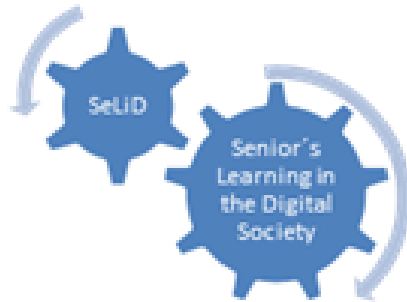


# SELID – Senior’s Learning in the Digital Society



## SURVEY ON THE USE OF DIGITAL TECHNOLOGIES



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Let us know the results



## I. INTRODUCTION

SELID (Senior's Learning in the Digital Society) is an Erasmus+ project of the European Union. The main objectives are open education and innovative practices in a digital era, focusing on improving and extending high quality learning opportunities for digital technologies and ICT, tailored to the needs of individual low-skilled or low-qualified adults.

The project is co-ordinated by the Comenius University in Bratislava, Centre for Continuing Education and its University of the Third Age which has established an international reputation for work in the field of older people and lifelong learning. The project is realised in the partnership with the European Federation of Older Students in universities (EFOS) which assures involvement of other associated institutions and individuals from Austria, the UK and the Netherlands who voluntarily cooperate with the project partners.

## II. THE PROJECT – METHODOLOGY

The project concentrates on learning and training in basic ICT skills and key digital competences of older people. Methods that will be applied are:

- classical teaching,
- group learning and training,
- peer learning,
- work with manuals,
- excursions to the shops with electronics,
- collection of good practices to develop digital literacy and skills of the elderly.

The project focuses on elderly students and older people in general to improve and develop their digital skills and knowledge. They need special education and training in many fields for a more flexible use of ICT in their daily life and for an active citizenship.

Our study used a questionnaire method to gather information across the four age groups taking part in the research.

The questionnaire was divided into two sections. The first section had seven questions concerned the respondent profile.

The second section of twenty questions focused on participants' experiences and skills in using digital technologies and the types of technologies they use to perform everyday tasks such as shopping, online banking, communication and other activities.

Participants were offered the choice of completing the questionnaire online or in printed form.

## III. OUTCOMES

- Review table which present the Study about learning possibilities in digital technologies.
- Research about the needs of the elderly in the use of digital technologies and home equipment.
- New innovative curricula for the training of the seniors' skills.
- Ways and possibilities for encouraging of isolated older people for to become involved in the life of digital society.
- Digital education and training of low-skilled adults.
- Spreading information about learning activities by the older people in using ICT.
- Results of the project will be published in a booklet and on the project website.



#### IV. THE QUESTIONNAIRE - RESULTS

##### A. RESPONDENT PROFILE - 181 respondents

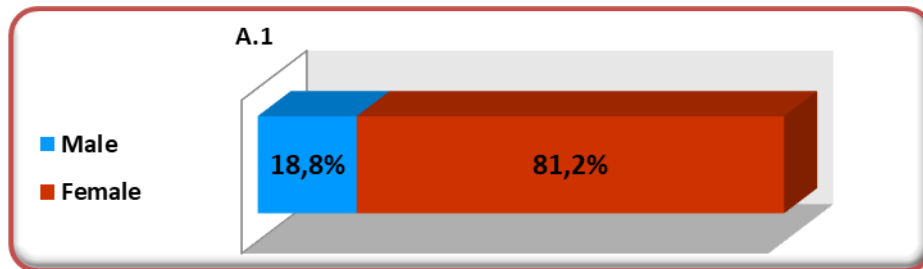


Figure 1

Approximately 3/4 of the 181 respondents of the survey were females (81.2%). Males were 34 older persons (18.8%).

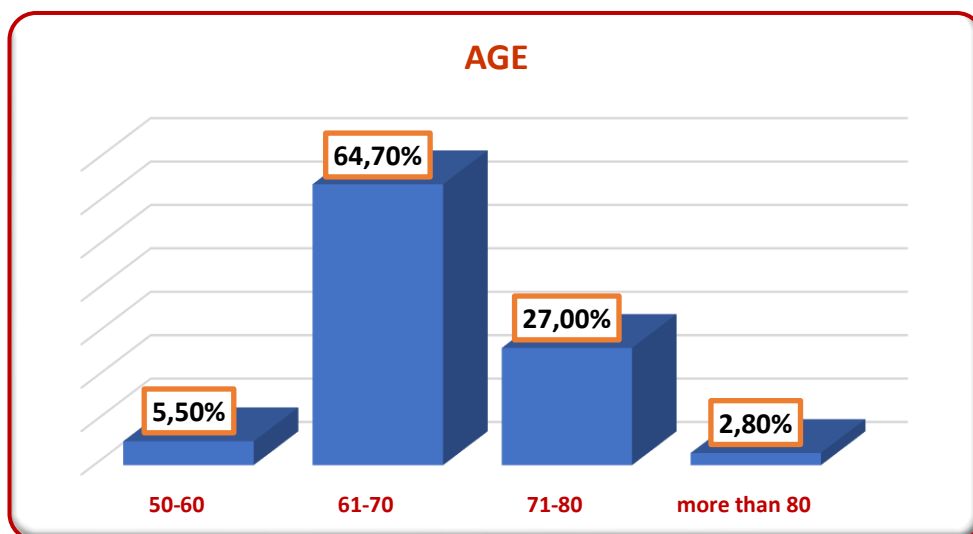


Figure 2

The biggest group of respondents was between **61 and 70 years** with the highest percentage of **64.7%**.

**5.5%** of participants were between **50-60** years old.

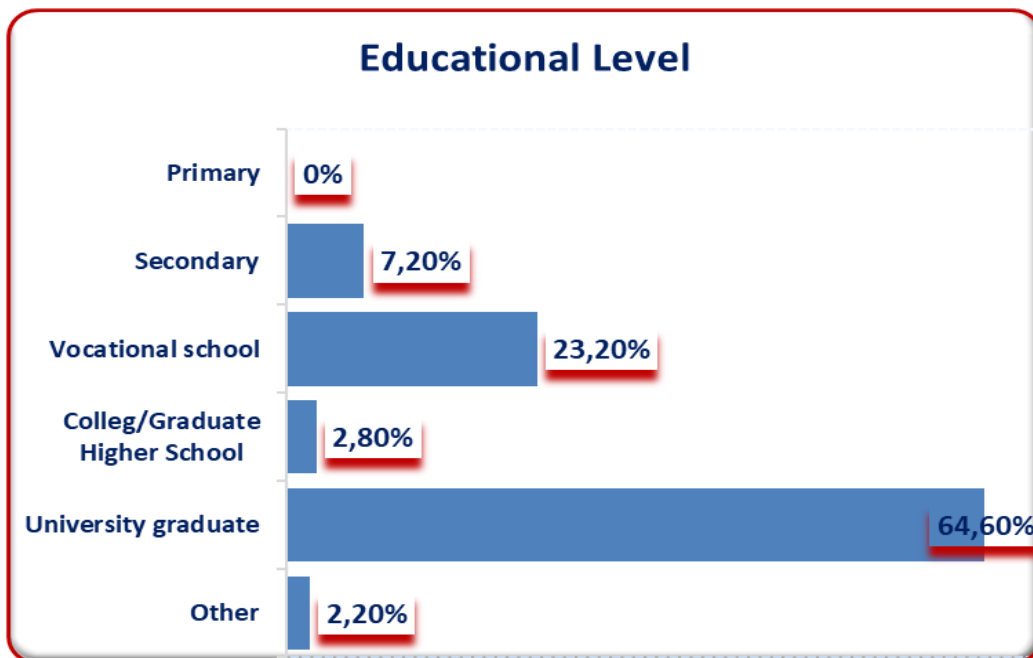
**27%** of respondents were between **71-80 years old**;

Only **2.8%** of the participants were **more than 80 years** older people.

