SeLiD

Seniors' Learning in the Digital Society

SURVEY ON THE USE OF DIGITAL TECHNOLOGIES

NATIONAL REPORT - SPAIN

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INTRODUCTION

SeliD (Senior's Learning in the Digital Society) is an Erasmus + project of the European Union with the main objective of 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 team involved in this project brings together lifelong learning schools and associations from six European countries (Slovakia, Czech Republic, Germany, Poland, Sweden and Spain).

The first step of the project aims to know the state of the art regarding "The use of the Digital Technologies" of people over 50 in each of the countries. A direct survey was designed for this purpose, seeking to have first-hand access to senior citizens' availability, learning modes, use, difficulties and perception of digital technologies in the six countries of the partnership.

This report, which shows the results of the survey questionnaire completed by the senior citizens in Spain, offers relevant information for the next stage of the project: the creation of new innovative curricula, training activities and enlargement of the seniors' skills.

The description of the project, along with other specific information, can be found at https://selid.efos-europa.eu/

METHODOLOGY

In Spain the survey was distributed among a total of 871 over-50's citizens living in Alicante and its neighbouring areas and the majority (94%) was enrolled in the Permanent University of the University of Alicante (UPUA). In February 2020, after an information campaign on the objectives of the project, the questionnaire was distributed and completed online by 221, which represents a response rate of 20%.

The questionnaire consisted of twenty-four questions of different typologies: close-ended, open-ended, multiple-choice and multiple-answer. The questions were grouped together into eight conceptual blocks, namely: (1) profile of respondents; (2) technological resources available; (3) learning modes of the use of the digital technologies; (4) case of more frequent use of digital technologies; (5) the smartphone; (6) the Internet of things; (7) main difficulties in the use of digital technologies; and, finally, (8) their perception and attitude towards digital technology. An additional question was added in the Spanish questionnaire about the kind of computer courses or workshops the UPUA could offer in the future.

Most of the respondents of the survey were men (45%), while the remainder was distributed among 33% of women and 22% who preferred not to be identified in terms of gender. Almost 7 out of 10 of the surveyed respondents were situated between 61 and 70 years of age; more than 20% were 71-to-80-year-olds; the range between 50 and 60 was nearly 10% and the remaining 0.9% corresponded to people of more than 80 years old (see Figure 1).
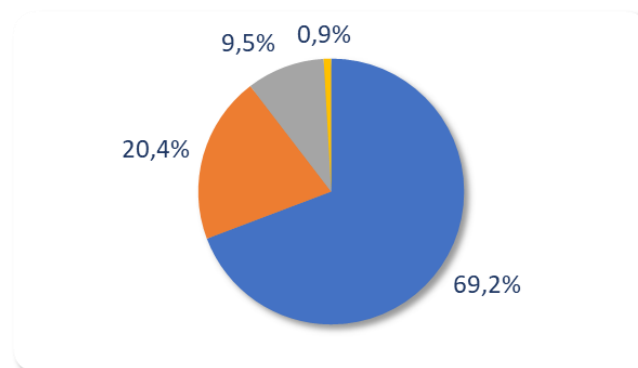

Figure 1: Participants according to age groups

In terms of life status, 62% live with a partner and 28% live alone, whereas the remaining 10% is divided among those who live with their relatives (8%), friends (0.5%) or have a different situation (1.5%).

Further to their working activity, about 18% of respondents work or used to do it in education or in banking and insurances; industry, transports and communications were the labour sector for about 13%; health care employed 10%; offices and professional practices accounted for 9%; commerce and hospitality for over 4%; and agriculture, cattle-raising and fishing for 0.5%. More than 1 out of 4 worked in a different sector than those listed in the questionnaire (27%).
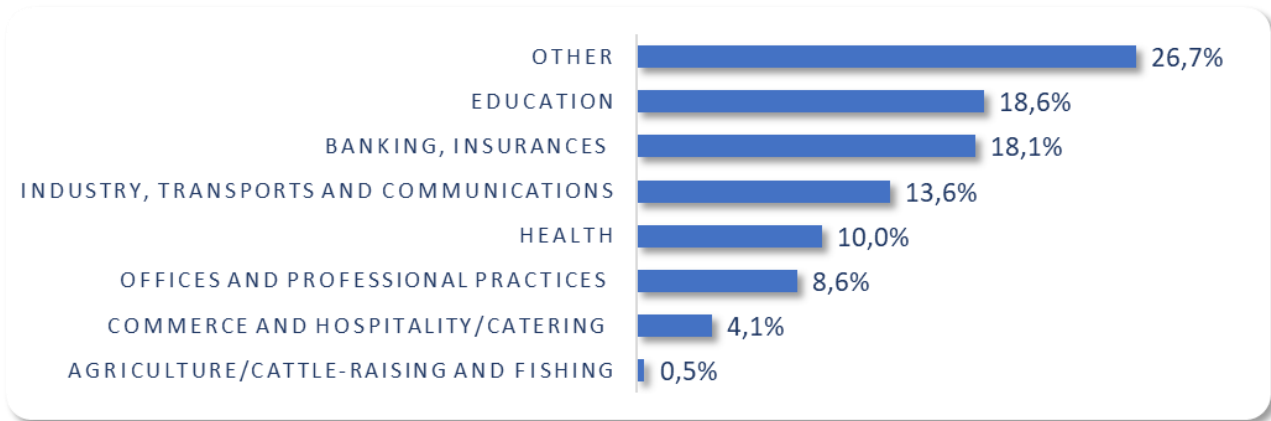

Figure 2: Working activity

Regarding the education level, over three quarters of the total have a university degree, either as graduates (42%) or as undergraduates (33%), while the rest completed secondary school (18%), primary school (1%), attended a vocational school (4%) or had another kind of education (1%).
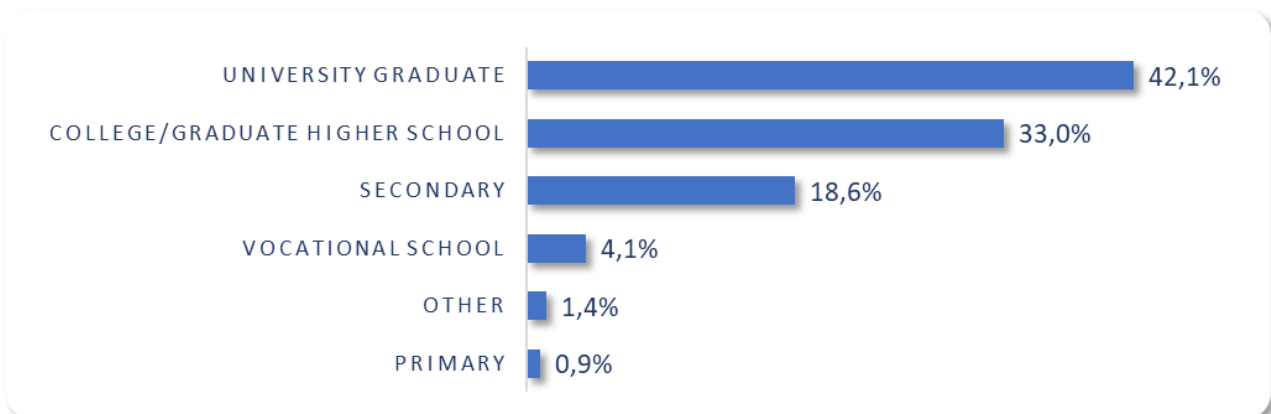

