

Older Audiences and Digital Media: Spain, 2016. Preliminary results

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September 2017



Suggested citation: Jacobetty, P., & Fernández-Ardèvol, M. (2017) *Older audiences and digital media: Spain, 2016. Preliminary results*. Castelldefels, Barcelona: IN3-Open University of Catalonia. Retrieved from <http://hdl.handle.net/10609/71745>

This research is supported by the SSHRC Canada as part of the ACT project (<http://actproject.ca/>, ref. 895-2013-1018).

Abstract: This report discusses preliminary, descriptive results of an online survey conducted in Spain in 2016. It belongs to the first wave of the “Cross-National Longitudinal Study: Older Audiences in the Digital Media Environment” study, part of the ACT project (<http://actproject.ca>). The universe under study are Internet users aged 60 + living in Spain. The document analyzes the socio-economic characteristics of that population, which differs from the average older population in terms of higher educational levels and higher level of income. Media consumption patterns indicate the articulation of traditional and digital media; and Internet activities mainly combine personal communication and information gathering. While media are mostly consumed at home, internet activities take place at more variegated places when compared to other media such as TV, radio or press. The mobile phone is central for older Internet users, who find it important for not only messaging or voice calling, but also for taking pictures and managing everyday life. Finally, the population under study are highly satisfied with their life in general, and with their physical health in particular.

Keywords: 60+ Internet users; Spain; online survey; Internet; mobile communication; media consumption; digital media; traditional media

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Introduction

This document reports preliminary results of the first wave Spanish survey for the project “Cross-national longitudinal study: Older audiences in the digital media environment.” The project overall goal is to build and analyze a panel of older audiences in seven countries (Austria, Canada, Denmark, Israel, Romania, Spain, and The Netherlands). The project fieldwork takes place from 2016 to 2020 and data collection occurs in three different moments, on a biannual basis. Supported by the ACT project (<http://actproject.ca>), the panel study expands both Nimrod’s (2017) work and that conducted within the EU COST Action IS0906 “Transforming Audiences, Transforming Societies.” The study’s main objectives are identifying and analyzing media consumption habits and usage repertoires of older audiences, namely how traditional and dominant media, on one hand, and new media, on the other, are articulated in practice.

The goal of this report is to provide exploratory results to support further research and academic publications based on the survey.

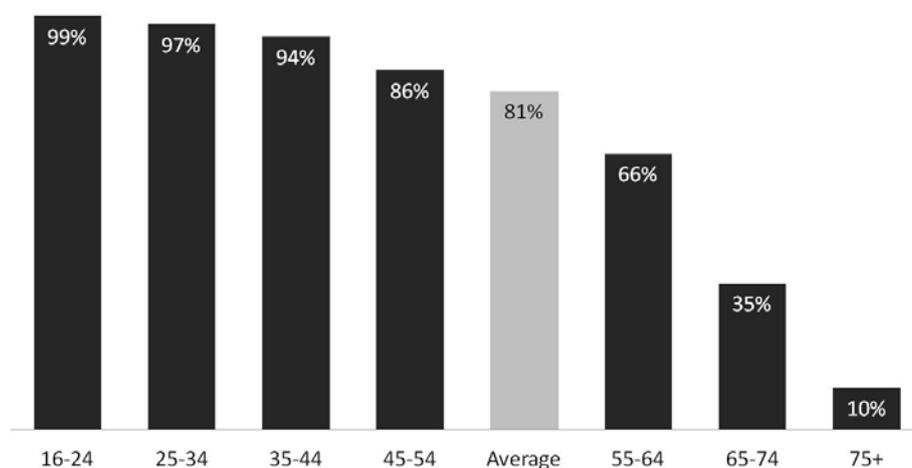
Method and universe under study

Data collection relies on an online survey, an appropriate tool for this specific population: Internet users aged 60 years and older living in Spain. A company specialized in online surveys for market, opinion and social research that follows the ethic protocols needed for academic research, Netquest, was responsible for the survey tools and provided access to its panelists.¹ The fieldwork’s first wave was conducted in 2016, between the 3rd and 10th of November, with a final valid sample size of 2,238 responses. Representativeness was ensured through quota sampling that followed the same age and sex distribution of the population under study, a standard practice in online sampling. Further technical details about the procedure are available in Appendix 1 (p.23).

Internet adoption is less frequent in the older segments of the population: the proportion of internet users decreases with age. In Spain, 81% of the population over 16 years old uses the Internet, but that percentage decreases to 35% in the 65-74 years old group and to only 10% among those aged 75 and over (see Illustration 1). That means that, even among those who are 60 and over, Internet users are comparatively less prominent among older groups than younger ones. In addition, when there’s a marked gap in terms of Internet adoption rates, online users tend to be more urban, with higher level of studies and higher socio-economic status than the average (for instance, see Eurostat, 2016). This initial remark is important because it concerns some complex biases in relation to the general population – their expression is not homogeneous throughout the sample, increasing with age. The discussion of results in the next section will integrate reflexions on those biases.