**100%** of the respondents are **living in Slovakia**.

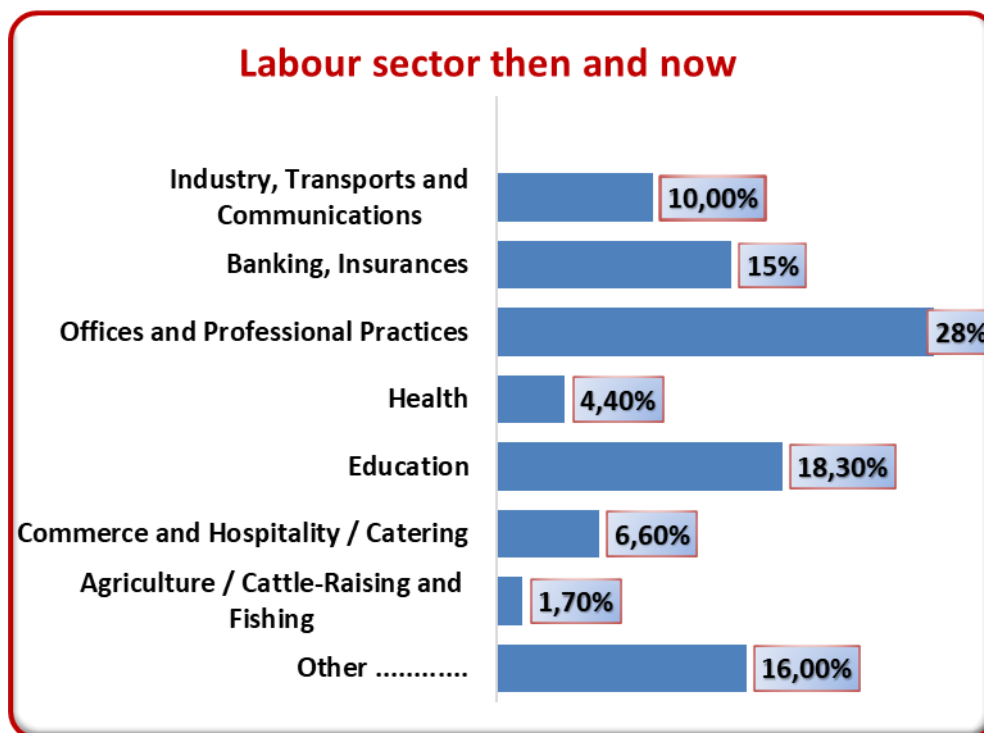
In a **town or city** are living 155 respondents, what corresponds to **86%**.

In a **village / country** are living 26 respondents, what corresponds to **14%**.



*Figures 3*

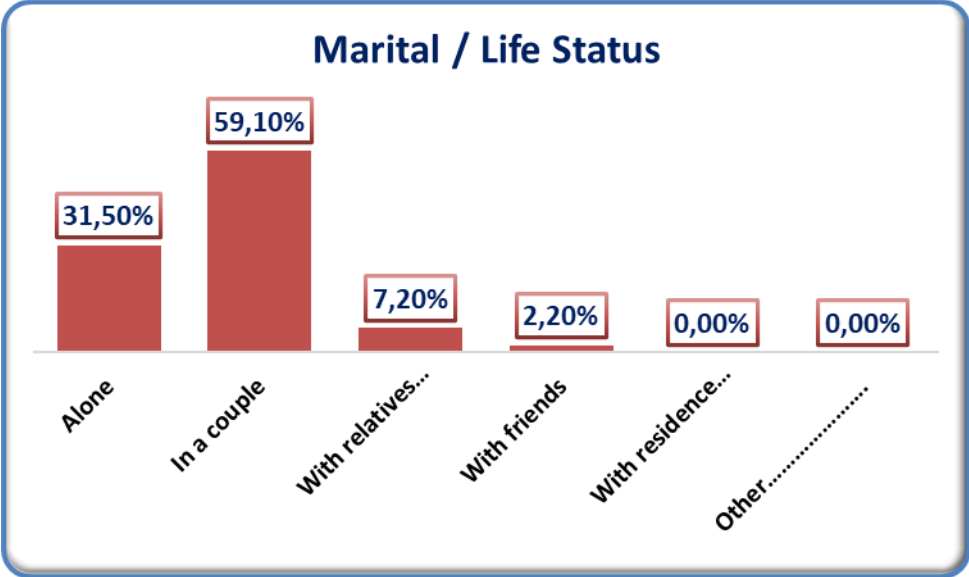
For this part it is important to know that to study at the UTA of Comenius University in Bratislava an educational prequalification at secondary school level is required. In our research about **7.2%** of the sample went to **secondary school**. The number of respondents **23.20 %** went to **vocational school**. **College/Graduate Higher School** have the percentage from **2.80%**, the **“Other”** has the percentage from **2.20%**. Most of the respondents (**64.60%**) have an **academic education**.



*Figures 4*



To the point about the labour sector of our respondents, about 28% of them work/ed in offices and professional practices; about 18.3% in education; the rating of 15% has a group of respondents in banking, insurances sector; in the sector of industry, transports and communications it was 10%; commerce and hospitality/catering for 6.6%; in the health sector work/ed over 4% and agriculture/cattle-raising and fishing worked 1.7% and other has 16% of all respondents.

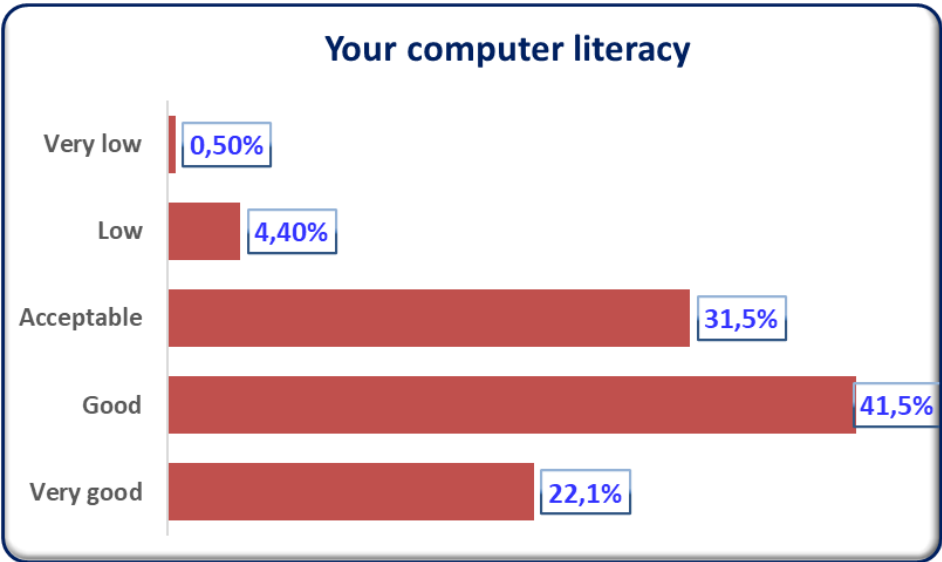


Figures 5

Of all 181 respondents 59,1% are living with a partner, but the next biggest group (31,5%) is living alone. The other respondents are living with relatives (7.2%) or with their friends (2.2%). For living with residence partners and for “other” we had 0% answers.