Figure 3: Education level

RESULTS

Technological resources available

When it comes to the assessment of their ability to use the computer, more than a half consider it is acceptable, even good (27%) or very good (6%). On the other side, a small proportion of respondents admitted their skills are very low (1%) or low (12%).
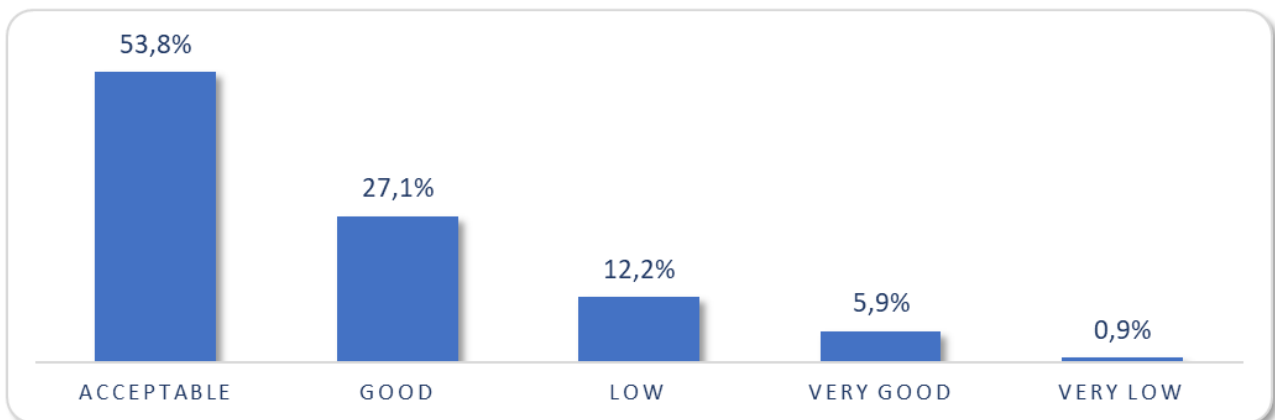

Figure 4: Computer literacy

Regarding the use of technical devices, the participants had to choose the frequency of use of eight categories of devices. Smartphones, PCs and laptops were the most popular for over 90% of the respondents, followed by tablets, e-Books, printers and scanners (about 66%). The traditional phone or the conventional mobile are often used by half of the people, while the figures for GPS, Webcam, camera, camcorder, etc. do not differ too much (42%). At the other extreme are game consoles, whose use drops to the range of 10%.
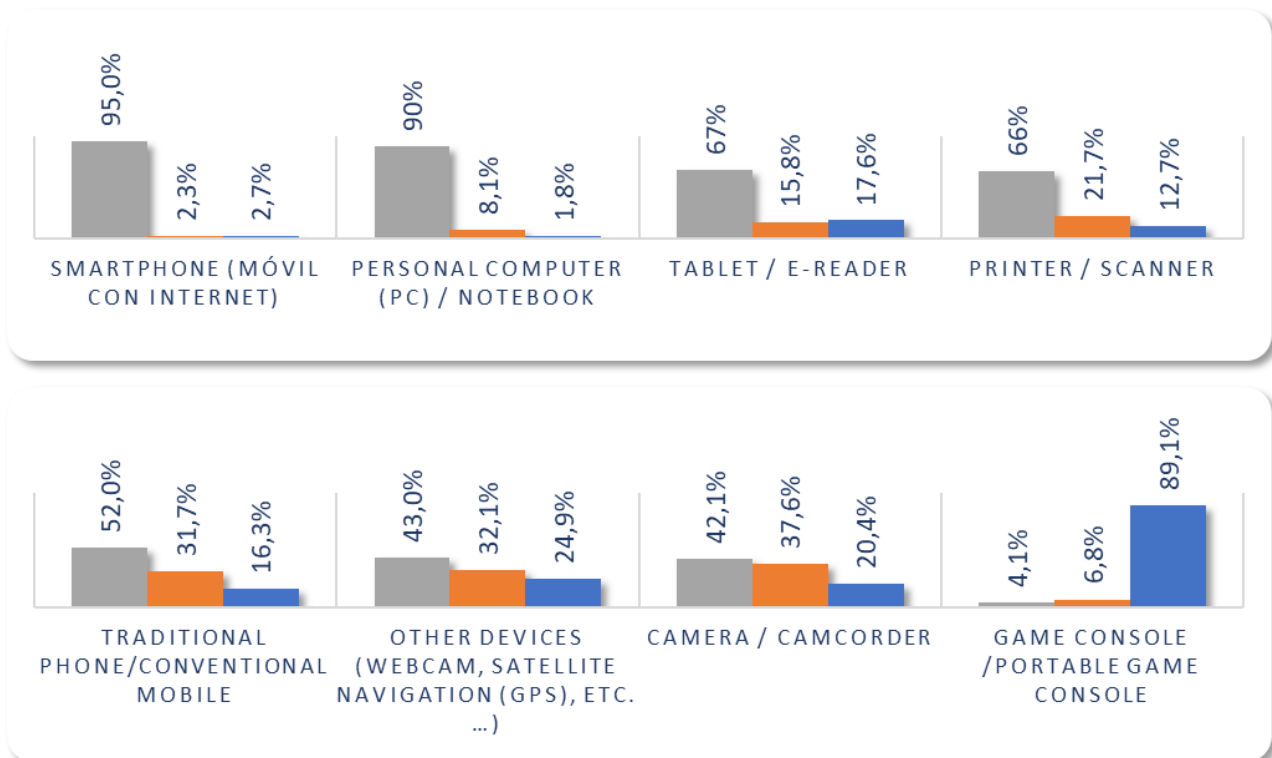
Figure 5: Frequency of use of technical devices

According to the figures, almost all the participants have internet connection at home (98%). When they are out, they access the net mainly from the university or the senior centre/ club (32%), from friends' or relatives' home (21%) or at work (9%). Some people use also free Wi-Fi networks offered in libraries, clubs or their own connection through the smartphone.

