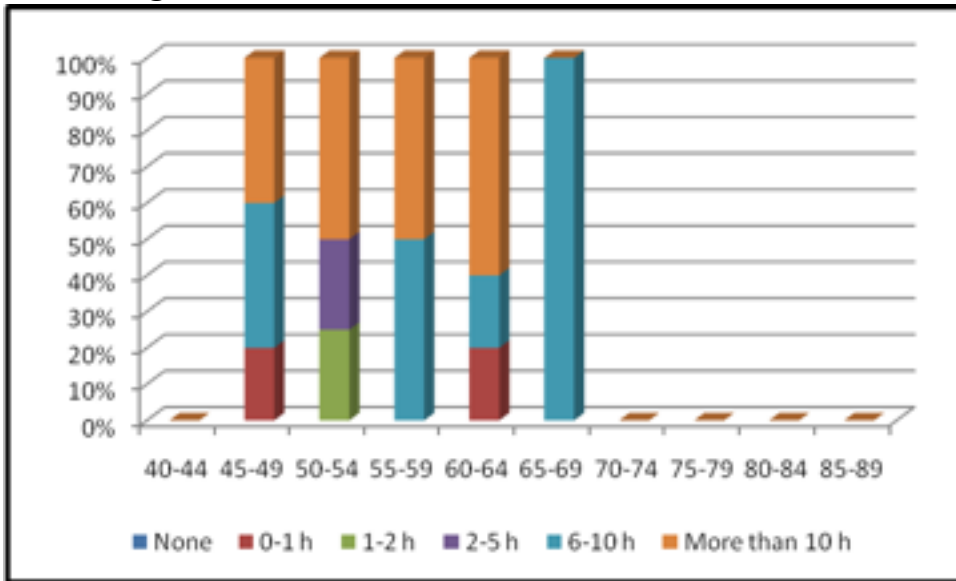
Some conclusions

As mentioned before in relation with the use of the computer, the students use internet especially for the e-mail. They are able to use internet pretty well also for both getting information for work and for leisure. In general they show a low degree of interest in internet possibilities such as social networks, forum, chats or on line courses. On the contrary they are interested to improve their skills for using internet for shopping online, for carrying out administrative or banking operations. Some of them already uses internet for reading the newspapers on line or listening to the radio.

Moreover, we can argue that the above mentioned characteristics give evidence the Italian target group uses pc in a basic way both for internet or to prepare documents in word or excel. The use of pc is quite constant. It allows the interviewed to keep a certain level of trust in the use of pc, even if most part of them need the support of relatives and workmates in case of uncertainty.

They should be encouraged to experience the advantages the ICTs devices can offer to better their daily life, in terms of socialization or as a useful way to ease for example bureaucratic issues or medical examinations.

Summing up, the opportunities offered by internet not only attract the millenium generations of current teenagers, but more and more elderly adults appear to be interested to exploit such opportunities. What is the difference among these extrems groups? The youngest ones are familiar and look to be born on the web, the oldest ones have to make more effort to use ICT, spend less time on it and are interested in more practical and useful sites than on social network.

An intergenerational approach among the two generations can reduce the effort of elderly people and increase their interests decovering more an more opportunities offered by the web. Often, it is the intergenerational exchange among grand parents and grand children that have promoted the spread of ICT competences among elderly people. The desire to be in contact even if they are far, to watch their videos and sharing pictures has a positive impact in such a sense.

ESTONIA (Pärnu Vocational Education Training Centre)

Study of ICT usage

Respondent group

The Estonian respondents to E-com 45+ study were mostly from Pärnu region, as the study was carried out among the older students attending various courses at Pärnu Vocational Education Training Centre.

It is important to note that the individuals participating in the study were often attending the courses because of availability of free training from Estonian Unemployment Fund. A high percentage of respondents was unemployed and this might have influenced the results of the study.

Internet use – gender differences

It is interesting to note that among our survey respondents (45 + people from Pärnu region) the amount of internet use by females was higher than by males.
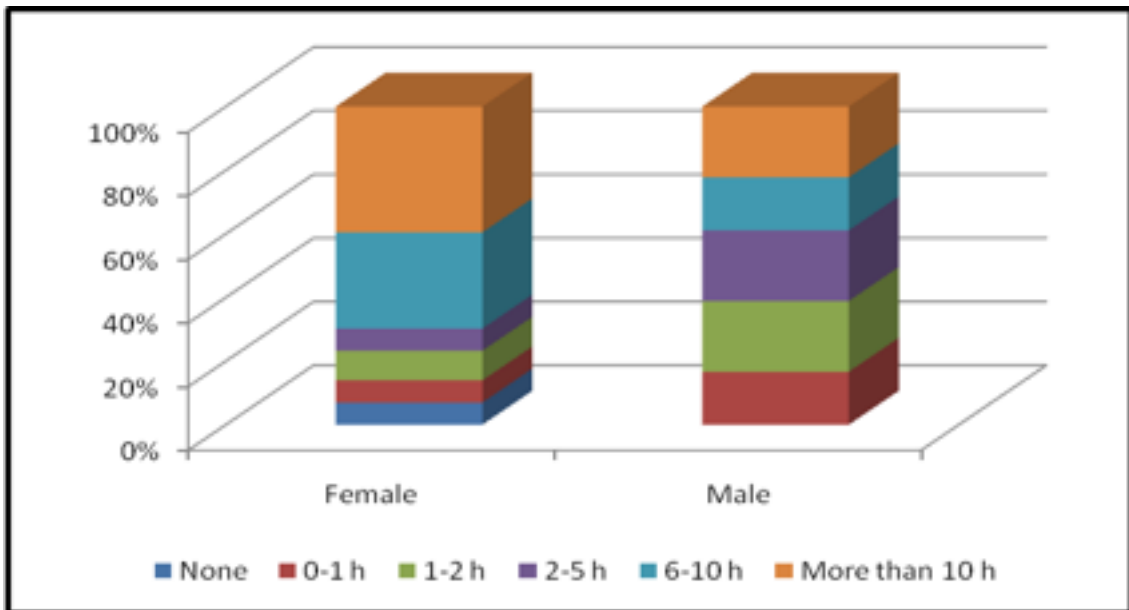
Female respondents answered that they are using internet more actively than male respondents. Almost 80% of women were using internet for 6 or more hours per week, whereas for the men around 50% were using internet as actively.

Internet use – hours

When looking at internet use according to age group of respondents, then we can see that in our sample most active internet users tend to be 50-54 years old.
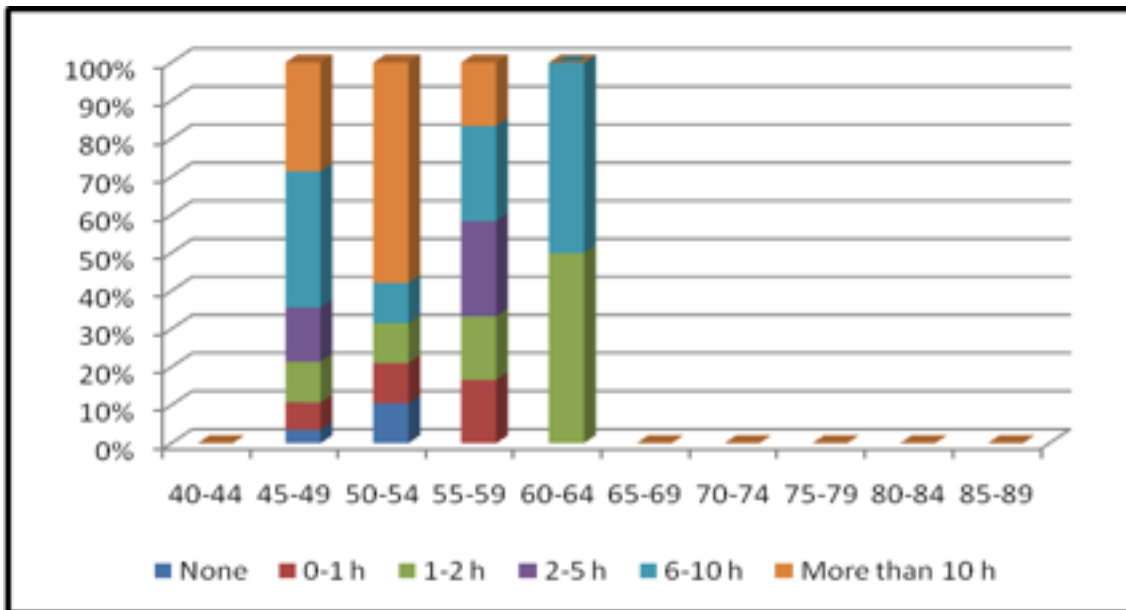
Relatively younger age group (45-49) and also older age group (55+) seems to be less active in internet use. This result might have been influenced by specific background of some of the participants of the study (unemployed).

Compared to the various categories and age groups who use the Internet, people spend a great deal of their day by using the Internet. The most popular activities on the Internet are:

- personal Internet banking - bank transfers, bill payments etc;
- finding pleasure in information seeking;
- reading the online newspapers;
- sending and reading messages.
- listening to music, watching movies and TV

The less common activities on the Internet:

- taking up an online education or hobby education course;
- buying goods over the Internet - online shopping
- distance working - combinations of audio, video and data interactions;
- reading and updating blogs;
- chat rooms for text and voice interactions.