**B. TECHNOLOGICAL RESOURCES AVAILABLE**

**1. How do you rate your computer literacy (the ability to use the computer)?**

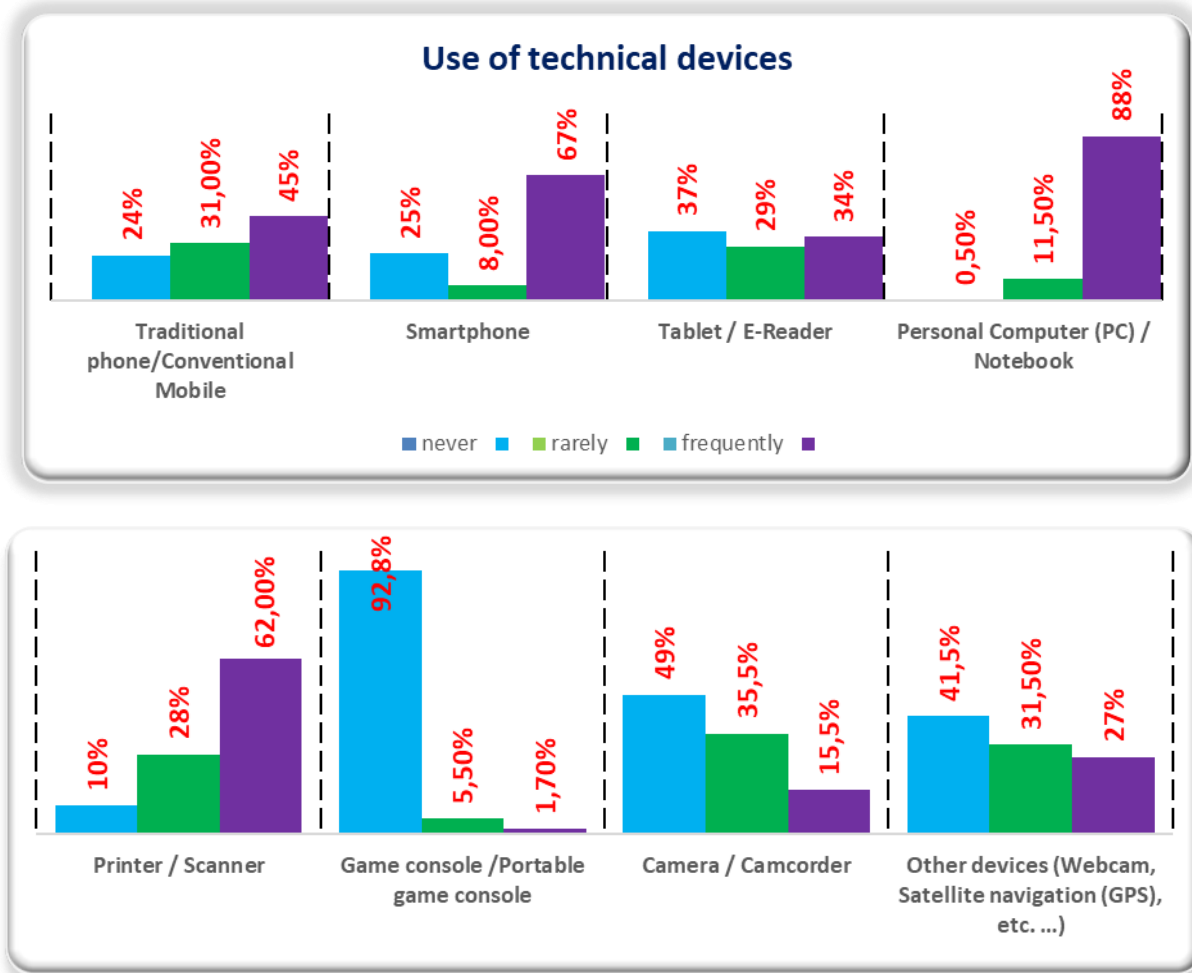


Figures 6



If we want to assess the ability to use the computer of all respondents, we can see, that the most of them have good (41.5%), acceptable (31.5%) and very good (22.1%) knowledge in using the computer. Only small groups of respondents have a low (4.4%) and very low (0.5%) knowledge.

## 2. Which of the following technical devices do you use and to what extent?



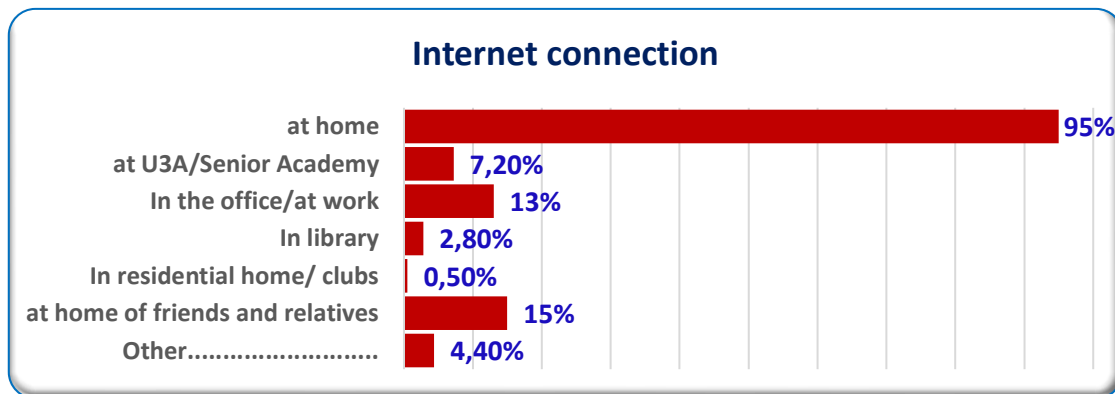
Figures 7

Of the following eight devices extensive use as of PC/ Laptop 88%, followed by smartphone (67%) and printer/scanner (62%). The traditional phone /conventional mobile had 45% of users, more than tablet /e-reader 34%.

Camera/camcorder are not used by 49% of respondents, not used are other devices such webcam, GPS with 41.5%. It is surprising, that game console/portable game console were never used by 92.8% of our respondents.

Some of our respondents answered, that this electronically infiltrated age, is not for the older generation over 50, that has experienced a time with classic typewriters without a printer.

**3. Where do you use access to the Internet connection – (You can choose more than one)**

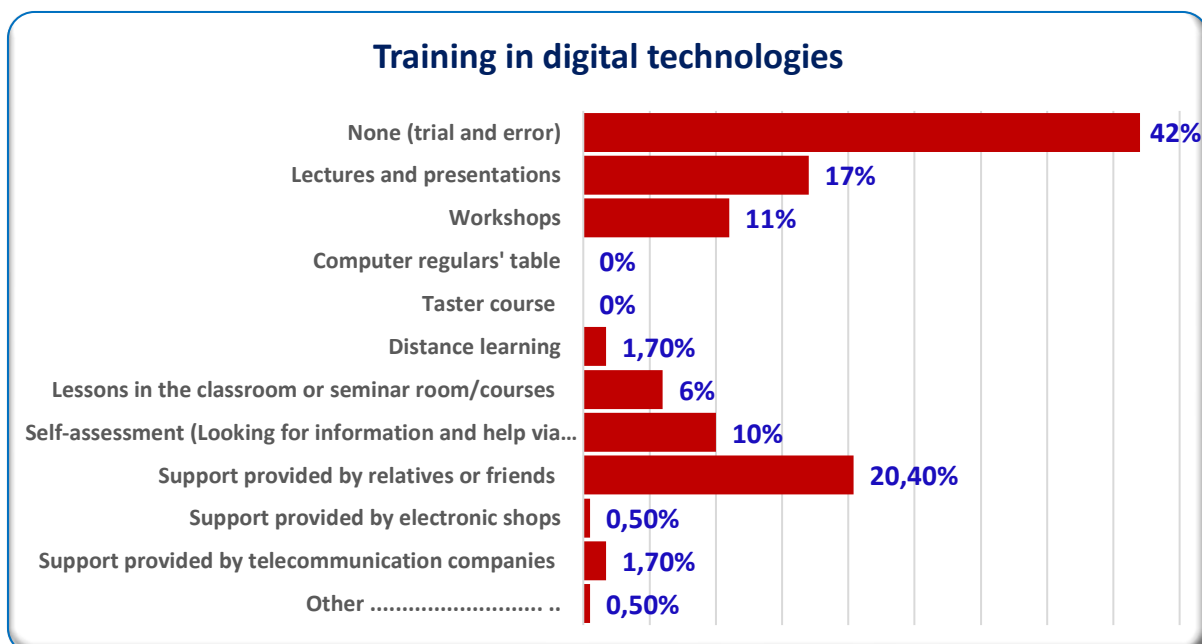


Figures 8

Most of the respondents have internet connection at home (95%). Another possibility for people to use access to the internet connection is at home of friends and relatives (15%) or in the office / at work (13%). The elderly students of Comenius University in Bratislava can also use the internet connection at their U3A (7.20%) or in library (2.8%). In residential homes and clubs there is seldom access to the internet connection (0.5%). By “Other “(4.4%) may be internet connection in own smartphone or tablet. Nowadays in some public places will be offered a free Wi-Fi.