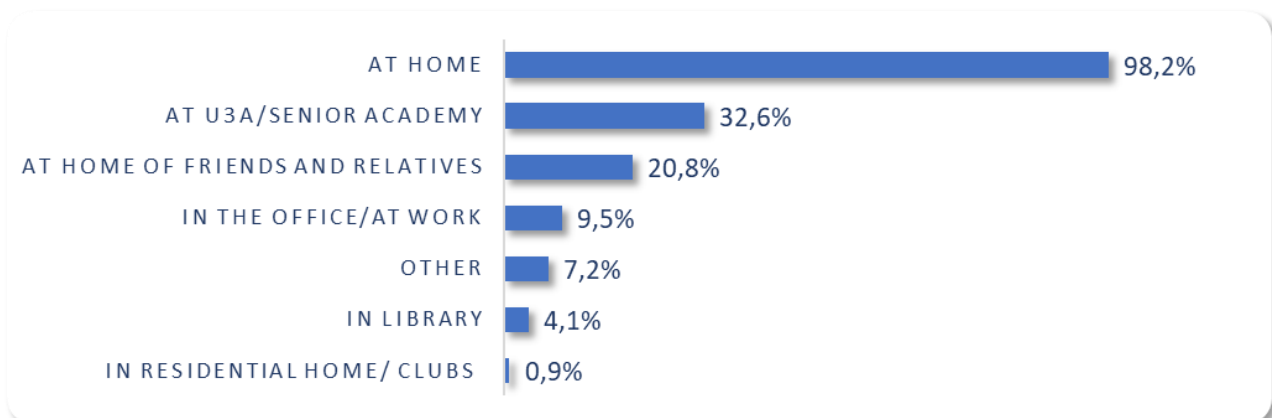*Figure 6: Internet connection*

Learning modes of the use of the digital technologies

In this section, the survey enquires about the way seniors over 50 usually learn about new technologies. The first question focuses on the kind of training they choose in order to learn the basics or to deepen their knowledge. The question offered eleven options among which they had to choose a maximum of four.

As shown in the results, attending courses was the first choice for only 23%, although if we added up all the rankings, it becomes the top option (72%). Nevertheless, learning in workshops, that was the best scored in ranking 1 (28%), was relegated to the second place in the overall rating (66%).

More than a half of the interviewees (58%) feel more comfortable in a trustful environment and tend to seek the support provided by relatives of friends when they need to improve their skills in digital technologies. Self-study is a suitable proposal for 50% of the respondents who profit from tutorials and the information available online and learn at their own pace.

Categories such as "taster courses", "lectures and presentations" and "distance learning" were chosen as the favourite learning method by a third of the respondents.

A quarter of the participants preferred attending meetings with computer experts. A possible explanation is that these interviewees' starting level in the use of digital technologies is higher than others'.

The offer provided by electronic shops and telecommunication companies is the best option for 15 and 11%, respectively; this is also considered a good alternative to have access to the latest market trends.
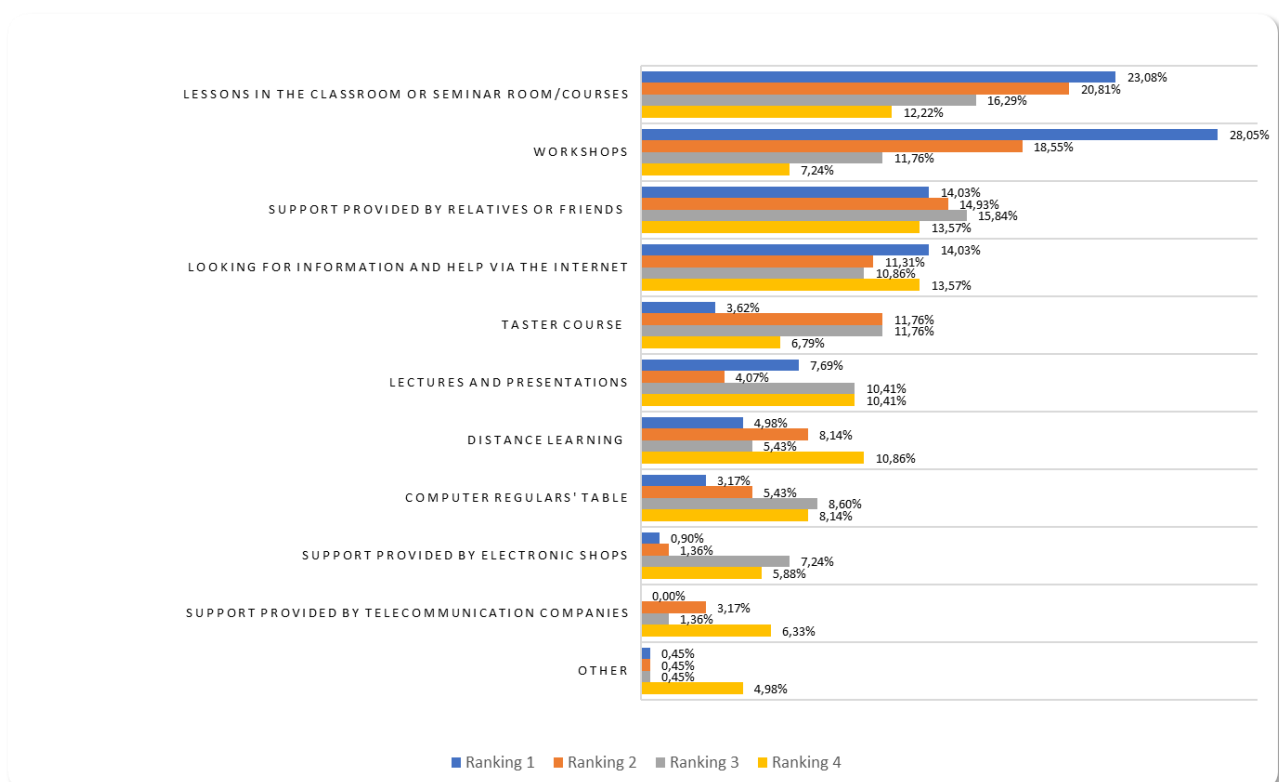

Figure 7: Training in digital technologies

The second question in this section enquired about the people's attendance to the offer concerning digital technologies included in university programmes for older seniors. This kind of training is only used by 1 out of 3 of the respondents.

Cases of more frequent use of digital technologies

Concerning the interviewees' frequency of the use of digital technologies, the first question in this section aimed to measure eighteen services than could be accessed through digital procedures and the devices that are employed for that purpose: PC or laptop, smartphone or tablet, or none.

Results indicate that the most popular device is the smartphone, especially in the field of communication (76%); a plausible reason is because besides talking they can send emails, messages or chat. The smartphone is also the favourite tool in two situations of special relevance for the interviewees: reporting emergencies and recording appointments and relevant events on their calendar, both ranking 72%. When participating in social networks, seniors do it preferably from their phones (64%). Likewise, when using the GPS (62%), the smartphone is the preferred device. The mobile phone is more than 20 points ahead of the computer when it comes to working with photographs (57%) and, although with a slightly minor difference, when working with videos (42%). Finally, the smartpone also leads the access to clinical histories or other activities related to medical procedures or health control and monitoring, such as pedometer, glucose meter, etc. (36%).

Concerning PCs and laptops, more than half of the respondents prefer them when the task requires greater use of the keyboard, for instance when working with word-editors (68%). Economic activities are among those most frequently carried out from these terminals, with 61% for banking services or 52% for online shopping. Almost one out of five seniors resorts to their computer to search for information (49%), and a slightly less amount of respondents play movies, videos, music or other multimedia content on the PC (44%) or attend video conferences (30%)[1].

Those who use the tablet do it mainly to access publications (29%), whereas approximately 10% more do it mainly from their computer or laptop (39%). The tablet stands out among gaming fans (17%), nevertheless the majority (54%) do not usually use new technologies for this purpose.