¹ <https://www.netquest.com/online-surveys-investigation>.

Internet users, broken by age. Spain 2016



Source: Eurostat (2016)

Illustration 1: Internet users (in the last 12 months, broken by age. Spain 2016)

Results

Socio-demographic characteristics

Due to the defined quotas, the sample of Internet users aged 60 and over followed the same distribution than the population in terms of age and gender. The unbalance of gender distribution of this population, 54% of women and 46% of men (Table 1), is a consequence of the women's higher life expectancy (INE, 2017a), despite the fact that, within the older population in Spain, Internet adoption rates are higher among men (INE 2017b).² The age distribution is asymmetric, with a concentration of individuals in the younger groups rather than the older (Illustration 1, Table 2).

%	Woman	Man	Total
60-69	33.3	36.6	69.9
70-79	18.9	8.0	26.9
80+	1.7	1.5	3.1
Total	53.9	46.1	100

N=2,238

Table 1: Gender and age distribution of the Internet users aged 60 and over - sample

² Internet users ascend to 40,6% among men and 29,4% among women in the age segment 65-74 years old in Spain (year 2016, persons who accessed to Internet in the last 3 months).

Q22: Age

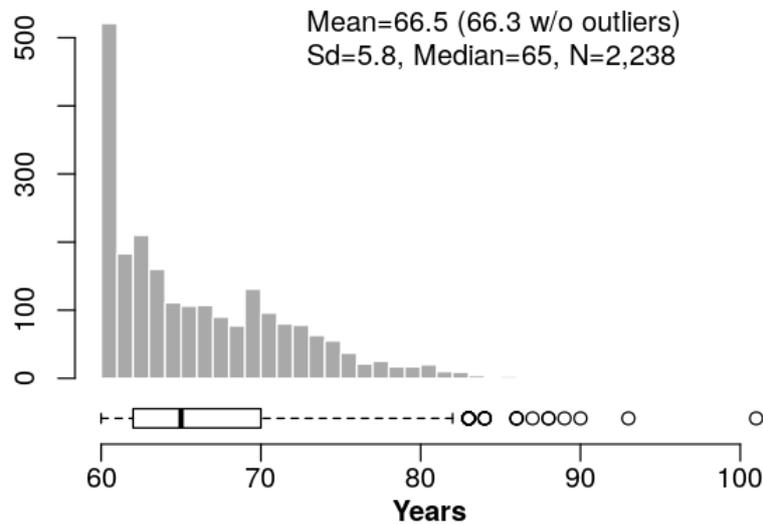


Illustration 2: Age distribution of Internet users aged 60 and over – histogram and box plot of the sample

Mean	Standard deviation	Minimum	Q1	Median	Q3	Maximum	Skewness	Kurtosis
66.5	5.8	60	62	65	70	101	0.99	3.85

N = 2,238

Table 2: Age distribution of Internet users aged 60 and over - centrality and dispersion measures of the sample

	%	Parenthood			Total
		No children	With children	DK/NA ³	
Married		34.9	39.9	---	74.7
Not married		6.8	16.5	---	23.3
Single		3.8	0.9	---	4.7
Divorced		2.0	8.1	---	10.1
Widowed		1.0	7.5	---	8.5
DK/NA³		---	---	---	2.0
Total		41.6	56.4	2.0	100

N=2,238

Original question in Spanish: “¿Cómo describirías tu situación familiar?”

Table 3: Marital Status and Parenthood

³ DK/NA: Doesn't know / Doesn't answer.

The respondents' most common marital status is married (75%), which is roughly three times more frequent than all the other categories combined (Table 3). Among those declaring not being married – less than 25% – 10% are divorced, 9% widowed and only 5% claim to be single. Those with offspring outnumber respondents without descendants (57% vis-à-vis 42%) except for those who identify themselves as single (1% vs. 4%).

Regarding formal education (Table 4), tertiary education is the most common educational level (40%), closely followed by secondary (37.2%). It is important to stress that, in the schooling years of our sample, and particularly in the Spanish society of the time, the differentiating factor that was associated with higher positions in the social structure was secondary education. These figures indicate the privileged status of the sample.

	%
Primary or less (up to 8-9 years of education)	21.8
Secondary (between 10 and 14 years of education)	37.2
Tertiary (15 years of education or more)	40.0
DK/NA	1.0
Total	100

N = 2,238

Table 4: Education

As a proxy for socioeconomic status, we asked respondents to position themselves in relation to the average income in Spain (Table 5). Almost half of the sample declares an income above the national average (48% of the sample, which roughly corresponds to the 63% of those who answered the question); while only 11% position themselves below. Once again, results express the bias towards higher income levels of the Internet users aged 60 and over compared with the overall older population whose personal income level is just slightly over the national average (INE, 2017c).⁴

	%
Above the average (A lot above + Slightly above the average)	47.8
Similar to the average	17.1
Below the average (A lot below + Slightly below the average)	11.2
Not declared (Don't know + Prefer not to respond)	24.0
Total	100

N = 2,283

Original question in Spanish: “Los ingresos anuales netos por persona en España ascienden, en promedio, a 10.400 Eur ¿Cuál es tu nivel de ingresos anuales netos?”

