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The Internet in Greece

World Internet Project
Final Report

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The Internet in Greece

FINAL REPORT

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EXECUTIVE SUMMARY

Internet use and access

Internet use in Greece is increasing, although the Greek internet use rate still falls below the EU average (85%). In specific, over 70% of the population aged 15 and over report themselves as internet users. The non-users refrain from internet use mainly because they are not interested, or not convinced, about internet's usefulness; or they are afraid of (or confused by) technology; or they lack technical skills, rather than internet access per se. The majority of the users connect to the internet through their cellphones (81%), while the main location from which they go online is their residence (95.1%). Cellphones are the most common devices to go online, with daily use of 82.4%, followed by personal computers, with daily use of 70.3%. In total, 3/4 of the users go online on a daily basis through personal computers or cellphones. Tablets and e-readers are less popular as they are used by less than half of the user population.

Digital divides

A divide in internet use is noticed between urban and rural areas, as urban residents use the internet significantly more than rural residents. In particular, Attica has the highest percentage of long-term internet users (56.2%), something which is expected due to Attica's population density and wealth concentration. Yet, regions with high tourism activity, such as Crete (45.2%) and South Aegean (57.1%), also exhibit high percentages of long-term users. A smaller but visible division is found between genders as men connect to the internet more than women. Age seems to be negatively associated with internet use, while education and income exhibit a positive association. There also a positive relationship to long-term use, with those who are full-time employed to be more experienced internet users than the part-time employed. Likewise, internet users who are employed have been using the internet longer that those that are unemployed.

Online activities

Communication

E-mail exchange and instant messaging are by far the most common online communication activities. Phone calls over the internet are also quite popular among Greek users, with almost 40% of them making online calls at least once a day.

Information

Internet use for obtaining information mostly involves reading news online. Besides online news consumption, there is also a high tendency to search information on health issues. On the contrary, searching for employment opportunities and travel information are not very popular activities among Greek internet users.

Entertainment

Searching for music and videos is the most frequent activity among Greek internet users, with one-third of them engaging in such uses on a daily basis and many times during the day. Playing videos games is also a very popular activity, in contrast to visiting sites pertaining to online dating, e-gambling, religious content, and explicit sexual content.

Transactions

Online transactions are a relatively limited activity, albeit with increasing trends. There is also relatively limited use of the internet for comparing prices of products or services, as well as for travel bookings and for selling or purchasing commodities.

Learning activities

In terms of learning, Greek users frequently use the internet to find or check a fact and to look up word definitions, as the majority search for such information at least once a week. In contrast, finding information on school-related work or participating in distance learning programs are much less popular activities.

Social capital

The topic of social capital is newly introduced by the 3rd research wave of WIP Greece. Our empirical findings on this topic are -more or less- in alignment with those of the European Social Survey (ESS), according to which the internet users possess a relatively higher social capital stock in comparison to the non-users. Nevertheless, the particular dimension of bonding social capital (i.e. maintaining and developing connections with family members or close friends), within the digital world, is much stronger than the dimensions of bridging or linking social capital (associated to open civil society processes).

Internet reliability, fake news and online victimization

Greek users are rather sceptical regarding the reliability of information on the internet, as the vast majority assumes a neutral or moderate position on this issue. Interestingly, less than one out of 100 internet users believe that all information conveyed on the net is reliable. Nonetheless, respondents avoid rejecting online information completely. But despite Greek internet users' scepticism on the reliability of online information, they seem to perceive themselves as rather capable to distinguish fake news on the Web. As far online victimization is concerned, the users do not appear to be frequently offended during web browsing. Phenomena of online harassment are not extended, with most common cases pertaining to unintentional exposure to pornographic content and online viruses.

Privacy online

The Greek internet appears to be rather safe in the sense that privacy violations are not very common among Greek users and are rarely reported. When they occur, the consequences are usually limited to users' embarrassment without creating any other significant problem. Most respondents (users) state that they have nothing to hide but, at the same time, the majority is actively protecting their privacy online, expressing strong concerns about privacy violations by corporations and the government, as well as by other people. The latter paradoxically coexists with a reported impression that online privacy can be controlled by the users themselves.

Political efficacy and freedom of expression

Greek users' perceptions on internet-related political efficacy seem ambivalent. Although most respondents believe that the internet helps to better understand politics and to have their voices heard, the majority of them do not expect that online participation will actually increase their ability to influence government decisions, or that public officials will be more interested in their opinions. A similar ambivalence is manifested in self-reported political expression online. Most users/non-users recognize people's right to criticize the government and also report that they feel comfortable in expressing their political opinions, contending that people should be free to express even extreme opinions online. However, the majority of all respondents believe that it is not safe to express their political opinions online.

INTRODUCTION

Contemporary internet developments are driving globalization and increasingly rendering the world around us much more complex, uncertain and unpredictable than we have allowed ourselves to see, so that many explanatory models and policy frameworks become obsolete.[1] According to the OECD report *"How's Life in the Digital Age?"* (February 2019), digital technologies have radically and rapidly changed the way we work, consume and communicate, but this transformation calls us to address such crucial issues as digital equality, literacy and security, in a responsible, smart and effective way.[2] As Sir Tim Berners-Lee, the Director of the World Wide Web Consortium (W3C, http://www.w3.org/) and inventor of the World Wide Web, sharply puts it, if we give up on addressing big issues and building a better web now, "then the web will not have failed us. We will have failed the web".[3]

Greece's position on the EU Digital Economy and Society Index (DESI) for 2019 has made just a small progress compared to the previous year.[4] It is rather obvious that the so-called "post-crisis Greece" has a long distance to cover compared to other countries. For 2019, the country ranks 26th out of the 28 EU Member States and still belongs to the low-performing group of countries along with Romania, Bulgaria, Italy, Poland, Hungary, Cyprus, and Slovakia.

So, although Greece marginally improved its performance regarding its human capital and the supply side of digital public services, it is placed for one more year under the EU average. Nevertheless, Greeks are still considered to be active users of Internet services with their number growing. In addition, the progress in integrating digital technology has been slow. According to the "eGovernment Benchmark 2019", Greece is at 27% regarding the penetration of e-services, while EU average is 57%. In the field of digitization of public services, the country stands at 51%, far below the European average (68%). Therefore, it belongs to the countries that do not fully exploit the great potentialities and opportunities offered by contemporary ICTs.

In 2019, the Greek Ministry of Digital Governance set as its primary aim to compare with the EU average within the next 4 years. In order to achieve this, it declared a comprehensive digital strategy, with emphasis on matching the bureaucratic simplification with the digitalization processes, which run in parallel,[5] as well as on the development of the National Coalition for Digital Skills and Jobs, aiming to eliminate digital skills gap at all levels of economy and society through concrete actions and the participation of a wide range of stakeholders (private sector, NGOs, Civil Society, hubs, incubators, and so on).[6]

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[1] Weinberger, D. (2019). *Everyday chaos: Technology, complexity, and how we're thriving in a new world of possibility*. Cambridge, MA: Harvard Business Press.

[2] Organization for Economic Co-operation and Development, "Seize the opportunities of digital technology to improve well-being but also address the risks", https://www.oecd.org/newsroom/seize-the-opportunities-of-digital-technology-to-improve-well-being-but-also-addressthe-risks.htm

[3] https://webfoundation.org/2019/03/web-birthday-30/

[4] European Commission, The Digital Economy and Society Index 2019, https://ec.europa.eu/digital-single-market/en/desi

[5] https://mindigital.gr/

[6] https://www.nationalcoalition.gov.gr/en/

According to OECD indexes, 76.5% of the Greek households had internet access in 2018.[7] Also, it is recorded that Greece has 7,815,926 Internet users in December 2018, i.e. 70.3% penetration, and 5,000,000 Facebook subscribers in December 2017, i.e. 44.9% penetration rate.[8] But although Greece's gap from the European average in broadband penetration has been almost bridged, the digital transformation entails for the country *more risks than benefits*, relative to other OECD countries. For instance, the level of inequality of uses of the internet is among the highest of OECD countries, the information industries do not add significantly to employment, and many jobs are at risk of automation relative to OECD countries, while the exposure to disinformation online is comparatively high.[9]

The World Internet Project in Greece is implemented by the National Centre for Social Research (EKKE)[10] as part of the internationally collaborative and interdisciplinary World Internet Project (WIP).[11] WIP is a major survey-based research program, launched in 1999 and directed by the Annenberg School Center for the Digital Future at the University of Southern California, looking at the social, political and economic impact of the internet and other new technologies. Currently, WIP is comprised by more than 30 international partners. The first wave of the survey in Greece was conducted in November and December 2015, and the second one from the 31st of January to the 21st of February 2017.

The present report offers a comprehensive presentation of the empirical results of the third wave of the survey, which was conducted from the 12th of April to the 23th of May 2019. It involves the main findings of this research wave and explores the development of internet penetration among the Greek population by providing comparative data on several aspects of the respondents' internet-related behavior between all three WIP nation-wide waves. These aspects pertain to digital use, access and divides, online activities and social capital, internet reliability and fake news, online victimization and privacy, political efficacy and freedom of expression. The report also offers descriptive presentations of the results analyses as well as charts including mostly relative frequencies and, in some cases, variable means. The relative frequencies and means are included in the charts in order to allow the reader to have a clear overview of the exact percentages.

[7] https://data.oecd.org/greece.htm
[8] http://www.internetworldstats.com/europa.htm#gr
[9] https://www.oecd-ilibrary.org/science-and-technology/how-s-life-in-the-digital-age/how-s-life-in-the-digital-age-in-greece_9789264311800-17-en
[10] https://www.ekke.gr/
[11] https://www.digitalcenter.org/world-internet-project-partners/

METHODOLOGY

During WIP 3rd wave-survey, 1,208 interviews have been conducted over the phone (CATI), with people who were able to express themselves in Greek. The research methodology was designed by the National Centre for Social Research (EKKE) and the phone calls and interviews were conducted by trained interviewers from EKKE's Web Lab.

Geographical Coverage
The thirteen districts of the Hellenic Republic have been covered in the eligible sample of population.

Statistical Units
Households with at least one member aged 15+ years old; Individuals aged 15+ years old.

Data Collection Period
12 April – 23 May 2019.

Sampling Method
A random stratified cluster sample design was applied. At the first stage, the digital phone directories of several providers were identified as the sampling frame, which included both landlines and mobile phone numbers. The sampling frame was then stratified into 74 strata by district units. Households were allocated proportionally in each stratum so as to correspond with the Greek population, according to the 2011 Population Census. Upon that, independent samples were selected by each stratum using a random calling method.
At the second stage, respondents were selected in each household using age and gender quotas proportionate to the total population according to the Population Census of 2011. In each household only one interview was conducted.

Response Rate
The response rate was 48.96%. Specifically, 10,387 phone calls were made and 1,208 effective interviews were obtained. Refusal by the person who answered the phone accounts for 8.4%. Also, 16.51% of the randomly assigned numbers did not exist. Furthermore, 3,56% represents phone numbers of businesses and another 5% were recorded as busy. Finally, in 1.56% of the cases the interview was interrupted by the respondent and in another 2.11% no interview was conducted as the respondents did not match the quotas set by the population census.

Data Collection Method
Data was collected over the phone on a structured questionnaire. The questionnaire was formulated based on the World Internet Project guidelines and included some additional national questions of theoretical interest. The data was manually introduced in an online platform using RM+ software and was then filtered and transferred to statistical analysis software. Also, the dataset was then weighted

according to the 2011 Population Census and the Labor Force Survey. The Labor Force Survey accounts only for private households and is weighed according to the 2011 Population Census and the natural population mobility, including deaths, births and migration flows.

Interviewers

A number of 10 interviewers were employed in the survey; they received a four-day training seminar on the research topic and the interview ethical code and technique. During the last day of training pilot interviews were conducted. In total, interviewers conducted 1,208 interviews, while they were monitored by two supervisors, who also conducted quality control checks on 35.76% of the sample.

1. GENERAL USE & ACCESS

1.1 Internet Use
1.2 Internet Access

1.1 Internet use

Figure 1. Internet Use

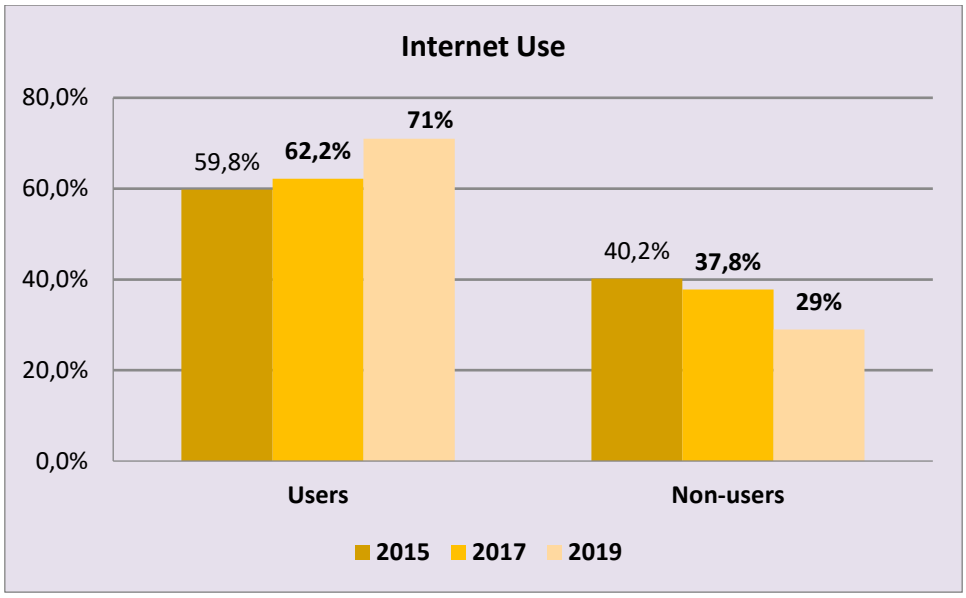
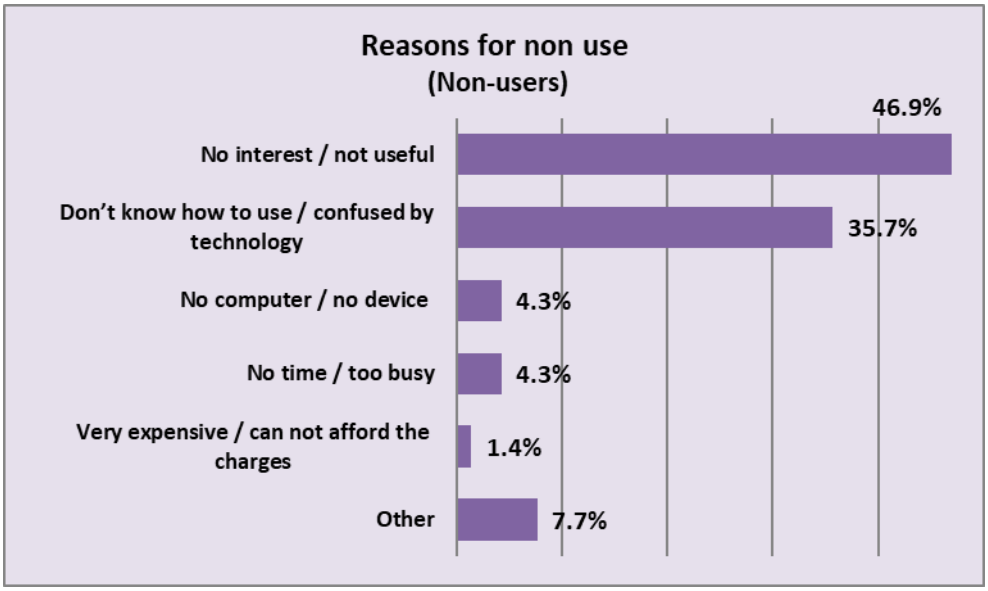


Figure 2. Reasons for non-use



From the latest three WIP measurements it appears that internet use is Greece is steadily increasing. As of the latest data (see Figure 1), 71% of the population sample[12] consider themselves as internet users, that is, an increase of 8.8% from 2017 (62.2%).[13] The main reasons that contribute to non-use, coming from the answers of non-users are the following (Figure 2): Lack of interest and internet usability is the number one reason (46.9%), while the second reason for not using the internet is the lack of technical skills, or fear/confusion towards technology (35.7%).[14]

In much smaller percentages, the other reasons pertain to the lack of owning a device capable of accessing the web, as well as to the fact that the internet requires a certain time commitment they cannot afford (4.3%). In an even smaller percentage, there is the lack of financial means required to maintain an active internet connection (1.43%). Moreover, the reply "other reasons" is the fourth cause of non-use (7.7%). Therefore, the relatively high percentages of digital illiteracy, as well as the numbers of the "resisters" and/or the "excluded",[15] albeit in decline, suggest that the so-called "information society" in Greece is still underway, but with an optimistic prospect.

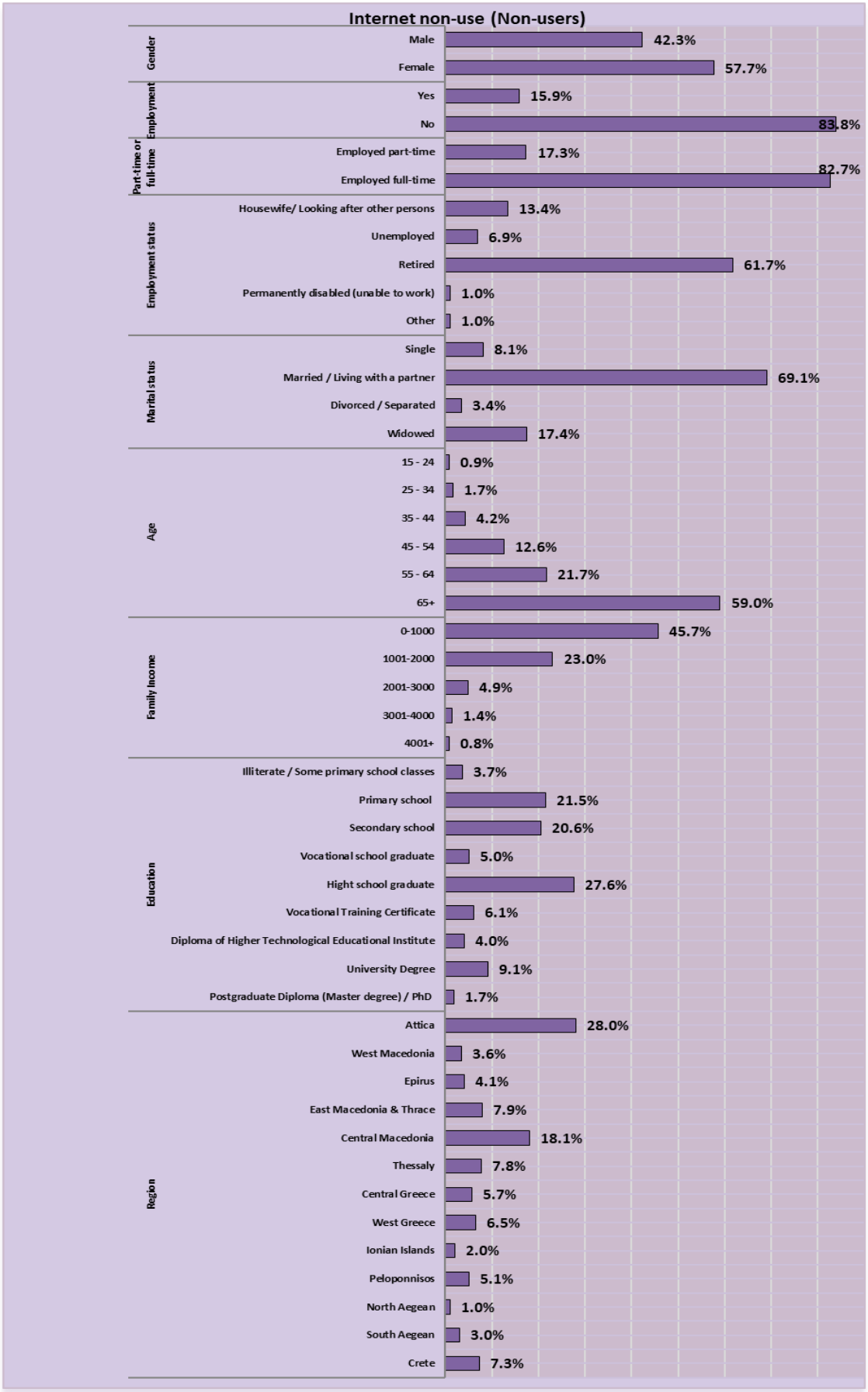
[12] In 1,208 individuals as population sample, n users=858, n non-users=350.

[13] According to the most recent survey on the use of information and communication technologies by households and individuals (in 2019), which was conducted by the Hellenic Statistical Authority (ELSTAT) during the period 01/01/2019 to 31/03/2019, 75.7% of the population sample (aged 16-74) made use of the internet in the first quarter of 2019 (ELSTAT 2019). Source: Survey on the Use of Information and Communication Technologies by Households and Individuals, Year 2019, 8/11/2019 (https://www.statistics.gr/documents/20181/adbe1a27-e2d2-5529-2f50-6872239bbff7). Notably, WIP's statistical unit includes households with at least one member aged 15+ years old; Individuals aged 15+ years old. Taking into account only individuals aged 16-74, the percentage of internet use for WIP data is approximately 75.7%, which is in line with the abovementioned measurement by the Hellenic Statistical Authority (ELSTAT).

[14] Greece belongs to a group of countries where non-users refrain from internet use mainly because they are not interested, or not convinced, about internet's usefulness; or they are afraid of (or confused by) technology; or they lack technical skills, rather than internet access per se (see The World Internet Project International Reports 2017 & 2018, 8th edition & 9th edition).

[15] Decrease in digital illiteracy rates in Greece is also confirmed by Eurostat data: internet use by individuals (in 2019) amounts to 72%. Overall, it is gradually increasing since the first year of survey (2008). However, the Greek internet use rate still falls below the EU average (85%).