Finally, it is important to point out that some participants do not perform some tasks with any of these devices. The percentage does not exceed 50% in any of the cases, except for the aforementioned games; however, almost a third of the surveyed seniors do not watch video conferences (39%), nor do they consult their medical records (33%), nor do they report their emergencies (25%) through technological devices. Conversely, we can find the highest levels of performance in the searching for information and interpersonal communication, where just one person out of the 221 respondents does not use technology for that purpose.

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[1] These findings were gathered before the CoVID-19 sanitary crisis and it is likely that they will differ from the current situation.
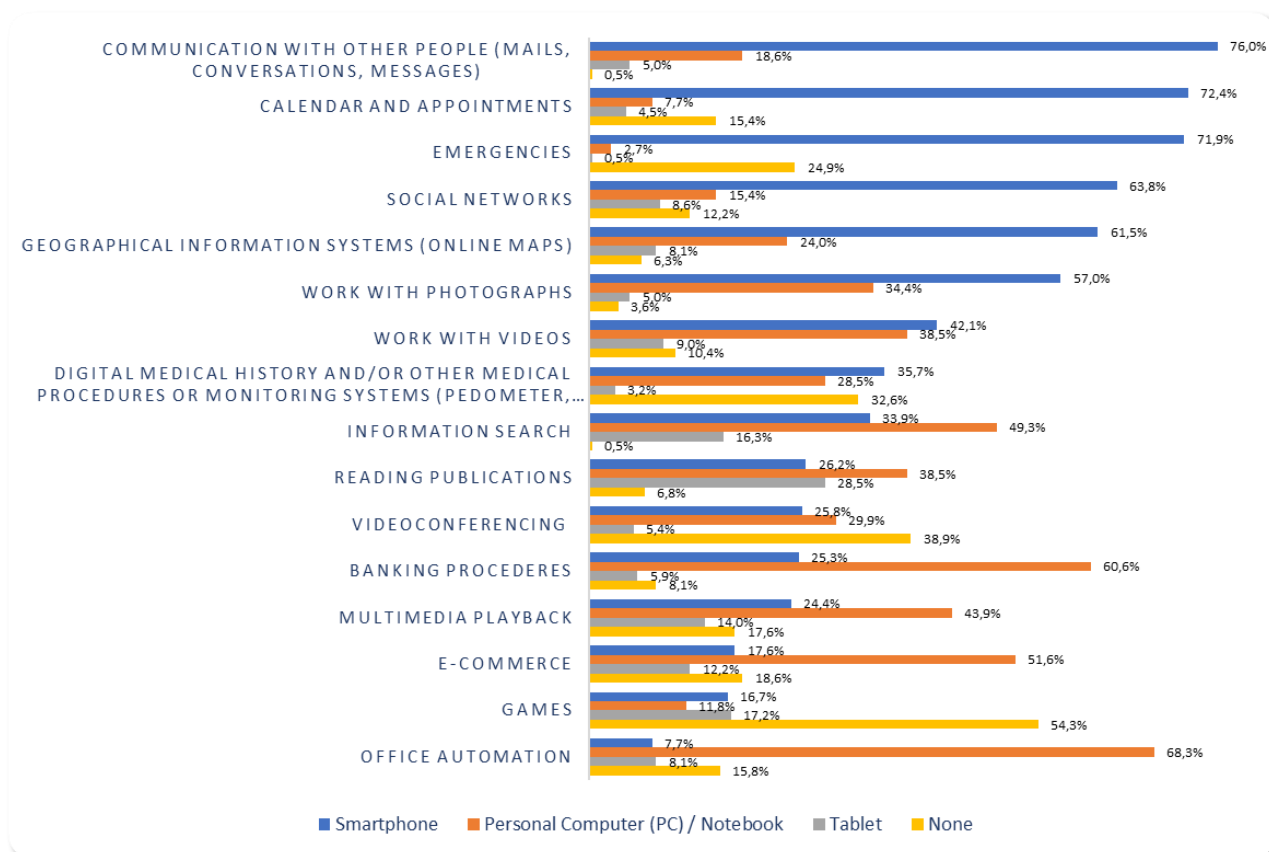
Figure 8: Frequency of use of technological devices

The second question in this section enquired whether the technological devices were used by voice system to avoid handling the keyboards, to which slightly a third of the interviewees answered affirmatively (34%).

The smartphone

The survey subsequently enquired about the use of the smartphone. The first of the four questions included in this section focused on older people's reasons for not using this device. The respondents could tick several answers among the fourteen proposed.

The main barrier that hinders the use of the smartphone, according to the respondents, is the annoying notices that often appear on the screen, such as advertisements and cookies. This drawback stands out over the rest, with 38% of the responses. Almost the same proportion (36%) does not show any interest in the device or considers it is unnecessary.

The following answers highlighted the difficulties in the use of smartphones. Respondents underscored several problems: for example, the difficulty in typing or deleting due to the size of the control panel (33%), or the fact that the screen is not big enough and makes reading too hard (32%). This was followed by their concern for the use of sensitive

personal data and the need for maintaining their privacy, both with 31% of the interviewees. Another concern regarding technical issues is the damage that malicious software can produce in their gadgets (29%).

Moreover, it is interesting to notice that when they come to the decision of buying a new smartphone, 29% feel not able to decide about the technical features of the device they need, and they usually give up on it. The economic issue is also a handicap because the price is a deterrent for 24%, while those who think the running cost are too high reach 9%. In addition to all this, there can be unwanted costs caused by misleading information or mistaken orders that concern over 12%.

Installation and connection discourage some seniors. 23% think that the initial installation of the smartphone is too complicated, and 15% declare to have no wireless network connection at home, which would also force them to consume mobile data from home. In fact, there are 9 out of the 221 people surveyed who have no reception at home or it is not good enough for mobile data.

Finally, the impact of on health is a cause of concern for ca. 5%, which entails 11 respondents.
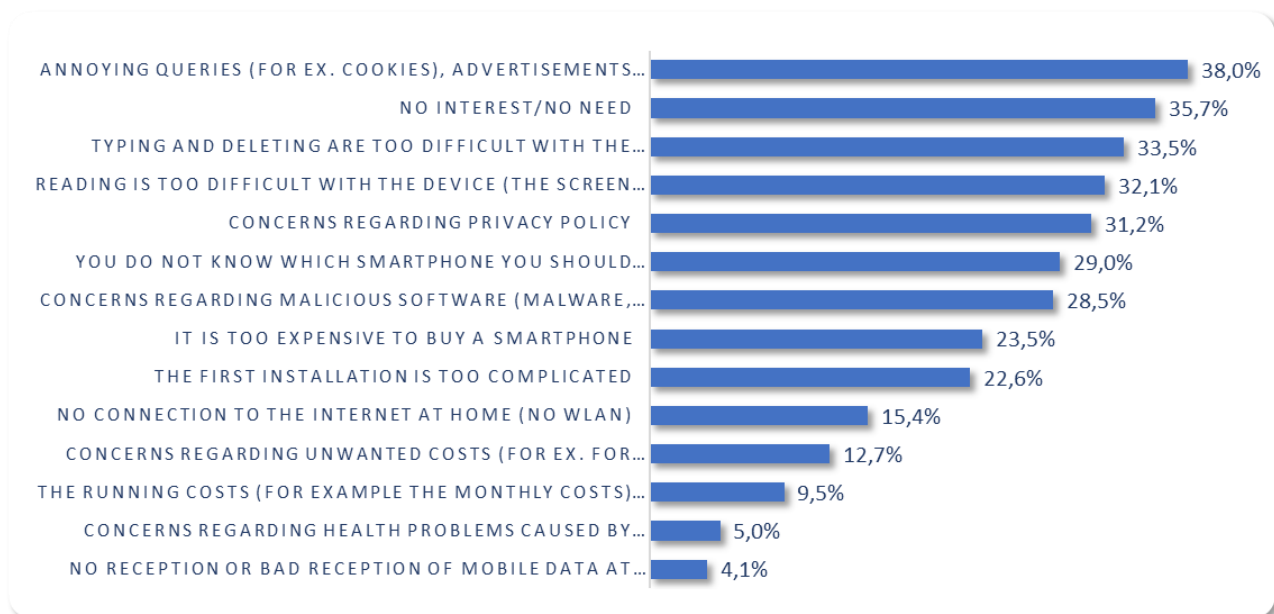