Use of different IT-equipment

According to the analysis of the chart, the Estonians aged 45-64 years have facilities to use all the IT infrastructure equipment which were proposed by the authors of the study. With the exception that the oldest age group (60-64) does not use a webcam and a scanner.
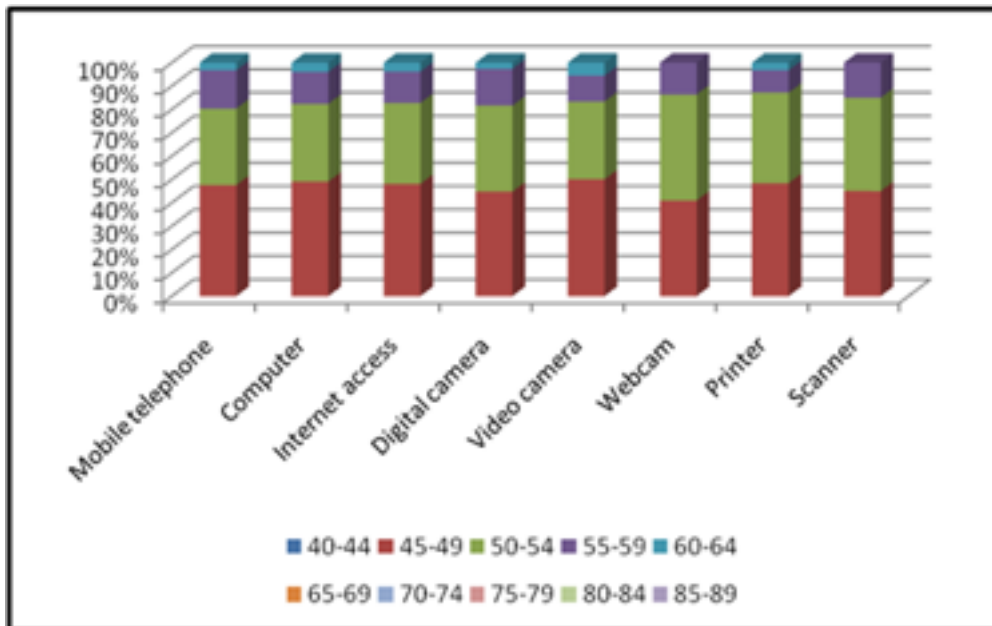
More than half of the age group 45-49 are using ICT equipment compared to participants from the age group 60-64 with percentage of about 5.

At the same time, the same survey was carried out among young learners at Vocational Centre of Pärnu County (aged 15-18) and the percentage of young learners who use IT technology was more than 90% of all different ICT technologies. The percentage of the use of mobile, computer and the Internet was 100%.

The accessibility of the use of the Internet is a very good, since, for example, all public libraries have computers with Internet access, wide range of catering establishments have free wireless internet free of charge for public use, in addition to the public Internet access points, where you can also have the access to the Internet free of charge.

Interest in learning

Male respondents of the study group are less interested in learning more about ICT-technologies and participating E-learning courses than female respondents.
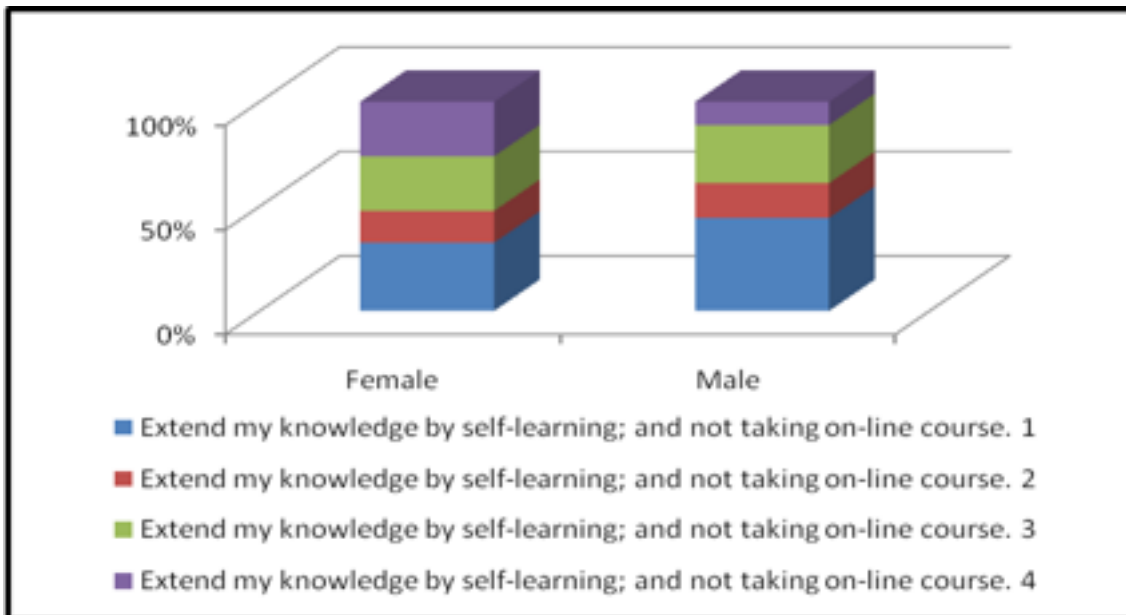
Conclusion

On the basis of an analysis of the survey, it turns out that the Estonians are keen to explore the potential of technology. We are generally open to adopt new technologies and are also willing to use these technologies in everyday life. Women in older age group are more active in internet use than men and are also more willing to enhance their knowledge about various technologies.

First part of questionnaire

The first part of the questionnaire below tracks the usage of ICT devices and technologies by gender in the population of people being 40 years of age and older.

1. Relation Gender – ICT devices in households

The graphic 1. shows that more women than men (the average for all ICT devices around 60,6% for women and 39,4% for men) declare having ICT devices at home. There are over 60% of women declaring having a computer at home.
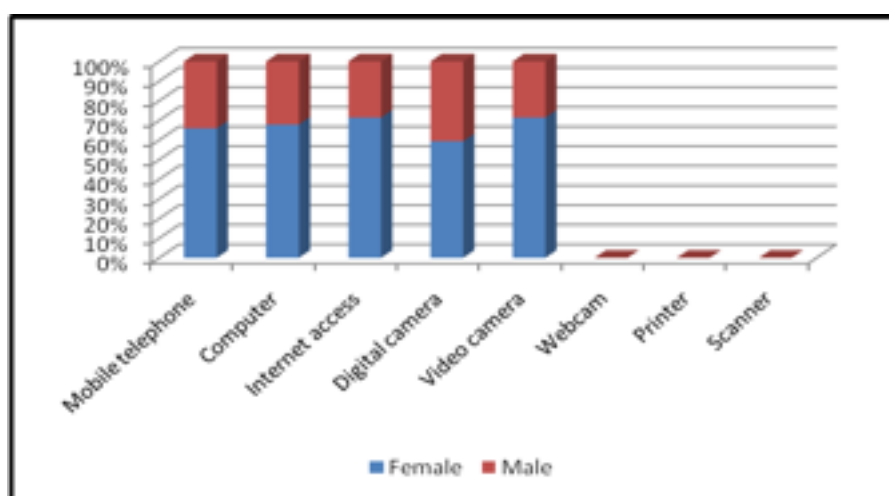
Fig. 1 ICT devices in household by gender

2. Relation Gender – Use of Computer

As to the usage of various computer applications by gender we can note the following. The general overview shows that knowledge of different computer applications (word processing programs, spreadsheet applications, data management programs) is better among men than women, this assessment applies to every computer application of widespread use mentioned in the questionnaire. At the same time among those who do not use these applications men are more eager to learn them than women who declare rather not to use these programs and not to be interested in.

While photo retouching program is rather used by women (10%) and not used by men the latter are still more interested in learning it.
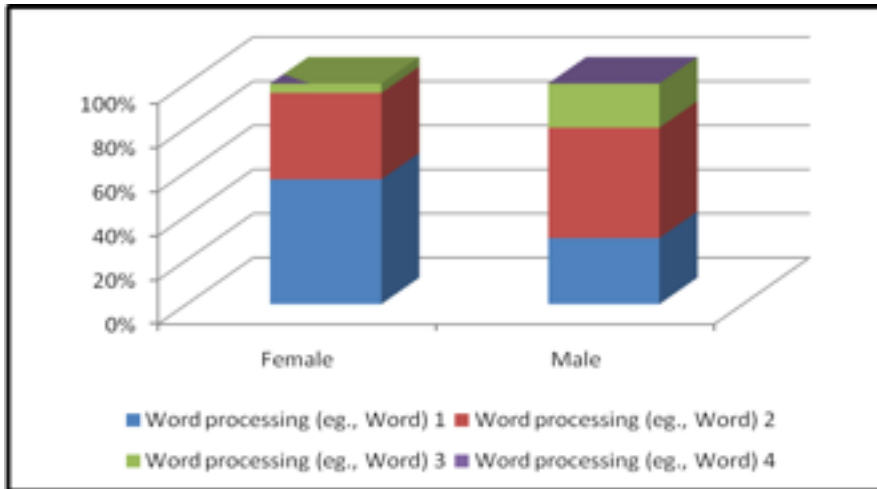
Fig.2 Use of computer by gender : Word processing programs
(Word Office, etc.).
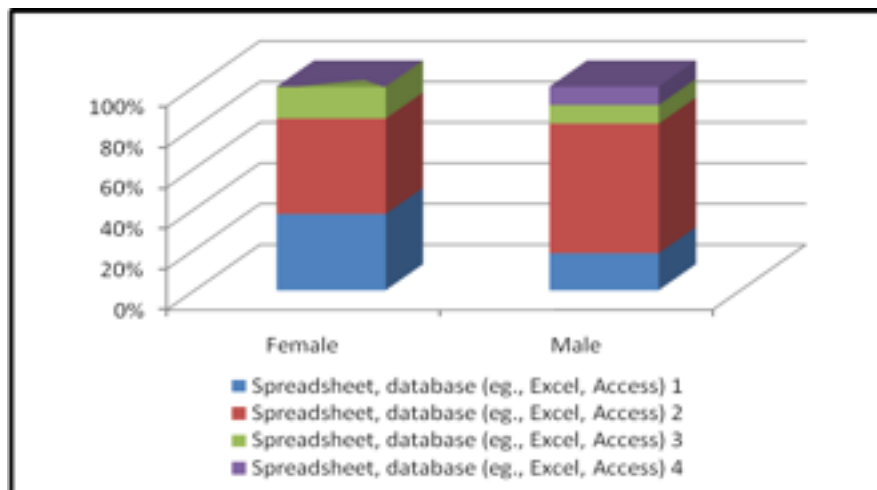
Fig 3. Use of computer by gender : Spreadsheet, database applications
(Excel, Access etc.).
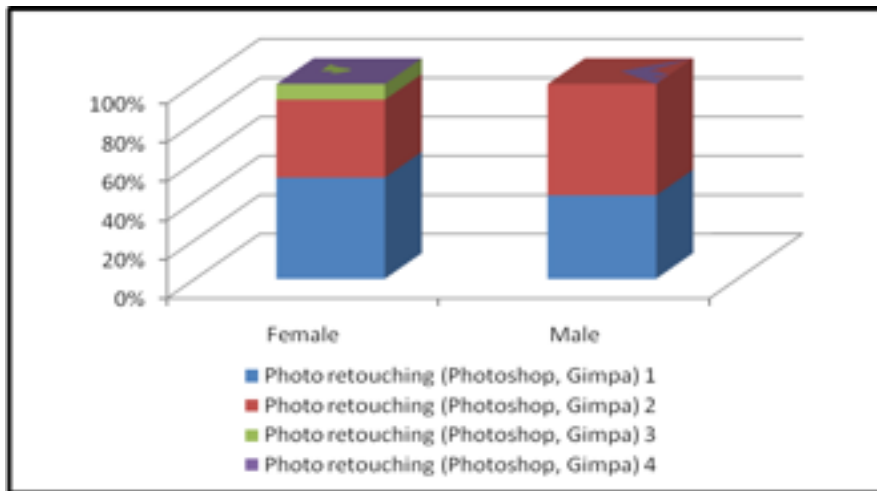
Fig 4. Use of computer : Photo retouching applications.