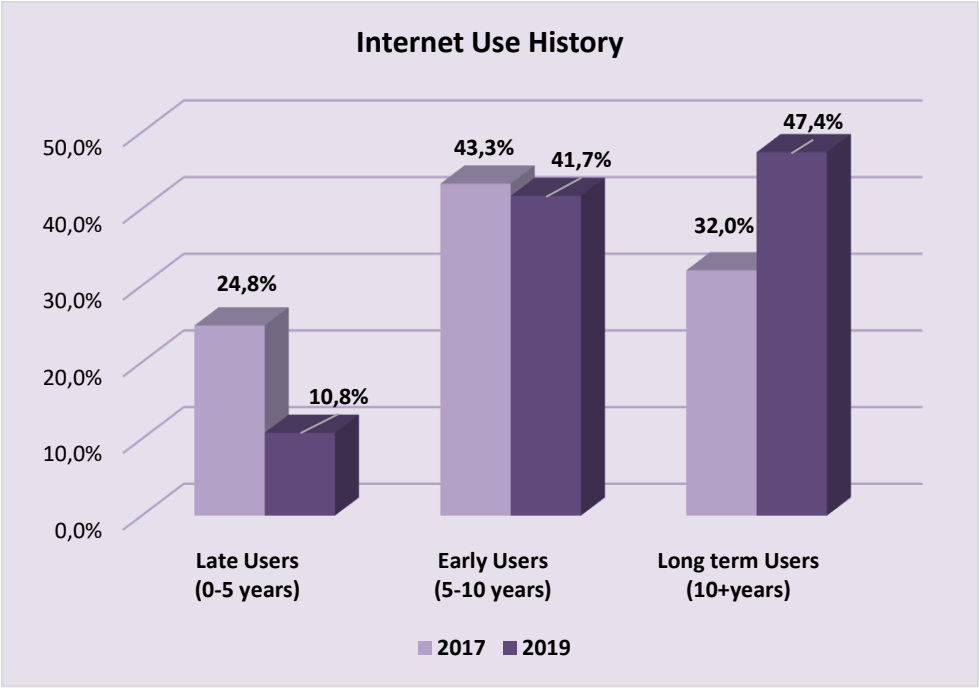
Figure 3. Internet non-use (Non-Users)



The identity of the internet non-users, as derived from the latest WIP measurement (2019) can be summed up as such (Figure 3): The gender identity of non-users shows a margin of 15.4% (female 57.7%, male 42.3%). Regarding marital status, the highest percentage of non-users is married (69.1%), with those widowed or unmarried having less presence (17.4% and 8.1% respectively). As far as the age of non-users is concerned, the highest percentage belongs to 65+ years old. That means there is a positive correlation between non-use and aging. The percentage of non-users is reduced along with age, being 21.7% in the age 55-64 and 12.6% in the age 45-54, while in younger adults the percentage of non-users amounts to 0.9% in the age 15-24 years old, 1.7% and 4.2% in the ages 25-34 and 35-44 respectively.

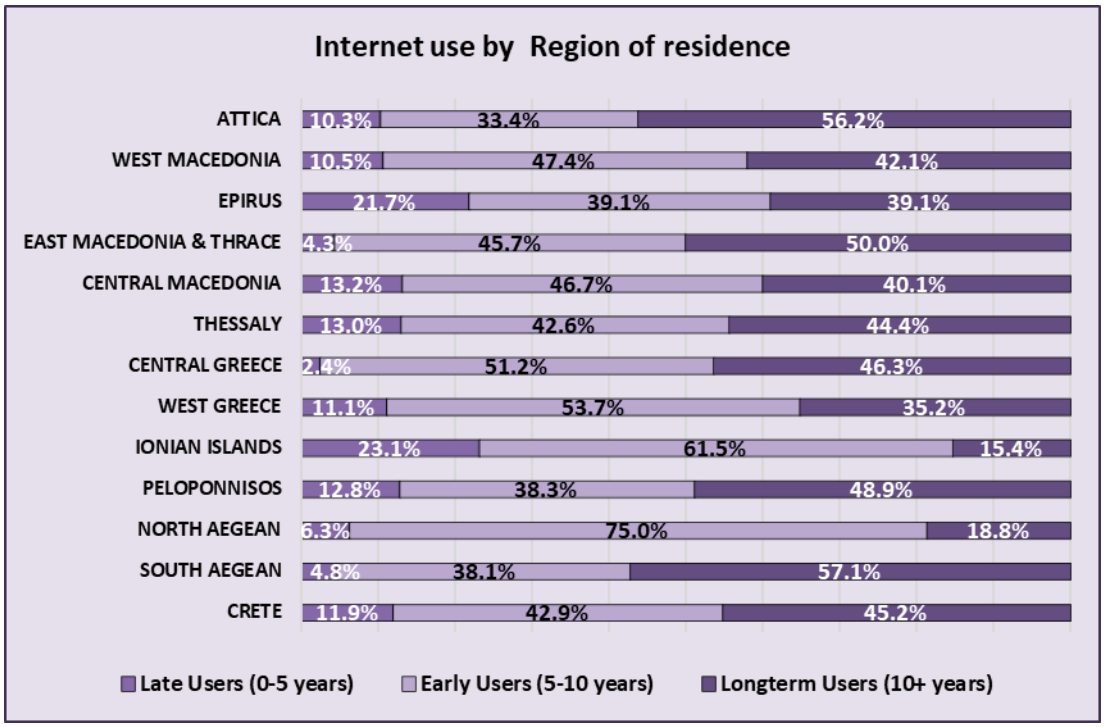
The vast majority of those non-users are unemployed (83.8%), with 61.7% of them being retired, 13.4% of them dealing with household chores or caring for someone, and 6.9% being actually unemployed. Regarding the remaining low percentage of internet non-users who are employed (15.9%), the vast majority states that they are full-time employees (82.7%). Regarding the monthly household income of non-users, almost half of them (45.7%) are in the lower tier with income up to 1,000 euros per month, 23% of non-users reports income from 1000-2000 euros per month, while much smaller percentages of non-users reports higher income that that. Regarding their educational level, 45.8% of them have completed primary school, 38.7% have a high school or technical school diploma, and 14.8% of them have at least a university degree. Most non-users are living in Attica and Central Macedonia (28% and 18.1% respectively).

Figure 4. Internet Use History



It appears that the Greeks consider themselves to be experienced internet users, with 12.5 years of experience on average (12.44 years on average), which is more or less the same as the French (13 years), or more than the Greek Cypriots (11 years) and less than the residents of the USA (15 years).[16] The higher percentage that we observe on new users from the last measurement of 2017 (10%) shows a positive trend of internet use penetration. The rest of the percentages are easily justifiable because the difference with the previous data is due to the time difference between 2017 and 2019 (the two years that intervened modified the timescale).

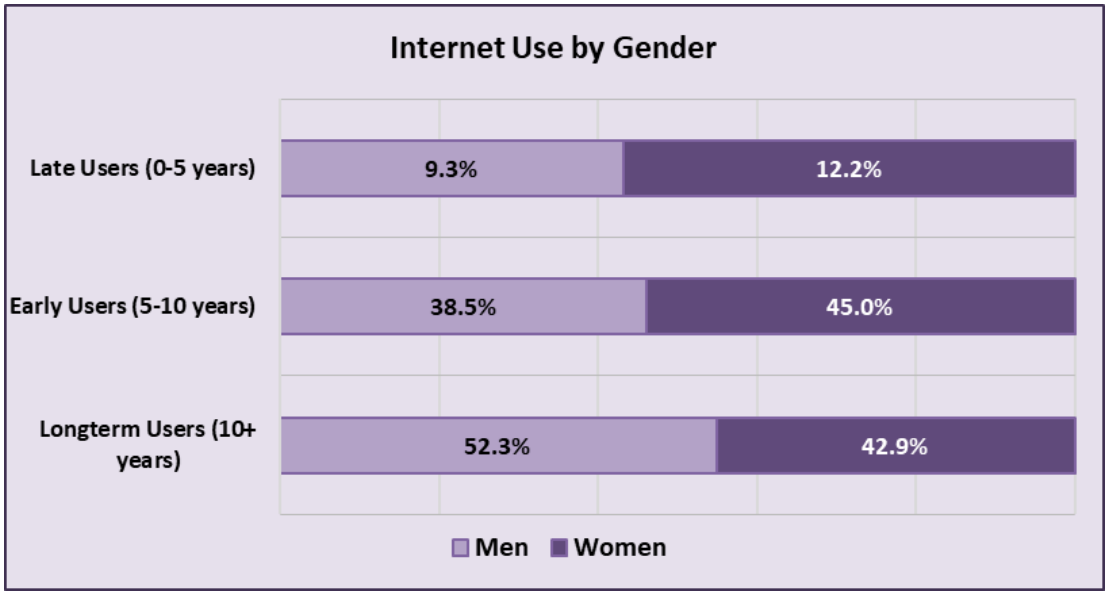
Figure 5. Internet Use by Region of Residence



As we spread the experience of internet users on the map (see Figure 5), we notice that Attica has the highest percentage of long-term internet users (56.2%), something which is expected due to Attica's population density and wealth concentration. We also see that regions with high tourism activity, such as Crete (45.2%) and South Aegean (57.1%), also exhibit high percentages of long-term users.

[16] See World Internet Project International Report 2018 (9th edition), p. 23.

Figure 6. Internet Use by Gender



As Figure 6 shows, men appear to be more experienced users (52.3%) than women, but women have a higher percentage on the category of new users (12.2%).

Figure 7. Internet Use and Employment

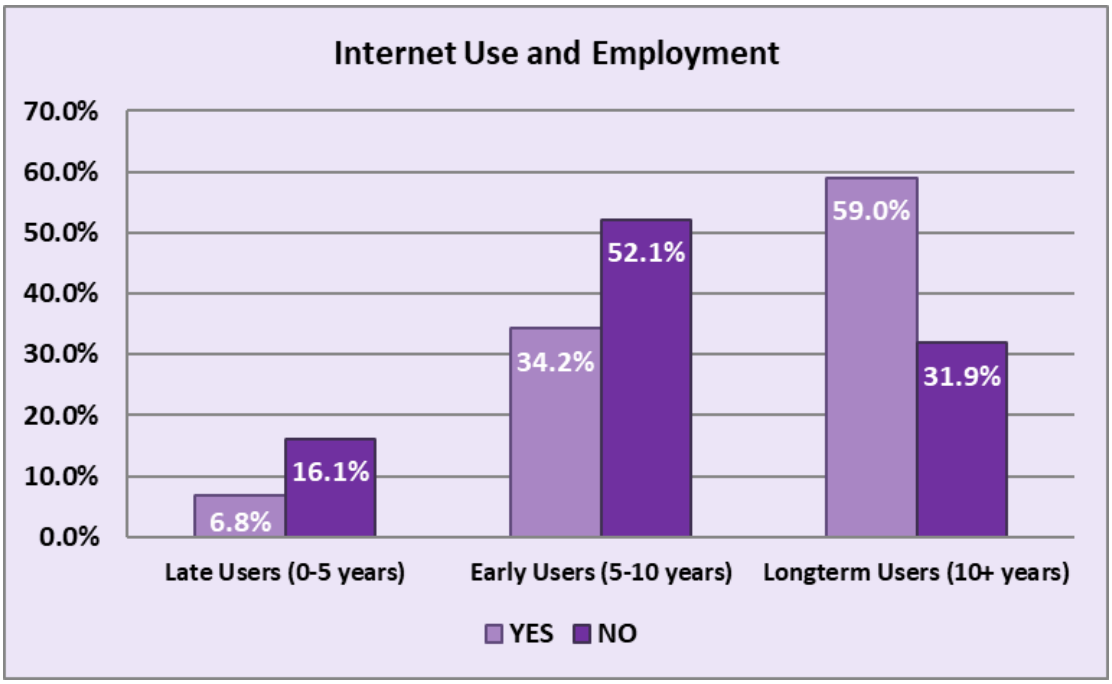


Figure 8. Internet Use and Employment Status

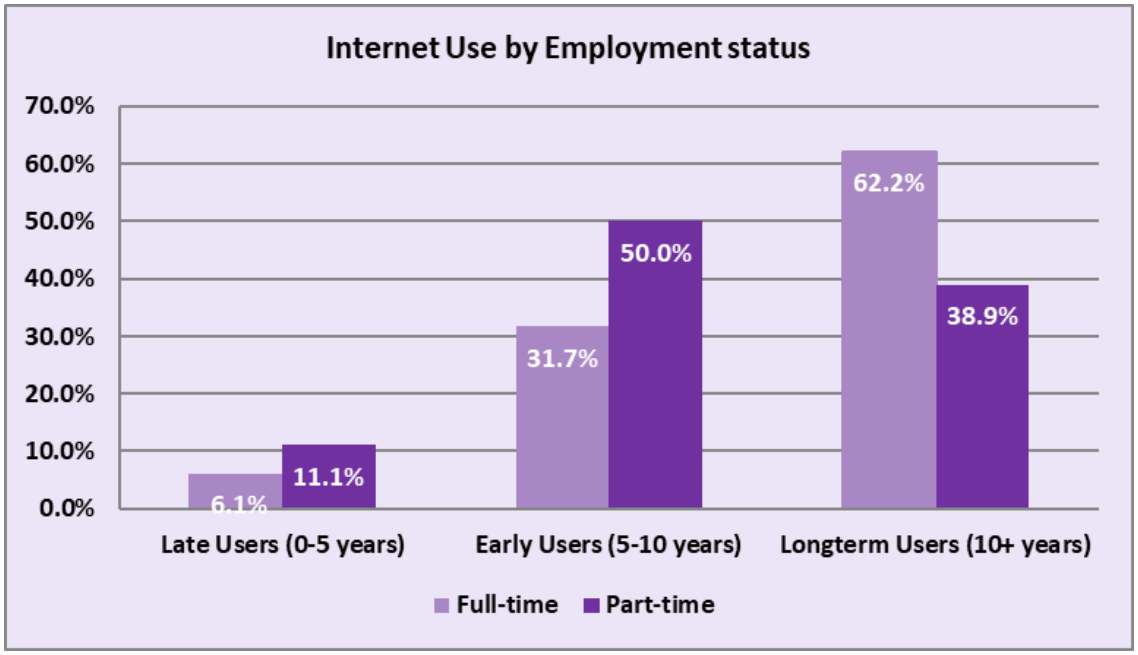


Figure 9. Internet Use by Income

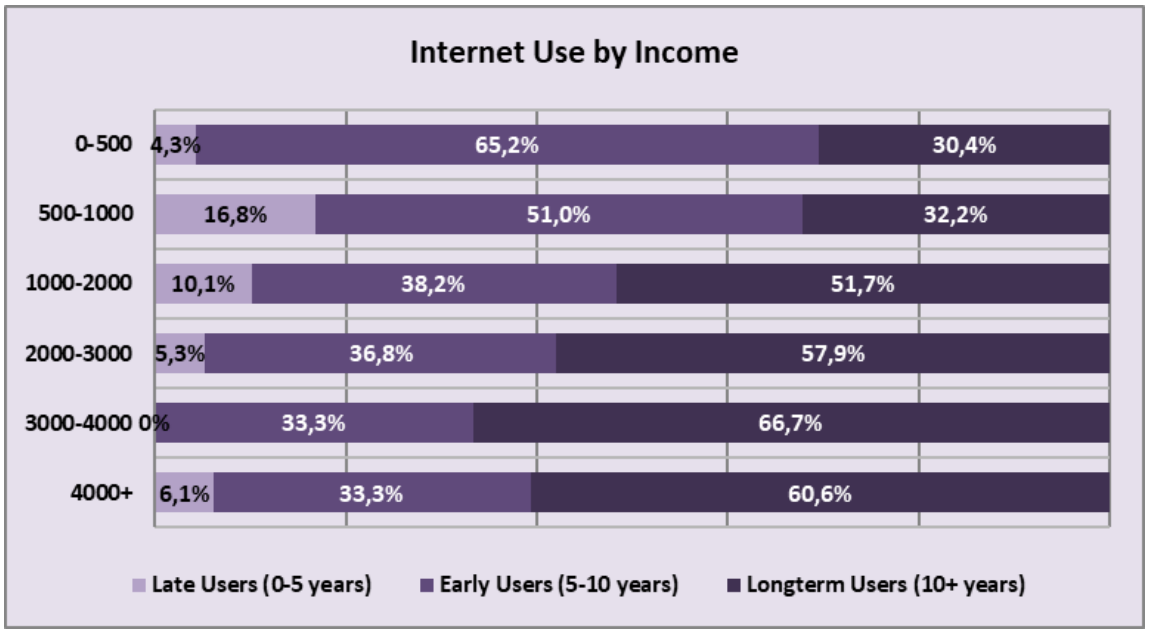
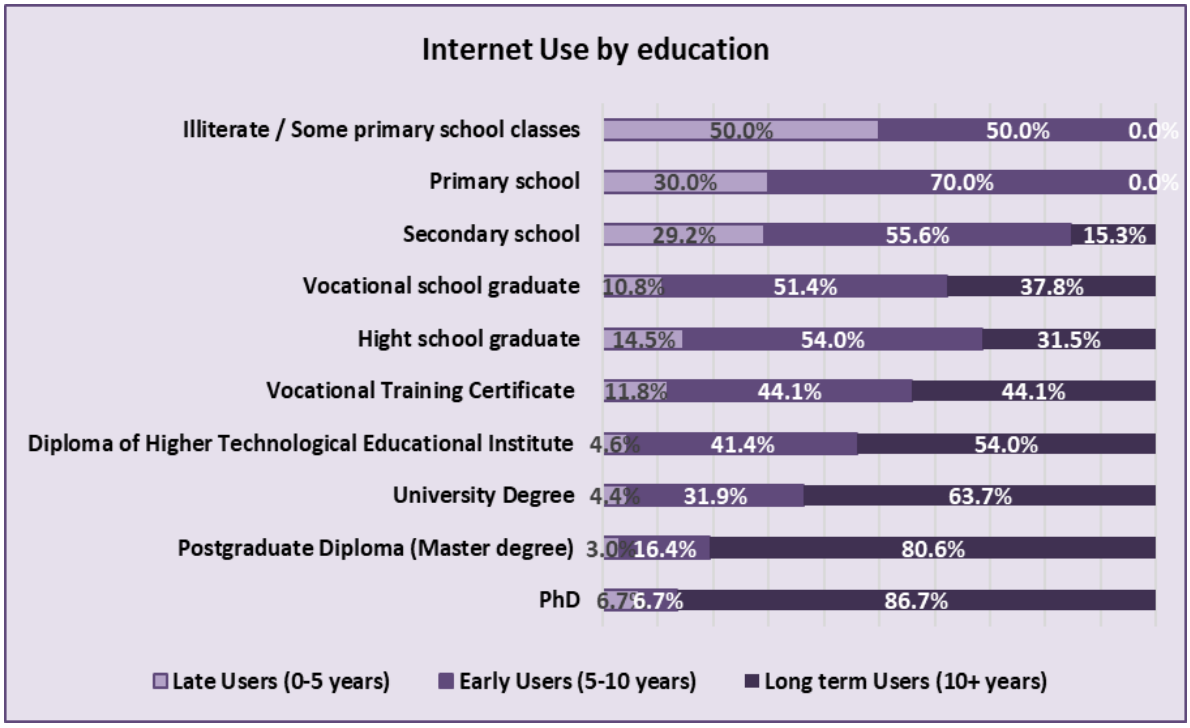


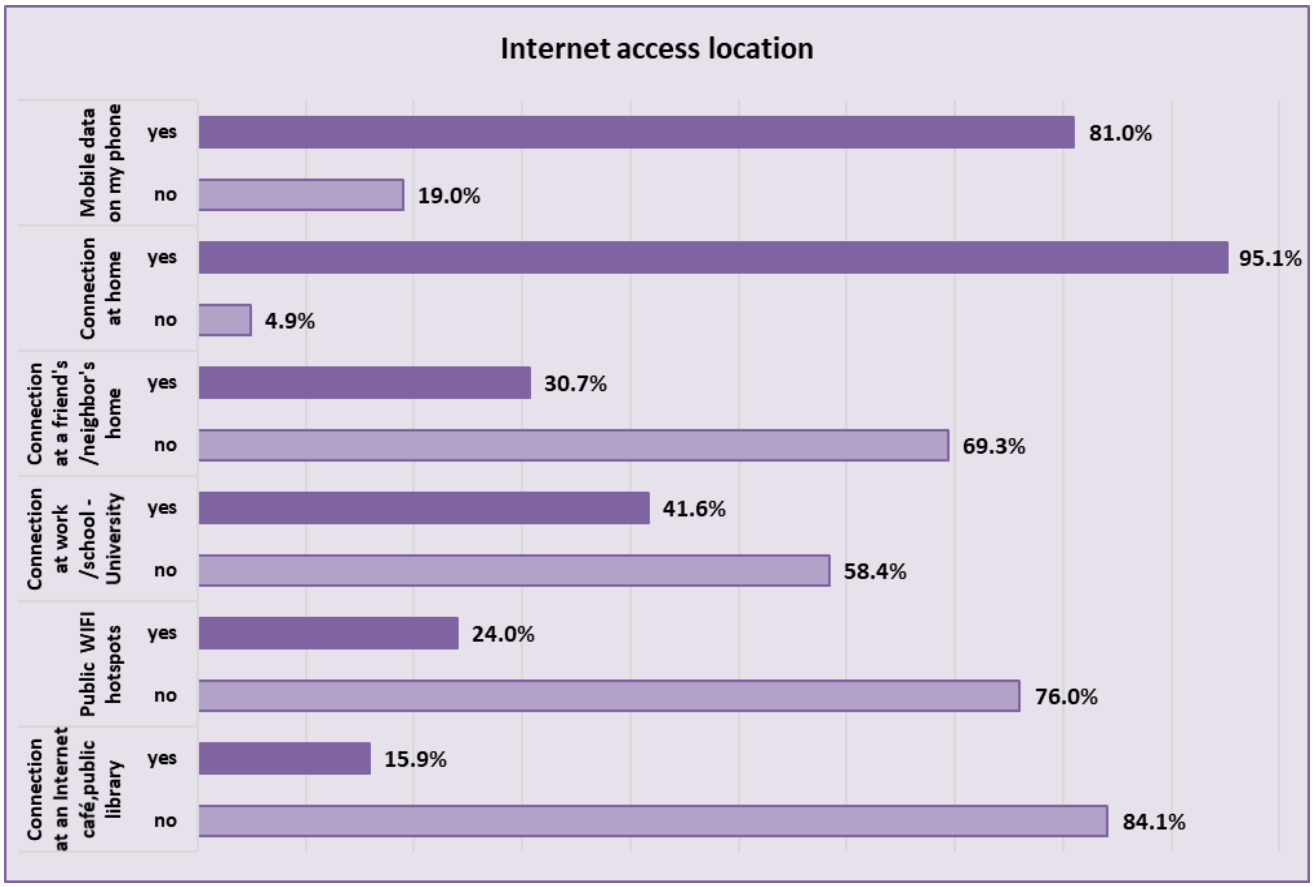
Figure 10. Internet Use by Education



Let's now focus on Figures 7, 8, 9 and 10. There is a positive correlation between long-term internet use and higher educational level, as well as higher monthly income, an association which is confirmed in many relevant studies. After analysing the data regarding long-term internet use and its relationship with employment type (full- or part-time), or the employment status (employed or not), we can conclude a positive relationship to long-term use. Those who are full-time employed seem to be more experienced internet users than the part-time employed. Likewise, internet users who are employed have been using the internet longer that those that are unemployed.