**C. LEARNING MODES OF THE USE OF THE DIGITAL TECHNOLOGIES**

**1. When you need to learn the basic use or to deepen your knowledge about the use of digital technologies, which type of training do you prefer?**



Figures 9





For learning the basic use or to deepen the knowledge of the use of digital technologies the respondents gave the highest percentage of 42% to the “None (trial and error)”. Trial and error is a fundamental method of problem-solving, repair, tuning, or obtaining knowledge. In the field of computer science, the method is called generate and test.

Some participants think that additional and regular training would be suitable in the form of lectures and presentations (17%) or taking part in workshops (11%). 6% of respondents would like to learn the basic use of the digital technologies by visiting lessons in the classroom or seminar room/courses.

A relatively high result was in the support provided by relatives and friends (20.4%), which can help participants to understand how to work with the digital technologies. Respondents looking for information and help via internet (10%), prefer to work with their own studying rhythm and their own time-plan and with guidance of tutor online.

Distance learning chose 1.7% respondents, the same percentage as support provided by telecommunication companies. Support provided by electronic shops, which are very helpful for the older people in the field of the use of electronical devices is the same (0.5%) as by the "other". Computer regular's table and taster course have 0% each.

## 2. Do you attend to any offers concerning digital technologies organized by University Programmes (Seniors' College) for Older Adults? (179 respondents)

Yes, namely.....24 / 13%      No.....155 /86%

### D. CASES OF MORE FREQUENT USE OF DIGITAL TECHNOLOGIES

The first question in part D deals with 15 services that can be operated by digital technologies using the devices such PC/Laptop, smartphone, tablet and how frequently they are used or not used. And with replies of respondents, which do not believe in digital technology and do not own a device.

From the survey we can see, that for the services most use is made of **PC/laptop**. These services include information search (69.6%), banking procedures (69%), communication with other people (mails, conversations, messages) (60%), reading publication (52%). PC / laptop offers more convenience for these services, has a more manageable keyboard, the choice of font size and the larger screen. This last is particularly important for the older consumer, and provides control and security of the work process.

Nearly half (47%) of the respondents like to use PC/Laptop for their work with the photographs and for work with video (41%). These services give respondents more possibilities for their creative work. For video conferences 28% of respondents take part through PC/laptop. For multimedia playback (48.6%) of survey participants chose PC/Laptop, similar to the 47% choosing the geographical information systems (online maps). For online maps in the second-place choice is **smartphone** (35%), because people have it with them if they are out and is very helpful on journeys to show desired route. The smartphone can also make pictures (34%) and keep people in contact, if necessary, for the first aid and emergencies (38.1%). For digital

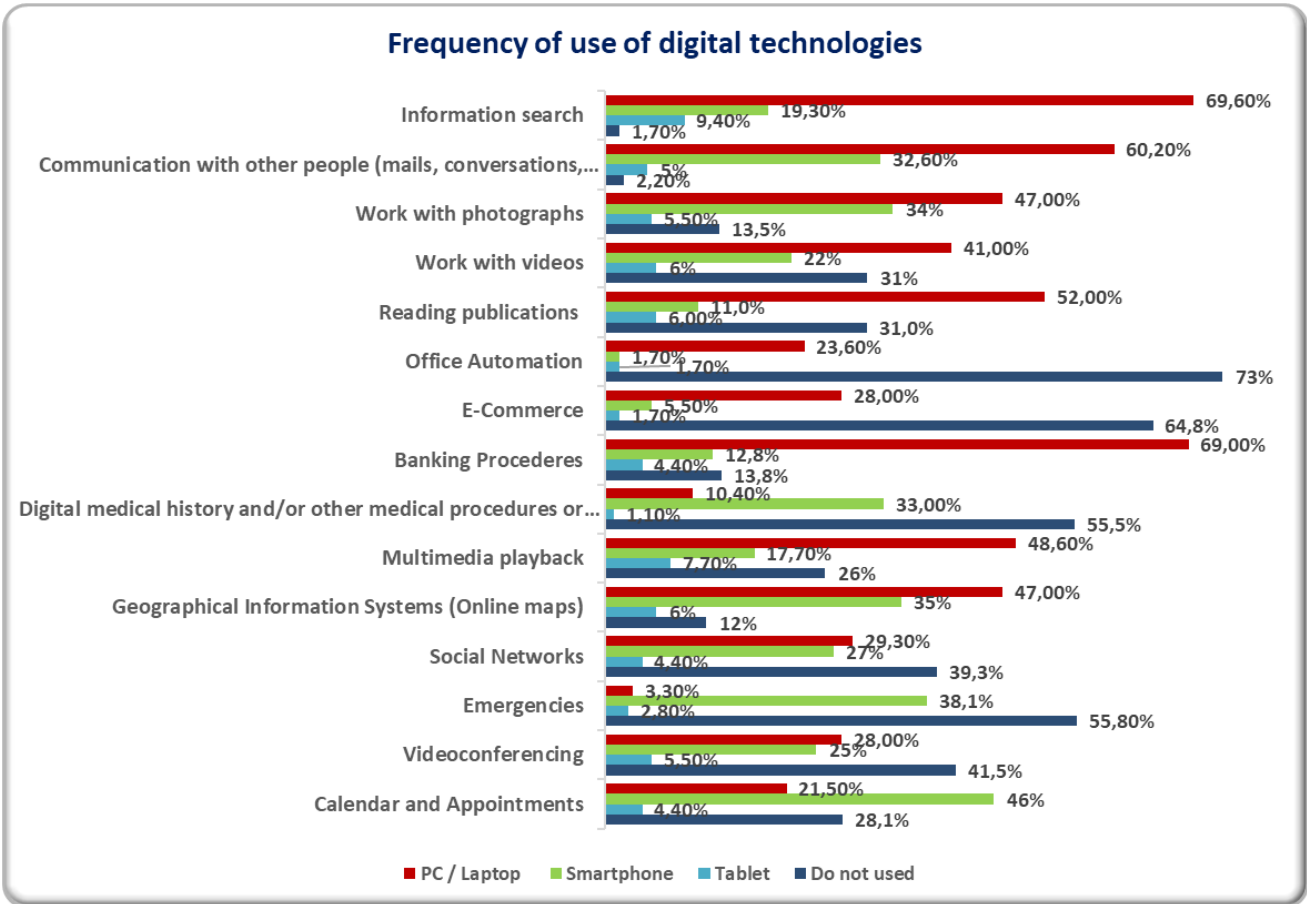


medical history and/or other medical procedures or monitoring systems (pedometer, sleep, the period, etc.) 33% of respondents chose the smartphone. Participants thought smartphone are especially useful for calendar and appointments (46%), for sending messages and communication with other people (32.60%), for social networks (27%) and for video conferences (25%). The smallest percentages chosen by respondents for the use of smartphones were for e-commerce (5.5%) and office automation (1.7%).

The use of **tablets** is relatively small (Figure 10). Only by “information search” the result is 9.4%, another question has percentage between 1.7% till 7.7%.

It is important to note that a large group of respondents **do not use** any of these devices. For e-commerce it is about 65%, for office automation it is 73% of the respondents of the survey. With emergencies (55.8%), and with medical measures (55.5%), respondents have more confidence in personal consultation than with digital devices. Videoconferencing is rejected by (41.5%) because of reduces interpersonal communication. Computer has low relevance to their lifestyle.