Table 5: Income

⁴ While the average personal income was 10,400 € the personal income ascended to 12,206 €(data referred to 2015).

The great majority of respondents are retired (64%, Table 6), as expected in a population aged 60 and above, and those who are inactive – retired or holding unpaid positions (e.g. housework) – add up to 71% of the respondents. Among those who identified themselves as active, 22% are employed, while 6% are unemployed. The activity rate in this population (28%) is another indicator of its exceptional character since, in the 4th trimester of 2016, the percentage of active individuals among those aged 55 and over, a section of the population which integrates younger individuals, is lower (25%, INE, 2017d). Finally, more than half of older Internet users live in a big city or its metropolitan area (52%, Table 7) whereas less than one in four live in the countryside (22%).

	%		%
Active	27.7	Big urban conglomerates	52.3
Employed	21.8	A big city	42.4
<i>Full-time</i>	17.6	The suburbs of a big city	9.9
<i>Part-time</i>	4.2	A town or small city	25.7
Unemployed	5.9	Country	21.8
Inactive	71.1	A country village	20.0
Retired	64.3	A farm or home in the countryside	1.8
Unpaid position <i>(housework, volunteer or community service)</i>	6.7	DK/NA	0.3
Other	1.0	Total	100
DK/NA	0.3	N = 2,238	
Total	100	Original question in Spanish: “¿Qué frase describe mejor el lugar donde vives?”	

Table 7: Geographic location

N = 2,238
Original question in Spanish: “¿Cuál es tu situación laboral?”

Table 6: Occupation

Mass Media Consumption

Watching television on a TV set is the most prevalent format of mass media consumption (Table 8): almost all respondents (92%) claim to have watched it the day before. This very high frequency of usage places TV in stark contrast to all other mass media in analysis, even though watching television on other devices – computer (14%) and mobile phone (3%) – has much lower expression. After watching television on the TV set, the most frequently used media format is listening to radio on a radio set, which was signaled by over half of the respondents (60%). Similarly to watching television, listening to radio on a computer or mobile phone – 11% and 10%, respectively – is much less frequent than on the traditional radio set and doesn’t seem to point to a marked difference in device usage frequency. The fact that TV and radio set occupy the first positions in terms of usage expresses the predominance of non-Internet based broadcast mass media in this population.

Considering again the most popular media, listening to radio on a radio set is closely followed by reading newspapers or magazines (periodic textual media). More than half of the sample selects reading this kind of material both on the Internet (56%) and in the printed version (51%). Unlike broadcast mass media, whose consumption mostly occurs in the traditional and specialized devices, this population privileges the consumption of periodic textual media on the Internet over its print version. Those results suggest that, for some types of media consumption, namely those related to regular acquisition of information, Internet-based formats are relevant for large sections of the older Internet users. Finally, the frequency of reading books in the traditional print format (42%) far surpasses their electronic (24%) and audio (4%) versions, in a similar manner to broadcast media but unlike the more comparable periodic media. Although books are mostly consumed in the printed format, the fact that a considerable number of respondents read them in the electronic format seems to indicate the decline of paper-based printed mass media in detriment of their digital counterparts – even among the older populations, an observation that the already mentioned trend in terms of magazines and newspaper consumption also confirms.

Media used the previous day	Users (%)	Time spent (hour: min)¹
Watched television on a TV set	91.6	3:03
Listened to radio on a radio set	59.8	1:51
Read newspapers or magazines on the Internet	55.6	0:58
Read newspapers or magazines in the printed version	50.9	0:51
Read books in the printed version	41.7	1:18
Read books in the electronic version	24.2	1:22
Watched television on a computer	14.2	1:28
Listened to radio on computer	11.4	1:34
Listened to radio on mobile phone	10.0	1:17
Listened to audio books	4.0	1:12
Watched television on a mobile phone	3.1	1:04

N = 2,238. Categories showed in descending order as for % of users

¹ .Average time without outliers, calculated for those who used the medium the previous day.

Original question in Spanish: “Pensando en el día de ayer: ¿Cuánto tiempo dedicaste a...?”

Table 8: Media consumption and time spent the previous day

In terms of time spent on each media the previous day (Table 8), broadcast media on traditional devices occupy once again the first positions. On average, respondents watched TV for 3 hours and 3 minutes (3h 3m) and listened to radio for 1h 51m. Respondents consumed broadcast media through other devices for over one hour on average, spending more time on computers than on mobile phones for each media – e.g. watching TV on computers took an average time of 1h 28m and 1h 4m on mobile phones. Books follow broadcast media, and on average at least one hour is spent with one of the three formats analyzed. Finally, reading newspapers and magazines takes no more than one hour – slightly longer online (58m) than on paper (51m). Our analysis seems to show

that the versatility of interconnected multimedia digital devices, such as computers and mobile phones, have not displaced the role of the traditional media consumption formats. It also seems to indicate that the usage of these newer devices (both in terms of frequency and duration) for broadcast mass media are also differentiated. In terms of audiovisual media consumption (TV), the computer is privileged over the mobile phone, something which does not occur for audio based media (radio).