1.2 Internet Access

Figure 11. Internet Access Location

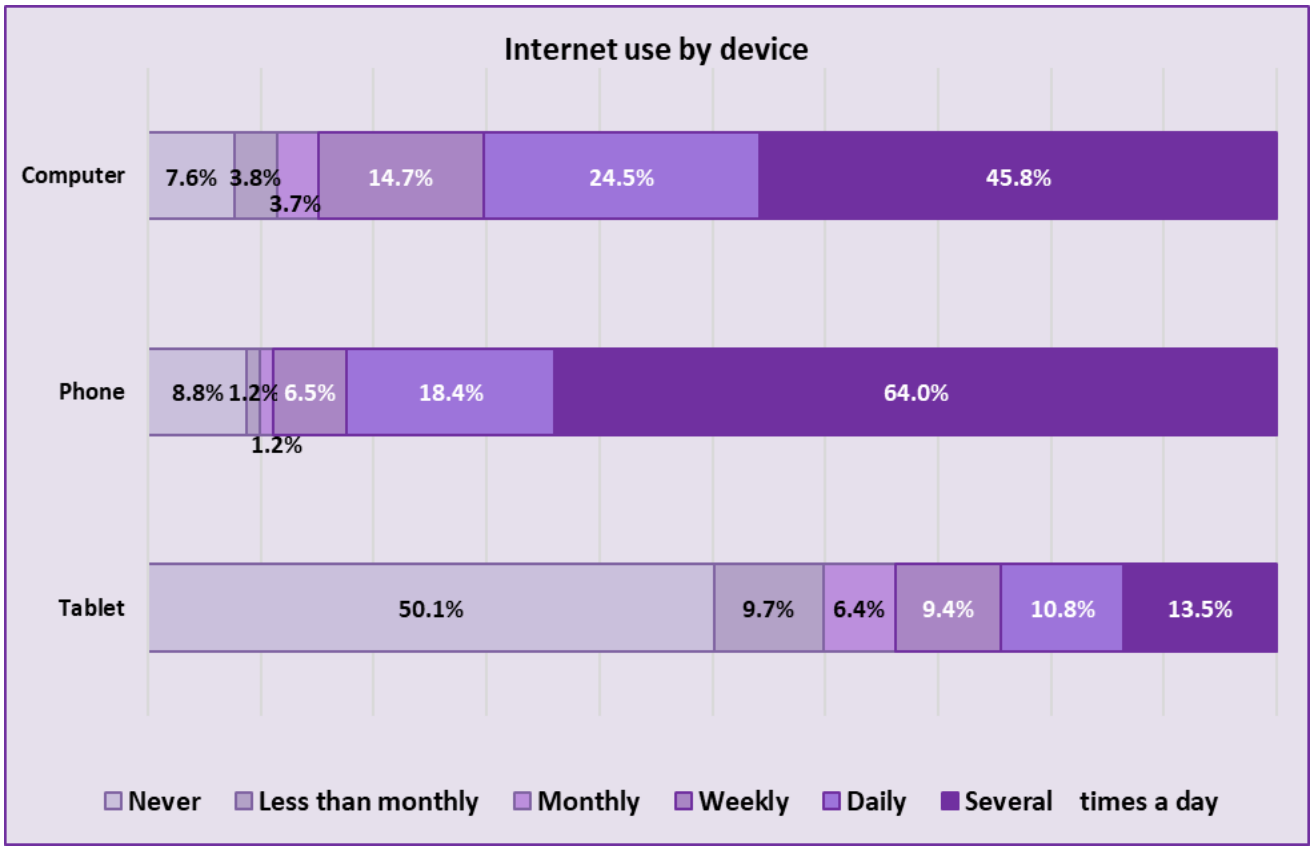


The first comment we can make concerns the means by which the majority of the users connect to the internet, that is, their cellphones (81%). Also, the main location from which the users go online is their residence (95.1%). If we compare the Greek research findings with those of other participating countries,[17] we can observe a higher percentage of users going online from their workplace (72%) or their educational institution (71%), while the Greek database draws a different picture,[18] with those who connect from their workplace or their educational institution reaching the percentage of 41.6% (see Figure 11). In addition, many users are connected through a neighboring connection (30.7%), while 1/4 of the users say that they connect through open public wi-fi spots (24%). Connection through public places, such as libraries or internet cafés, is not as widespread (15.9%).

[17] See WIP International Report 2017, 8th edition.

[18] This is a differentiated statistical approach. For the Greek data, percentages have been calculated on the total number of users, while the same percentages in the international comparative analysis have been calculated on specific categories of users (i.e. employed and students).

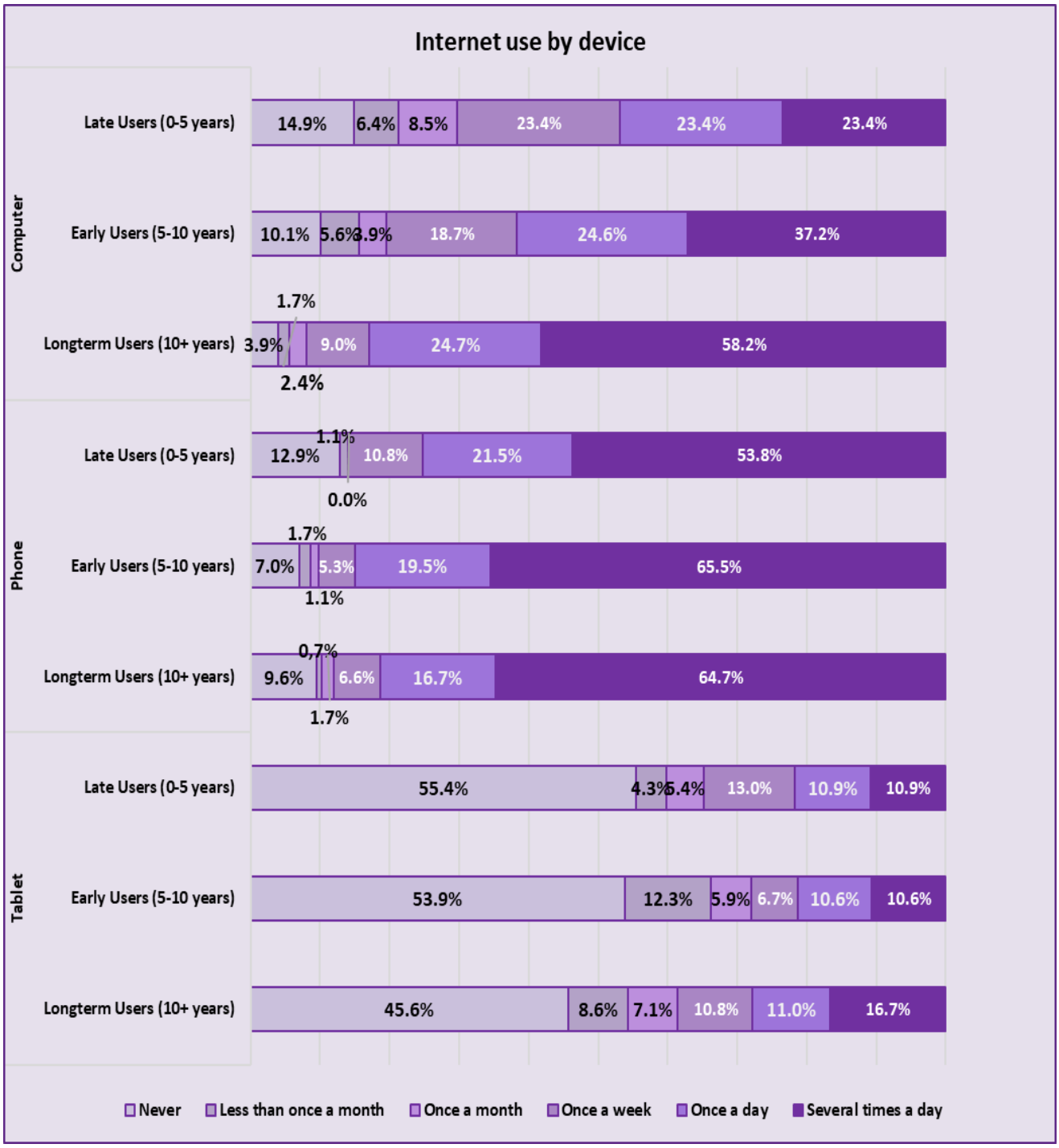
Figure 12. Internet Use by Device I



The Greek internet users mainly make use of personal computers and cellphones to connect (see Figure 12). Personal computers are very popular devices, as only 7.6% of the users say that they never use them to go online. Cellphones are the most common devices to go online, with daily use of 82.4%, followed by personal computers, with daily use of 70.3%. In total, 3/4 of the users go online on a daily basis through personal computers or cellphones. Tablets or e-readers are less popular, as only 1/4 use them on a daily basis to go online (24.3%).

We should note, however, that when we analyse the findings of experienced versus less experienced users, we see a different picture. More specifically, the less experienced users seem to be using less device types and go online less often than the more experienced ones.

Figure 13. Internet Use by Device II



Thus, we can observe that 82.9% of long-term users with more than 10 years of internet presence connect online on a daily basis using their personal computers. Almost the same percent (81.4%) go online through their cell phone and only 27.7% through a tablet (see Figure 13). It must also be noted that experienced users (5-10 years of experience) are the most active in connecting to the internet through their cellphone, with a daily use of 85%, more than long-term users, because of the fact that the experienced users are younger than the long-term users. Long-term users have the highest percentage in using tablets, while more than half of the experienced users say that they never use tablets to go online.

Figure 14. Past Internet Use (Non-Users)

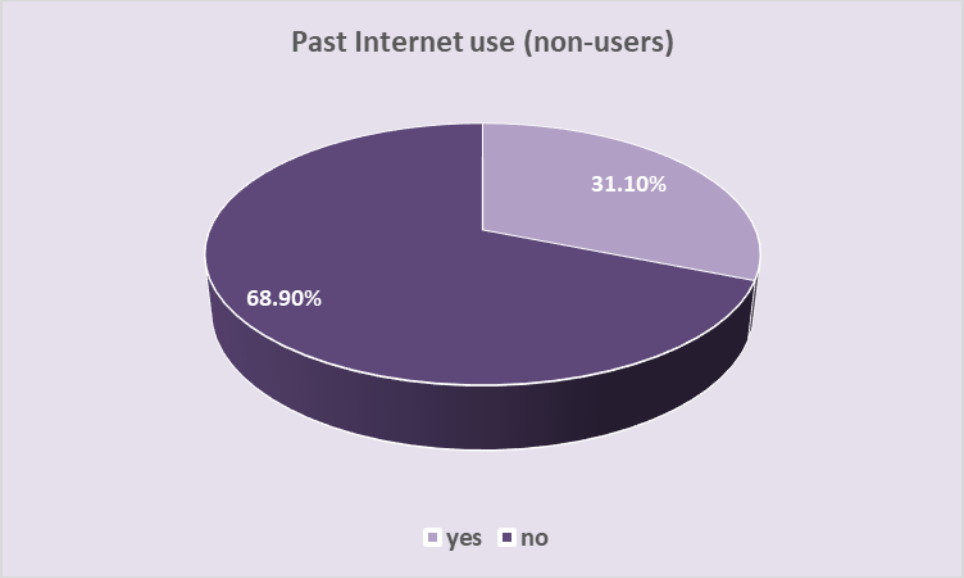


Figure 15. Possibility of Using Internet in the Next Year

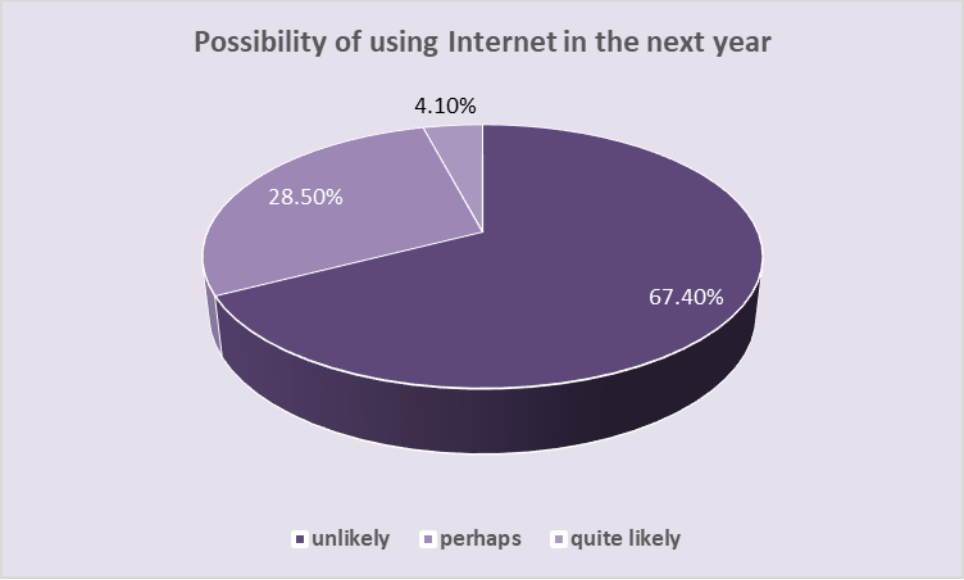
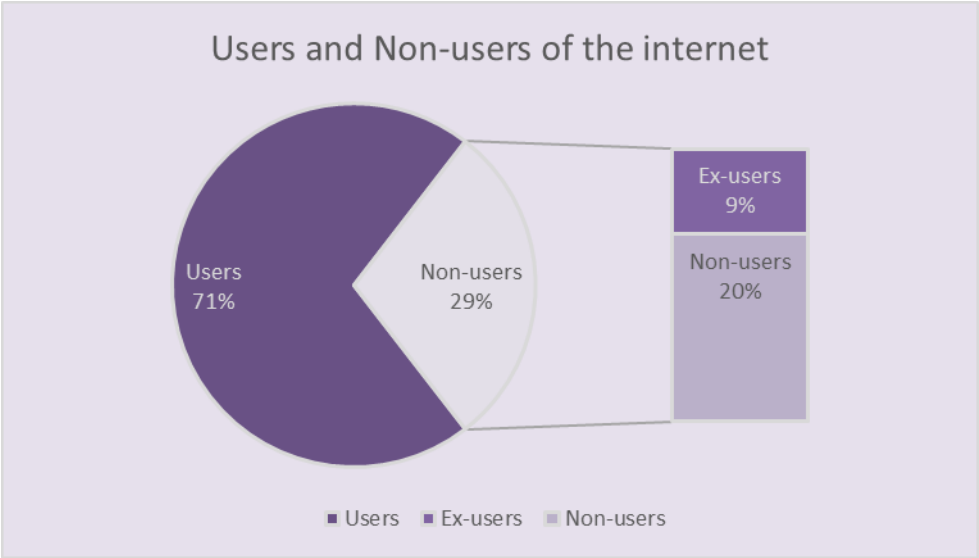


Figure 16. Users and Non-Users of the Internet

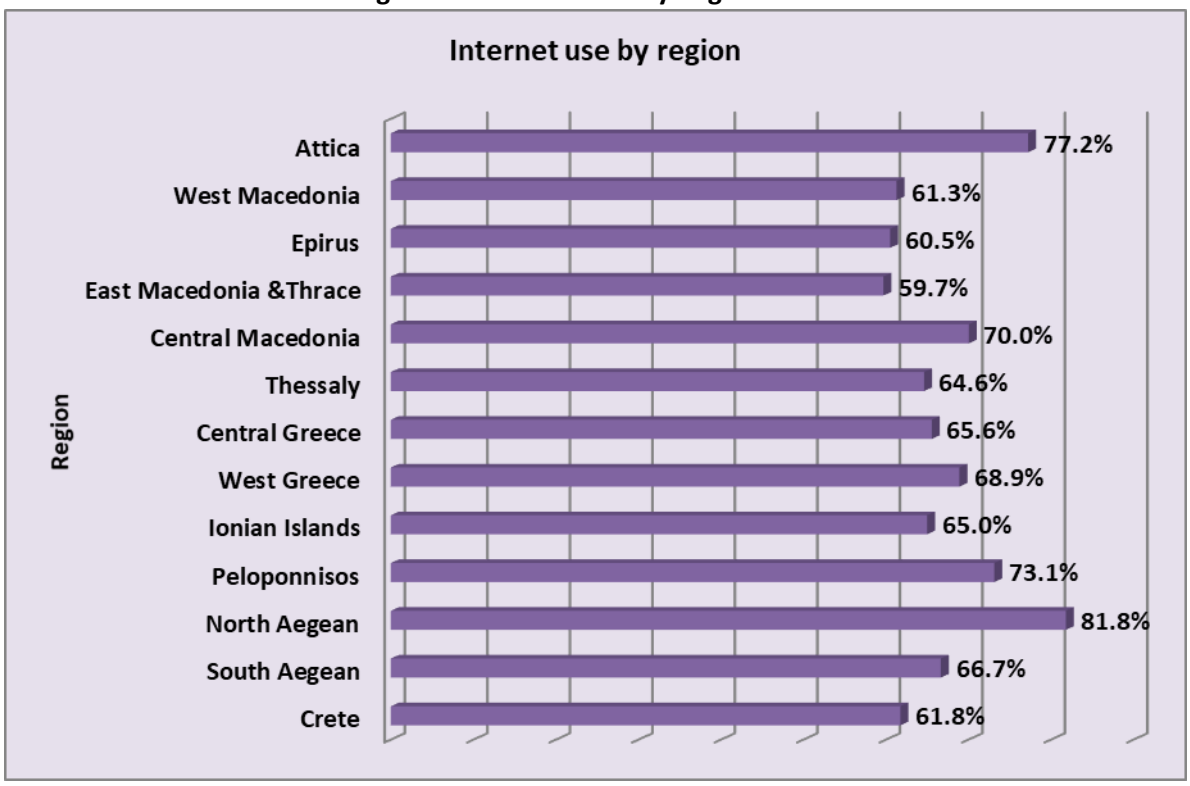


Almost 30% of the non-users from WIP's most recent statistics (2019) have used the internet in the past. Therefore, the percentage that seems most likely not to make use of the internet in the future is 68.9%. In combination with the possibility of using the internet within the next year, 67.4% of non-users believe it is unlikely that they will not use the internet in the immediate future, which further solidifies our aforementioned hypothesis.

Finally, in an attempt to flesh out the "dynamics of those connected" in Greece today, we observe on the above chart that a percentage of about 20% will remain offline. Arguably, strong efforts at political level should be focused on this part of the population.

2. DIGITAL DIVIDE

Figure 17. Internet Use by Region



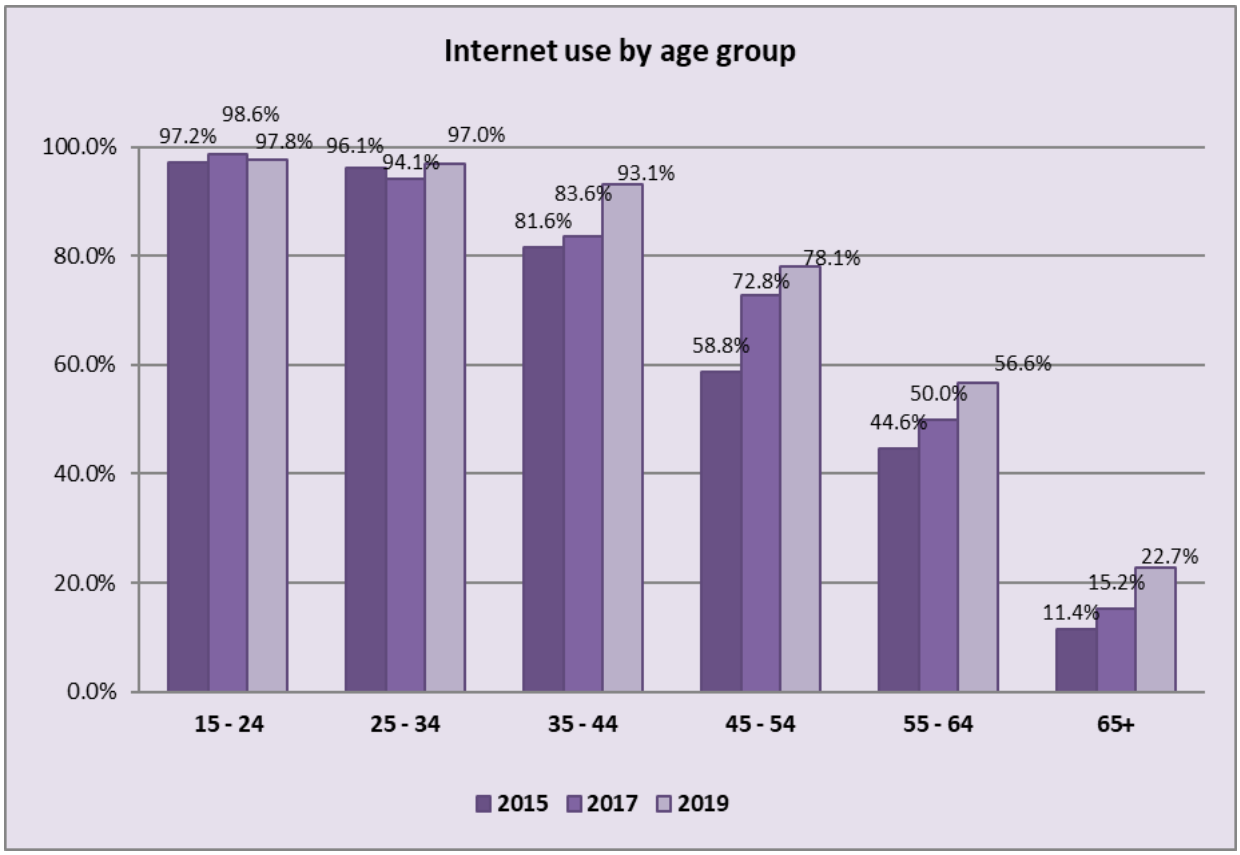
Despite the widespread use of the internet in most regions of the country, we can observe important differences between the residents of the thirteen regions. As Figure 17 shows, the percentage of people who identify themselves as internet users fluctuates between 60% and 66.7%, which draws a relatively smooth curve that seems to correlate with the level of economic growth in a broader sense. The only regions that escape this uniformity are Attica, with a percentage of 77.2%, and Central Macedonia, with a percentage of 70%. The cities with the highest population are located in these districts. It is also worth mentioning that the highest percentage for internet penetration is in the region of North Aegean (81.8%).

Compared to the previous WIP measurements,[19] we can see an upwards trend of internet use per region, which is also confirmed on the ELSTAT statistics (2018),[20] with Attica having the highest percentage of use with an upwards trend.

[19] See EKKE's WIP Reports 2015 & 2017.

[20] ELSTAT 2018. Press Release: The Survey on the Use of Information and Communication Technologies by Households and Individuals (HH ICT).