Both groups use computers for multimedia purposes. In this group women are more likely to use computers (35%) than men (30%), but they declare having rather basic knowledge of this usage (around 30%). Once again we can observe that men are much more interesting in learning new applications than women.
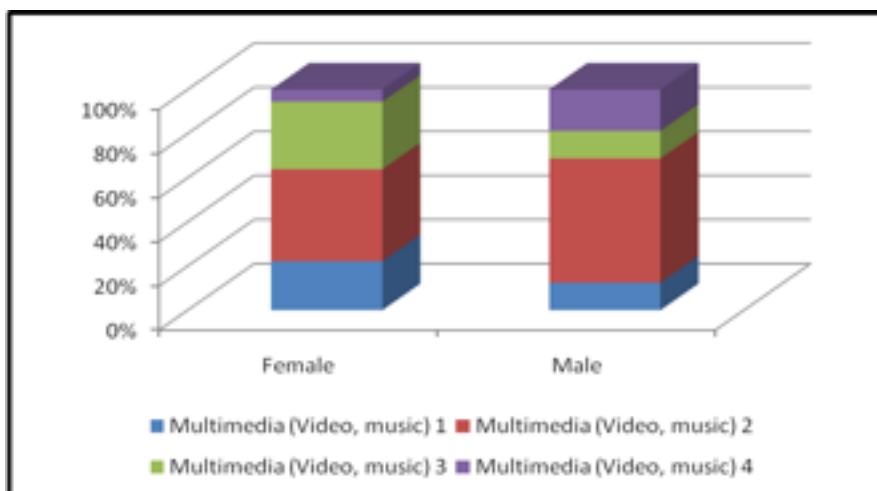
Fig 5. Use of computer by gender for multimedia purposes.

3. Relation Gender – Use of Internet

The figure 6 shows clearly that men use much often Internet to get work-related information. They are 60% to do so, while over 80% of women declare not to use Internet for work purposes and more than half of them is not interested in using Internet for work-related activities.
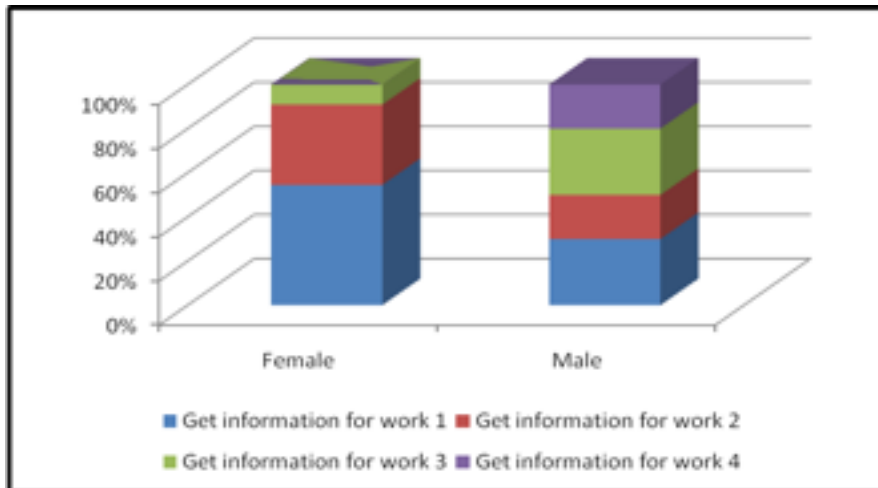
Fig. 6 Use of Internet by gender for work-related purposes.

As we can see on graphic 7 there are more women than man who use Internet in odrer to obtain information for leisure activities, but they declare having only basic knowledge about how to do it.

Among those who do not use Internet to get leisure-related information, men are much more interested in learning the know-how in this field.
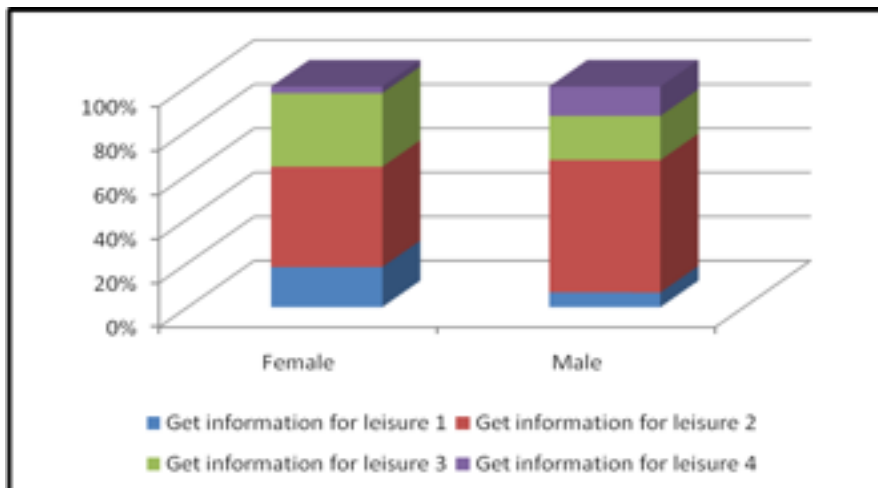
Fig 7. Use of Internet by gender : getting information for leisure.

The graphic 8 show that women use more often Internet for take on-line courses. They are over 20% to use Internet for learning but do it in rather basic way, whereas men, when using Internet for learning, seem much more involved in. We could one again observe that within populations who do not take on-line courses form Internet men are much more interested in doing it or learning how to do it than women.
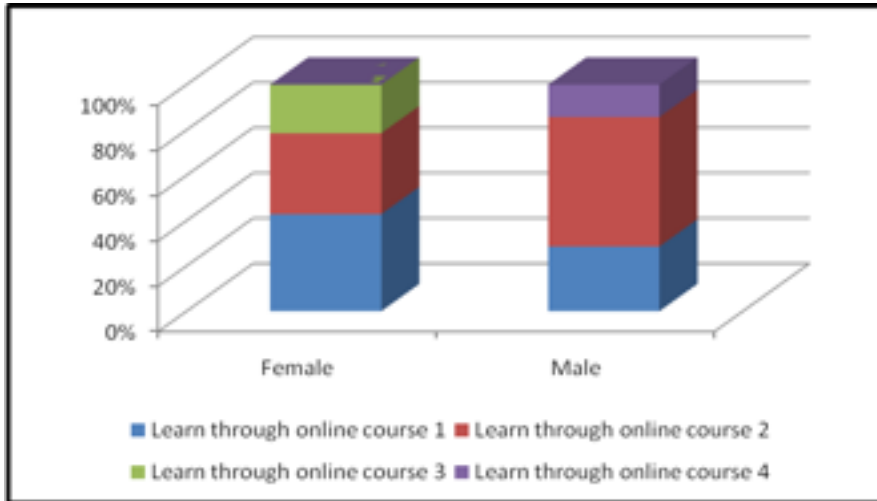
Fig. 8 Use of Internet by gender : on-line courses.

One can see that women and men are equal in percentage value in using Internet for extending knowledge. However, within those two equal groups (each of around 30%), women do it entirely in a very basic way whereas a half of men (circa 15%) do it rather pretty well. What is quite interesting is the fact that among both (women and men) populations, those who do no use Internet for extending their knowledge, women are much more curious about learning it.

Fig. 9 Use of Internet by gender : extending knowledge through Internet and not taking on-line course

As to the usual use of Internet for e-mail correspondence we can note that this use is almost equal (around 40%) within both groups. Men use e-mail pretty well, while women have a rather basic knowledge as to the use of Internet in this way. Men are slightly more interesting in learning more on e-mail correspondence.
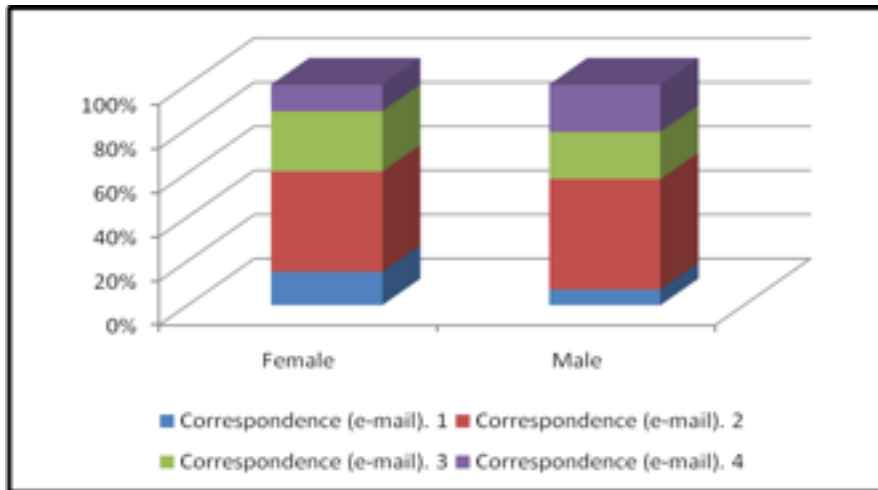
Fig. 10. Use of Internet by gender : e-mail correspondence.