Figure 9: Reasons for not using a smartphone

The following question in the survey dealt with the frequency of use of the smartphone in various activities. Four frequencies had been established: daily, several times per week, almost never and never.

As we have already seen, the smartphone is mainly used for interpersonal communication, but contrary to what might be expected, on a daily basis the elderly use Whatsapp or Telegram applications more often (79%) than traditional calls (71%), possibly due to the fact that they are free and allow to introduce complementary elements to written

messages, i.e. photos, videos, etc. Other services such as SMS and e-mail drop in daily frequency to 64%; perhaps because they are less versatile and because they increase the price of the monthly invoice, as is the case with SMS.

Regarding people who never or hardly ever use their mobile phones for any of the above-mentioned activities, the figures are low, between 3 and 11%. Sending voice messages is not very popular among seniors; 60% never or rarely do it. Finally, with regard to video telephony, although it occupies the last place in the table in terms of daily frequency, it has been used on some occasions by more than half of the respondents (one out of six), a number that has likely increased with the prolonged confinement imposed by the coronavirus pandemic. In relation to the use of social networks, other than Whatsapp and Telegram, more than 45% do not consult them from their Smartphone.

After communication, the most frequent activities are those related to image, since over 70% of respondents take and send photographs and videos through their mobile phone on a daily or weekly basis.

Regarding games, it is worth noting that more than one in every four declares that they never use them, and almost a quarter prefer not to answer; therefore, only about 20% state that they play with games daily or weekly.

Over half of the respondents never or hardly ever use audio applications to listen to the radio, music or audio books; however, those who do use them, daily or several times a week, exceed 38%.

With respect to navigation systems for orientation, more than 47% of the participants use them while driving or walking on a daily or weekly basis.

There are three activities that respondents refer they rarely do from their mobile phones, namely: shopping online (67%); making emergency calls, which registers ca. 66% (with a striking 22% who prefer not to answer); and installing and downloading new applications (53%).

Finally, more than a half carry out activities other than those proposed in the survey.
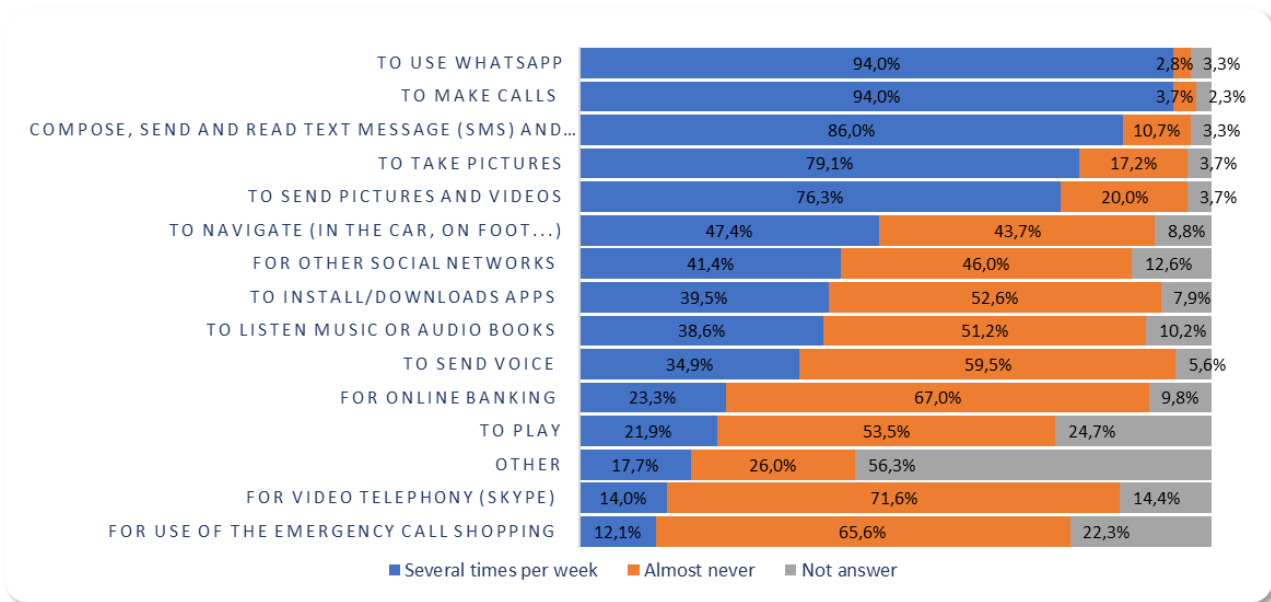
Figure 10: Daily use of the smartphone

It seems that adults over 50 have some problems when handling the smartphone, so the following question offered five proposals which could make its use easier. Clearly, help is needed because more than six out of ten people pointed out that it would be useful to have either some explanations by another person or easy printed instructions. 16% think that they would buy a smartphone if they were previously allowed to handle it in order to check if it is suitable for them. Finally, a smartphone especially designed for older people was demanded by more than 11% of the respondents, despite the fact that 12 out of the 19 people who indicated other reasons claimed that they already used it without difficulty.

Figure 11: Easier use of the smartphone

The last query in this section, only answered by 35% of the survey respondents, was an open question about the new possibilities that adults would like to be implemented in smartphones.

There were a wide variety of responses, some of which insisted on physical features such as the size and comfort of the keyboard, longer-lasting battery, lighter devices or retina displays to read eBooks easily.

Ease of use was another of the most requested aspects, either to access the email, the browsers or to be able to change a device without losing the stored information.

Regarding possible applications, they would like to be able to use the smartphone as a scanner, as an efficient GPS, to take 3D images, for image recognition (plant or animal species), to record audios that later can be transcribed, to communicate emergencies, to plan healthy menus or to have real-time medical advice.

They also demand better guarantees in terms of security and privacy, avoiding that the installation of applications does not involve the installation of unwanted elements too.