Figure 18. Internet Use by Age Group

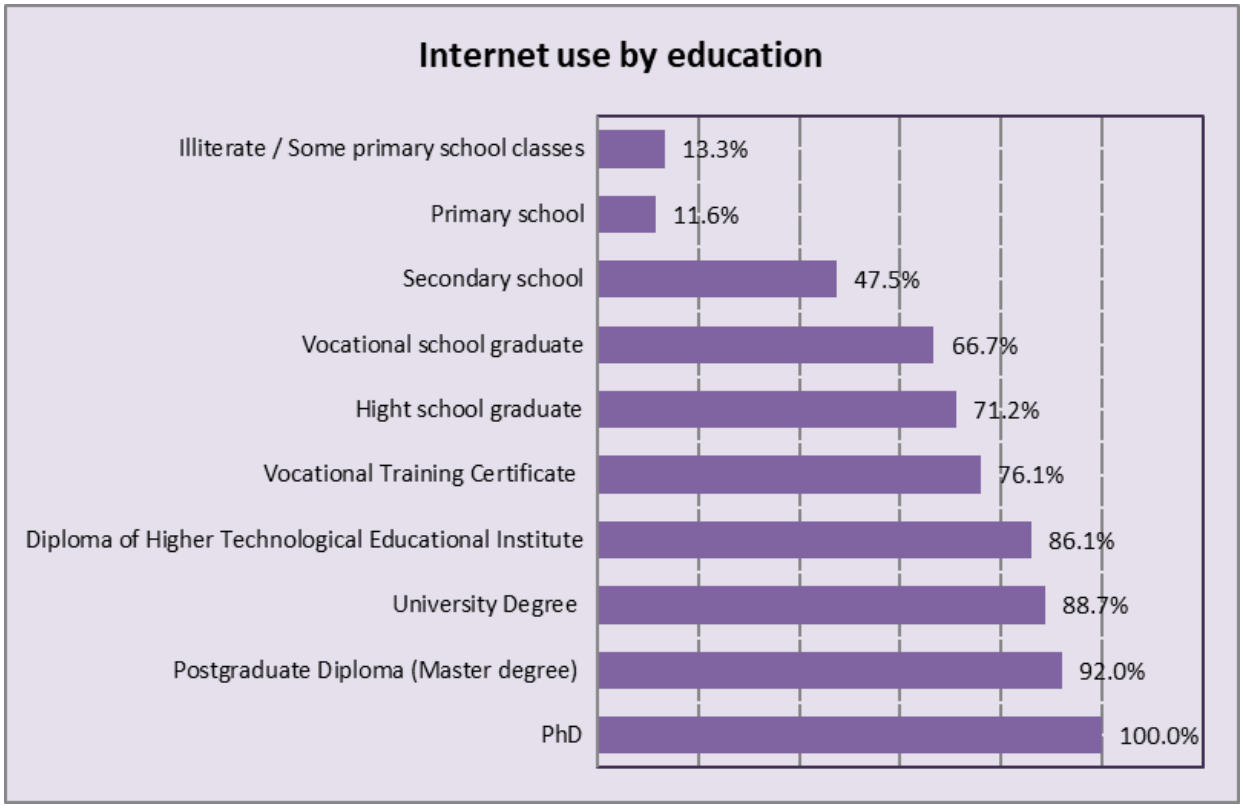


Internet use seems to decline as people get older (see Figure 18). While internet use is almost 100% for ages below 35 years old, it decreases steadily as age increases, all the way down to 23% for people over 65 years old in the latest measurements (2019). However, we should also note that internet use seems to be increasing in all age groups compared to the findings of 2015 and 2017 WIP research waves. The most radical increase in internet use is depicted on the age group of 35-44 years old, where we can see an increase of 10% within the last two years. This could be related to the fact that the age range between 30-40 is the most important one regarding employment,[21] educational attainment, and job status.

During the same time period (2 years), we can also see an important increase of 7.5% in the age group of 65+ (the percentage has doubled since 2015, from 11.4% to 22.7%). Likewise, internet use decreases as the age increases in all the participating WIP countries (see WIP International Report 2017, 8th edition).

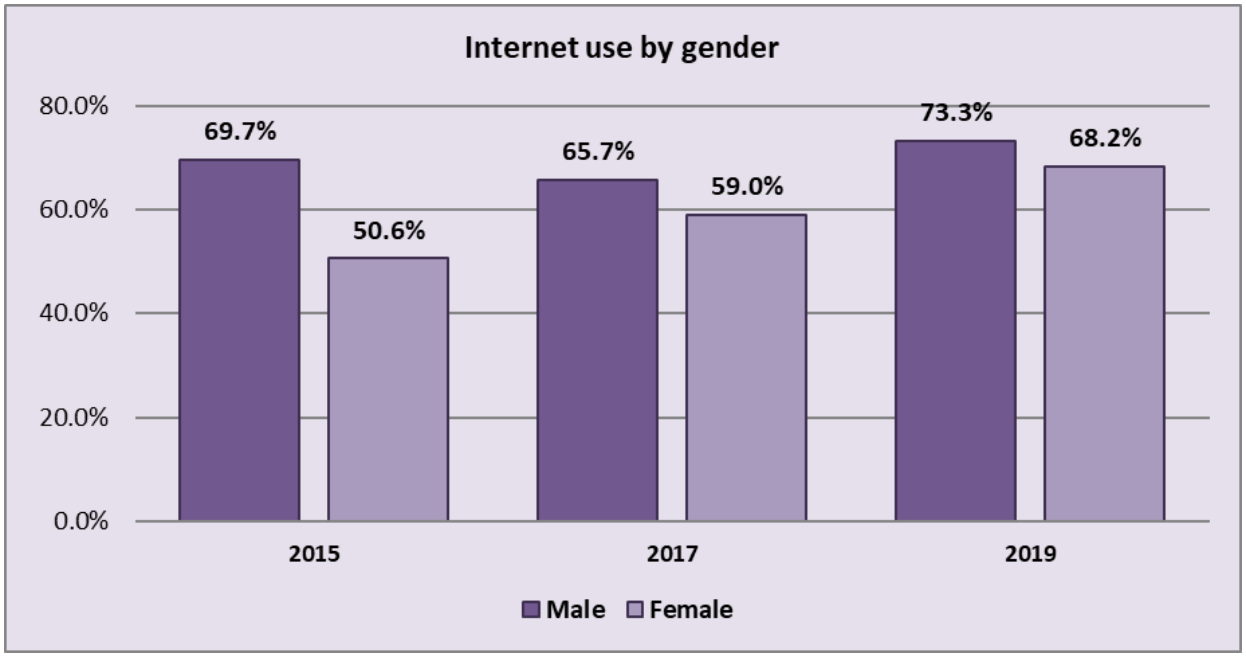
[21] See Clark, S. C. (2001). Work cultures and work/family balance. *Journal of Vocational Behavior*, 58(3), 348-365; Pickard, S. (2016). *Age studies: A sociological examination of how we age and are aged through the life course*. London: Sage.

Figure 19. Internet Use by Education



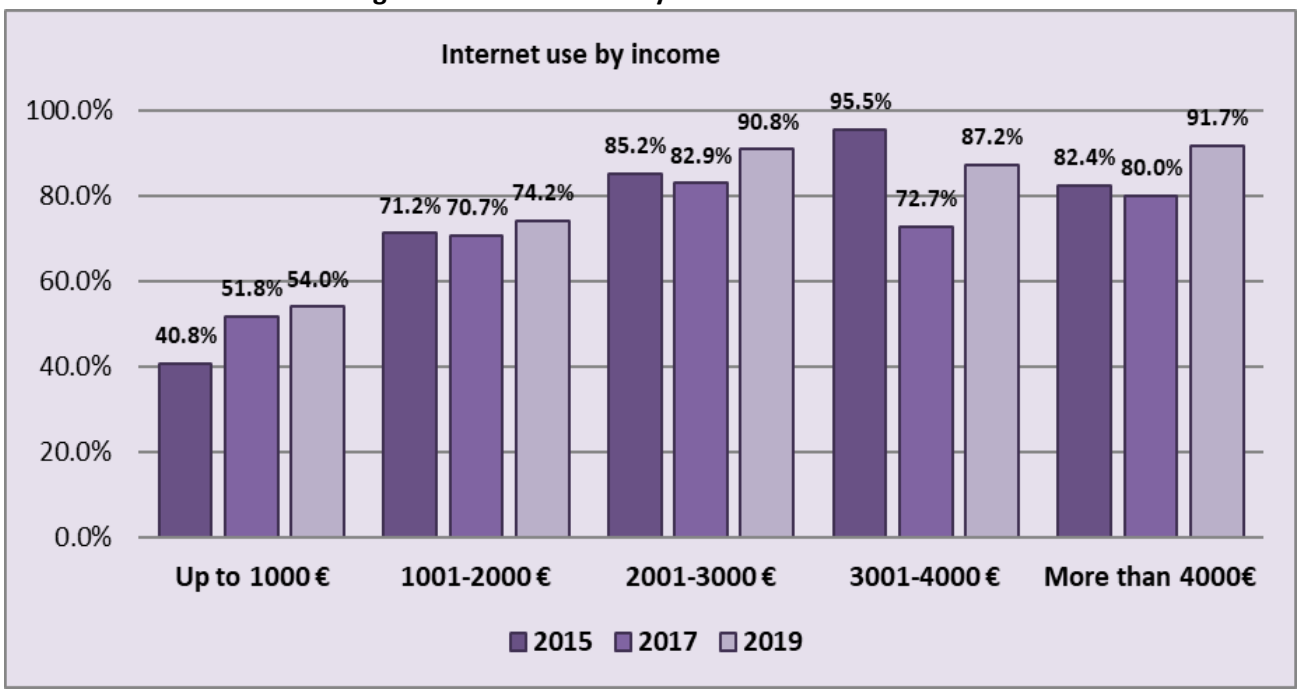
The correlation between education level and internet use is positive, meaning that the higher the education level is, the higher internet use is, with the highest rates at the highest levels of education (see Figure 19).

Figure 20. Internet Use by Gender



As Figure 20 shows, the gender gap concerning internet use seems to be decreasing, with the male population having higher percentage in all WIP measurements. Internet use on women continues having an upwards trend (has increased by 9% between 2017-2019). Gender gap is about 5% in 2019. This gap is also confirmed on the other participating countries of WIP measurements (see WIP International Report 2017, 8th edition).

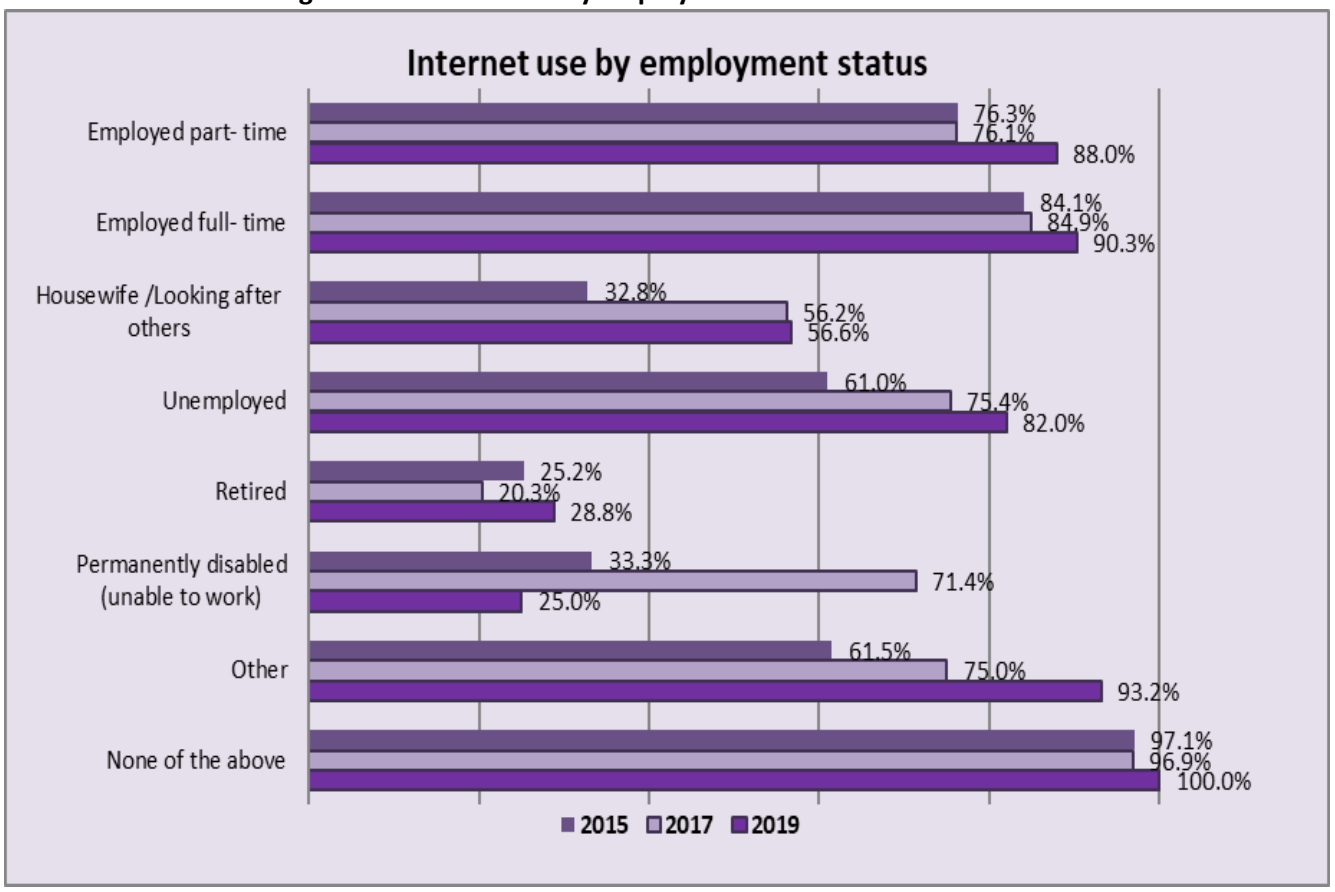
Figure 21. Internet Use by Income



A positive relation is also observed between internet use and income, as shown in Figure 21. Higher incomes are associated with higher internet use rates. In all income categories during the recent WIP research wave (2019), there is an increase in internet use. However, the most statistically significant increase occurs for those declaring an income above €3,000 per month.

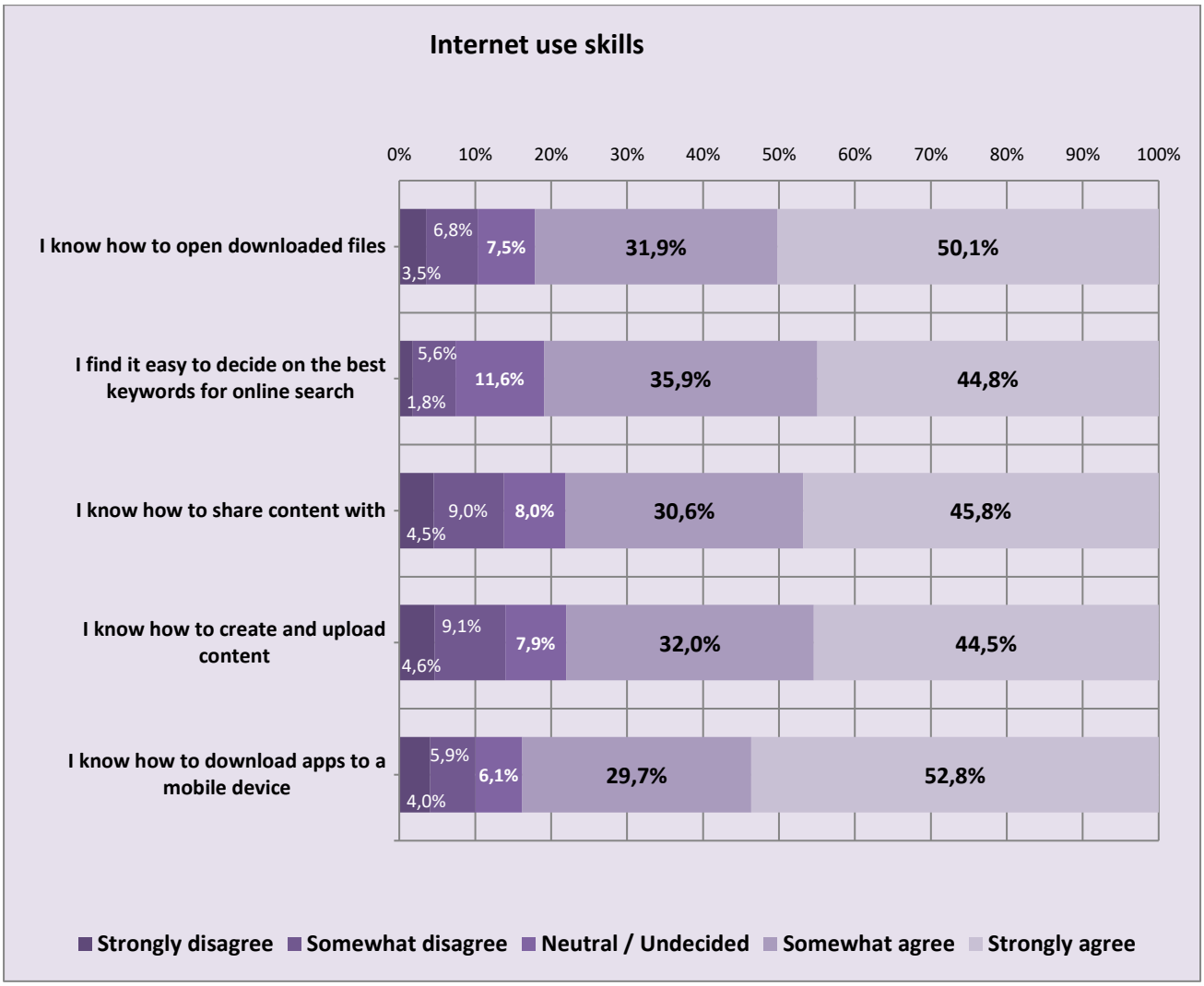
In addition, the 3rd wave findings (2019) on internet use per income level can be analyzed in combination to findings (percentages) in Figure 22, which show internet use per employment status. In both Figures, high-income earners have the highest rates of internet use. It is worth emphasizing the positive correlation between internet use and income level in all participating WIP countries, namely, the higher the level of income, the higher the rate of Internet penetration (see WIP International Report 2017, 8th edition).

Figure 22. Internet Use by Employment Status



According to the latest data (2019), internet use seems to increase amongst the employed population. People who have full- or part-time employment maintain very high levels of internet use, 90.3% and 88% respectively. If we focus on the findings of 2015, we can also note an important increase on internet use between people who are either unemployed (21%), or engaging in domestic work and care (23.8%). Retired people are the only category that shows only a small increase in the already small percentage of internet use, as their percentage is currently at 28.8% from 25.2% in 2015.

Figure 23. Internet Use Skills

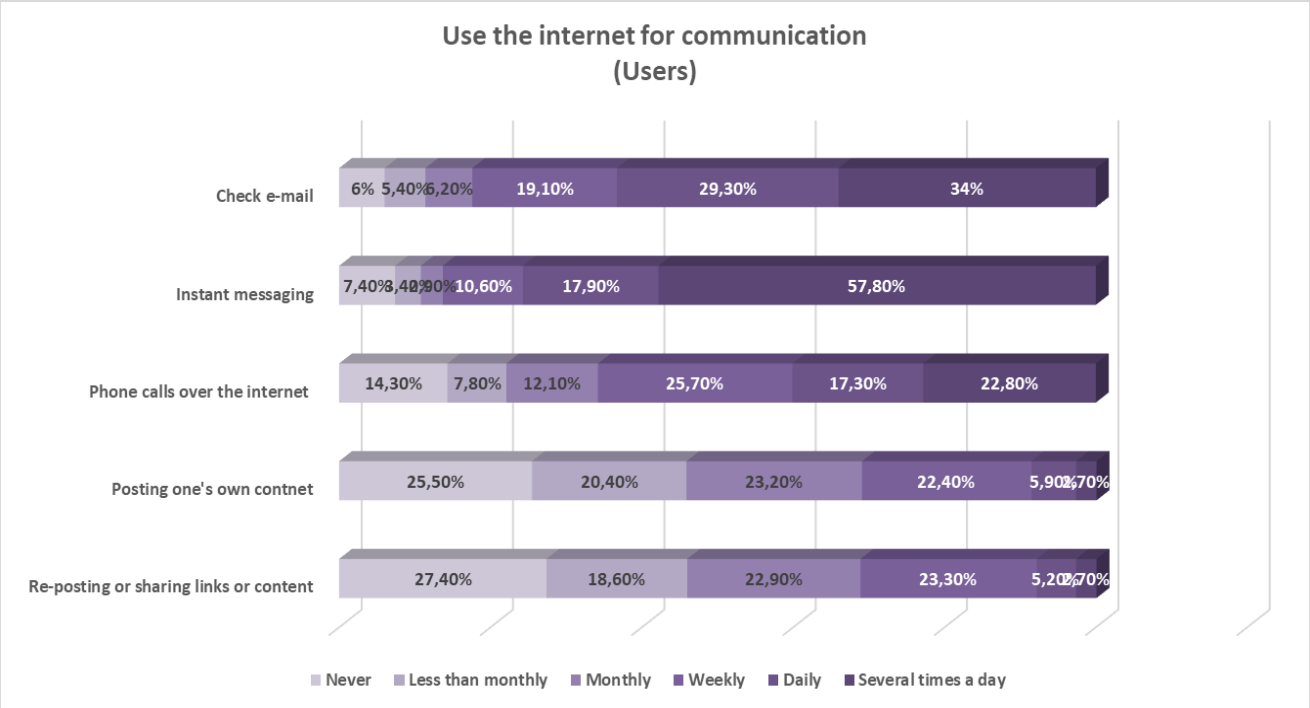


As we can see in Figure 23, regarding computer and internet skills, there is a high subjective perception from the majority of internet users on being able to perform a series of digital tasks. We have a higher percentage in relatively simple tasks, which are related to basic communication needs on the internet, like opening files or downloading apps on mobile devices (82.5%), or how to search for specific queries/content using appropriate key words (81%). Percentage goes down the more complicated the tasks become, for example changing privacy settings for content use online, or creating content and sharing it with others (76.5%).

Based on the aforementioned data, we can conclude that gender, income, age, education and employment status have direct positive or negative correlations with internet use in Greece. This conclusion is in line with the data from the rest of the participating WIP countries (see WIP International Report 2017, 8th edition).

3. INTERNET USES

Figure 24. How often do you use internet for each of these communication activities?