A big number (about 43% for men and 43% for women) of respondents use Internet for media matters. We can observe that the proportion of those who used to use it pretty well is rather insignificant compared to those who admit to using it in a very basic manner (which is of about 22%). Within the group of non-users (circa 57%) the proportion of those who don't use Internet for media matters, but would wish to learn, to those, who don't use Internet in this way and are not at all interested in, the proportion within two groups are much the same, respectively of 43% and of 14%.
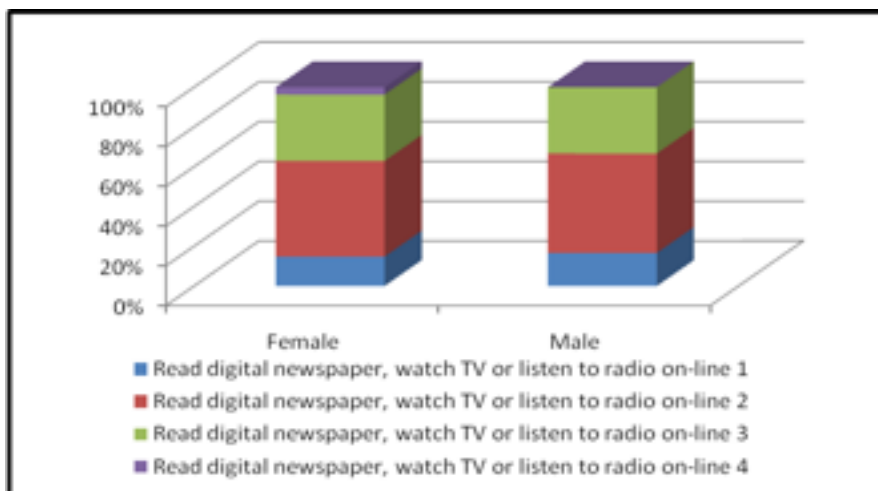
Fig. 11. Use of Internet by gender : digital newspaper, TV and radio purposes.

Figure 12 shows that women use more often Internet in order to chat or for discussion but do it in a rather basic way, whereas men, when using Internet for exchange purposes, do it pretty well. Almost 85% of men do not use Internet for chatting, but in this group they are over 60% willing to learn how to use it for this particular purpose. As far as women are concerned, they are around 80% admitting not using Internet for discussion with only 38% of them wishing to do so. The rate of women declaring not using Internet for chatting and not being interested in doing it is almost double of that of men.
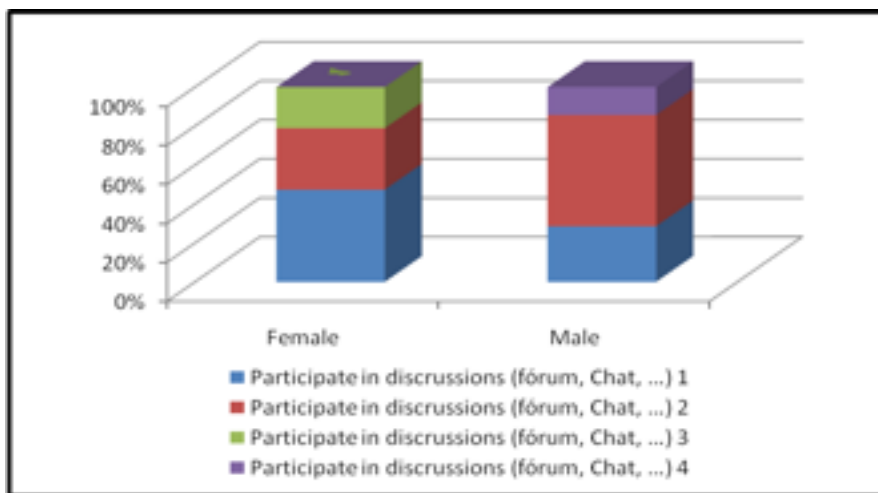
Fig. 12 Use of Internet by gender : Forum, chats, discussions.

The figure below shows clearly that men are less interested that women in taking part in social life on the web. More than 90% of them do not participate in social network but over 60% would like to use it for this purpose. Those who take active part in different web discussions declare doing it very well. Women who participate in social networks do it on rather basic mode. Among those who do not use Internet (which is around 80%) they are over 40% declaring no interest in it.
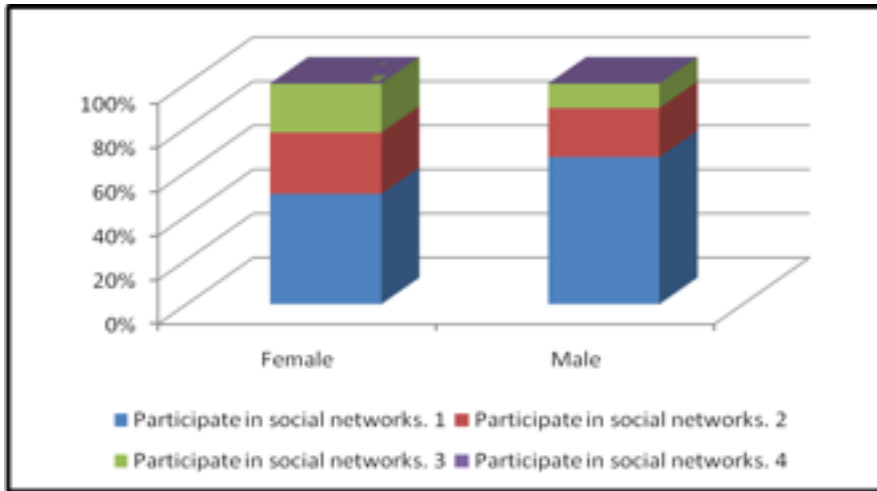
Fig. 13. Use of Internet by gender : participation in social networks.

As to the on-line operations some of the graphics below will show that use of Internet for these aims is less frequent than for other, rather leisure oriented activities.

The figure 14 shows that over 90% of men do not use Internet for banking transactions. Nevertheless, half of them declare being interested in learning it. Women seem knowing better on-line banking operations. Around 40% of them declare using Internet for this kind of operations but only about 5% do it pretty well.
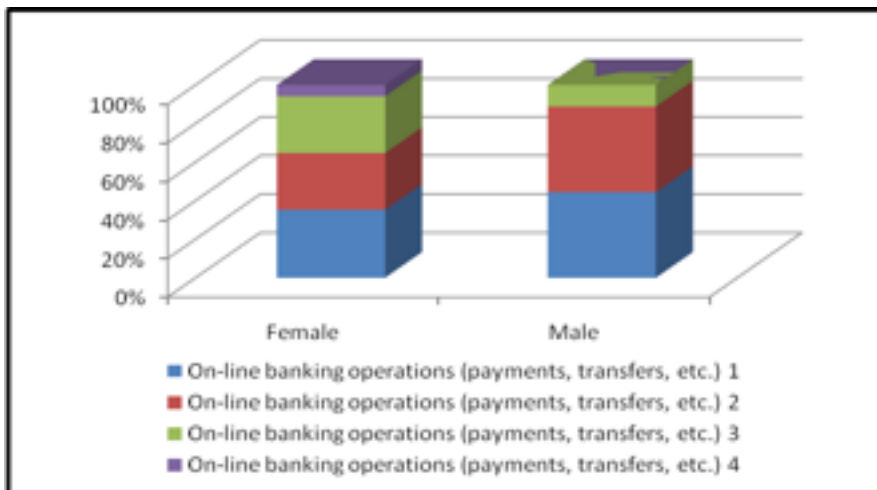
Fig. 14. Use if Internet by gender : On-line banking operations

When we look on on-line administrative operation we can observe that the vast majority of men do not use Internet for any administrative matters. What seems quite interesting is that they are almost 90% of those not using Internet but interesting in it.

Women use more often Internet for banking operations but are less willing than men to learn morz about it.
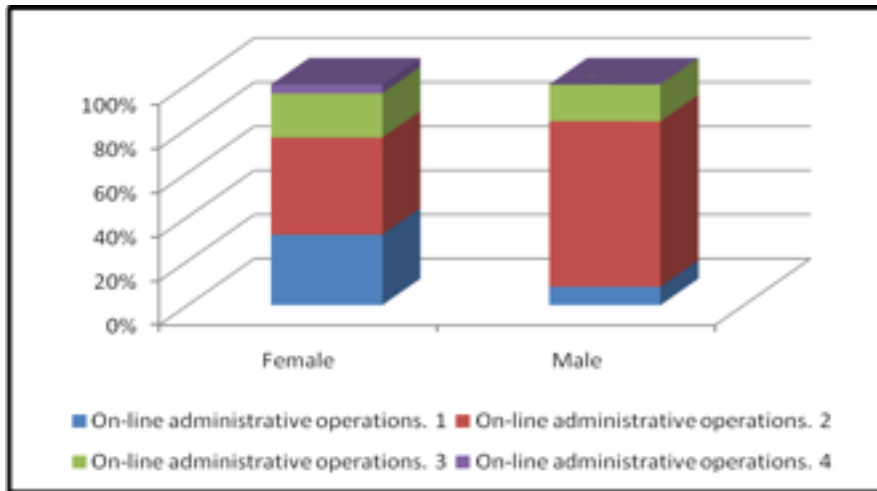

Fig. 15. Use of Internet by gender : on-line administrative operations.

As for using Internet for work at home the situation is quite different. Women never use Internet for work activities at home, while men about 20% of doing so in a very basic manner. Once again we can notice that men are more willing to use Internet at home for working.
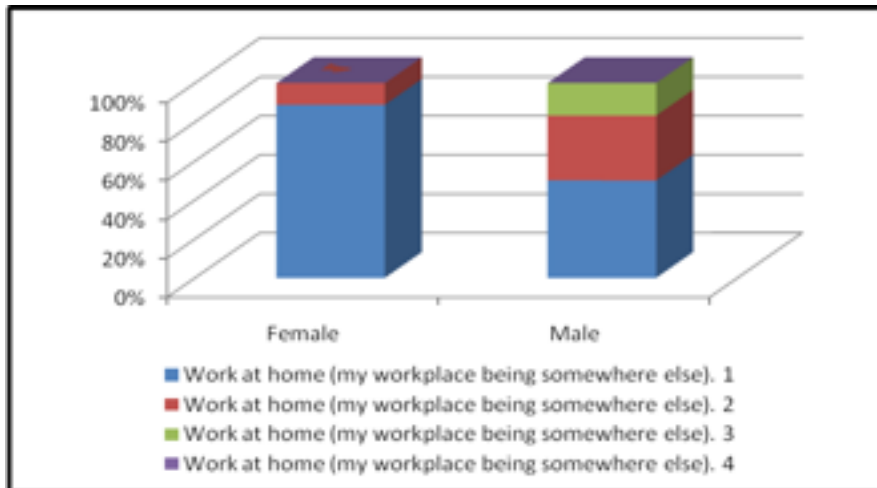

Fig. 16. Use of Internet by gender : Work activity at home (when home is not a workplace).