The internet of things (ioT)

Digital technology has long been established at our homes and it is more and more present in everyday life. Many home appliances can be remotely monitored to make daily tasks easier. Nevertheless, if you do not know how to use it, technology can be more of an issue than an advantage. Therefore, this section contains an analysis of the way seniors use their electronic devices and the kind of control-access they value when buying a new gadget.

The first question presents fourteen domestic appliances related to cleaning, cooking, lighting, ventilation, entertainment, communication, health and security, which can be controlled in three different ways: through mechanical systems such as buttons, wheels, switches, etc.; through a digital interface using the internet or a mobile connection; and with voice recognition.

Mainly, traditional control prevails over the other two alternatives, as the responses show: over 90% for washing machine, microwave, dishwasher, oven and vacuum cleaner; between 70 and 90% in the case of fridges, lights, curtains and windows and cars; and more than 50% for Hi-Fi, home security systems, watch and health sensors.

There is only one exception, the telephone that, although it is used in a traditional way by nearly four in ten, 55% of the respondents stated that they control it through an Internet connection.

When analysing in detail the responses on the other two options (having a digital interface or a voice-control over the gadgets), it is interesting to highlight that the digital interface has a preference over the voice-control when dealing with vacuum cleaners, cars, Hi-Fis, security systems, or watch and health sensors. Conversely, voice-control takes over the second position in the ranking when using washing machines, microwaves, lights, curtains and windows.
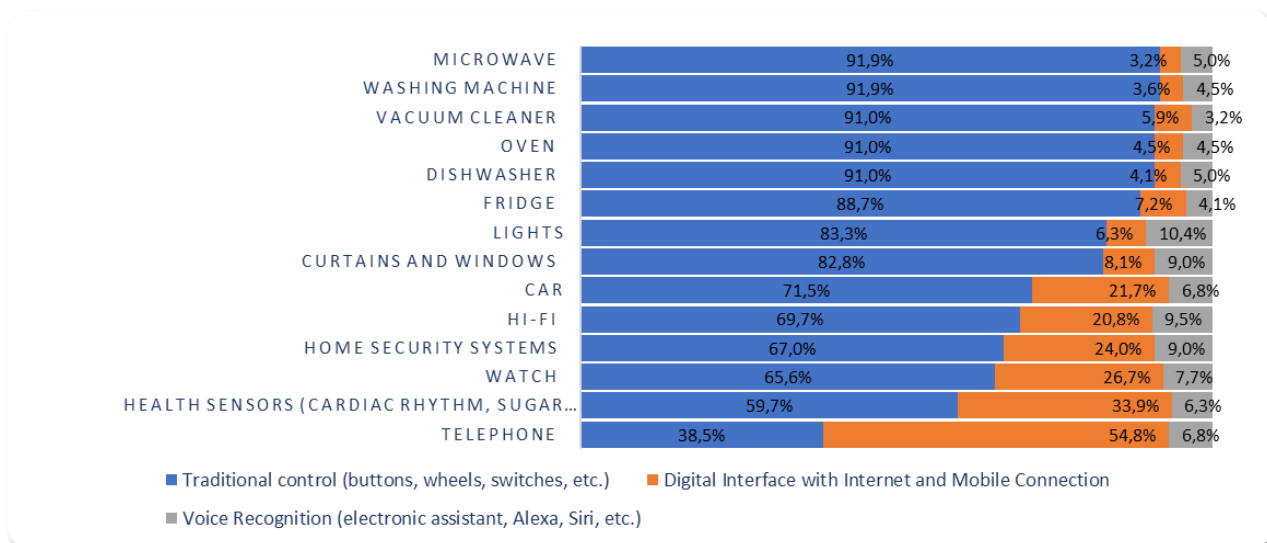
Figure 12: Use of electronic devices using traditional controls

As we have just seen, the participants choose traditional ways of use as their main option. Nevertheless, it is remarkable that more than half of them prefer digital interface, internet connexion and voice control when it comes to buy a new device, and that only 21% give still preference to the purchase of a traditional gadgets.
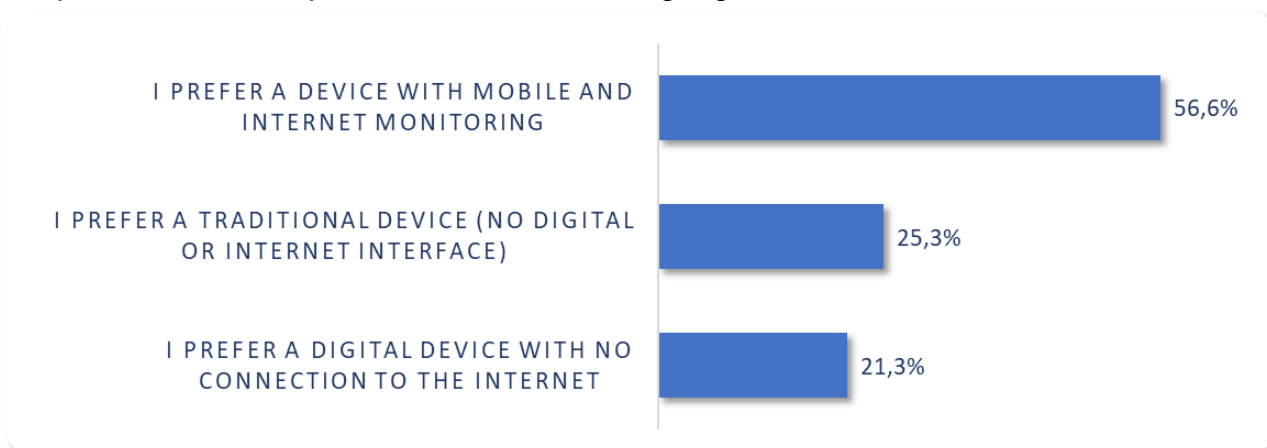

Figure 13: Considerations when buying a new device

Main difficulties in the use of digital technologies

The next two questions analyse the obstacles and risks that seniors find when dealing with digital technologies.

Regarding the barriers, a list of seven possibilities was offered, among which the seniors could choose as many as they found suitable. The findings show that the difficulty in the use of digital technologies and applications stands out, with over 40% of the results. Moreover, according to 30% of the respondents, not only is learning about these technologies complicated, but also time consuming.

Three answers scored between 10 and 20% of the total: the reading difficulty of displayed texts are, the excessive costs and the lack of personal assistance.