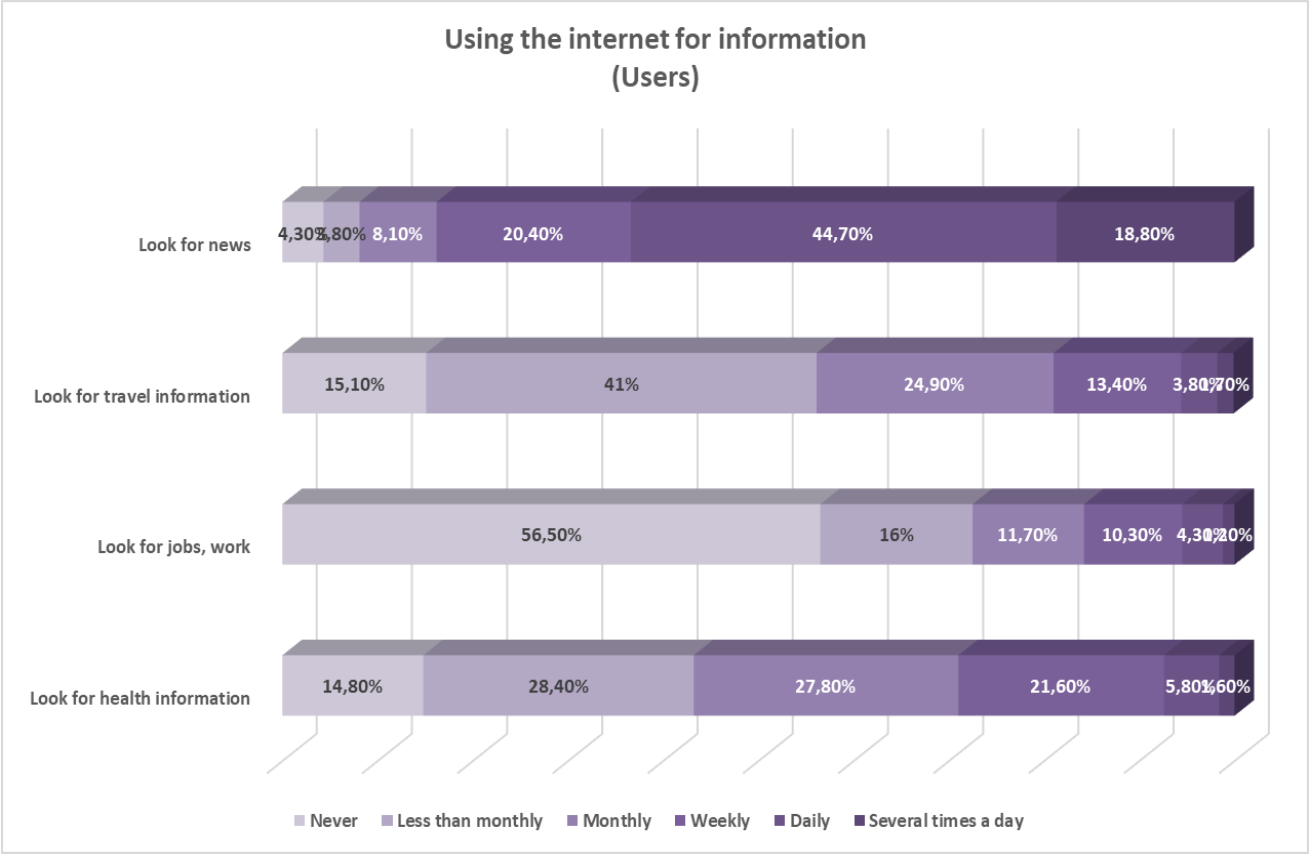
Communication

The most popular uses of the internet among Greek users pertain to communication purposes, such as e-mail exchange and instant messaging. A high percentage of users (75.7%) report they exchange messages on a daily basis.

Moreover, 63.3% of the user population check their e-mails at least once or several times a day (see Figure 24). As it is commonly found in most countries participating in the World Internet Project, electronic mail is a very popular activity. In nine of the 11 countries included in the World Internet Project,[22] the majority of users say they check e-mails at least daily (from one to several times a day). Phone calls over the internet are also popular among Greek users, with 40.1% of them making online calls at least once a day, and 25.7% of them at least once a week, while other activities, such as posting original content as well as sharing or reposting content, are less frequently reported.

[22] WIP International Report 2018, 8th edition.

Figure 25. How often do you use the internet for each of these informational activities?

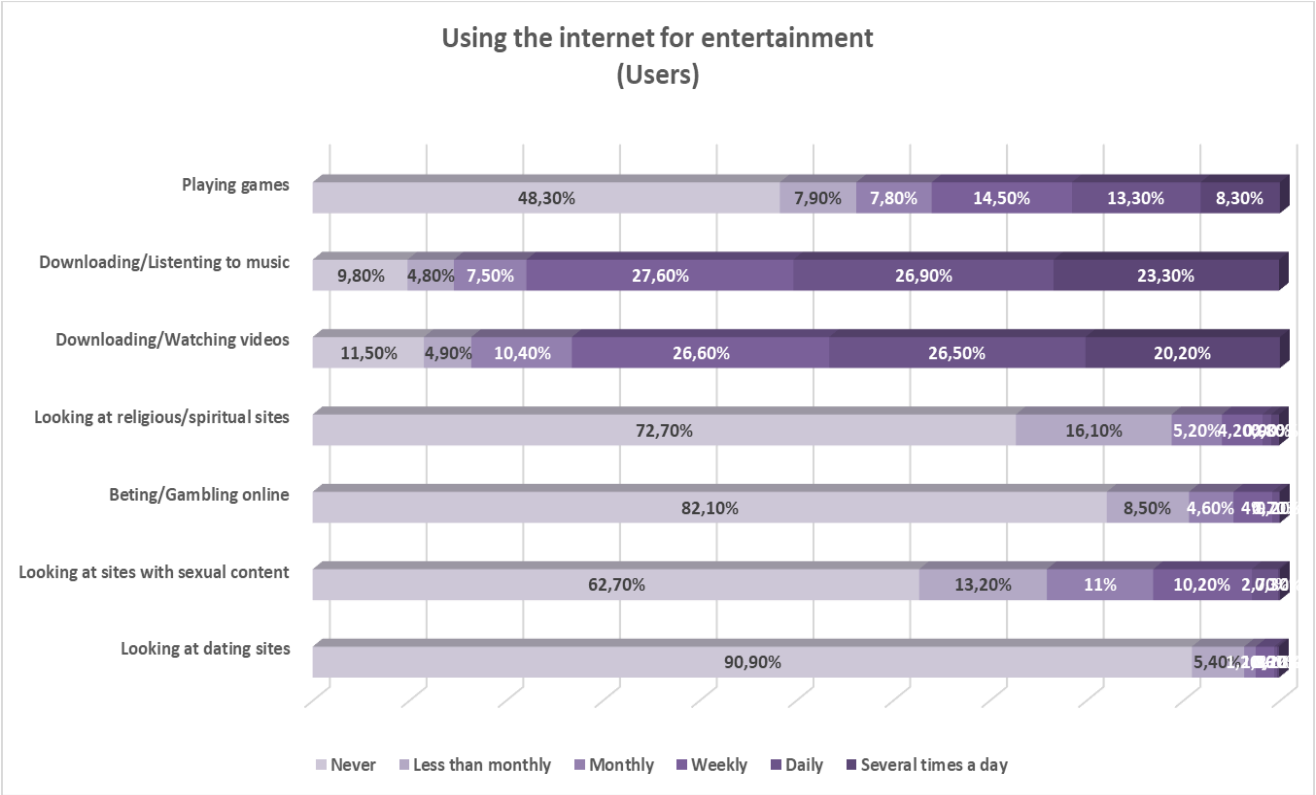


Information

Internet use as information source mostly involves searching for news, with 63.5% of the respondents turning to the internet for news consumption on a daily basis, in order to read local, national or international news (see Figure 25).

Also, Greek users access the internet to search for issues related particularly to their health, with 29% of them searching at least once a week, and 27.8% of them at least once a month. Searching for employment opportunities, as well as for travel information, seems to pertain to the least popular online informational activities.

Figure 26. How often do you use the internet for each of these entertainment activities?

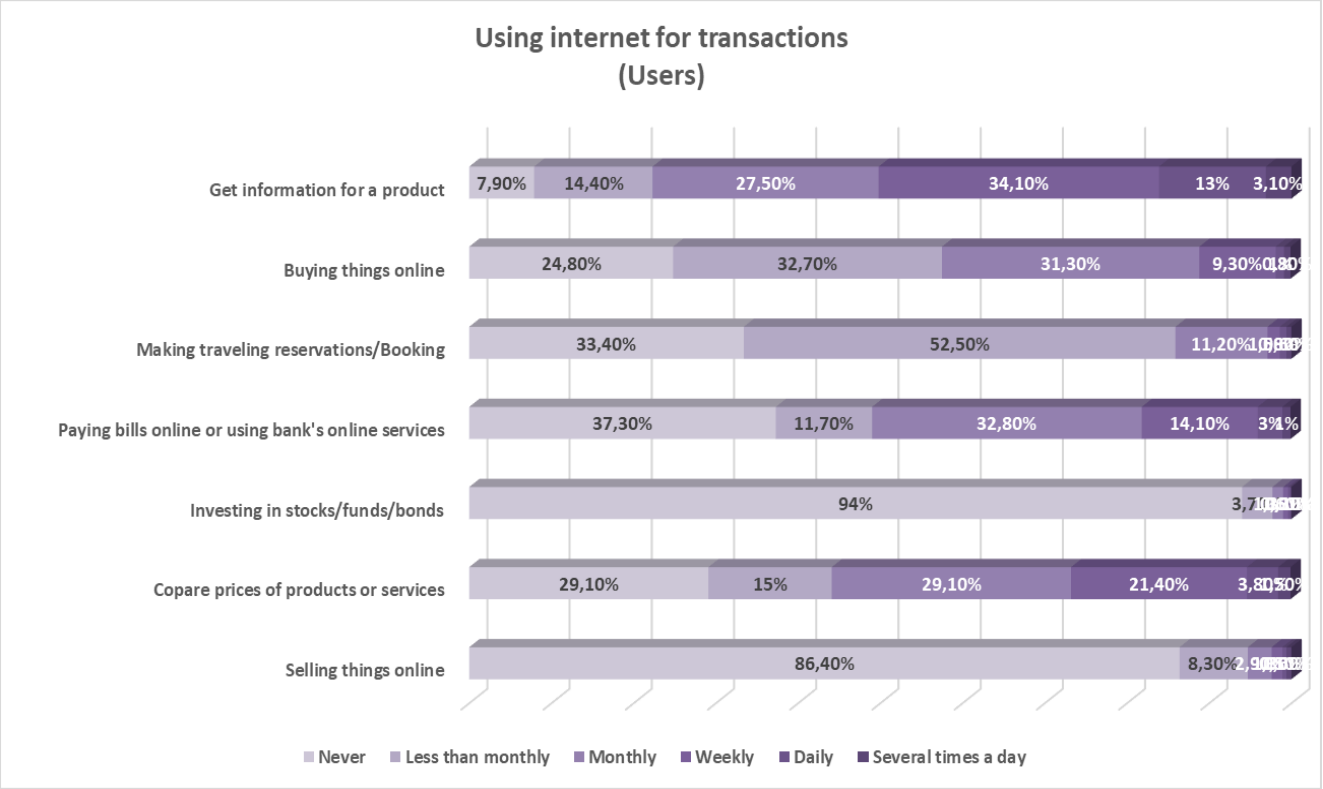


Entertainment

As far as the entertainment uses of the internet are concerned, the most frequent activity of Greek users is searching for music and videos, as the majority reports that download or listen to music and download or watch videos, with one-third of them engaging in such uses on a daily basis and many times during the day. Playing videos games is also a quite popular online activity (see Figure 26).

Moreover, the overwhelming majority of the users report that they never visit online dating sites (90.9%), e-gambling sites (82.1%), or religious content websites. In addition, over a half of the surveyed users report that they never visit sexually explicit websites.

Figure 27. How often do you use the internet for each of these translations?

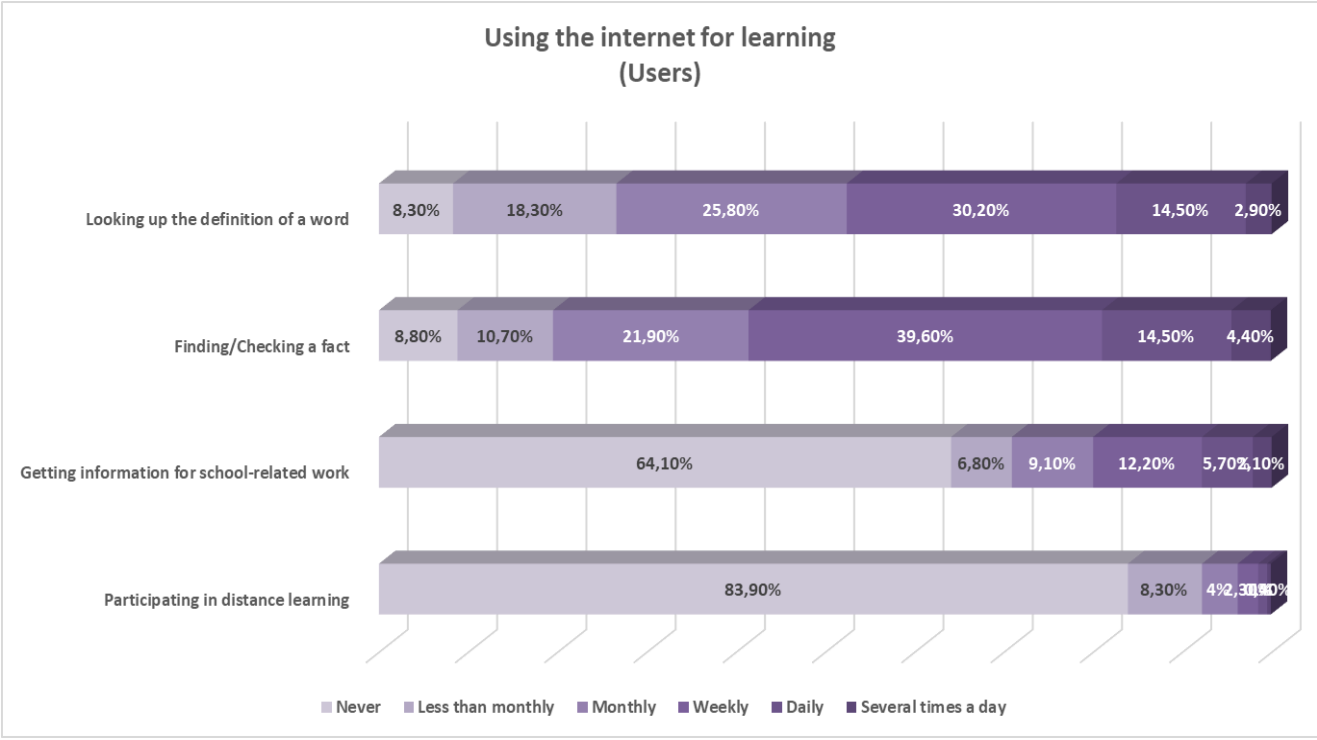


Online transactions

Internet use for transactions between Greek users is relatively limited, but with increasing trends. In fact, 32.8% of internet users report paying online or using online banking (e-banking) at least once a month, while 37.3% of them state that never used electronic services (see Figure 27). However, in the previous WIP survey, almost 60% of the users reported that never had online transactions, such as paying bills online or using internet banking services.

Also, there is limited use of the internet for comparing prices of products or services (29.1% report once a month and 21.4% weekly), as well as for travel bookings. Almost all of the respondents (94%) say that they never use the internet to make any investment. Similarly, 86.4% of the respondents report that they never use the internet in order to sell things, while 31.3% of them make online purchases at least once a month.

Figure 28. How often do you use the internet for each of these learning activities?



Learning

In terms of learning, Greek users mainly use the internet to find or check a fact and to look up word definitions, as the majority search for such information at least once a week (see Figure 28). Finding information on school-related work is not a very common activity for the majority of respondents, something which is expected, given that such learning activity concerns students. Finally, the number of internet users participating in distance learning programs is very small.

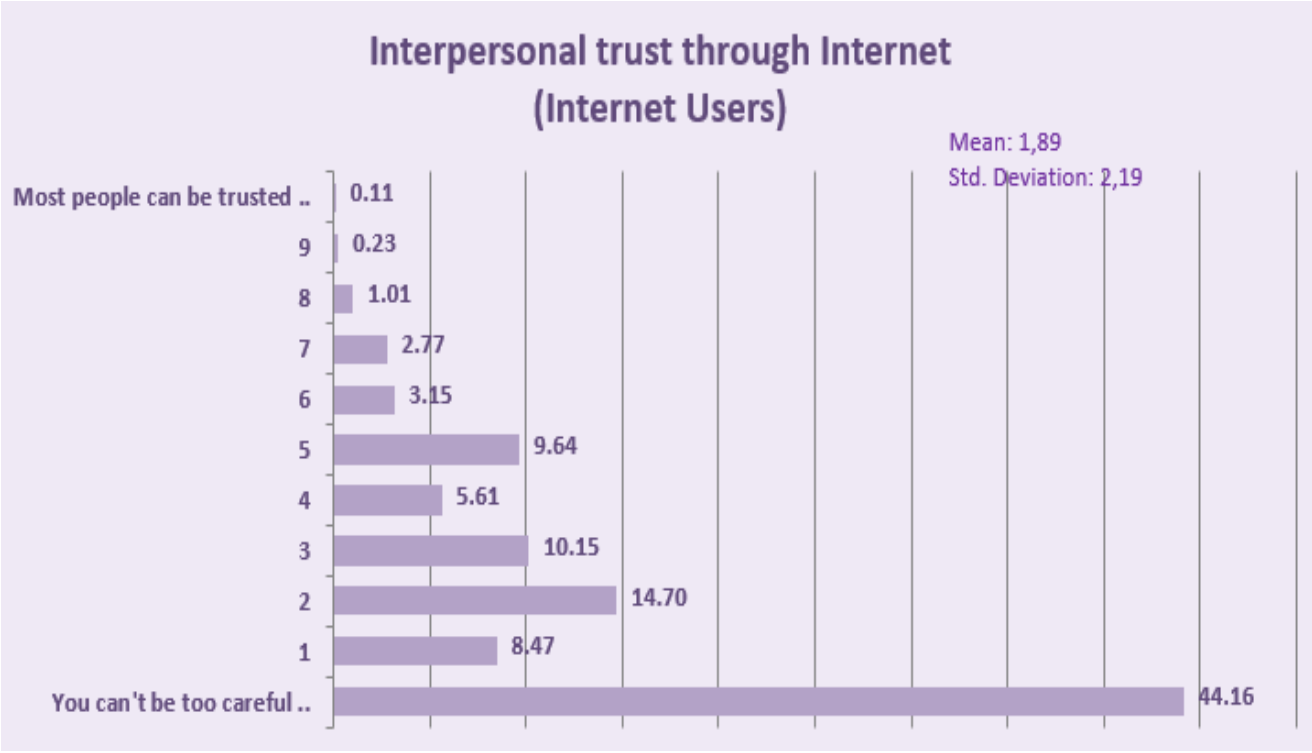
4. SOCIAL CAPITAL INSIDE & OUTSIDE THE INTERNET WORLD

Interpersonal trust through the internet

Interpersonal trust through the internet was measured on an 11-point scale, ranging from 0 to 10. This question was addressed only to internet users, as follows:

"Generally speaking, would you say that most people on the INTERNET can be trusted, or that you can't be too careful in dealing with people? Please tell me on a score of 0 to 10, where 0 means you can't be too careful and 10 means that most people can be trusted."

Figure 29. Interpersonal trust through internet (Internet Users)

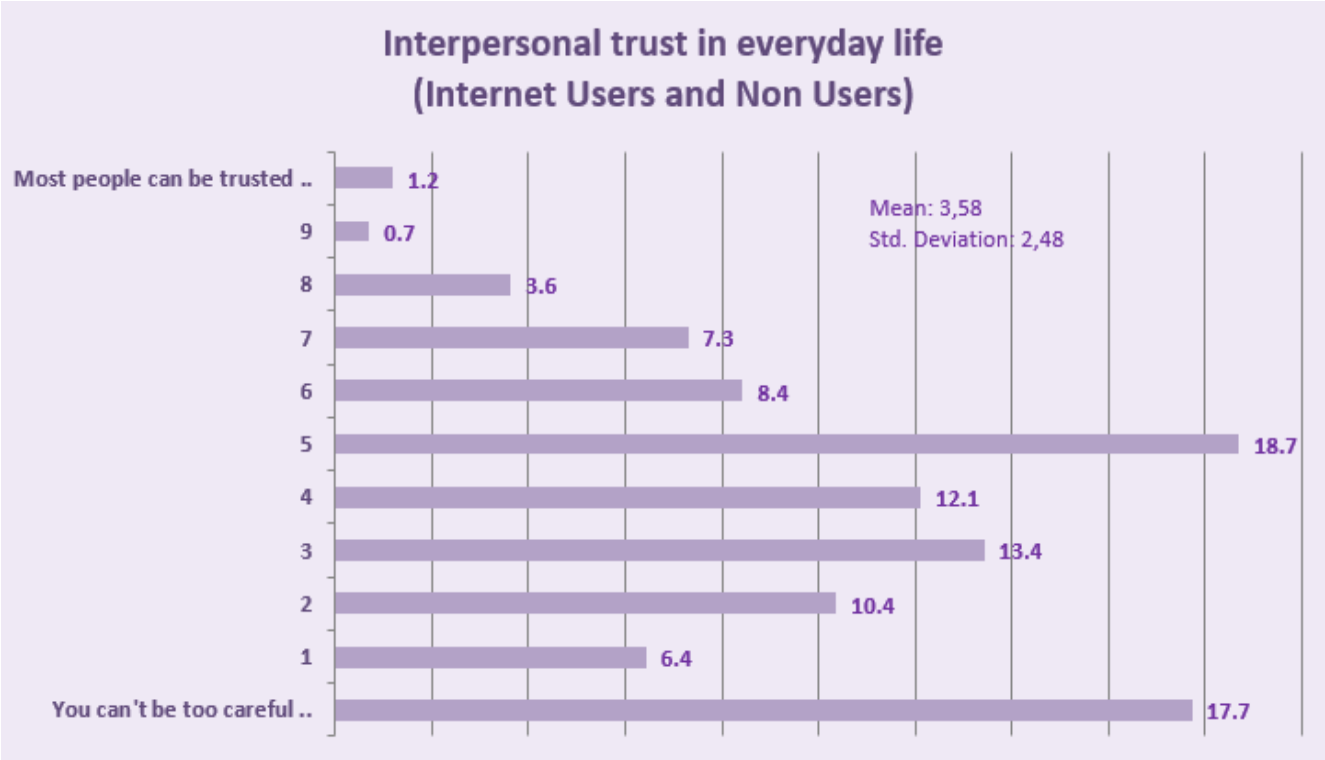


The mean value of interpersonal trust for internet users is just 1.89. Also, 7.27% of the sample scored values above 5.44. And 16% of the sample scored the minimum value (zero), while 48.03% scored values between 1 and 5 (see Figure 29).

Interpersonal trust in everyday life

Correspondingly to interpersonal trust through Internet, interpersonal trust in everyday life was questioned. The sample concerned both users and non-users.

Figure 30. Interpersonal trust in everyday life (Internet Users & Non-Users)



The mean value of interpersonal trust in everyday life is close to 3.58, which is clearly higher than the corresponding mean value of interpersonal trust through internet. In addition, their distributions differ a lot, since only 17.7% scores 0, while 21.2% of the sample scores values greater than five (see Figure 30).