Women seem never use Internet for working at home. They declare not using Internet for working. Men who use Internet for working at home are around 20%.
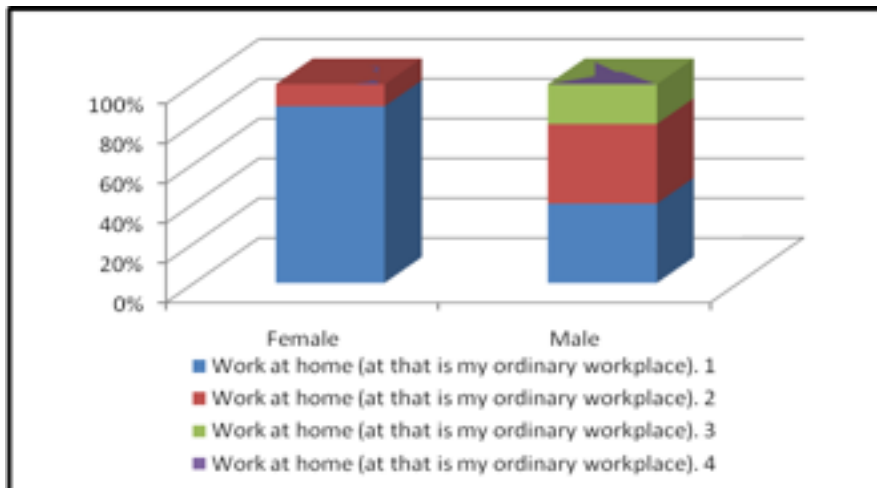
Fig. 17. Use of Internet by gender: Work activity at home (when home is a

workplace).

II. Second part of questionnaire

The second part of the questionnaire treats of the usage of computer and different applications by people being 40 years of age and older without taking into consideration gender aspects.

1. Relation Age – Uses of Computer

The results below show that the whole population between 40 and 44 years of age use word processing programs and almost all of them do it in a very basic manner. It is very interesting to note that seniors between 60 and 64 years old do not use word processing programs and are not curious about learning it and those over 80 years old while not using those programs declare being willing to learn it. They are very few, within each age group claiming to have good knowledge of these types of programs.
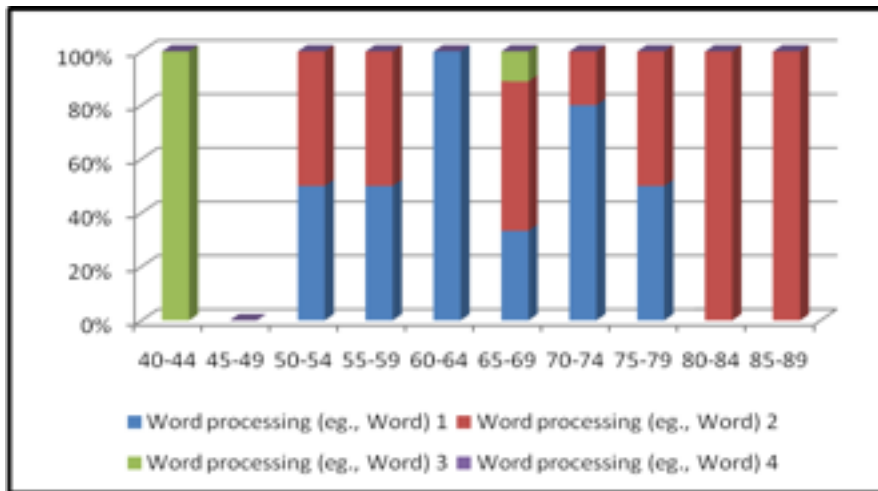
Fig. 18. Uses of computer by age : Word processing programs
(Word Office, etc.)

As to the spreadsheet and database applications, things look quite different. Within the population between 40 and 44 years of age, 100% of interviewed claim that they have very good knowledge of these applications. On the opposite site half of the seniors over 80 and all seniors over 85 do not use at all these programs and do not affirm being interested in learning them. In the group of seniors between 50 and 84, they are almost always (exception made by 50-59) around 50% declaring an interest in learning more about these applications.
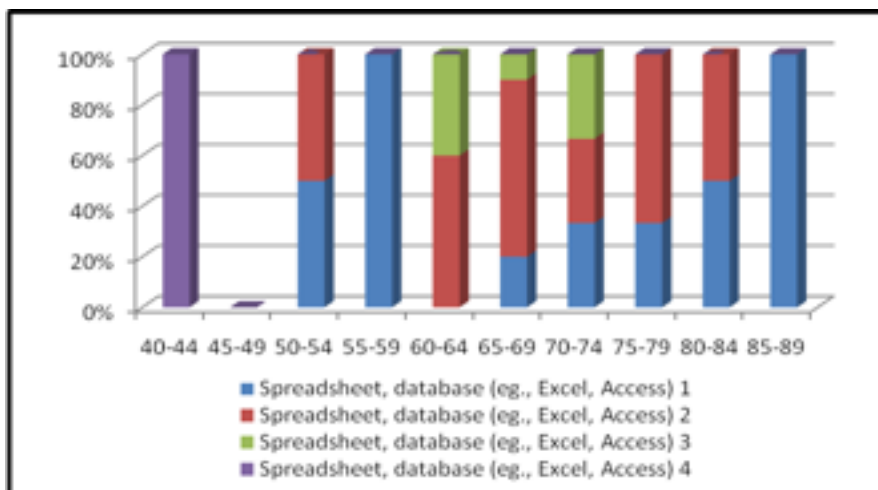
Fig. 19 Use of computer by age : Spreadsheet, database applications
(Excel, Access etc.)

When looking at the graph 20 we can notice that in almost every age-group there is a quantity of people who do not use photo-retouching but who would wish to learn it. In the group of 40-44 they are almost 100% interested in this kind of programs, while being rather around 30% in the other groups.
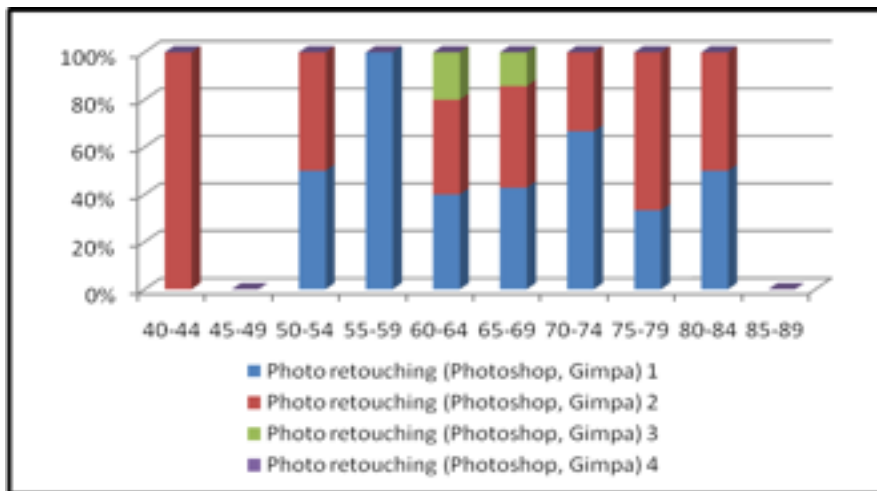
Fig. 20 Use of computer by age : Photo retouching applications

The figure 21 shows almost equal interest in multimedia-related programs. People in the rage age 40-44 year olds state having very good knowledge of these applications. In other groups we could observe some nedd (varying from 30-50%) for learning about these popular applications. In the set of people between 60 and 84 years old, there is always a group reporting knowing quite well programs for multimedia purposes.
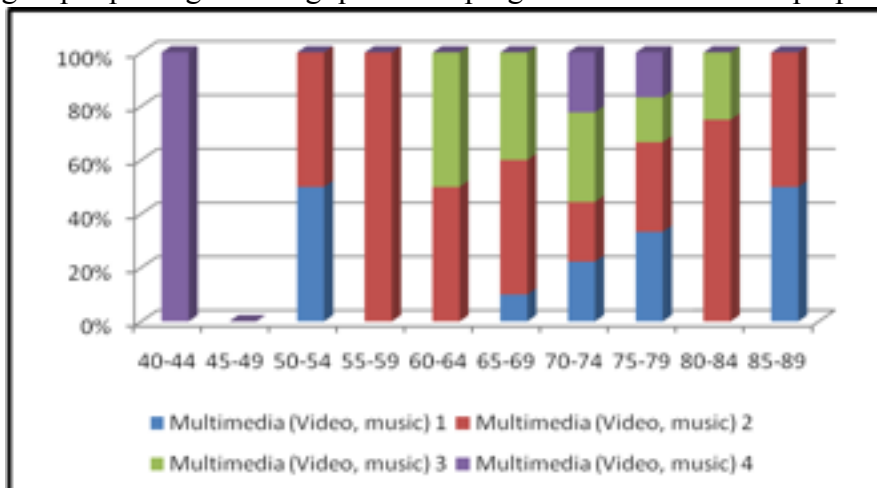

Fig. 21 Use of computer by age for multimedia purposes.

2. Relation Age – Uses of Internet

The figures representing the usage of Internet are quite different.