**1. Please indicate which devices you use for the possible uses of digital technologies in the left column**



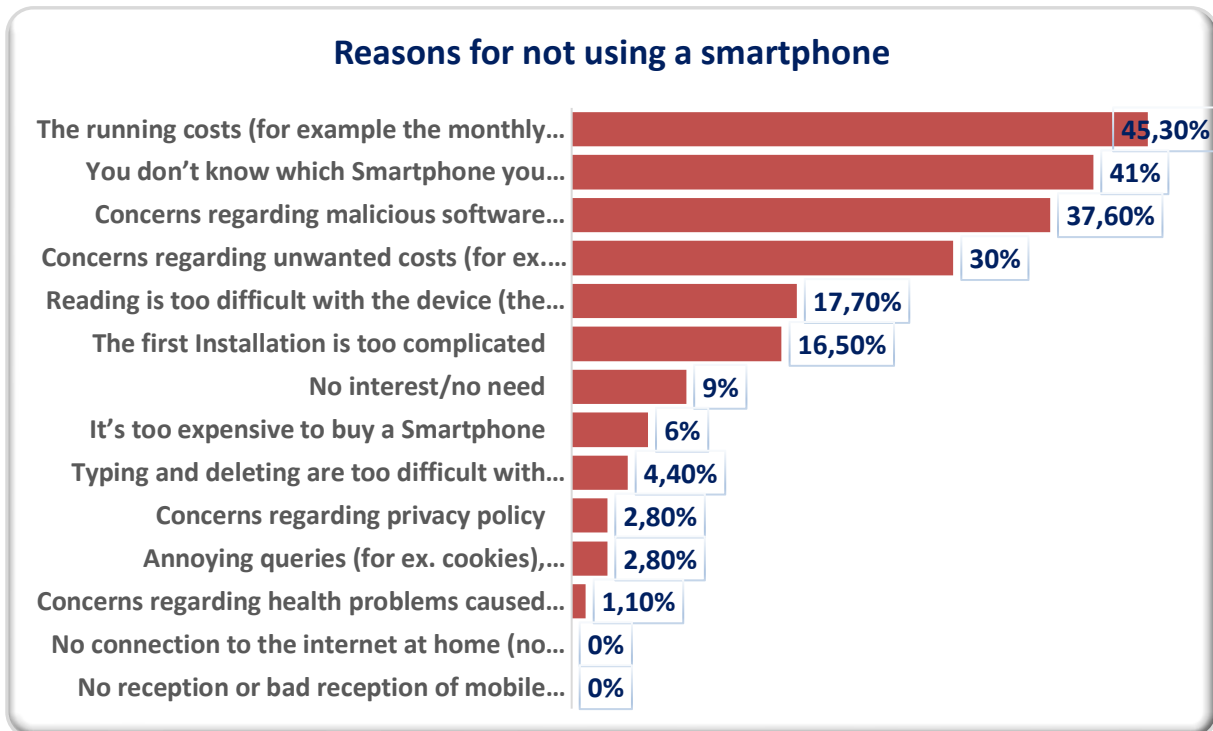
Figures 10

**2. Do you use voice input?** Yes ..... 58 /32% No ..... 123 / 68%



## E. THE SMARTPHONE

### 1. What are the reasons for older people for not using/not wanting to use a Smartphone? (Multiple answers possible)



Figures 11

The study shows us, that older adults use less or not at all mobile phones for diverse reasons. The largest group of respondents (45.3%) said - the running cost (for example the monthly costs) are too high.

The answer given was because of unwanted costs (for things ordered or for things ordered by mistake) when 30% confirmed, that economic factors are very important for older people and therefore are smartphones not used.

In the second question 41% of seniors explain their decision to buy a smartphone (type, operational system). Some of participants (think that to buy a smartphone is too expensive technological device. Apart from not being able to afford an expensive smartphone, another factor among the elderly was limited knowledge or lack of interest and the belief that the need for having a smartphone is unnecessary (9%).

37.6% of respondents had concerns regarding malicious software (malware, for example virus) but only 2.8% of respondents had concerns regarding privacy policy. The same percentage about 2.8% had concerns about annoying queries (for example cookies), advertisements and so on.

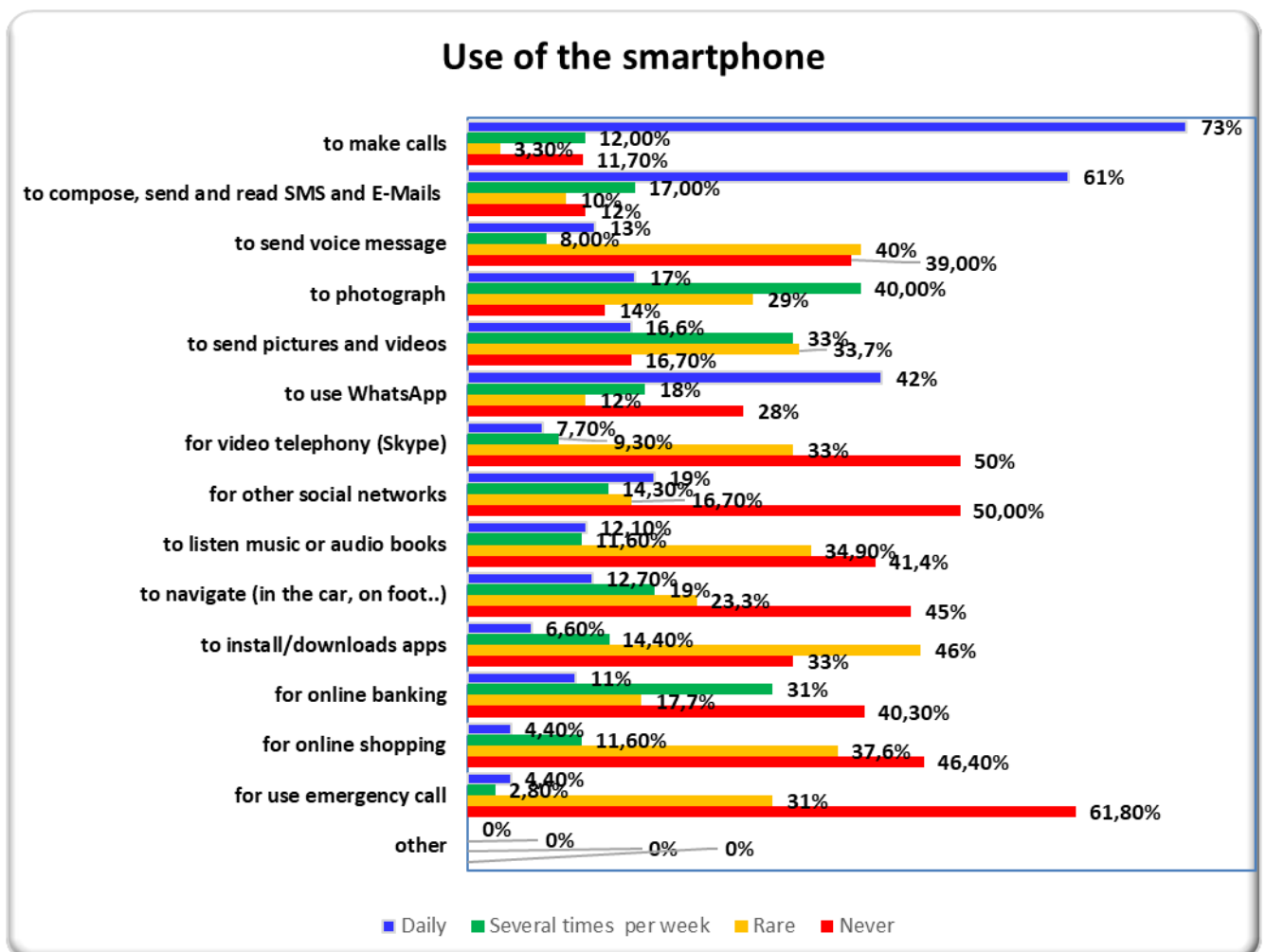
Results show that the elderly with mild vision impairments (17.7%) have difficulties in using smartphones because the screen is too small and the reading is too difficult with the device. The same problem we can see also for typing and deleting, both functions are too difficult

with the device because the control panel is too small (4.4%). Concerns regarding health problems caused by radiations has only 1.10% of respondents.