Internet usage for relationship maintenance / development

Concerning the maintenance and development of relationships through Internet, Internet users were asked seven questions ranging from 1 to 5, where 1 corresponded to "Not at all" and 5 to "To a great extent". The questions were negotiated on maintaining - developing relationships online: with people of "similar social status", "higher social status" and "political parties or deputies". In addition, there was a question negotiating maintaining relationships with family or friends through the internet.

Figure 31. Multiple reasons to use the internet (Internet Users)

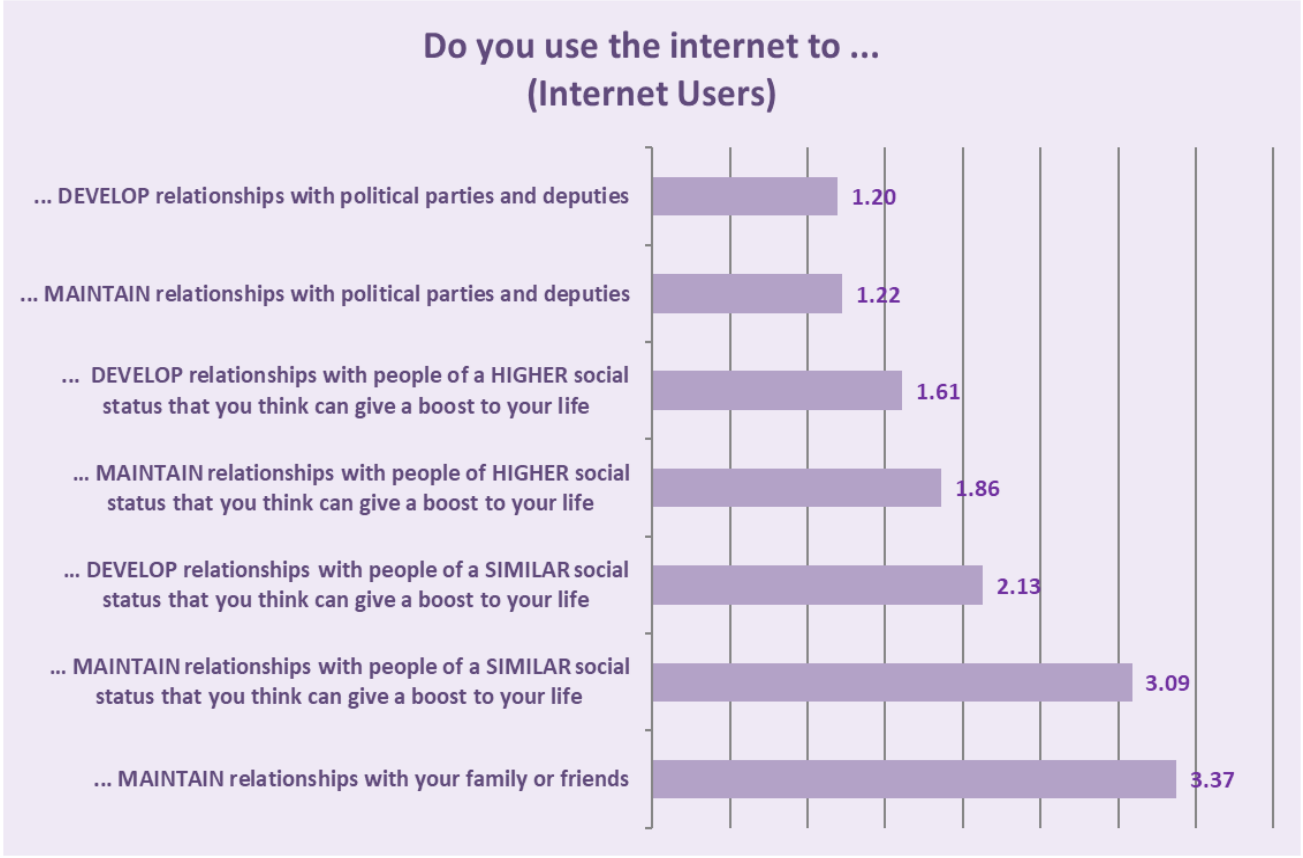
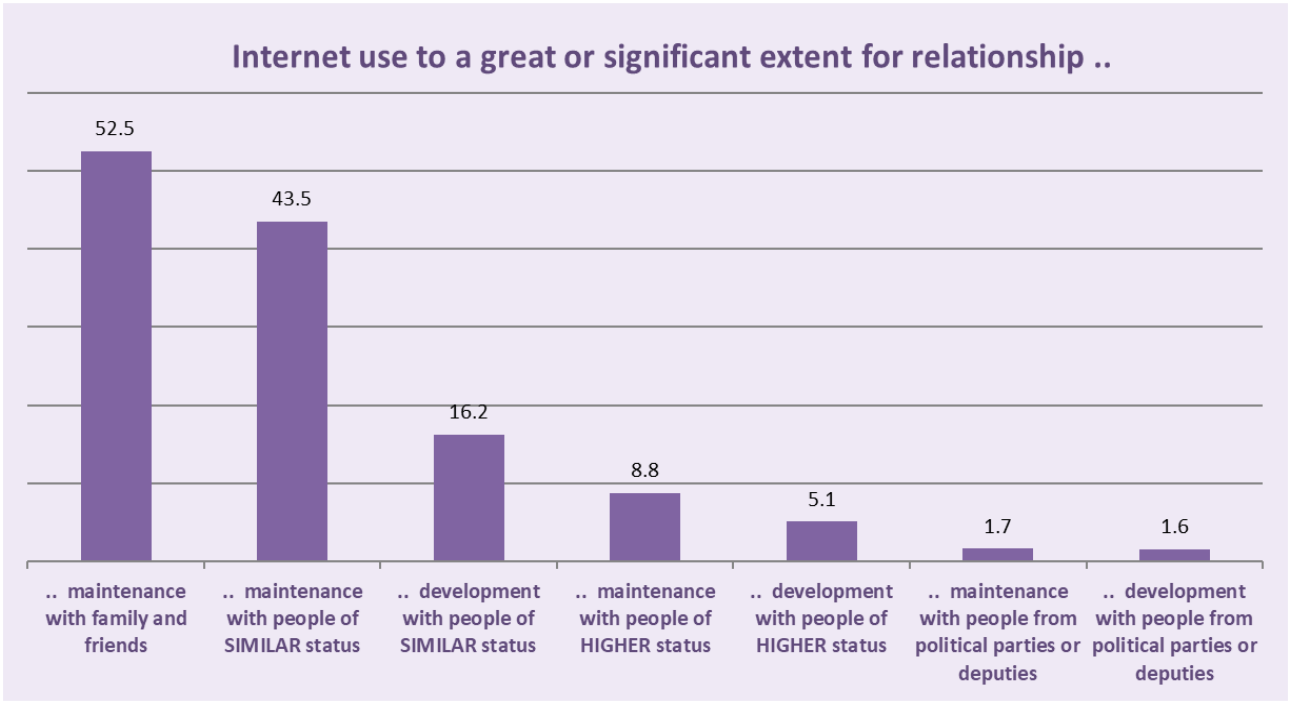


Figure 31 shows that people use the internet mainly to maintain relationships with family or friends at an average of 3.37, and to maintain relationships with people of similar social status at an average of 3.09. Secondarily, the internet is used to develop relationships with people with a similar social status (mean 2.13), to maintain relationships with people of higher social status (mean 1.86), and to develop relationships with people of higher social status (average value 1.61). Remarkably low is the internet use to maintain or develop relationships with political parties or deputies (average values 1.22 and 1.20 respectively).

Taking into account only the respondents who answered “to a great or significant extent”, the results are more or less similar (Figure 32).

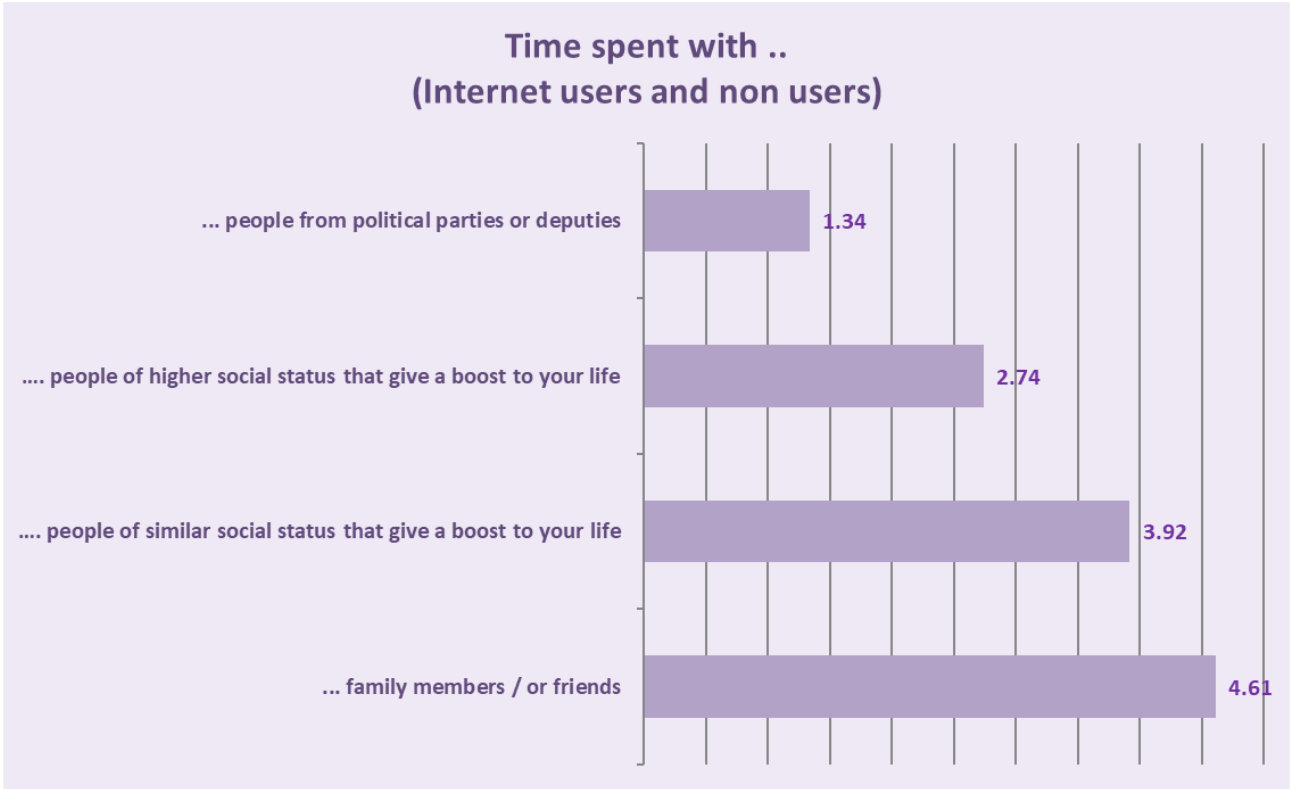
Figure 32. Internet use and maintenance/development of relationships



Time management for relationship maintenance

Four questions were asked to both internet users and non-users about the time management for relationship maintenance (Figure 33).

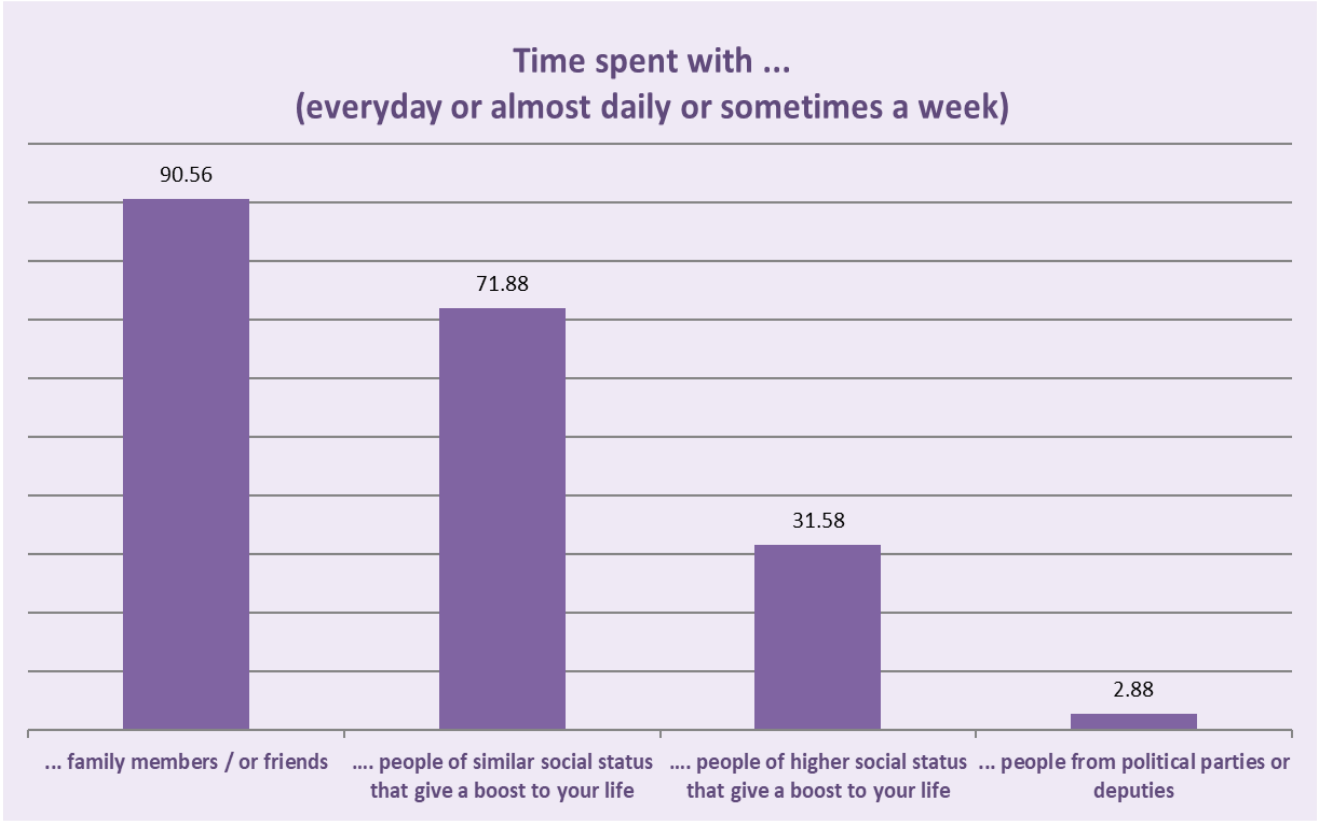
Figure 33. Time management for relationship maintenance



The questions were asked on a five-point scale, with 1 corresponding to "Never or almost never" and 5 to "Daily or almost daily". As shown in Figure 33, people spend more time with family members or close friends (mean 4.61), and lesser time with people of similar social status (mean 3.92) and of higher social status (mean 2.74), and finally with people from political parties, or deputies (average 1.34).

Taking into account only the respondents who answered “daily / almost daily or sometimes a week”, the results are more or less similar, as shown in Figure 34.

Figure 34. Time management for daily/weekly relationship maintenance



Greeting cards/messages people make/receive during Christmas or Easter

Trying to understand online and offline relationships better, users and non-users were asked about the number of greeting phone calls or video calls they receive or make during Christmas or Easter, as well as about the number of greeting messages. Considering that phone calls or video calls concern more strong ties, whereas text messaging (e.g. sms, e-mail, mms, messenger, viber, etc., excluding corporate texts) concerns weak ties, the average values of the number of calls or messages are depicted in Figure 35.

Figure 35. Greeting cards/messages people make/receive during Christmas/Easter

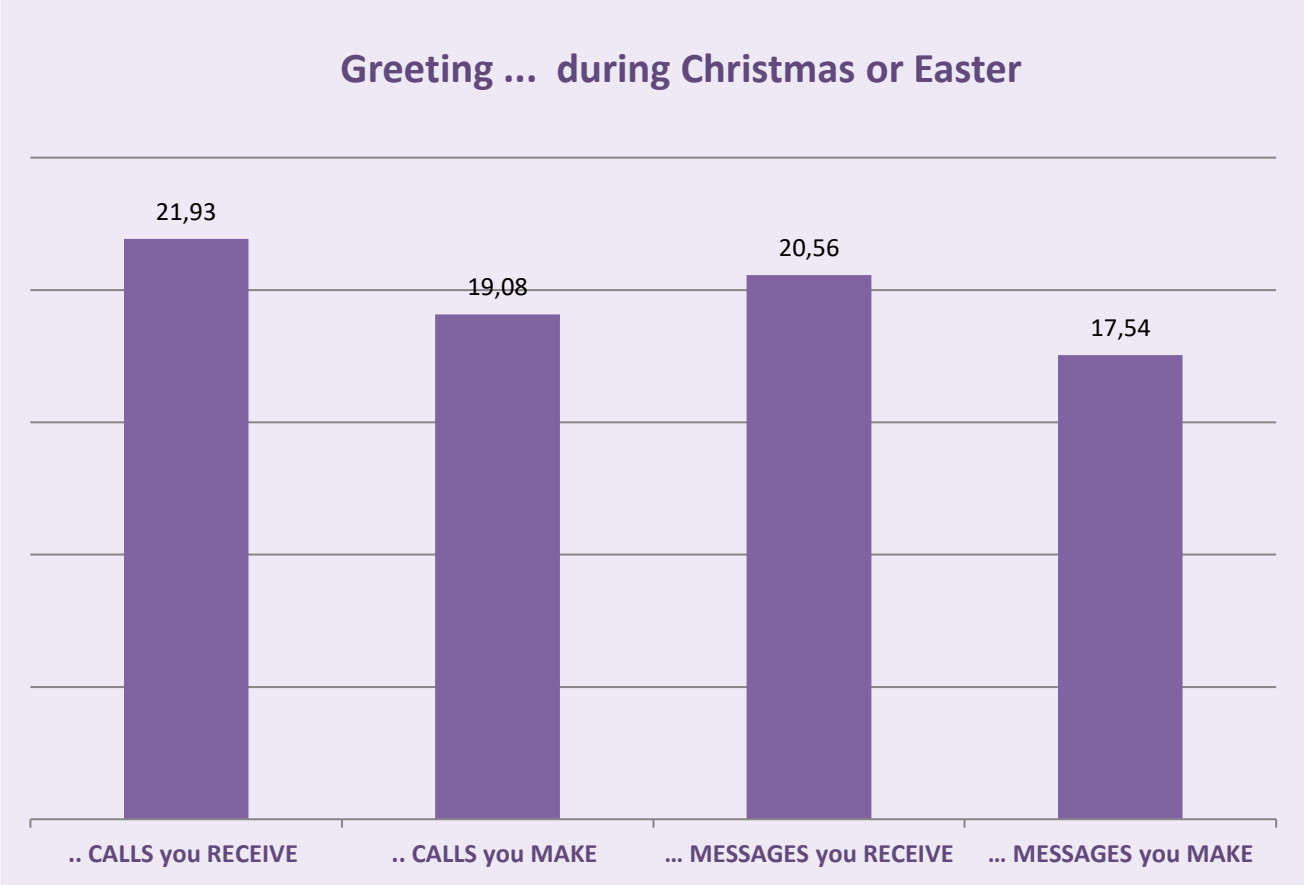


Figure 35 shows that the average number of greeting calls received was 21.93, while the average number of greeting calls made was 19.08. The corresponding values for the messages were 20.56 and 17.54 respectively.

Persons as "Nodes"

Finally, all respondents were asked to answer the question: "How often do other people turn to you for help: either to solve a problem or difficulty, or to use your influence to their advantage?". Answers ranged from 1 – "Never" to 5 — "Very often".

Figure 36. Frequency of asking for help

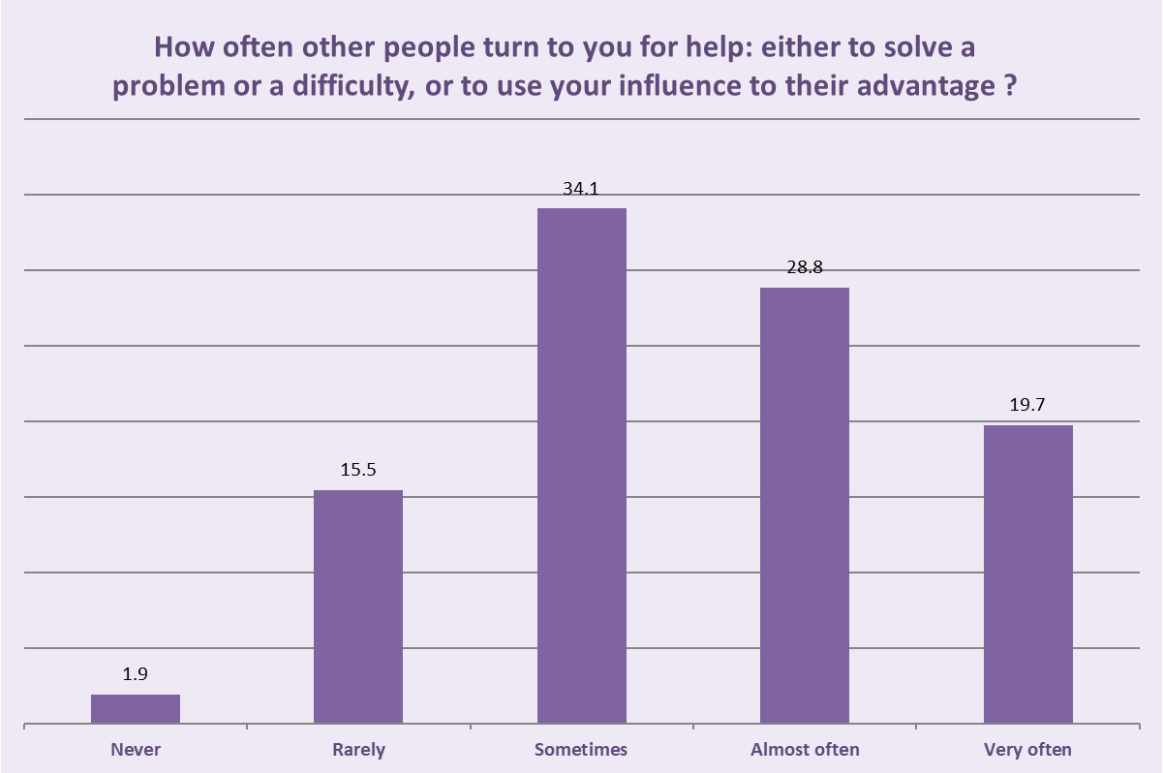


Figure 36 shows that 48.5% of the respondents think that people turn to him/her for help "very often or almost often", while only 17.4% think that people turn to him/her for help "Never or rarely".