Analysing the diagram 22 we can observe that 100% of seniors between 40 and 44 years of age use Internet for getting some work-related information and do it rather pretty well. In the same way, 100% of seniors ranged between 80 and 84 years old use Internet for this purpose but do it in a rather basic way. Over 50% of people between 60 and 79 years of age do not get Information for work matters via Internet and do not wish to do it.
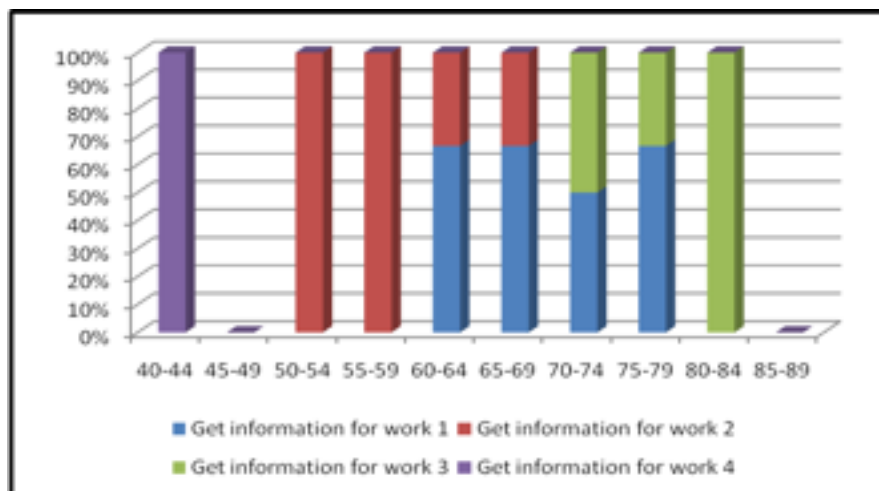

Fig 22. Use of Internet by age : to get information for work related matters.

When looking at the chart 23 one can notice that 100% of 40-44 years old use Internet in order to get information for leisure activities. The vast majority (with the average around 57,5%) of seniors between 50 and 89 do not use Internet for this purpose but is willing to learn more about it. They are very few not getting information for leisure and not wishing to know it better. We can observe equally that 33% of seniors between 60 and 84 years of age get information for leisure using Internet in a rather basic way.
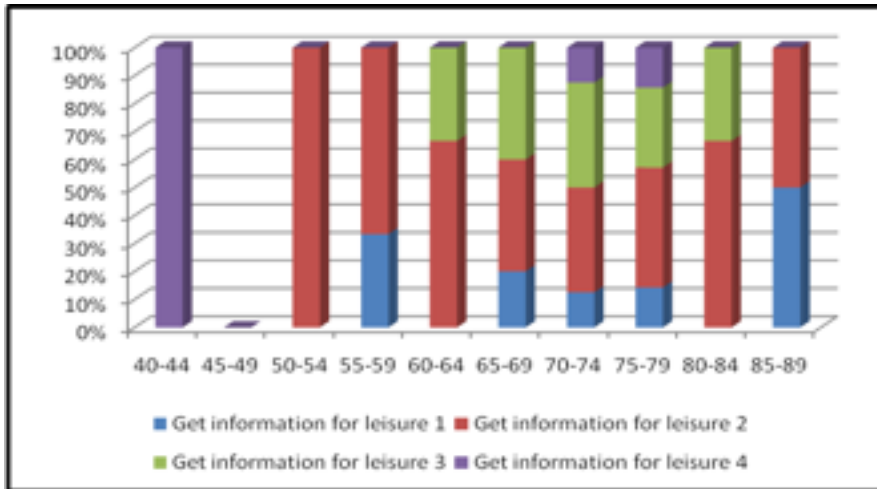
Fig. 23 Use of internet by age : to get information for leisure activities

According to the graph 24 of seniors from 50 years upward do not use Internet in order to learn from on-line courses. However, within two groups, those of 50-54 and 55-59 years old, they are 100% declaring their wish to learn through on-line courses. They are quite numerous (50% for 60-64 and 80-84 years old) to take some on-line courses.
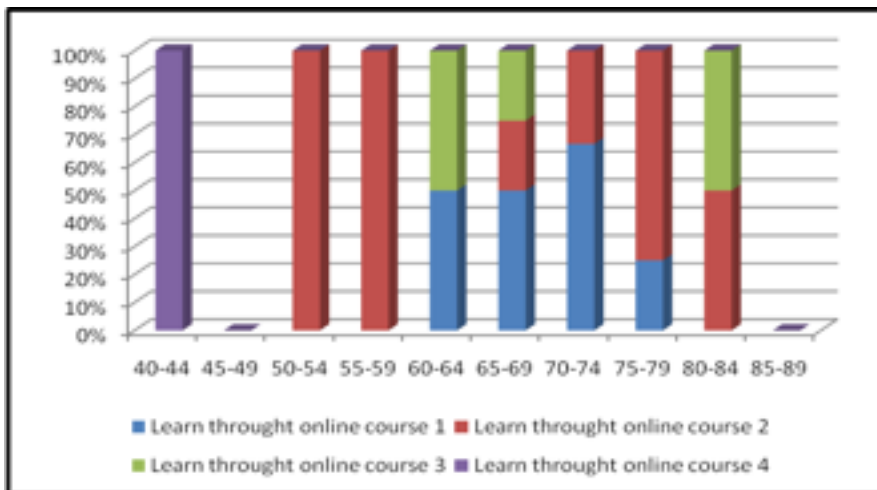

Fig. 24 Use of Internet by age : on-line courses.

As to the usage of Internet for self-education. In the whole population of seniors, they are very few (with the average of around 11%) to use Internet for extending knowledge. Among those who do not use Internet for this purpose, 58,6% declare being interested

in using Internet for self-education. Those who are over 85 years of age do not extend their knowledge through Internet at all and are not interested in doing so.
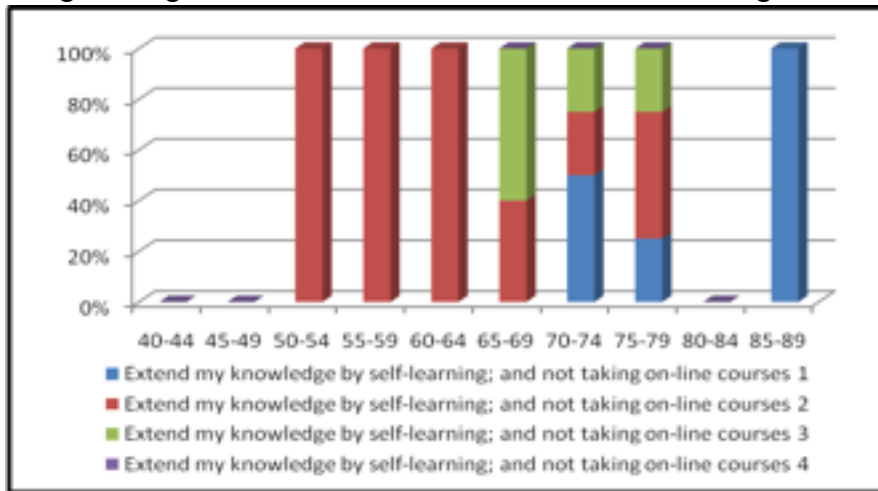

Fig. 25 Use of Internet by age : extending knowledge through Internet and not taking on-line course

The results on the diagram below show clearly that there is a vast majority of people above 50 years of age who do not use Internet for e-mailing (around 72%) and at the same time only a small minority of those populations who do not use Internet for correspondence purposes (17,36%) are not interested in doing so. In the same age group, they are only 28% reporting using the e-mail and around 8,57% doing it pretty well.
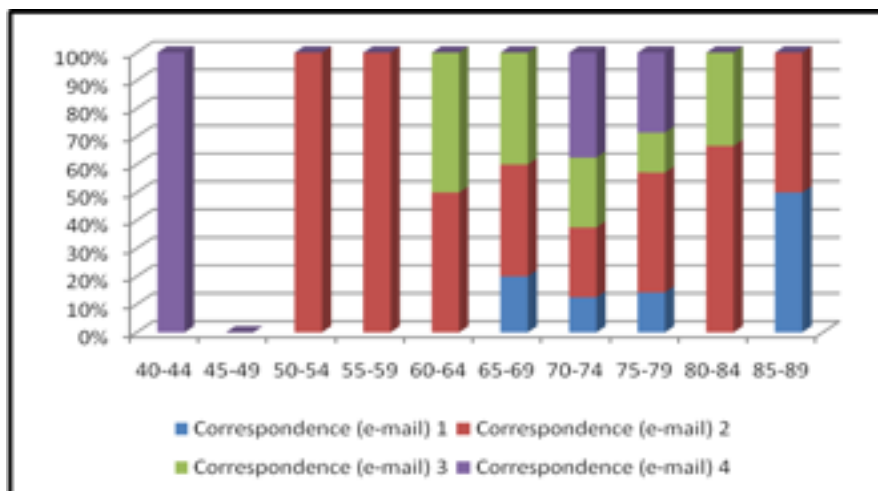

Fig. 26 Use of Internet by age : e-mail correspondence.

Analyzing the figure 27 we can observe that almost 70% of people above 50 years old who do not use on-line multimedia like digital newspapers, radios or TV. Almost all

people using internet for multimedia purposes declare doing it in a rather basic way. The entire population of 40-44 year olds communicates with others via Internet in a basic manner.
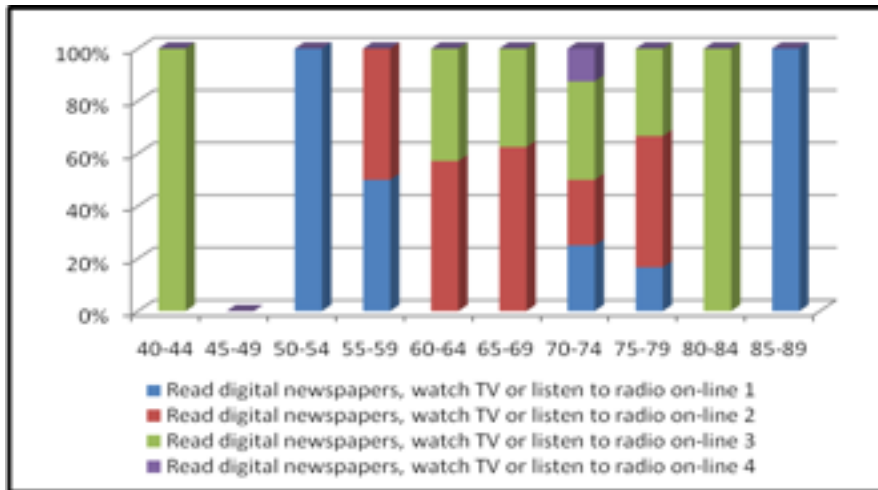