A particular look into printed periodicals (Table 9) shows that national (46%) and local (42%) daily newspapers are the most read in a regular basis. They are followed by magazines and other periodicals (35%), and free newspapers (34%), mentioned by about a third of the sample; international newspapers are the least popular, read by about one twentieth (4%). Almost one fifth of respondents (19%) claim they do not read printed newspapers. These figures point to the importance of printed daily newspapers as regular sources of information and also to the fact that this population seems to prefer a news source closer to “home” – from a national or local perspective – in opposition to a broader, foreign or international perspective.

Reading Print Newspapers (%)	
National daily newspapers	46.2
Local daily newspapers	42.4
Magazines and periodicals	34.5
Free newspapers	33.8
Weekly newspapers	13.4
International daily newspapers	3.6
I never read printed newspapers	18.6

N = 2,238

Original question in Spanish: “¿Lees alguno de los siguientes periódicos en papel?”

Table 9: Reading newspapers in print format

Regarding audio and video devices (Table 10), video players (70%) are more frequently used than radio players (57%). Nevertheless, the most commonly used audiovisual media reproduction device is the CD player (43%), followed by the DVD player (35%). Those are the digital media reproduction devices with longest usage tradition. After CD and DVD players, the most frequently used devices are the MP3 player and the hard disc recorder (mainly used to record television and radio programs), both used by the 23% of the Spanish older Internet users. Conversely, the least common devices are Wi-Fi radio (17%), video recorder (17%) – the only analog audiovisual device analyzed – and TV box with Internet access (11%); these results show how digital technologies tend to be prevalent and displace analog, older devices. Finally, almost a third of respondents (30%) do not use any of the listed devices, which seems to point to the relevance of the computer and the mobile phone – as already discussed in Table 8.

	Device Usage (%) ¹	Used yesterday (%) ²	Time spent yesterday (hours: min) ³
Video	70.0		
<i>DVD player</i>	35.3	46.2 of Video devices users	1:17
<i>Hard disc recorder</i>	23.4		
<i>Video recorder</i>	16.6		
<i>TV box with Internet access</i>	11.4		
		24.8 of Total population	
Audio	57.0		
<i>CD player</i>	42.5	35.6 of Audio devices users	1:33
<i>MP3 player</i>	23.1		
<i>Wi-Fi radio</i>	17.3		
		26.3 of Total population	
None of the above	30.2		

¹ N = 2,238. Original question in Spanish: “¿Utilizas alguno de los siguientes dispositivos?”

² N = 1,562 (Video), N = 1,275 (Audio). Only asked to those who declared using at least one of the video or audio devices respectively.

³ Average time without outliers. N = 556 (Video), N = 589 (Audio). Time reported only for those who declared using video (audio) devices the previous day. Original questions in Spanish: “Pensando en el día de ayer: ¿Cuánto tiempo dedicaste a ver vídeos, DVD, TV box, o grabaciones de un disco duro (aproximadamente)?” “Pensando en el día de ayer: ¿Cuánto tiempo dedicaste a escuchar un reproductor de MP3, un CD o una radio Wi-Fi (aproximadamente)?”

Table 10: Audiovisual device usage

For achieving richer usage information, the questionnaire asked about use of selected devices the day before of the survey (Table 10). These questions were asked only to those who already declared being users of at least one of the devices in each category, video and audio. On the one hand, video devices users had used them the previous day in the 46% of the cases, which represents the 25% of the total population. These users spent, on average, 1h 17m watching those devices. On the other, one out of three of those who reported using audio devices (36%) did it the previous day, accounting for about one out of four of the total population (26%), spending on average 1h 33m listening to said devices. For more details about the time spent using these two kind of devices, see Illustration 5 (Appendix 2, p.26).

Internet Activity

The survey contained questions about the usage and time spent in different online activities (Table 11 – for more details, see Illustration 6 in Appendix 2 p.29). Due to differences in the nature of those activities, the frequency of engagement does not show a direct relationship with the time devoted to them. E-mail communication is the most commonly stated Internet activity the day before filling the survey, being expressed by almost three fourths of the sample (73%). Time spent in this activity is, on average, 39m (average without outliers). Getting news on the Internet comes next in terms of frequency (61%), an activity with similar average duration to email (42m). This result seems to indicate that getting news online is associated with a diversity of sources beyond

reading newspapers and magazines on the Internet, an option mentioned by a smaller percentage of the population (56%, see Table 8, p.9). In third place, half of the population mentions chat programs and social network sites (spending 37m and 55m, respectively). The difference in terms of activity duration may be associated with the more varied possibilities offered by social network sites when compared to chat programs, which are mostly focused on offering tools for synchronous communication. Another frequent activity is accessing websites related to interests and hobbies, an option selected by less than half of the population (43%), which take an average time of 50m. Online shopping, banking and travel reservations appear in 23% of the cases, a similar frequency than playing computers games online (19%). Yet, e-commerce activities (20m) are much shorter than gaming (1h 11m). The least frequent activities are downloading music, films or podcasts (8%, 1h 10m) and writing entries in debate sites and blogs (7%, 39m).