While ca. 9% admit not being interested, a positive fact for the implementation of digital technologies among the elderly is that a quarter of the respondents declare that there is no obstacle when using them.
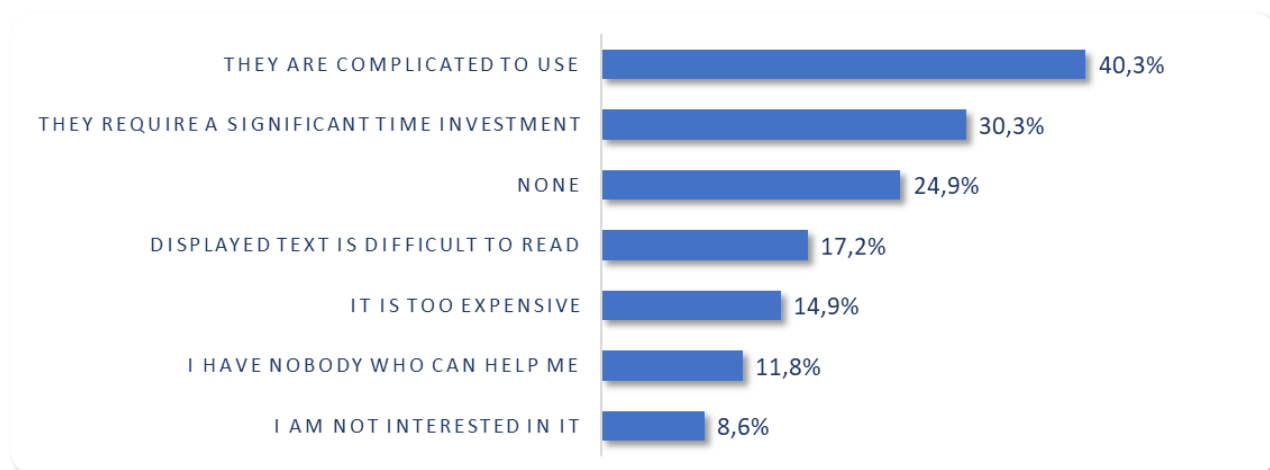

Figure 14: Obstacles when dealing with new technologies

The following question assessed the kind of applications that make seniors reluctant to the use of digital technologies because of dangers related to the loss of privacy, the risk of theft or fraud, personal data leaks, etc. In this question they were requested to choose a maximum of four options in order of priority.

The apps they fear the most are those related to online shopping. Although as a first choice this response just reaches 37%, it exceeds 83% if we consider global results. The same applies to online banking, the second cause for concern, with values above 10% in the four rankings and a total of almost 70%.

Procedures with public authorities and medical formalities are both in the 40% range, although they register lower percentages as first and second options.

As for the rest, no application seems half as worrying as the first two. Personal communication, information search and working with photographs are in the 20 to 40% range; and even below that are online publications, working with videos, geographic systems, office automation, multimedia reproduction and others.
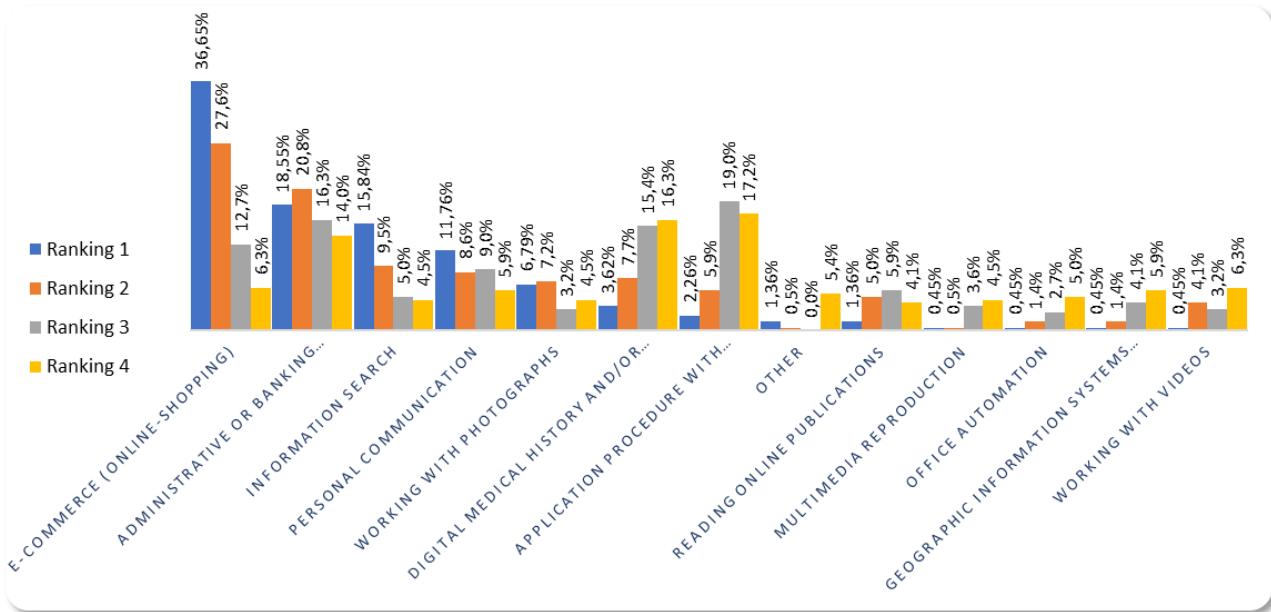
Figure 15: Risks

Perception and attitude towards digital technologies

The last part of the survey, which covers four questions, deals with the perception and attitude of the elderly towards digital technologies.

In the first place, the participants were given a closed question about four possible scenarios resulting from the use of digital technologies. Over 85% think that technology enables them to keep in touch with classmates outside the classroom; 78% think that technology improves the communication with family and friends; and it has allowed them to recover contact with some people (74%). When it comes to making new friends, results show a slight difference of 8 points between those who have made new friends and those who have not (41% versus 59%).
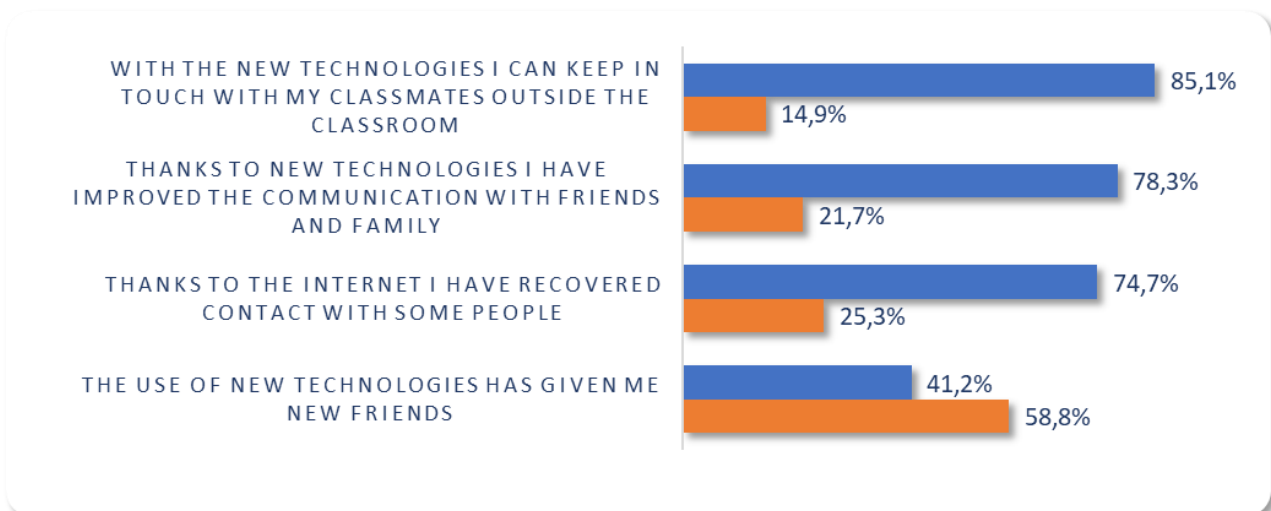

Figure 16: Perception of the digital technologies

The next question proposed eleven adjectives to qualify the use of the technologies. The participants were requested to choose as many options as they liked, and more than a half agreed that technology is mainly practical (82%), efficient (64%), and important (51%).