Fig. 27 Use of Internet by age : digital newspapers, TV and radio

Another question related to communication with others in an active participation in discussions on Internet. When looking at the diagram 28 we can notice that populations above 50 years old in the vast majority (86,67%) do not participate in forums and discussions or post comments. While doing it, they declare it in rather basic manner. Only those between 40-44 years of age, use Internet in order to exchange opinions, discuss issues and declare that they do it rather pretty well.
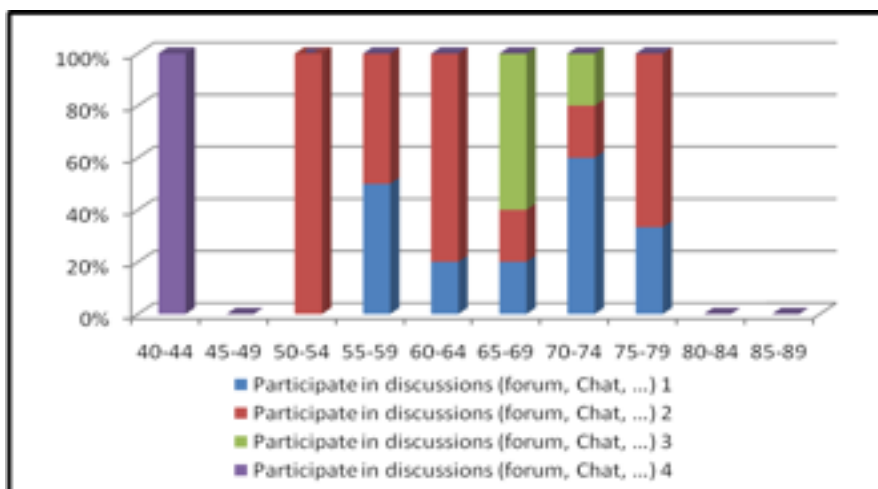

Fig. 28 Use of Internet by age : forums, chats, discussions

Seniors above 50 years old do not seem interested in participating in social networks. They are over 77% not using Internet for these purposes. It is also interesting to remark that none of the interviewed (between 40-89 years of age) would participate in social networks in a professional way.
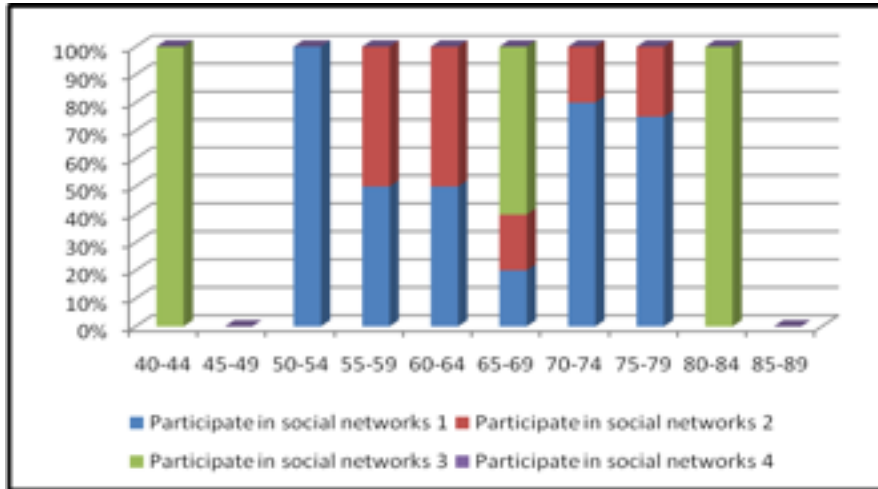

Fig. 29 Use of Internet by age : participation in social networks

The following three graphs show as well that senior people do not use Internet for on-line operations such as on-line banking, on-line administration services and on-line goods bying. They are 85,42% not using Internet for banking operations via Internet; 71% not making any administrative on-line operations on Internet ; almost 75% not buying goods on Internet. At the same time, they seem quite interested in learning how to use Internet for these specific purposes.

They are almost 50% wishing to learn about banking on-line operations, over half of them would like to learn about administrative on-line operations and around 45% about those related to on-line goods' purchasing.
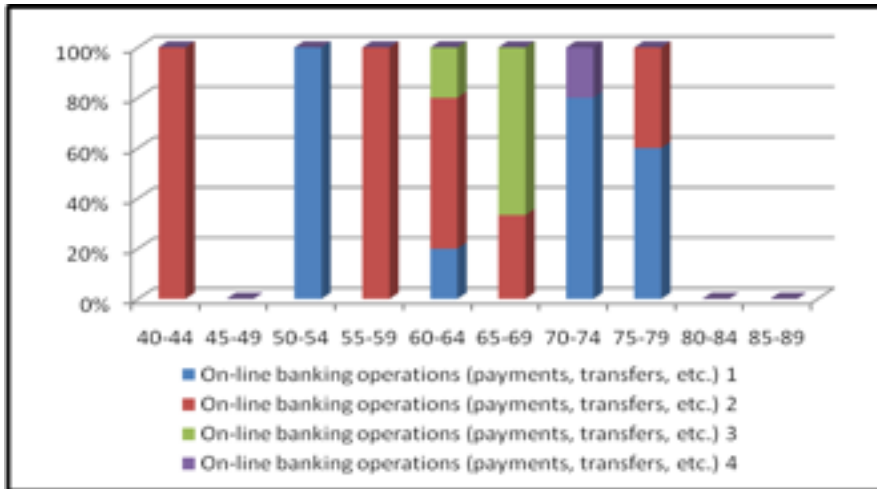
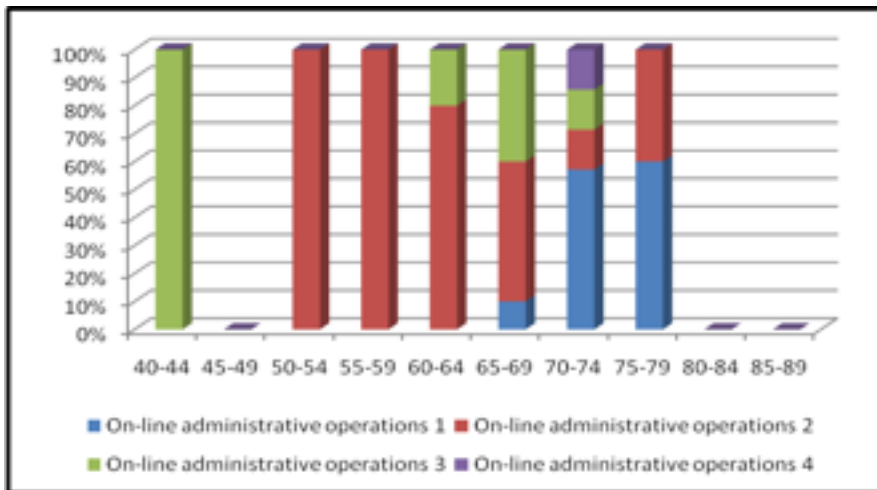Fig. 30 Use of Intenet by age : on-line banking operations.

Fig.31 Use of Intenet by age : on-line administrative operations.
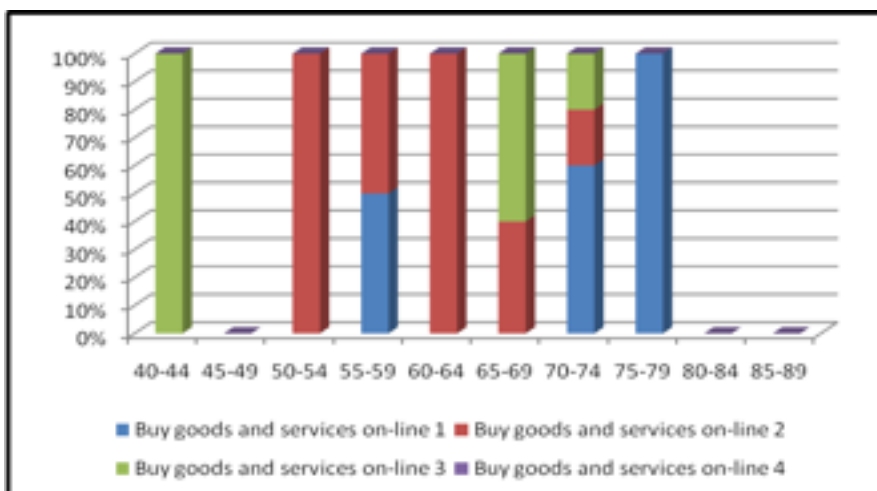

Fig.32 Use of Intenet by age : buy goods and services on-line.

We present the results of the questionnaires distributed to a sample of our students at IntelektI Vocational Training Centre, Bulgaria. We have focused on analyzing the results of the following questions: use of Internet, use of e-mail, use of mobile phones, e-commerce.

Context of the institution
The majority of students at IntelektI Vocational Training Centre are over 45 and not older than 59, so they have not retired yet. This age group attends computer courses primarily for job reasons and less for leasure. Most of them are unemployed or employed who seek to improve their skills or acquire new ones. The bigger part of our students are women.This fact has its explanation - in most cases women occupy positions that require computer literacy, i.e. good computer skills. Given the age, which is subject to our study, women over 45 lack IT knowledge or it is rather insufficient. For that reason, most of the women whose job requires computer skills seek to come abreast with the latest performance requirements of the job and look for IT training courses. Men over 45 usually occupy positions which do not require computer skills. A lot of the men do not want to improve in this area as they feel they do not need it, because they are already in the age in which such knowledge is considered unnecessary. Those who are interested and are more active in using the computer as a tool for work and entertainment usually learn from each other and rarely attend courses.

Results of the graphics
In Bulgaria, as well as in the other Member States of the European Union, there is a recurring problem of population ageing. The predominant part of the persons from higher-age groups in active age are with higher education, professional skills and experience, but a lot of them have no computer literacy, or the knowledge and abilities needed for the rapid spread of the new technologies. In conformity with the policy for active ageing more persons over the age of 55 will remain in the labour market. That poses serious challenges for the state institutions, the business sector and the entire society for the integration of these people in the labour market.