Internet used the previous day for...	Users (%)	Time spent (hours: min)¹
Writing and reading e-mails	73.1	0:39
Getting news	60.8	0:42
Using chat programs	51.1	0:37
Using social network sites	50.9	0:55
Using websites concerning my interests or hobbies	43.2	0:50
Online shopping, banking, travel reservation etc.	22.9	0:20
Playing computer games online	18.7	1:11
Reading entries at debate sites, blogs	15.1	0:36
Downloading music, film or podcasts	7.9	1:10
Writing entries at debate sites, blogs	6.8	0:39
Other	0.2	1:10

N = 2,238. Categories showed in descending order as for % of users.

¹.Average time without outliers, calculated for those who used the medium the previous day.

Original question in Spanish: “Pensando en el día de ayer y en cualquier uso que hiciste de Internet, ¿Cuánto tiempo dedicaste a...?”

Table 11: Internet usages and time spent the previous day

Spaces of Media Consumption

The home is the privileged space of media consumption (Table 12), where 59% of the population reads newspapers, 75% listens to radio, 98% watch TV and 91% access the Internet. Although this predominance of the domestic places is also shown in the marginal frequencies of media consumption in most other spaces, there are exceptions: one out of two individuals report to read newspapers in public spaces (46%); almost one third listens to radio while on the move (30%) and one in five use the Internet in public places (20%). Thus, except for TV, media consumption also takes place outside the home. This use can happen in public places (which host media practices like

getting information from newspapers or using the internet) and outdoor situations (which includes the companion radio broadcast during transportation or commuting). TV, as we've seen, is mostly consumed at home and all other places are mentioned by less 10% of the population. Conversely, Internet use is the most spatially diversified one: all the suggested places are mentioned at least by 10% of individuals.

%	Read printed newspapers	Listen to radio	Watch TV	Use Internet
At home	59.2	74.6	98.1	90.7
<i>...in the living room</i>	47.8	33.5	88.8	55.6
<i>...in the bedroom</i>	7.0	33.4	26.5	19.9
<i>... in other spaces</i>	18.1	44.5	25.7	56.2
At public places	45.5	8.2	9.4	20.0
During transport	12.7	30.0	0.9	14.5
At work	5.1	5.4	0.9	17.6
At friends or family	4.3	1.7	8.8	10.2
At school	2.6	5.1	2.8	16.5
At other places	0.0	0.0	0.0	1.1
I never use that medium	15.1	9.8	0.9	0.0

N=2,238. Non-exclusive categories.

Original question in Spanish: "Ahora piensa en dónde utilizas los siguientes medios de comunicación. Donde ..."

Table 12: Spaces for media use

Mobile phone use

	Phone ownership (%)
Landline phone	92.9
Mobile phone	90.4
Landline or mobile phone	99.4
Internet phone	30.8
None of the above	0.2

N = 2,238

Original question in Spanish: "¿Qué tipo de teléfonos tienes en casa?"

Table 13: Phone type at home

Almost every older Internet user have at home either a landline or a mobile phone (99%, Table 13). The landline (93%) appears to be slightly more popular than the mobile phone (90%), while Internet-based phones are mentioned by less than one third of the individuals (31%). Finally, less

than 1% declare not having any of the mentioned types of phone. Our interest in the following analysis is related to the mobile phone and its associated Internet features, therefore the following results refer to the subsample of older Internet users who declare having a mobile phone (N=2,023). Mobile phones are used in an everyday basis: 71% of mobile owners made conventional calls and 50% sent messages during the previous day (Table 14). Individuals sent more messages than had phone calls (7 and 5 on average, respectively).⁵

Mobile phone used yesterday for...	Users (%)	Average (N)¹
Conventional voice calls (sent and received)	70.8	4.9
Messages (sent)	49.8	7.2

N = 2,023. Categories showed in descending order as for % of users.

¹ .Average number of calls or messages without outliers, calculated for those who did the activity the previous day.

Original questions in Spanish: “Pensando en el día de ayer... ¿Cuántas llamadas convencionales hiciste o recibiste en el móvil (aproximadamente)?” y “Cuántos mensajes (texto, imágenes, mensajes de audio y/o de vídeo) enviaste (aproximadamente)?”

Table 14: Mobile phone calls and messages in the previous day

	Users (%)		Users (%)
Taking photographs	87.8	Social network sites	41.9
Instant messaging (WhatsApp, etc.)	80.0	Downloading apps	37.3
Ordinary voice calls	67.5	Listening to radio	25.4
E-mail	64.9	Viewing websites via apps	24.4
Alarm clock and reminders	64.7	Watching TV or video on mobile	21.0
SMS	58.2	MMS (Multimedia Message Services)	19.9
Calendar	57.1	Using a phone as a music player	19.7
Viewing websites via browser	53.7	Games	19.7
GPS and maps	52.5	Listening to podcast	5.1
Recording video	50.1	Other (mobile usage)	0.3

N=2,023. Question shown if ownership of mobile phone is selected.