In general, our empirical findings on social capital are -more or less- in alignment with those of the European Social Survey (ESS), according to which the internet users possess a relatively higher social capital stock in comparison to the non-users. Nevertheless, as indicated above, the dimension of *bonding social capital* (connecting with family members or close friends) is much stronger than the dimensions of bridging or linking social capital (associated to civil society processes).[23]

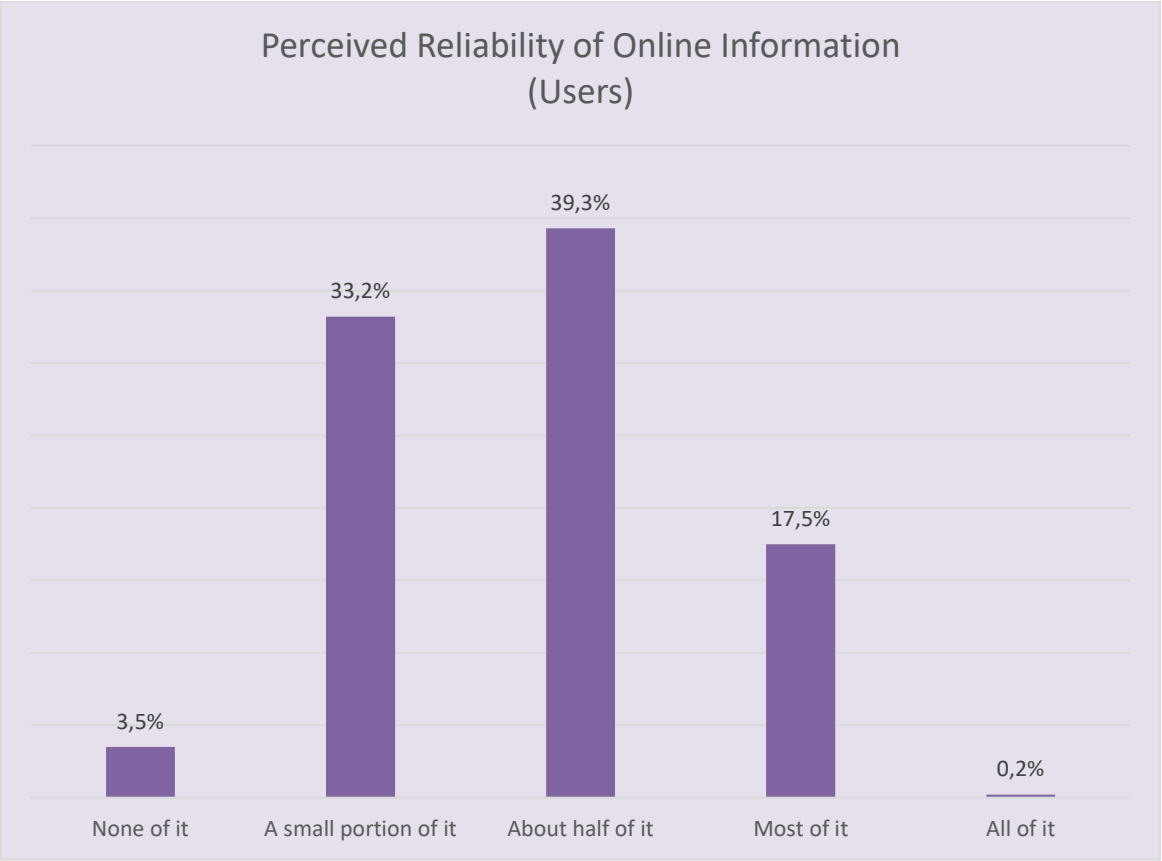
[23] For this conceptual approach, see Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.

5. PERCEPTIONS, EXPERIENCES AND CONCERNS

Perception on internet information reliability

The majority of internet users in Greece (72.5%)[24] appear to be rather sceptical regarding the reliability of information they find online. As Figure 37 shows, most users (39.3%) hold a moderate perception, verifying that about half of the information they find online is reliable, while 33.2% estimate that only a small portion of the relevant information is reliable. Interestingly, less than one out of 100 internet users believe that all information conveyed on the net is reliable. Nonetheless, respondents avoid rejecting online information completely; only 3.5% claim that none of the online information is reliable. These research results correspond to Media Trust Index[25] among EU countries (Special Eurobarometer 452), where Greeks consider social media rather trustworthy (38%), ranking them second after radio (40%), while newspapers (33%) and TV (16%) are considered as less reliable.

Figure 37. How much of the information you find online do you think is reliable?

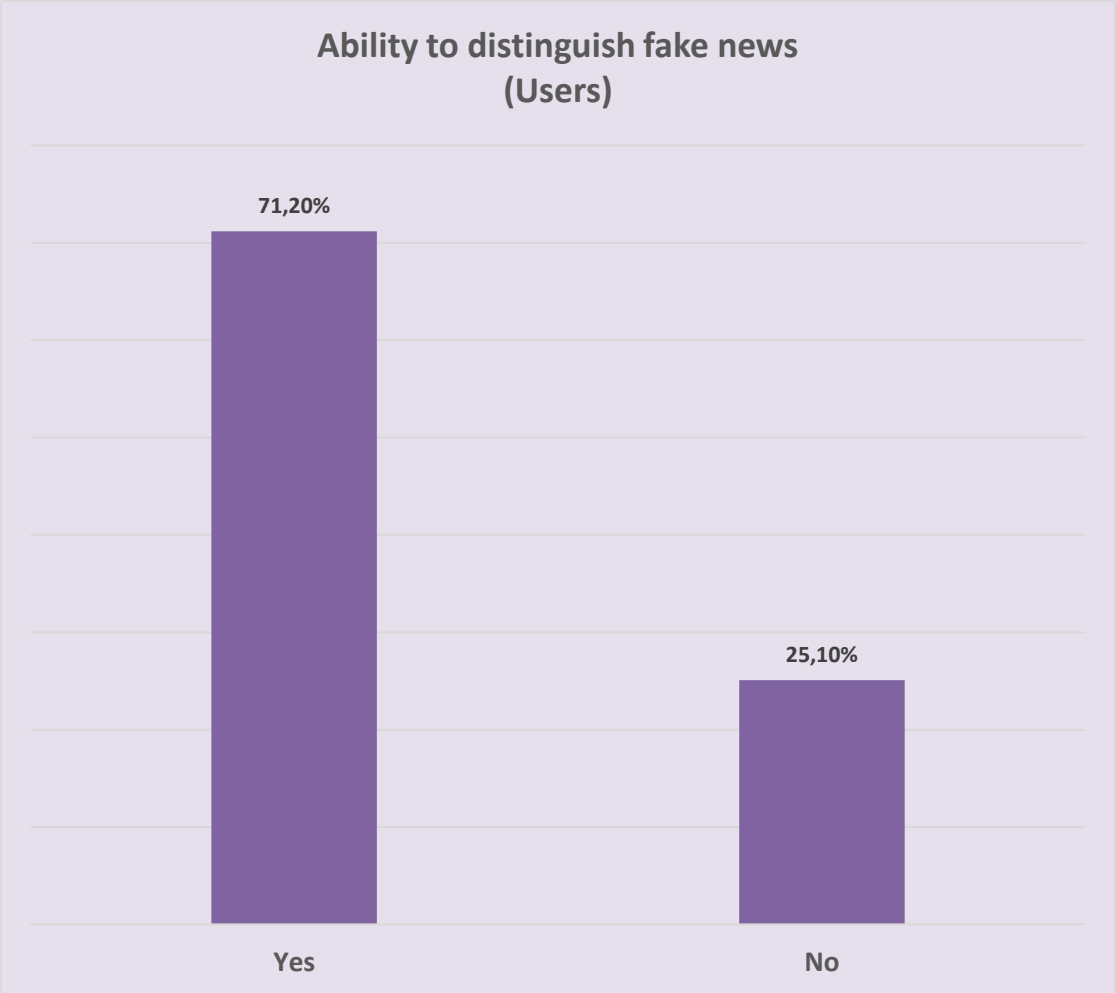


[24] Total percentage for answers: "*A small portion of it*" and "*About half of it*".
[25] The Media Trust Index has been constructed on the basis of levels of trust in four media analyzed in the Eurobarometer, namely, Radio, Newspapers (printed and online), Television, Social Media (online social networks, blogs, video hosting websites, etc.).

Distinguishing fake news

Although Greek internet users appear sceptical as far as the reliability of online information is concerned, they seem to perceive themselves as rather capable to distinguish fake news on the net.[26] As Figure 38 shows, more than seven out of ten users state that they can distinguish fake news, while 2.5 out of ten deny that they have such ability during web browsing.[27]

Figure 38. Can you distinguish fake news on the internet?



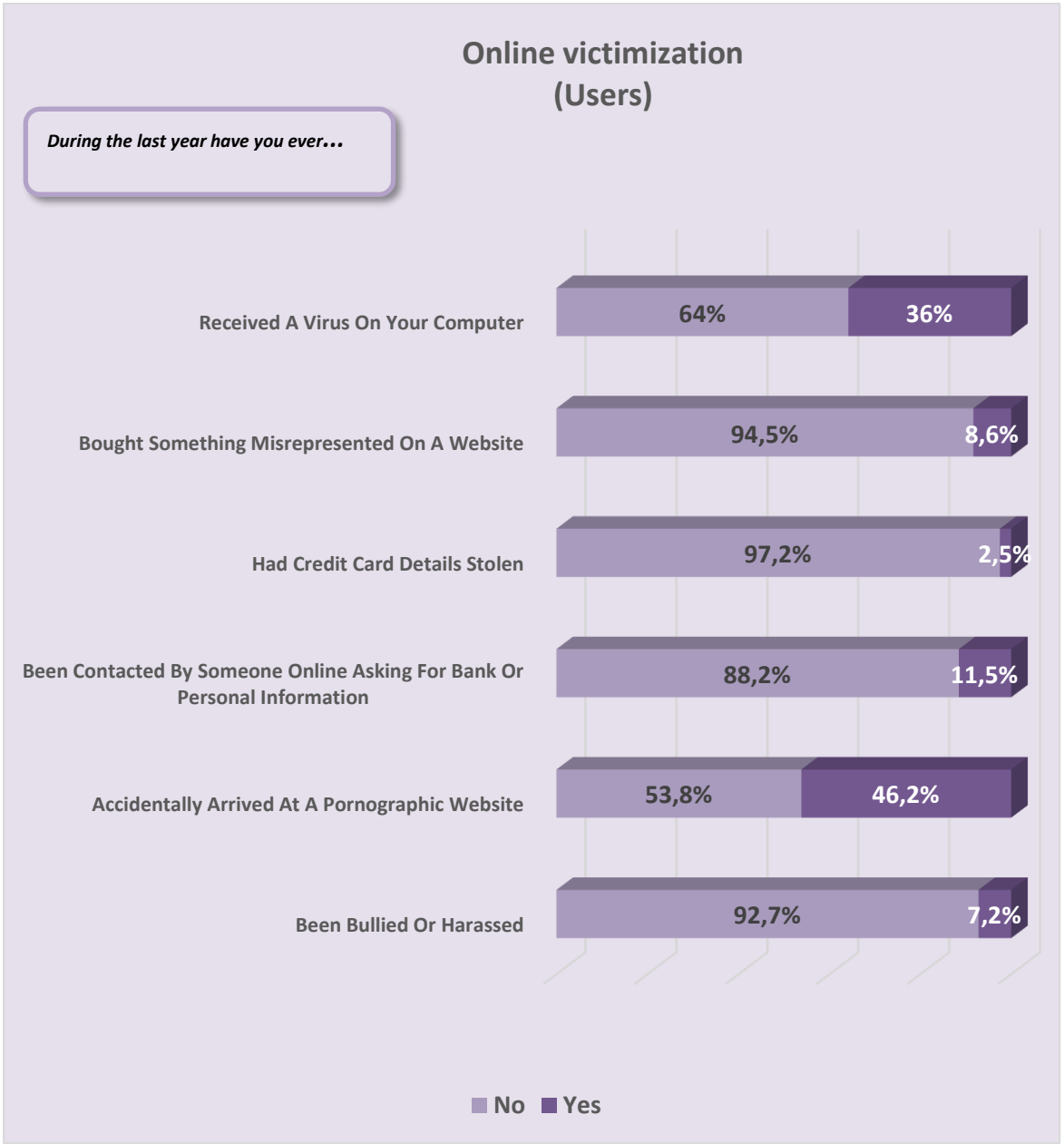
[26] It is notable that, according to the Flash Eurobarometer on Fake News and Online Disinformation (2018), which measured the perceptions and concerns of 26,576 European citizens around this topic, fake news are widely spread across the EU, with 83% of respondents saying that fake news represent a danger to democracy, and 85% of them perceiving disinformation as a problem in their country. See https://ec.europa.eu/digital-single-market/en/news/final-results-eurobarometer-fake-news-and-online-disinformation

[27] Yet, according to Reuters Institute Digital News Report 2019, the Greek media landscape appears vulnerable to fake news and conspiracy theories, something which is arguably linked to Greek users' strong preference towards online news consumption (especially through social media). See Newman, N., Fletcher, R., Kalogeropoulos, A., & Nielsen, R. (2019). *Reuters Institute Digital News Report 2019* (Vol. 2019). Oxford: Reuters Institute for the Study of Journalism.

Online victimization

As Figure 39 shows, Greek users do not appear to be frequently offended during web browsing. The most common cases of online victimization concern unintentional exposure to pornographic content (46.2%) as well as to online viruses (36%). In addition, 11.5% of Greek users report that they have been contacted online by someone asking them for bank or personal information, while 8.6% bought something misrepresented on a website. More personalized offenses, such as being bullied or harassed online, appear to be rare (7.2%). Additionally, serious offenses, such as theft of credit card details, are also rarely reported (2.5%).

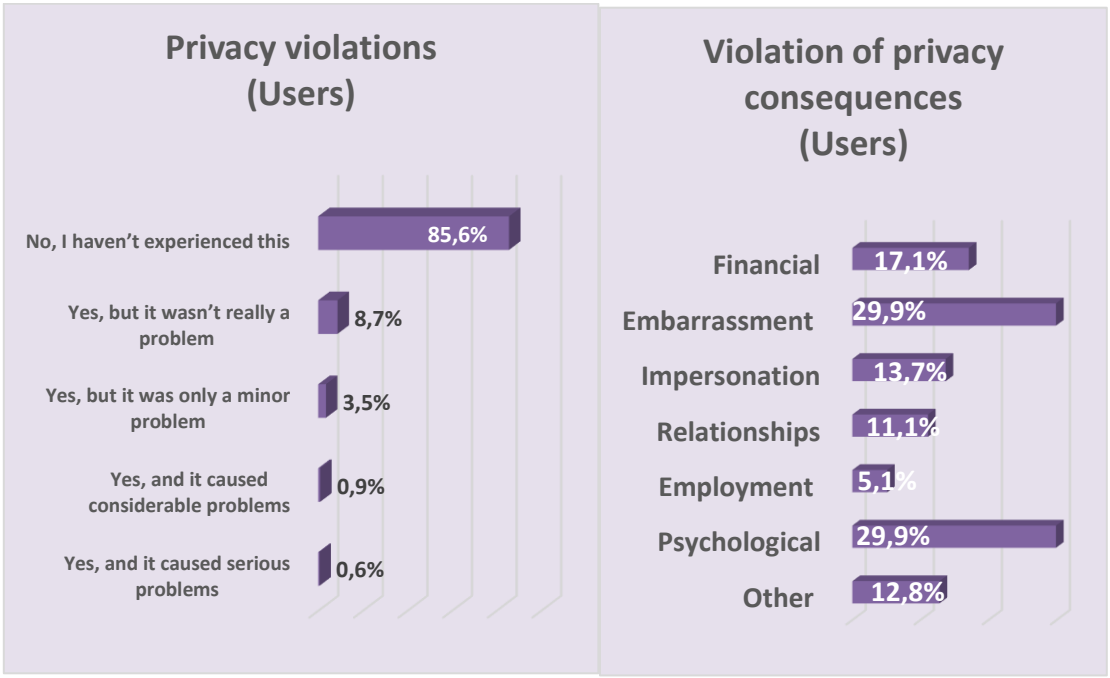
Figure 39. Online victimization of Greek users



Privacy violations

The internet appears to be rather safe since the vast majority of Greek users (85.6%) state that they have never experienced privacy violation online (during the past year). To a much smaller extent, users report cases of privacy violation that were not really problematic (8.7%) or caused only a minor problem (3.5%). Serious privacy violations are reported rarely since, as shown in Figure 40, only 0.9% of the respondents experienced a privacy violation that caused a considerable problem, while 0.6% of them experienced a violation that caused serious problems. As far as the consequences of privacy violations are concerned (see Figure 40), they are rather personalized, since they often involve negative emotions, such as embarrassment (29.9%) or other psychological state (29.9%) (e.g. being mocked or bullied). Also, 17.1% of the respondents report financial consequences. In addition, 13.7% state that someone had impersonated them online and 11.1% refer to interpersonal relations damage. Professional harm is reported to a much less extent (5.1%).

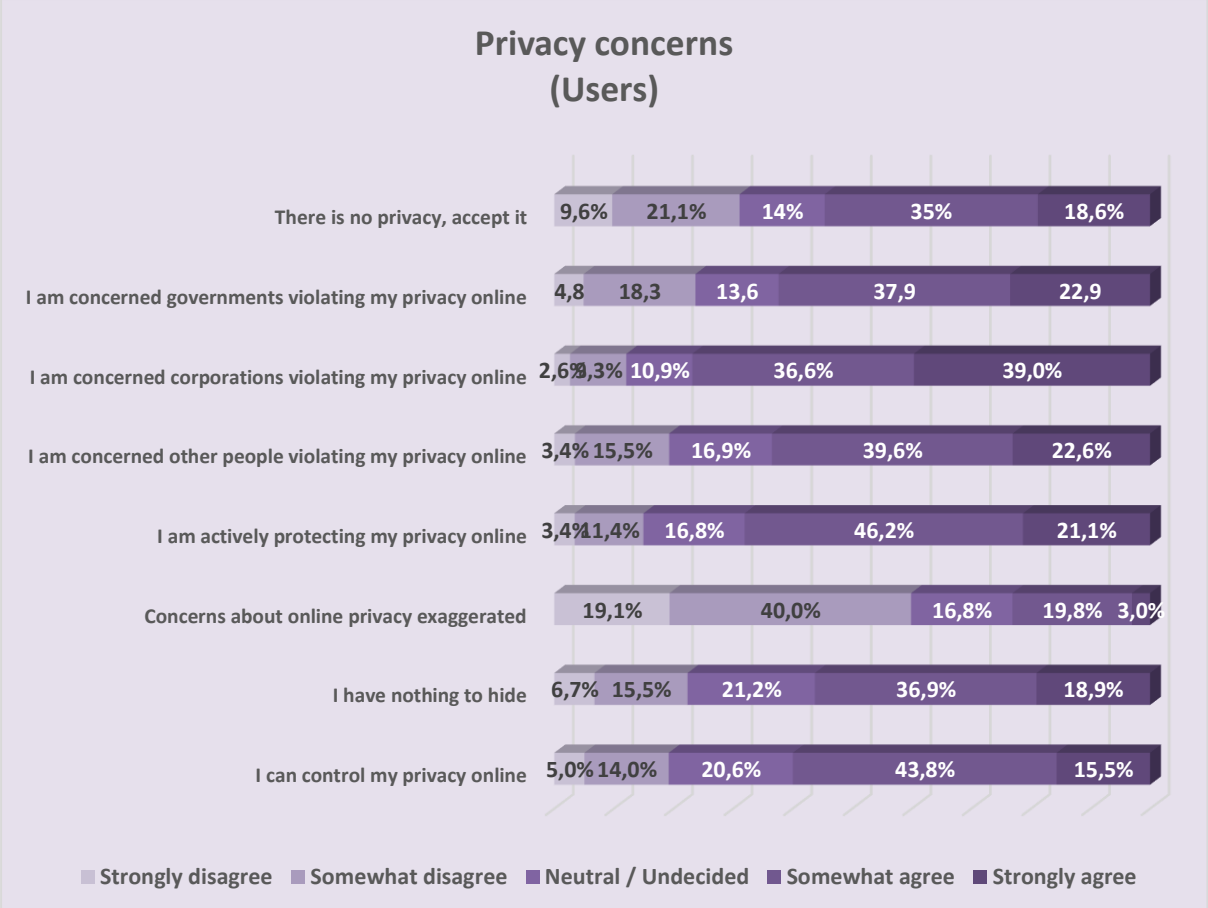
Figure 40. In the past year, have you had your privacy violated online and, if so, how much of a problem was it? What were the consequences of this violation?



Privacy Concerns

More than one in two internet users in Greece perceive the internet (the Web) as an insecure space as far as privacy is concerned. As shown in Figure 41, 53.9% of the respondents[28] claim that "There is no privacy online", while 59.1% of them[29] do not agree with the statement that "Concerns about online privacy are exaggerated". Since 59.3% of the internet users[30] have the impression that they can control their privacy online, it seems that persons connected to the internet face up privacy concerns actively, something which is also verified by a large number of respondents (67.3%),[31] who state that they protect their privacy online. However, an apparently ambiguous impression is created when we have a closer look at special privacy concerns. Although the majority state that they have nothing to hide (55.8%),[32] special concerns about privacy violations appear. In detail, most respondents (75.6%)[33] concern about privacy violation by corporations, 62.2% by other persons,[34] and 60.8% by governments.[35]

Figure 41. How much do you agree with the following concerns about privacy online?