It is relevant that all the negative aspects are concentrated in the lower part of the table, scoring lower than 11%: c. 11% described technologies as complicated, 5 out of the 221 respondents believed they are unnecessary, 3 chose boring and 2 harmful.
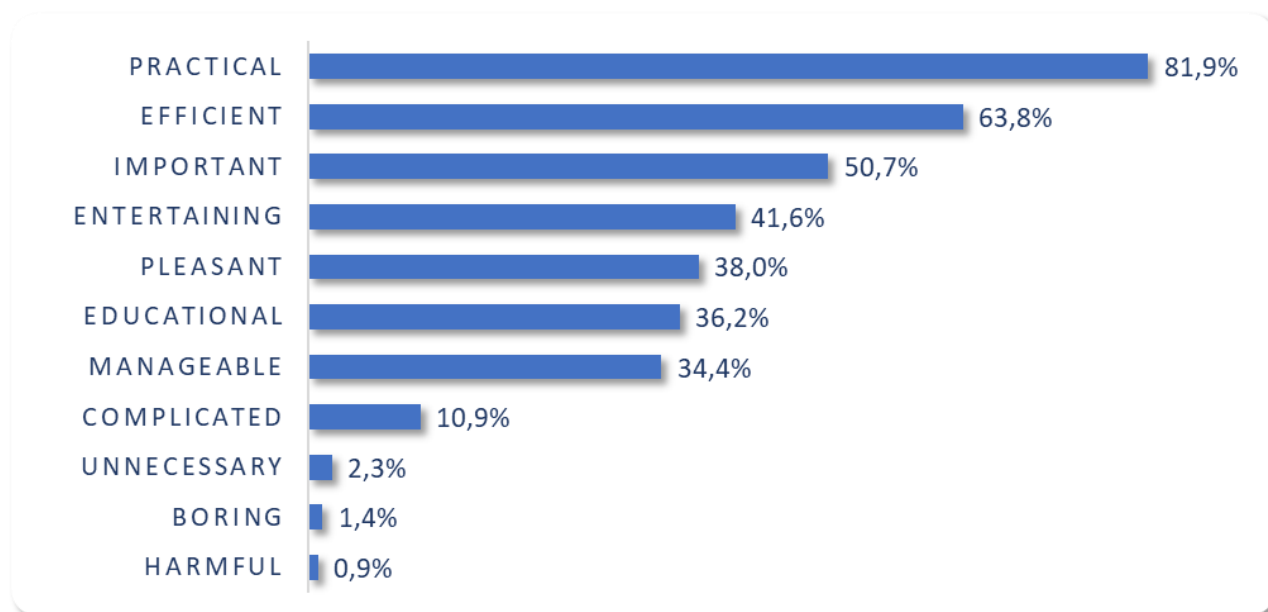

Figure 17: Opinion

Then, an open question encouraged the participants to add some comments about the use of digital and internet-connected devices, only 25% did. The options were grouped in several blocks according to their topic.

On the positive side, seniors mainly valued the possibilities of information and communication with the rest of the world. According to respondents, the internet and smartphones are the suitable tools for breaking down barriers, discovering other cultures and being updated. In addition, they connect users to family and friends, and make them feel they are an active part of the society. They also believe that digital technology improves people's lives and, therefore, its use is necessary, unstoppable and irreversible. Some even wonder why other people of their age do not give it the importance it deserves.

On the other hand, there are some interviewees who complain about the difficulties they experience when using technologies because of the lack confidence or because they are discouraged when they fail to handle digital devices in an adequate way. However, they also believe that their skills could improve with a proper training and that technologies should be available to older people.

As a last thought, digital technologies generate two notable concerns: the lack of security and privacy derived from the transfer of personal data required to access applications, and the addictive behaviours that can be generated by an abusive use of network resources.

The questionnaire is closed with a specific question for Spanish participants about the kind of courses or workshop they would like to be offered. On one hand, some respondents think that currently there is a suitable offer, complemented by Euconet, a club hosted by the Permanent University to help senior to use the Internet. On the other hand, basic-skill courses (text-edtion, mail handling, net surfing, etc.) are demanded by those who do not have any technological knowledge or skills. Specialized courses (e.g. photo and video edition, online-bank, digital currency, smart contracts) are a request from the most advanced pupils.

The interviewees also showed interest in specific devices, such as tablets, smartphones, home automation, and certain applications, for example, social networks, GPS, Skype, or the Drive.

Finally, there are some people who want to have online courses related to other topics, such as history, arts, literature, geology, etc.

CONCLUSIONS

To begin with, the survey was conducted among people over 50 years of age, mainly (70%) in the 60-70 age range. Almost all of them are pupils of the Permanent University, have a university degree, and declare to have acceptable, good or very good computer knowledge. They are regular and frequent users of smartphones, computers and tablets, and except for four people, the rest have an Internet connection at home; nevertheless, they know how to connect their devices to the network when they are away from home. Therefore, it is worth highlighting that the data must be interpreted with caution because the results cannot be extrapolated to the elderly population in general.

When they need specific training in digital issues, mostly resort to workshops and courses, or as a second option, they seek support from family and friends, and more than half are even able to search for information on the Internet on their own.

Regarding technological devices, the most appreciated is the mobile phone, which more than three quarters of the respondents use mainly to communicate, but also to have their calendar always available and to report emergencies. That does not mean that smartphones are preferable to the traditional phone, ca. 50% of the respondents still use the conventional phone. Computers stand out when using text-edition, e-commerce and banking, and they are so, because they are associated with a higher level of security (90% are able to use the PC or laptop). Tablets are more related with leisure and used for reading and games.

After a detailed analysis of the reasons for not using the smartphone, it has been detected that three are the most relevant, with similar scores in the results: pop-ups and cookies, lack of interest/necessity and difficulty in writing and reading. This does not prevent almost all respondents from using Whatsapp or calling on a daily or weekly basis from their smartphone; although they would use the device more often for other purposes if they had outside help or easy printed instructions.

When it comes to improve their smartphone use, their demands are already available on some devices, while in others they are also possible by modifying the configuration, improving the connectivity or downloading the appropriate applications; such is the case for recognition of plant species, efficient GPS or transcription of audios. The implication is that they need to explore or be trained in the possibilities of the devices they have.

Regarding the internet of things, most of the participants prefer the traditional control, based in buttons, wheels or switches for their appliances, but it is remarkable that over 50% of them consider the mobile and internet monitoring when it comes to buy a new device, versus 21% who would choose the traditional one.

Continuing with the ioT, while four out of ten think that technological appliances are difficult to use and time consuming, a quarter of the respondents do not find any obstacle.

Finally, according to most of the interviewees, digital technology is a practical, efficient and important tool; moreover, it helps them to stay in touch with colleagues, family and for half of them it has even helped to make new friends.