Original question in Spanish: “¿Qué funciones utilizas en tu teléfono móvil?”

Table 15: Usage of mobile phone features

Interestingly, the most mentioned mobile phone feature is taking photographs (88%, Table 15), one of its supposedly secondary functions. It is followed by Internet-based instant messaging (80%) that refers to apps such as WhatsApp and Telegram. In third place, we find the most traditional function associated with mobile telephony, the ordinary voice call (68%), has the third place in terms of

⁵ Average calculated without outliers. Outliers were classified using Tukey’s method: the values that are $1.5 * IQR$ (interquartile range) below the 1st quartile – $Q1-1.5(Q3-Q1)$ – or above the 3rd quartile – $Q3+1.5(Q3-Q1)$.

usage frequency. This usage has a similar proportion to having made or received a mobile phone call the previous days (Table 14). More than 60% of the individuals use mobiles for e-mail (65%) and the alarm clock and reminders (65%) – features that are not communicative but are associated with the temporal organization of daily life.

The SMS (58%), another function traditionally associated with mobile phones, is considerably less used than its equivalents, Internet-based instant messaging. It precedes, in terms of importance, another time organizing feature, the calendar (57%). Little over half of mobile phone owners use it for browsing websites (54%), GPS and maps (53%) and video recording (50%). Accessing social network sites (42%) and downloading apps (38%) on the mobile phone are signaled by two in five individuals, while listening to radio (25%) and viewing websites via apps (24%) are selected by one out of four. One out of five mention watching TV or video on the mobile phone (21%)⁶, MMS (Multimedia Message Services, 20%), using the phone as a music player (20%), and playing games (20%). Markedly less frequent is the least mentioned usage: listening to podcasts (5%).

	Usage (%)		Usage (%)
Contact with family	96.8	Work	21.3
Contact with friends	91.3	School or education	9.0
		Other	3.9

N=2,023. Question shown if ownership of mobile phone is selected.
Original question in Spanish: “¿Para qué utilizas tu teléfono móvil?”

Table 16: Goals of mobile phone usage

Almost all mobile phone owners make use of their device for maintaining interpersonal relationships: to contact family (97%, Table 16) and friends (91%). Only a fifth of the sample uses it for work (21%), and less than a tenth (9%) for school or educational purposes. These results seem to be associated with the high percentage of retired people among the older Internet users (64% retired, 22% employed – see Table 6, p.8) and the coincidence of the percentage between those who use the phone for work purposes and those who are currently employed indicates that the phone is an essential tool for professional activity.

Mediated Communication and Everyday Life

In order to understand the relevance of different media in everyday life, our survey integrated five questions about hypothetical situations in which media could be used. We strategically gathered them in three groups for analysis: mediated activities in free time; management of social interactions, and information gathering. Participants were invited to provide the three most likely chosen activities for each of these five situations.

⁶ Since only about 3% of respondents claimed to have used their mobile phone the day before to watch TV, it is probably safe to assume that this figure mostly refers to videos people produce and/or share via phone apps that use the Internet.

Mediated Activities during Free Time

First of all, respondents were asked what they would do if they had some free time (Table 17). The most signaled activity was watching TV, signaled by half of respondents. This result is consistent with the already identified predominance of TV. Around one third would use this time for reading printed format materials (35%), calling friends or family on the phone (34%) and visiting friends or family (33%) – the latter being the only non-mediated communication situation within the set of possible answers. One in four respondents claim they would use their time to browse websites, a figure that shows the significance of the Internet for this population. Listening to the radio, using social network sites and writing e-mails were mentioned by roughly one in five participants. The least likely free time choices are sending mobile messages to friends or family members (17%), chatting online (11%), listening to music on digital support (10%), watching videos on digital support (8%) and other media use (5%).

	%		%
Watch TV	49.1	Write emails to friends or family	18.5
Read printed books, newspapers or magazines	35.0	Send messages (text, video, etc.) via mobile phone to friends or family	17.1
Call friends or family on the phone	34.3	Chat online with friends or family	11.4
Visit friends of family	32.9	Listen to music on CD, MP3, or similar	10.3
Visit websites	24.9	Watch video or DVD	8.4
Listen to radio	21.4	Other media use	5.1
Use social network sites	19.7	DK/NA	2.1

N = 2,238

Original question in Spanish: “Imagina que tienes unas pocas horas libres para ti. Dispones de las siguientes opciones. Indica las tres que cosas que harías con más probabilidad.”