For older people who have bought a smartphone (16.5%) the first installation is too complicated, they have problems with the technical language and with advanced functionalities of the device.

It is very interesting to note, that 0% of respondents have no connection to the internet at home (no WLAN) and 0% had no reception or bad reception of mobile data at their domicile.

## 2. I use a Smartphone...



Figures 12

In this question about use of the smartphone there were multiple answers possible: daily use, several times per week, rare and never.

The study shows us, that for most of the older adults use of mobile phones is limited to basic functions such as making calls (73%) and for composing, sending and reading text messages and E-Mails (61%), while video calls (Skype) were the least used function (50%), which is surprising, because the use of video calls is very important for communication and social

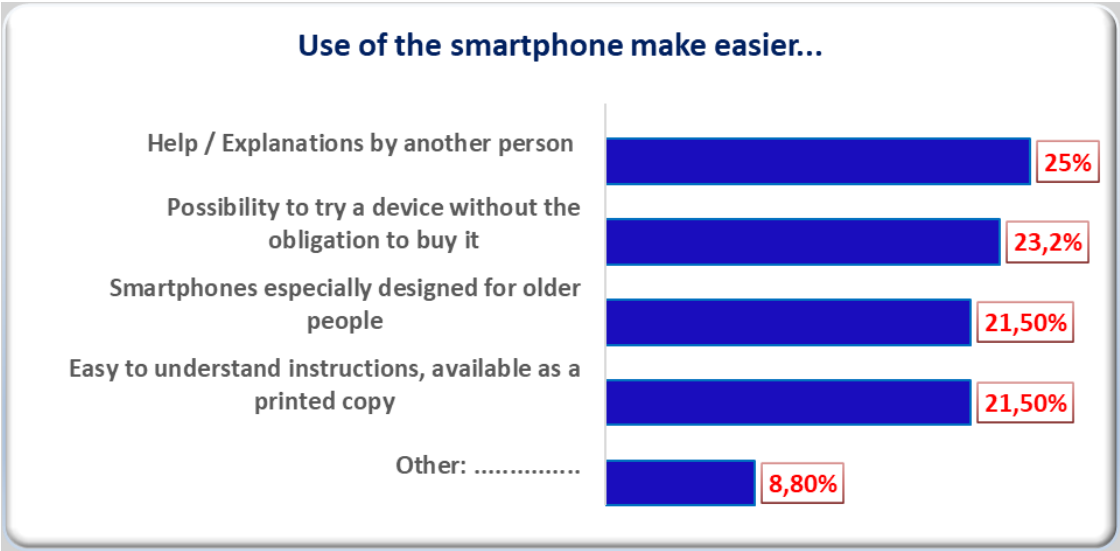
interaction among older people. It reduced risk of infection especially during the pandemic. We can remark, that the using of the WhatsApp, compared to Skype, came to 42% of the daily use by our respondents. The other social networks came to only 50% of respondents never using.

The results show, that older adults use smartphone daily for sending pictures and videos (16.6%). The use of the camera function (to photograph) several times per week was chosen by 40% relatively high, while (39%) of respondents said they never sent voice message. The participants’ responses showed that 41.4% of them never listened to music or audio books. As for navigation in the car or on foot..., 23.3% of the older people surveyed said that they rarely used it, while 46% said they rarely installed/ download apps.

Of our respondents, elderly people said they never used services such as shopping (46,4%) and online banking (40.30%), because they saw a risk behind such digital services and hence favour face-to-face transactions.

It is also very remarkable that 61.80% of the elderly adults never use the smartphone for emergency calls.

**2. What would make your use of a Smartphone easier?**



Figures 13

To make used of their smartphone easier, 25% of respondents answered that they need help/explanations by another person by the using the smartphone.

When buying a smartphone 23.2% of respondents wanted to try out their skills with the operation of the device first without an obligation to buy it.

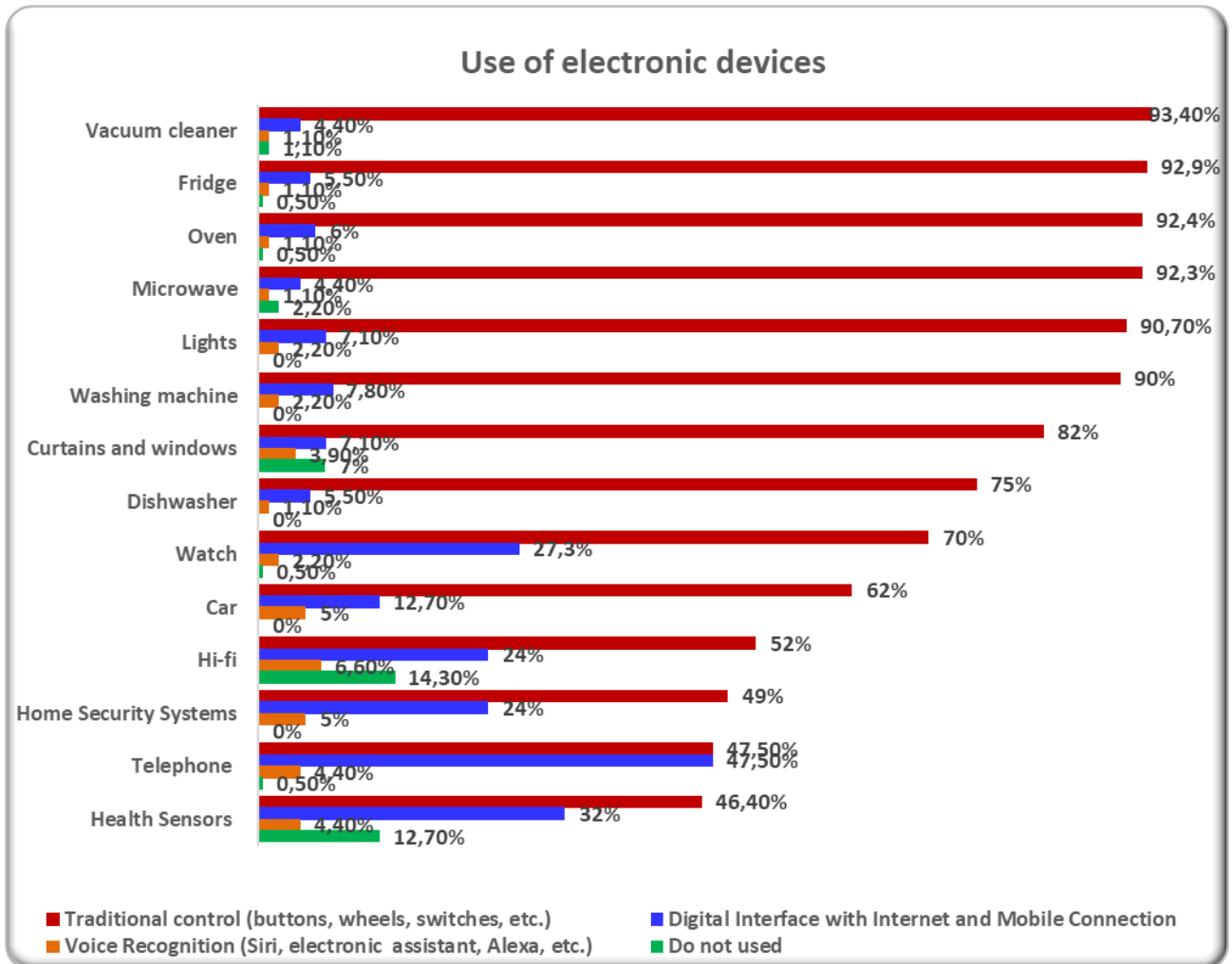
Today, the instructions for use of smartphones are directly in the devices, which 21.50% of older people have problems with and therefore find a printed copy more useful. The same percentage of 21.50% of respondents wanted a smartphone especially designed for older people. 8.80% of respondents gave no opinion about “What would make your use of a Smartphone easier”?