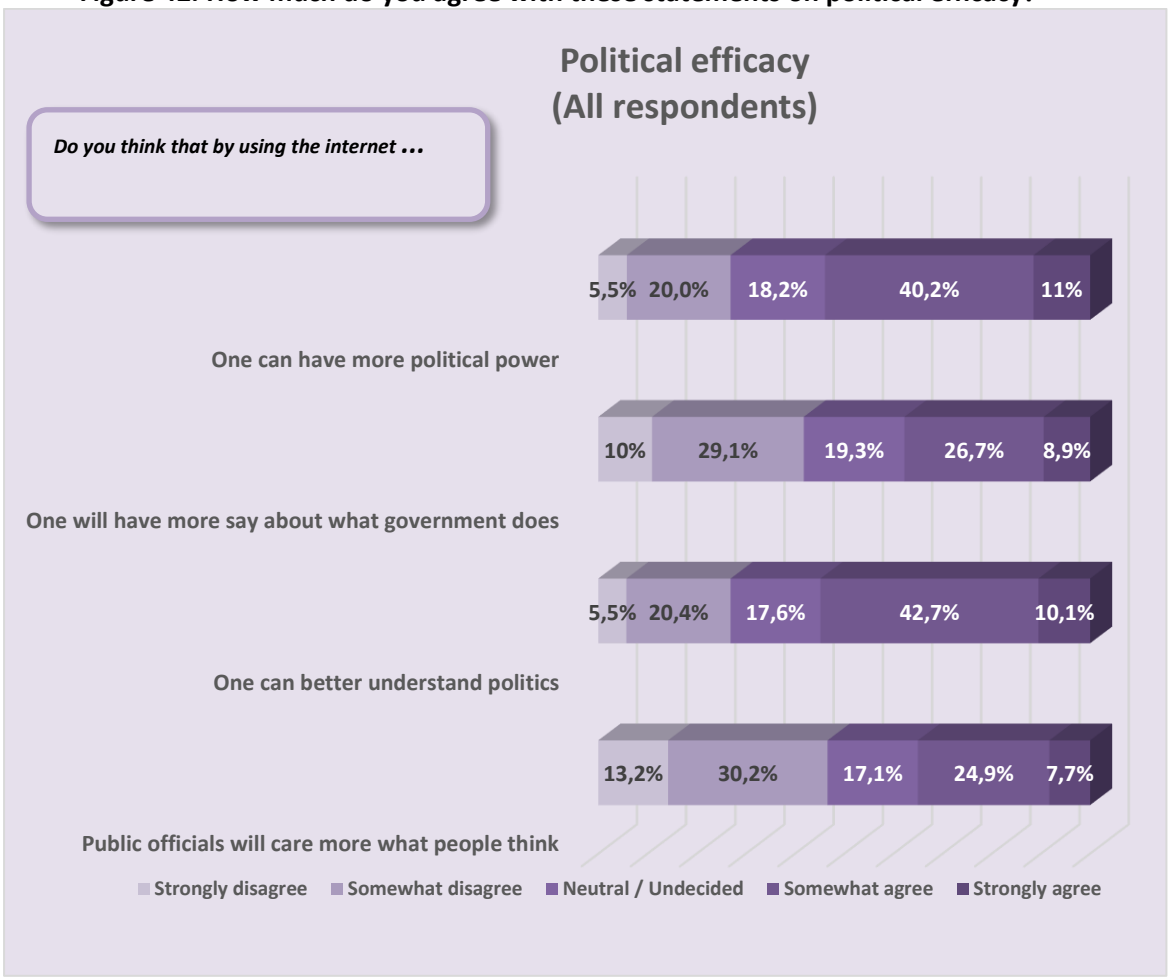


[28] Total percentage of "*Somewhat agree*" and "*Strongly agree*".
[29] Total percentage of "*Somewhat disagree*" and "*Strongly disagree*".
[30] Total percentage of "*Somewhat agree*" and "*Strongly agree*".
[31] Total percentage of "*Somewhat agree*" and "*Strongly agree*".
[32] Total percentage of "*Somewhat agree*" and "*Strongly agree*".
[33] Total percentage of "*Somewhat agree*" and "*Strongly agree*".
[34] Total percentage of "*Somewhat agree*" and "*Strongly agree*".
[35] Total percentage of "*Somewhat agree*" and "*Strongly agree*".

Political efficacy

For the purpose of assessing perceptions on political efficacy, both users and non-internet users were asked to state agreement on four statements. Drawing from Figure 42, it is worth noting that almost two out of ten users hold a neutral state or have not decided on this matter. The internet appears to be a preferable source of information gathering on politics, since most of all respondents (52.8%)[36] verify that Web surfing can support a person on better understanding politics. In addition, approximately one in two (51.1%)[37] perceive the internet as an effective means to have their voices heard, since they agree on the statement that *by using the internet one can have more political power*. Respondents' perception of the effectiveness of the internet on increasing the citizen potential to influence political reality is low. This pertains to their disagreement on two statements. Namely, 39.4% state that using the internet does enable people to have more say about what government does,[38] while 43.4% state that public officials will not care more on what people think.[39]

Figure 42. How much do you agree with these statements on political efficacy?



[36] Total percentage of "*Somewhat agree*" and "*Strongly agree*".
[37] Total percentage of "*Somewhat agree*" and "*Strongly agree*".
[38] Total percentage of "*Somewhat disagree*" and "*Strongly disagree*".
[39] Total percentage of "*Somewhat disagree*" and "*Strongly disagree*".

Freedom of expression

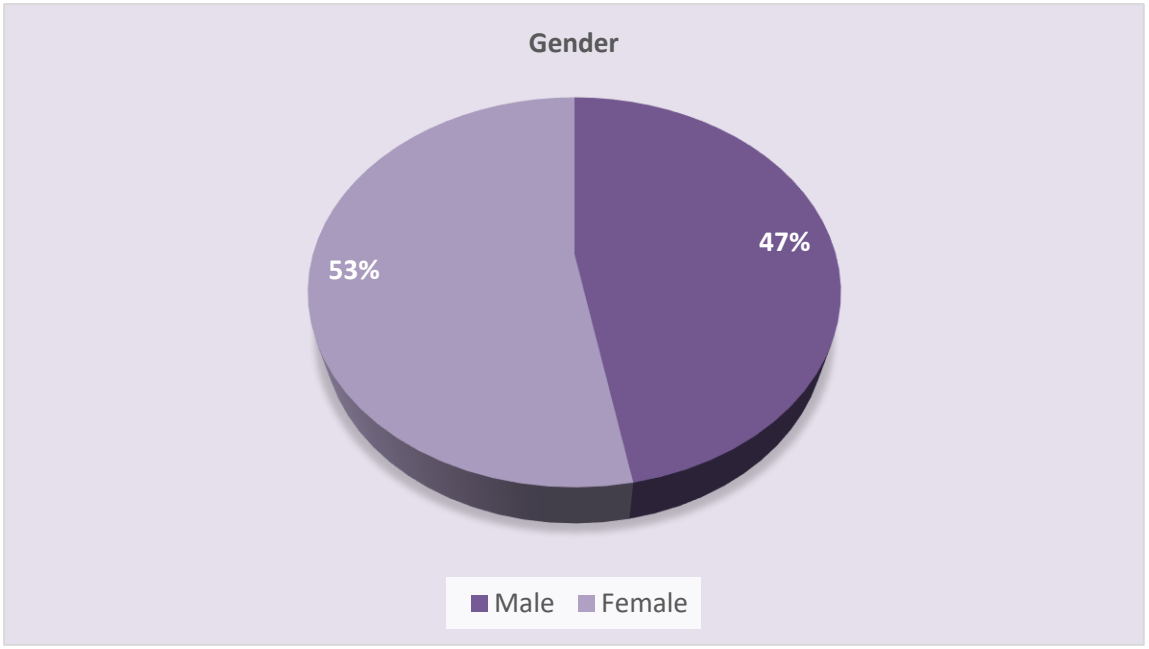
All participants were asked to state agreement with five statements reflecting perceptions of freedom of expression. As seen in Figure 44, the majority (68%)[40] express that they feel comfortable saying whatever they think about politics in general, confirming a significant degree of freedom of speech in Greece. As far as the internet is concerned, most users and non-users define it as a rather unsafe place to express political ideas. Also, 48.2% affirm that it is not safe to say whatever you think about politics on the internet.[41] It appears that the respondents support freedom of expression on the Web, since almost eight out of ten (79.9%)[42] agree on the statement that "*People should be free to criticize government on the internet*", while more than four out of ten (45.4%)[43] accept the expression of extreme ideas on the Web. In the same vein, a high percentage (43.7%)[44] reject potential increase of internet regulation by the government.

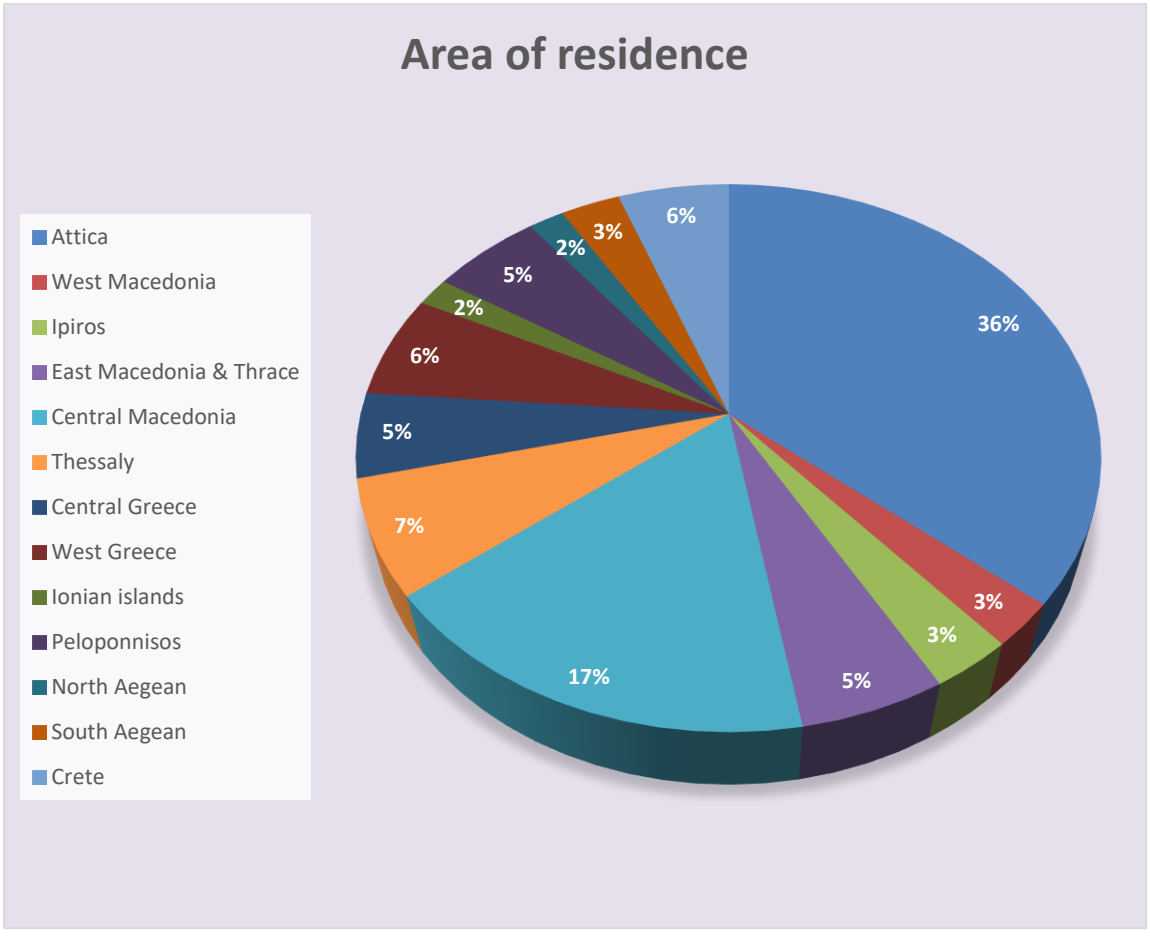
Figure 43. How much do you agree with the following statements on freedom of expression?

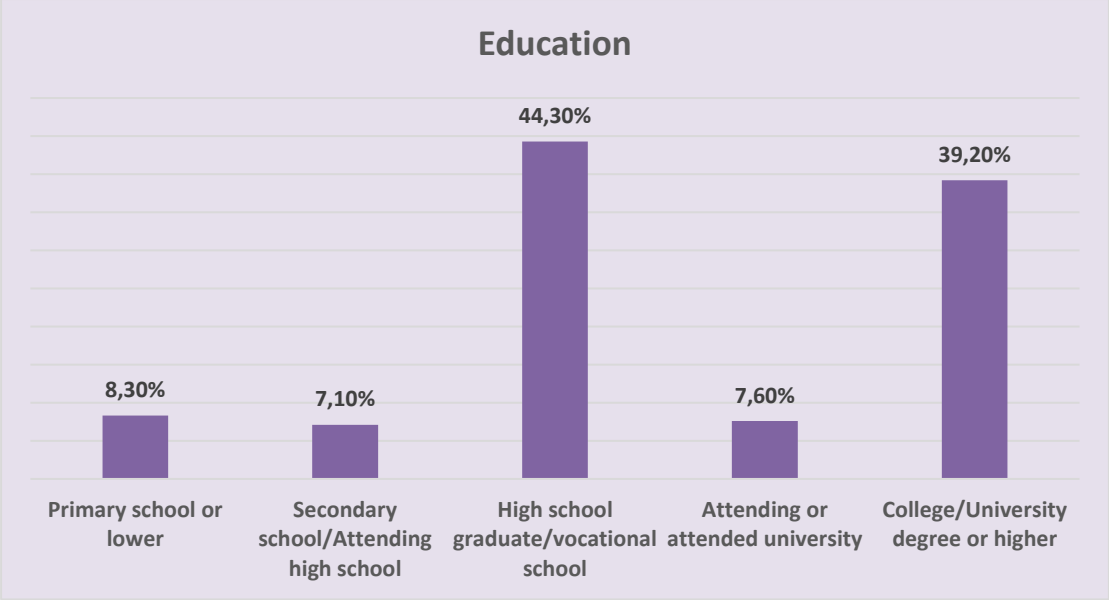
[40] Total percentage of "*Somewhat agree*" and "*Strongly agree*".
[41] Total percentage of "*Somewhat disagree*" and "*Strongly disagree*".
[42] Total percentage of "*Somewhat agree*" and "*Strongly agree*".
[43] Total percentage of "*Somewhat agree*" and "*Strongly agree*".
[44] Total percentage of "*Somewhat disagree*" and "*Strongly disagree*".

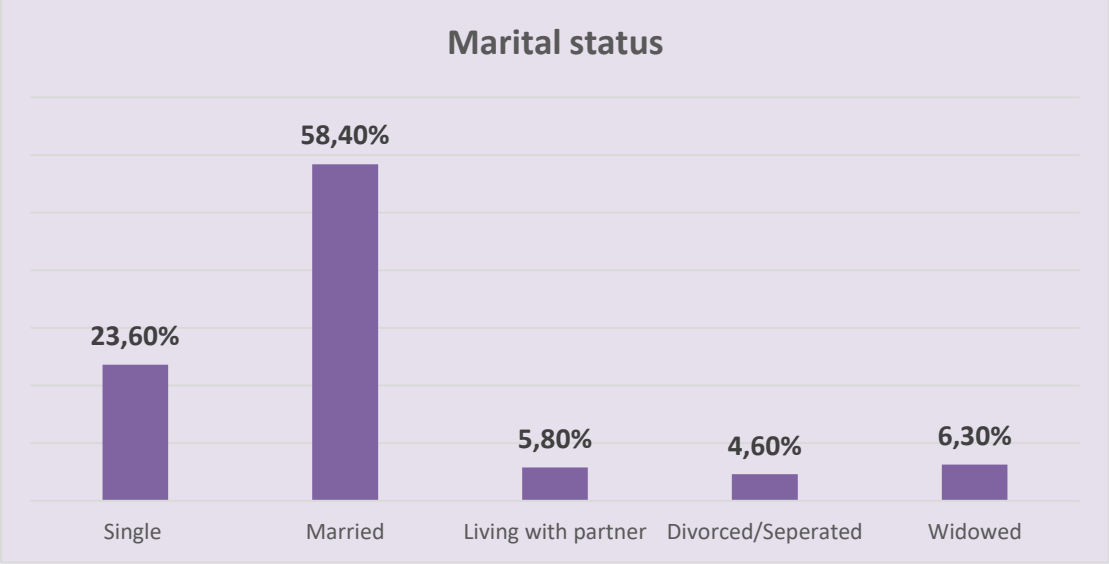
APPENDIX: DEMOGRAPHICS

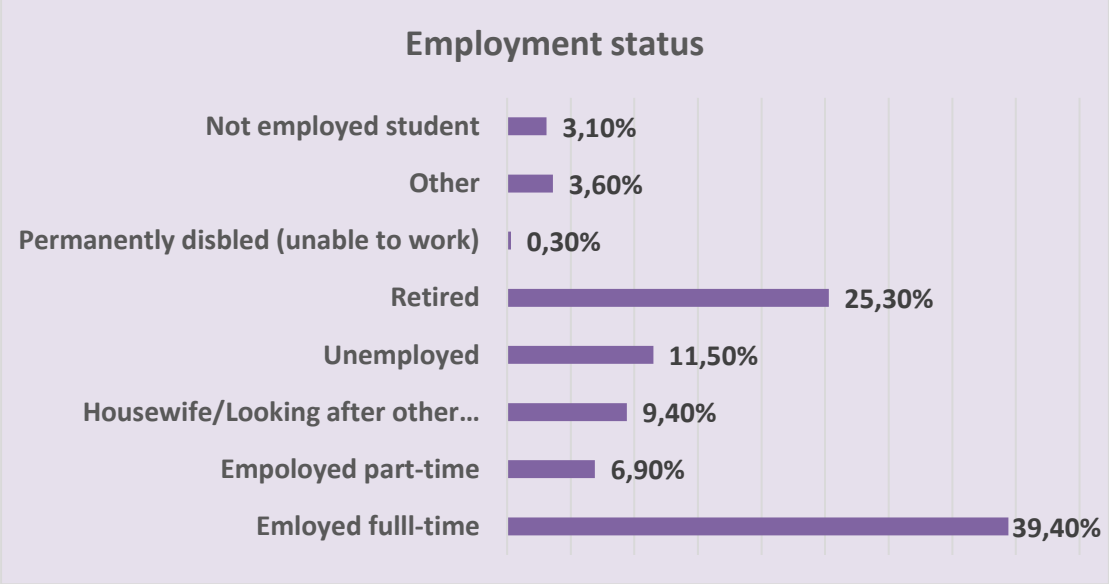
Figure 44. Demographic composition of the sample

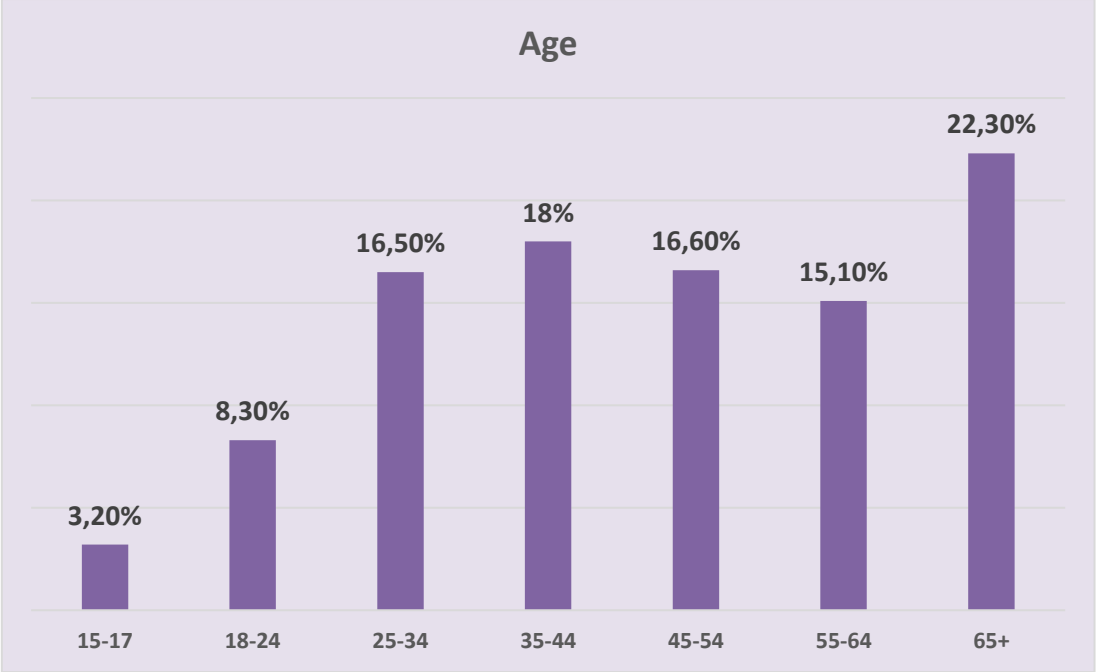


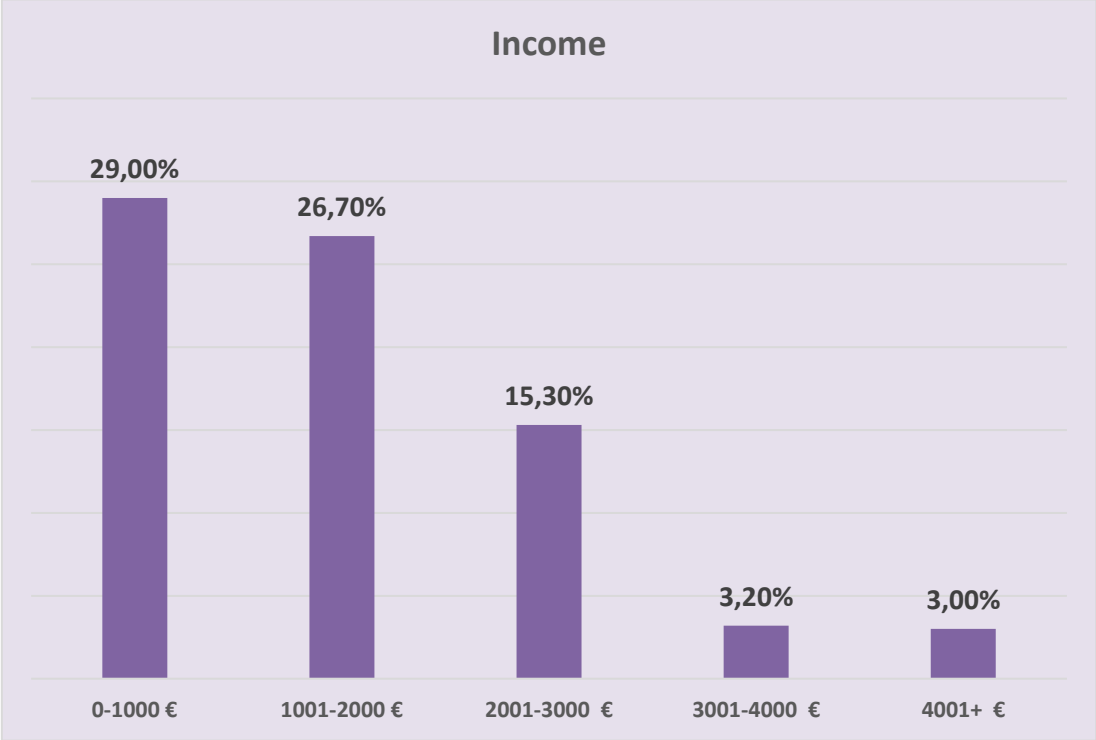



Education
8,30%
7,10%
44,30%
7,60%
39,20%
Primary school or lower
Secondary school/Attending high school
High school graduate/vocational school
Attending or attended university
College/University degree or higher


Marital status
23,60%
58,40%
5,80%
4,60%
6,30%
Single
Married
Living with partner
Divorced/Seperated
Widowed


Employment status
Not employed student
3,10%
Other
3,60%
Permanently disbled (unable to work)
0,30%
Retired
25,30%
Unemployed
11,50%
Housewife/Looking after other...
9,40%
Empoloyed part-time
6,90%
Emloyed fulll-time
39,40%


Age
3,20%
8,30%
16,50%
18%
16,60%
15,10%
22,30%
15-17
18-24
25-34
35-44
45-54
55-64
65+


Income
29,00%
26,70%
15,30%
3,20%
3,00%
0-1000 €
1001-2000 €
2001-3000 €
3001-4000 €
4001+ €