Table 17: Free time Activities

Management of Social Interactions

Another important function of ICTs is their integration in the organization and management of informal social relations – a very significant part of everyday life. Respondents were asked about their media choices in two situations related with different dimensions of social life (Table 18). This analysis can integrate Granovetter’s (1973) conceptualization of “weak” and “strong” ties. The first situation is contacting an old acquaintance, referring to (re)establishing less present or discontinued social bonds – something which is akin to the notion of “weak tie” – that are not constrained by temporal urgency. The second refers to changing the details of a dinner invitation, which points to a narrower time frame and to the physical sharing of domestic spaces and meals, thus to closer and more intimate social bonds, partly overlapping with the concept of “strong tie”.

%	Contact old acquaintance	Dinner invitation change
Phone call	88.5	94.7
Email	74.9	73.6
Phone messaging functions	53.4	78.5
Social network site	39.8	23.9
Posting a letter	13.4	3.0
Other	3.1	3.0
DK/NA	2.9	1.1

N=2,238

Original questions in Spanish: “Imagina que vas a ponerte en contacto con un/a viejo/a conocido/a con quien habías perdido el contacto. Dispones de las siguientes opciones. Indica los tres medios que utilizarías con más probabilidad.” y “Imagina que has invitado a algunos/as amigos/as a cenar, o a una fiesta, la semana que viene y ahora necesitas cambiar la fecha. Dispones de las siguientes opciones. Indica las tres más probables en tu caso.”

Table 18: Ways of contacting old acquaintances and closer people

The phone call clearly stands out for both changing dinner invitations (95%) and contacting old acquaintances (89%), marking its predominance in the organization of informal life. The mobile messaging functions are also very common for a dinner invitation change (79%) but not for contacting old acquaintances – only little over half of the population (53%) would use them for that end. Those findings seem to indicate that instant messaging are mainly used for quick arrangements with close ones but not for discontinued or less intimate contact. In addition, a high percentage of older Internet users state they would email for both dinner invitation change (74%) and contacting old acquaintances (75%), pointing to the versatility of this medium for managing different dimensions of social life – similarly to the phone call. Social network sites would be less frequently used and in a differentiated: their use for contacting less present interactions (old acquaintances, 40%) is considerably more frequent than its use for a rapid contact with someone who is more intimate (changing a dinner invitation, 24%). Finally, letters are mentioned by little more than one out of 10 cases for contacting old acquaintances (13%) and a residual 3% for changing dinner plans.

Information gathering

On the one hand, Internet sites are the most commonly used media to gather information in a hurry (77%, Table 19), followed by the traditional broadcast media, TV or radio (72%). After these impersonal mass media, the most frequent ways of quickly gathering information are related to interpersonal networks. About 40% of the population selected calling a likely possessor of the information (42%) and using a SNS (38%). Less important options are using mobile messaging (21%) and e-mails (17%) to reach likely possessors of the information, while using a chat program (5%) would be the less popular options.

	%
Check websites	77.1
Turn on TV or radio	72.3
Call someone who is likely to have this information'	41.9
Use a social network site	38.1
Send a message (via mobile phone) to someone who is likely to have this information	20.8
Send an email to someone who is likely to have this information	16.7
Use a chat program	4.8
Other	2.2
DK/NA	2.0

N = 2,238

Original question in Spanish: "Imagina que quieres conseguir una información importante lo antes posible (por ejemplo, los resultados de unas elecciones o de un partido de fútbol). Dispones de las siguientes opciones. Indica las tres más probables en tu caso."

Table 19: Means of getting information in a hurry

	%
Look it up via Google or other search engines	82.71
Look it up in at a specific website	69.26
Call someone who is likely to have this information'	36.91
<u>Look it up in a printed encyclopedia</u>	<u>34.58</u>
Send a message (via mobile phone) to someone who is likely to have this information	17.78
Use a social network site	16.8
Send an email to someone who is likely to have this information	13.99
Use a chat program	2.99
Other	0.76
DK/NA	2.23