4. What kind of new use possibilities you would like to have implemented in the Smartphone? - 0% answer

F. THE INTERNET OF THE THINGS

1. When you use an electronic device, how do you prefer to use/control it?



Figures 14

Digitalisation is progressing in virtually all areas of life – including household appliances such as washing machines, refrigerators, dishwashers and others. Most consumers know very well how to operate a washing machine in the "analogue way". With the digital technology they have to learn the procedures completely new. However, consumers, often fails at the installation of an appliance if they do not have the description of the household appliance at hand as a printed manual instruction. Further, the installation is only possible with the help of a specially developed application directly in the device.

Most of our respondents chose the first of the three options for all 14 appliances: **Traditional control** (buttons, wheels, switches, etc.) although this varied between 93.4% for the vacuum



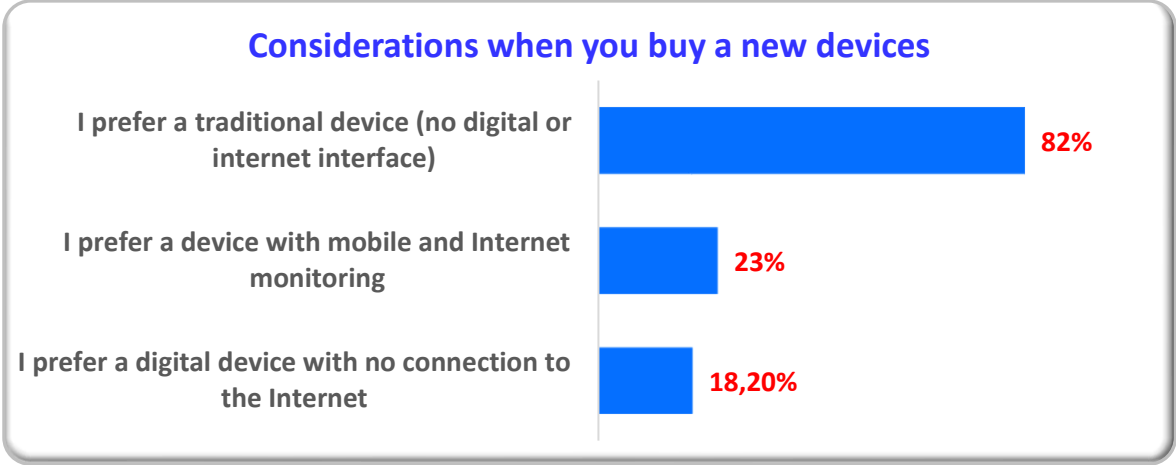
cleaner, 92.9% for the fridge, 92.4% oven, 92.3% microwave, 90.7% lights, 90% washing machine to 46.4% for Health Sensors.

For using the **Digital Interface with Internet and Mobile Connection** our respondents chose only between 4.4% to 47.5%. Comparison between the first two options: Traditional control and the Digital interface with internet and mobile connection (47.5%), only telephone has the same number of percentage (47.5%).

Digital Interface with Internet and mobile connection was chosen by the respondents more than the third option - **Voice Recognition** (electronic assistant, Alexa, Siri, etc.) which receives the least percentage of older people between 1.1% (2 persons) up to 6.6% (12).

**Do not used** were represented between 0% to 14.3% by Hi-fi.

**3. When you buy a new device, do you take in consideration if they have the possibility of being controlled by mobile or internet connection or do you prefer a traditional device?**  
(You can choose more than one)



Figures 15

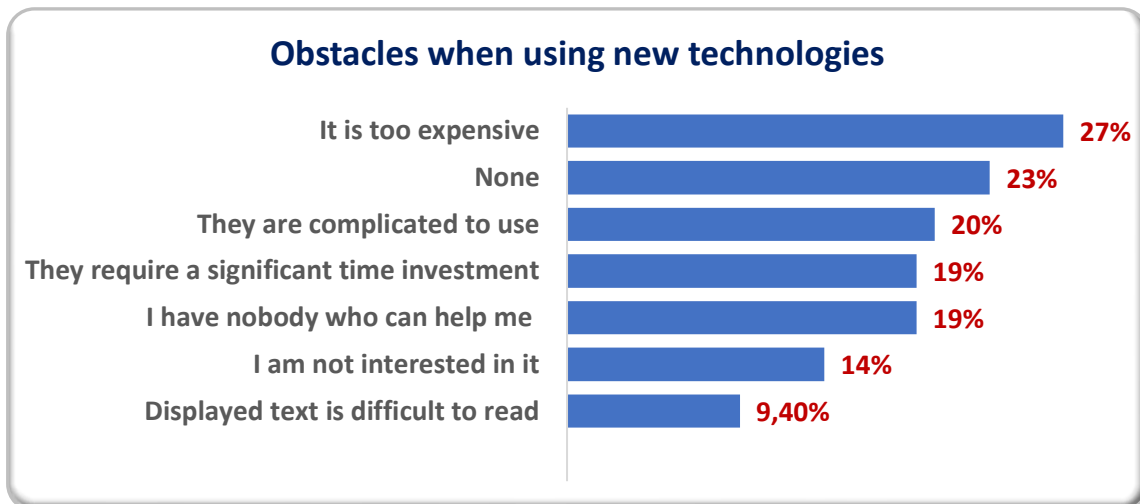
The respondents could choose more than one answer. As we can see from the survey, the majority of participants (148 - 82%) chose a traditional device without a digital or Internet interface when buying a new device.

Devices with mobile and Internet monitoring were preferred by 41 people, representing 23% of the respondents.

Only 33 respondents (18.2%) were going to buy a digital device without an Internet connection.



## G. MAIN DIFFICULTIES IN THE USE OF DIGITAL TECHNOLOGIES



Figures 16

The respondents could choose more than one answer.

The first potential barrier to the use of new technologies by older adults is financial - it is too expensive. This was confirmed by 27% of respondents.

Higher number of respondents (20%) perceived the new technology to be complicated to use. According to the participants (19%), the occupation with the new technology is quite time-consuming. The same percentage of 19% of respondents need help to use the technology but do not have it available.

14% of respondents were not willing to learn how to use new technology, they are not interested in it. 9.40% of respondents have difficulty in reading the text on the display.

Surprisingly, 23% of participants know no obstacles in using new technologies.



Figures 17



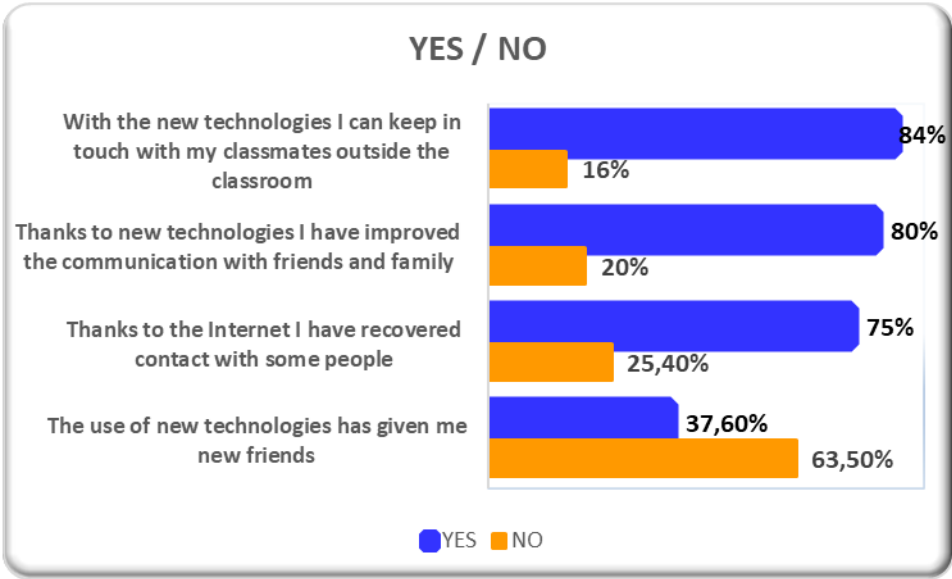
In our survey we asked the participants, if they could specify which apps/applications of digital technologies made them most suspicious of/are most afraid in their use for reasons of loss of privacy, risk of theft or fraud, personal data leaks, etc. The digital technology can collect and store vast amounts of data. It can be very difficult to keep this data safe. The digital technology offers a wide scope for the users to hide their identities for the purposes of scamming and defrauding.