I. Use of Internet.
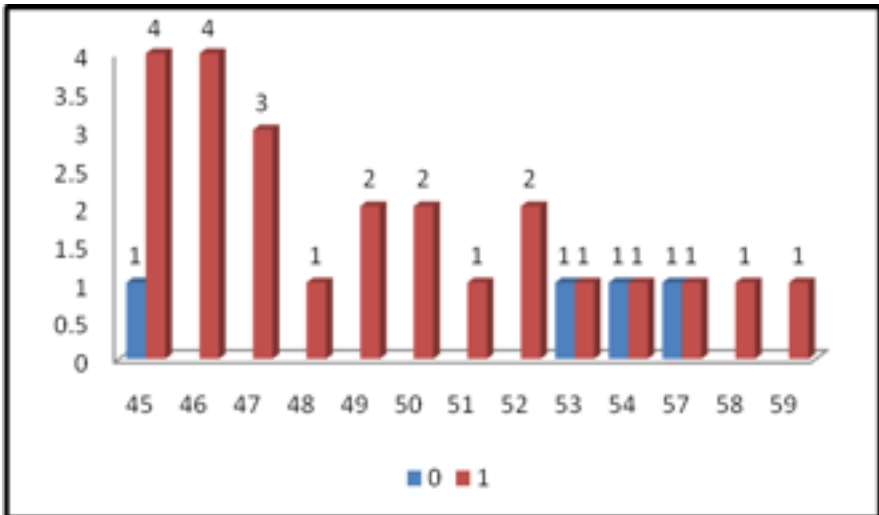
According to a survey results, the share of individuals regularly using the internet in Bulgaria in 2010 stood at 49.7%, while the average growth rate for the period 2006-2009 was 6.5% points. According to these results and the results of the chart given hereabove, people aged 45 years and older are the fastest growing group of Internet users in Bulgaria.

The results prove that computers and telecommunications are becoming more important in our daily lives and today more and more information and services - such as banking, paying bills, shopping or information on travel and transport - are being offered online via the Internet. Obviously, people aged 50+ are striving not to be left behind. It could be claimed that the rise shows the 'growing maturity' of websites. 'Silver surfers' were growing more confident in what they could search online. And companies are setting up specialist sites targeting older users in areas such as health, fashion, travel and cooking.

II. Use of e-mail.
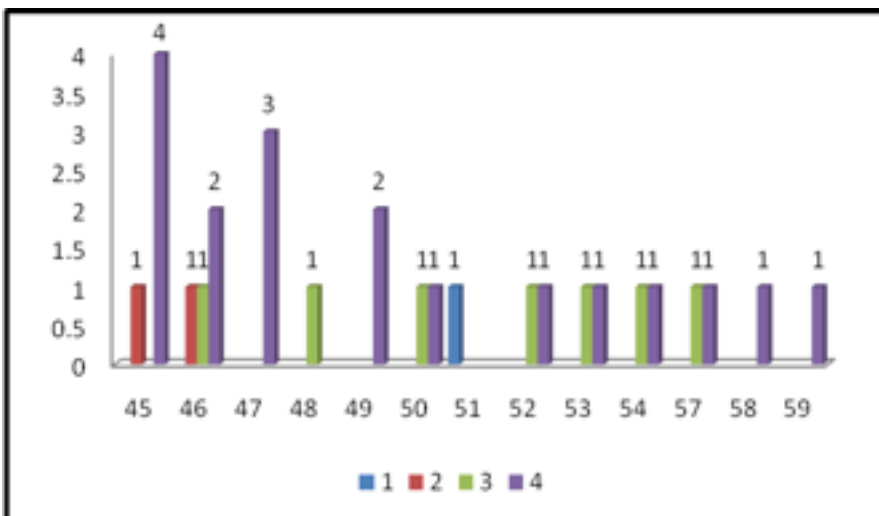
E-mail is elderly people's number one use for the Internet, having in mind that they haven't grown up with Information and Computer Technology (ICT), and have had to put in greater effort to learn to use it than younger people.They use e-mail for family connectivity, communication with friends far and near, sending digital photos, reading daily news, managing stocks and money and more. Increasingly, they are enjoying senior-related user groups, theme-based forums, virtual games, and online chat rooms. These resources allow an expansion of their social network, thus allowing elderly people to feel more involved and engaged in the world.

Older people feel motivated to use ICT as they see it as an important element for feeling part of contemporary society and fighting against the isolation that can increase with age.

III. Use of mobile telephones.
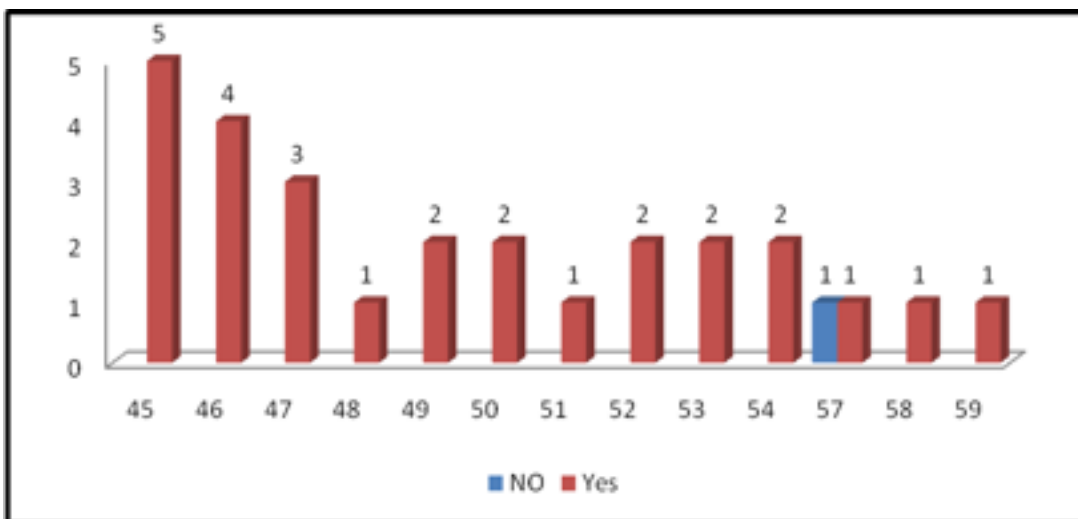
Age plays a role in the adoption and uses of mobile telephony. The effective use of mobile devices is not only related to technical issues but also to communicative habits, which among the elderly are mainly centered on the maintenance of family relationships. They usually do not use their mobile phones for casual conversations, except when they need to call to another mobile phone and the cheapest way to establish contact is by using a mobile. For elderly people, as well as for teenagers, mobile phones need to be useful, social and enjoyable in order to be adopted. It seems that the elderly are always behind (regarding innovative services) while the younger are always ahead, already using the latest technologies when the elderly are still trying to catch up on yesterday's innovation". Once the elderly person is used to it, the device is more incorporated in all activities of everyday life. From the elderly perspective, use depends on personal willingness as well as on the expectations that others put on them to use mobile features. However, reluctance could turn into acceptance if the service meets the needs of the person. Almost every young person (16-24 years old) and adult (25-54 years old) use mobile telephony (97% and 93%, respectively). The senior population shows a sizeable

difference as only 79% of those between 55 and 64 years old declare being mobile users.

IV. E-Commerce

Shopping over the Internet is with few exceptions almost unknown in Bulgaria and most of the people still prefer to do their shopping in the traditional way. However, there is a tendency towards a form of business to business e-commerce. Bulgaria is traditionally following very quickly all of the new developments in the information technology sector and with the globalisation of the Bulgarian economy e-commerce will probably replace a substantial part of the traditional trade. Several Bulgarian web-sites offer searchable electronic catalogues of goods for sale. The financial potential of quite new services like e-trade and e-pay are still insignificant in Bulgaria.

The number of people in Bulgaria who have purchased goods or services online in the first three months of 2011 remained small (3.3%), according to the results of the Survey 2011 on ICT usage in households and by individuals aged between 16 and 74.

The main reason not to use the internet to shop online was the fact that people prefer to go shopping and to see the product (21.7%) and 19.4% indicating that they do not need to purchase over the internet.

According to the graphic's results, it may be concluded that e-commerce is slowly making its way into business and society, especially for people aged 45-50+. With the increase in personal computer use, wider Internet access and increase in the purchasing ability of the Bulgarians, more and more business people and consumers are turning to e-commerce and e-business in Bulgaria.
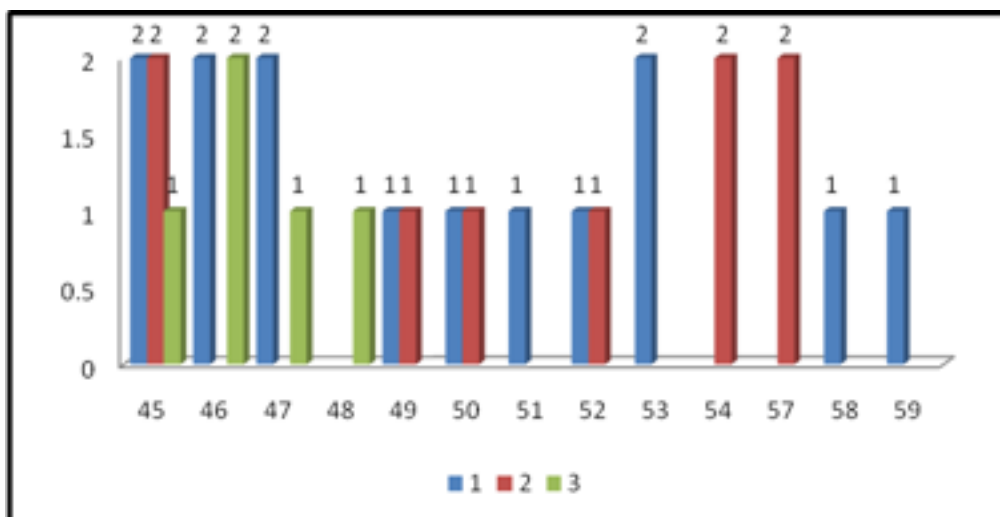
Conclusions

 ICT can transform the lives of older people, providing contacts, information, entertainment and access to specialised services. It can enable radical new models of health care and support for older people living at home, effecting savings that would amply repay the costs of installing an internet connection in

every house, just like electricity, gas and water. But it requires profound changes in attitude - a belief in, and a belief by, older people that they can cope.

The overall picture is that people 45+ are generally independent learners who have decided that ICTcan help them meet a purpose, achieve a goal or in some other way enrich their lives,
and, often, the lives of others in their personal circles or wider communities. They have a clear sense of their own purpose for acquiring new skills. The barriers to learning are largely those faced by all adult learners, compounded by the factor of being part of a generation that has not grown up with computer technology.