Nowadays it has become a habit to do many activities online. Of the respondents 39% saw risk in online shopping, 25% in banking formalities via online banking, 23% in searching for information, 20% in the application procedure with authorities as (online communication)- and 17% in digital medical history and/or other medical formalities.

People can make contacts and communicate through digital devices rather than through physical contact. More often than not, e-mail addresses are created that have the real name of the participant, which means that there is a risk that personal data can be accessed, say 10.5% of respondents. Photos, videos, online reading publications, online maps, multimedia reproduction and other can be found on numerous devices such as mobile phones, tablets, laptops and portable hard drives. Individual items can be hard to find, easily or accidentally deleted or lost. Participants believe that the risk of personal information being stolen or sold ranged from 7.7% to 2.2%.

**G. PERCEPTION and ATTITUDE TOWARDS DIGITAL TECHNOLOGIES**

**1. Indicate if you feel identified with the following statements:**



Figures 18

The last section is about perception and attitude towards digital technologies and consists of two questions.



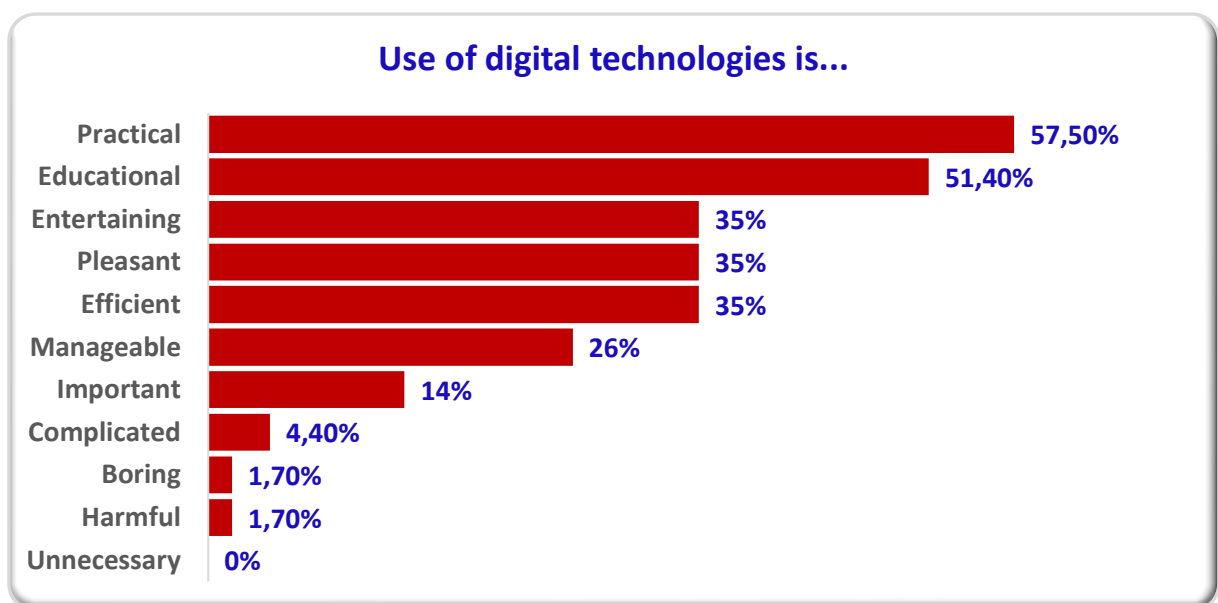
In the first question the majority of participants (84%) said that with the new technologies they can keep in touch with their classmates outside the classroom. 16% of respondents denied the statement.

80% of the participants thought new technologies had improved the communication with friends and family. 20% of participants disagreed with this statement.

More than half (75%) of the participants said that thanks to the Internet they have recovered contact with some people; 25.4% said to this statement no.

A moderate 37.6% of respondents said that they had made new friends through the new technologies. However, a high percentage of participants (63.5%) denied this statement.

The last question of the survey was: **What do you think about**



Figures 19

The 57.50% of the respondents thought that the use of digital technologies for everyday tasks is practical and but only 14% of participants thought it important. 51.40% of the participants said that use of digital technologies is educational.

The answer as pleasant, efficient and entertaining has the same percentage of 35%.

26% of older adults find working with digital technology manageable. For 4.40% of respondents the use of digital technologies was seen as complicated.

1.40% consider the work and use of digital technology as harmful and the same percentage of 1.40% as boring. No respondents thought digital technologies were unnecessary.

## CONCLUSION

The aim of this questionnaire study was to gain an understanding of what technologies people are using or not using, and what factors influence their experience. A significant amount of information was gathered in relation to these factors, in particular regarding experience and acceptance of technology, supporting social interaction and intergenerational usability of household devices.

For the question about using or not using the smartphone, the elderly thought the major barriers are financial restrictions, vision impairment and lack of knowledge in using smartphone functionalities.

In our questionnaire the respondents had the possibility of giving their comments to the questions.

One of these comments referred to the question about the use of the smartphone for daily tasks:

"There is discrimination against citizens who do not own this device and which do not use a smartphone for the services of state bodies, banks, services, etc.."

Another answer: "This activity goes with the time; without them I can no longer imagine my existence" but also "a lot of information and instructions and links are in English; the older generation usually does not speak English". (It means digital technologies.)

Some of their answers were positive as e.g.:

"Smartphone help me in lot of situations in my life, I actually learn a new language, improved my English, helped me to take notes of my friends and write to them later to win time on better stuffs, I think it's basically about controlling the technology, if the smartphone was limited in some things it would be much more helpful".

"Since I am already living alone, it is in my interest to maintain my socio (my social life) in an appropriate form. I have this duty not only for myself, but also for my children and grandchildren. Through technology, I enjoy their school and sports success almost daily. Thanks to them, I managed this level. I know I still have gaps and I'm looking forward to new challenges."

and:

"It is a problem for older people to maintain their PC or laptop and phone in terms of installing ordinary software, or various updates, antivirus, etc. If they don't have anyone in the family to help them, they don't want to use it. In addition, older people have problems with vision and fine motor skills; they have less sensitive and agile fingers, which are needed when using these technologies. Therefore, they prefer different buttons and knobs, e.g. on the electric oven, the old man prefers to turn the knob, because he knows e.g. that if he turns the knob



180 degrees, he has set the oven temperature to XY ° C and does not have to look for glasses to see what he has set.”

Use of the new technologies is very important, especially for elderly people for increased feelings of security and to be reachable for the family, friends, etc. It gives the opportunity to connect with family and friends around the world. Disadvantage is that it requires internet (Wi-Fi).

According to the results of the questionnaire, we can conclude that the majority of respondents have a positive attitude towards digital technologies and are willing to overcome the difficulties of using the equipment.

Therefore, we believe that older people who have doubts about the necessity of the smartphone would be most likely to accept it if they found the smartphone not only easy to use, but also beneficial to themselves. This also applies to other digital devices that can bring a lot of relief to older people in their daily lives.