N = 2,238

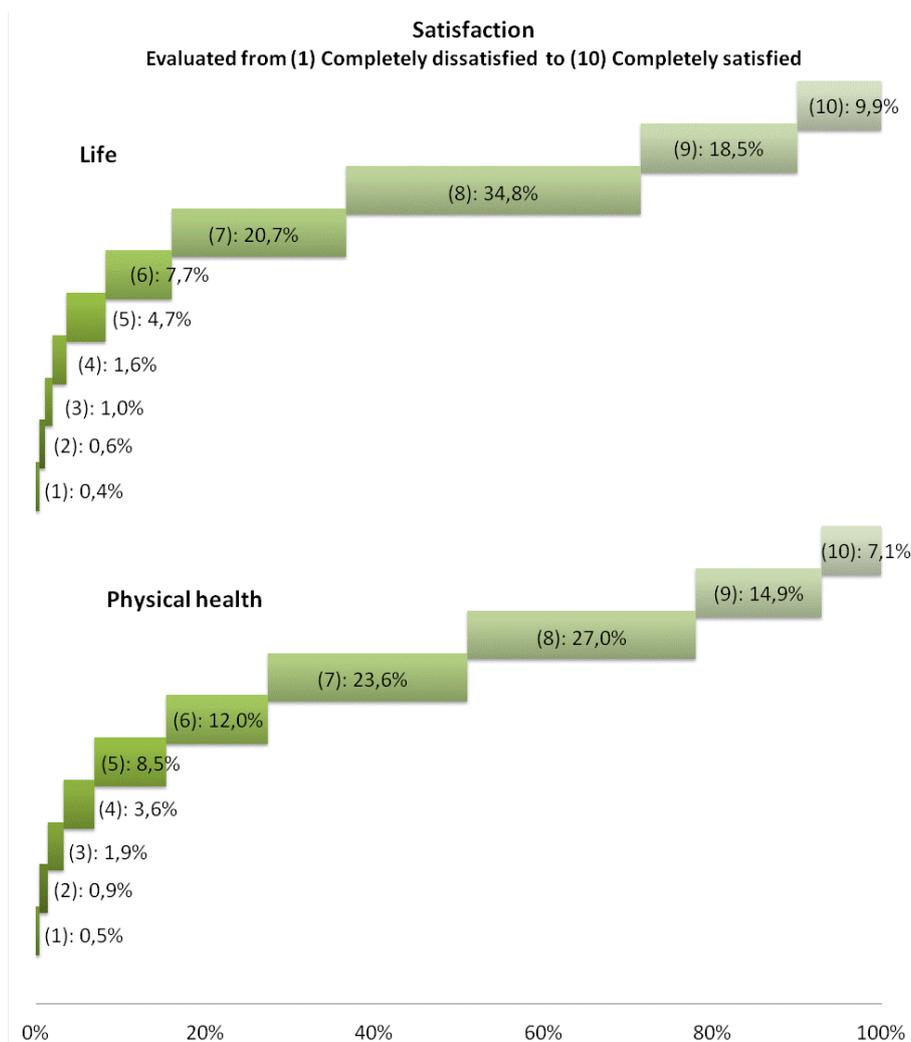
Original question in Spanish: "Imagina que estás discutiendo un tema con una amistad, y necesita información sobre un hecho concreto (una fecha histórica, un dato económico,...). Dispones de las siguientes opciones para encontrar la información. Indica las tres más probables en tu caso."

Table 20: Means of getting factual information

On the other, the Internet is also the most common option for finding factual information (Table 20), with an 83% who would use search engines and a 69% look it up on websites. Calling someone who likely holds that information was selected in roughly 40% of the cases (37%), and little over one third would look it up in a printed encyclopedia (35%). There would be limited relevance of mobile messaging (18%), using SNS (17%) and e-mailing (14%); while the least mentioned option, again, is using chat (3%). Two important observations about these findings. They indicate that for the older Spanish Internet users, the Internet sites and search engine results have displaced all other media as the privileged form of gathering information, regardless of its character. Despite the

significance of interpersonal networks for informational needs, our findings point to a dimension of autonomy of these users, whose majority do not depend on sociability networks or the traditional (and expensive) printed encyclopedias – but rather on the internet and mass broadcast media – for their informational needs.

Life and health satisfaction



N=2,238, missed values equal 2.9% for Life Satisfaction and and 1.4% for Physical Health.

Original questions in Spanish: “Pensando en tu vida y en tus circunstancias personales, ¿qué nivel de satisfacción tienes en relación a tu vida en general?” / “Pensando en tu salud física, ¿qué nivel de satisfacción tienes en relación a tu salud en general?”

Illustration 3: Life satisfaction and physical health satisfaction

Finally, the survey asked respondents to position themselves in terms of their satisfaction regarding two personal dimensions: satisfaction with life, understood as a general assessment of personal circumstances, and satisfaction with physical health. Spanish older Internet users declare high levels

of satisfaction in both dimensions, with life satisfaction being higher than physical health satisfaction (Illustration 3, more details provided in Appendix 2, Illustration 8 p.30).

As for life satisfaction, the two most mentioned ranks are eight (35%) and seven (21%) over ten, which represent more than one half of the responses. The four most mentioned ranks are seven or more, scores that gather three fourths of the responses (76%). Only 4% of the population marked life satisfaction scores under five and 3% of the participants rejected answering the question. The distribution of the population according to physical health satisfaction scores is also concentrated on scores 7 (24%) and 8 (27%), selected by 50% of the respondents. The four most mentioned categories, however, rank from 6 to 9 and also gather over three in four respondents (78% in total). Those who qualify their health satisfaction below 5 account for 7% of the respondents and only 1% of the surveyed population did not provide any answer related to their physical health satisfaction.

Conclusion

This report discusses preliminary, descriptive results of an online survey conducted in Spain in 2016. It belongs to the first wave of the project “Cross-National Longitudinal Study: Older Audiences in the Digital Media Environment.”

The sample is representative of the online population aged 60 years old and over living in Spain. The socio-demographic analysis shows how the particular characteristics of this population mark a difference from the overall older population. Those differences are associated with what is usually termed the *digital divide*: older Internet users in Spain have higher educational levels and higher level of income than the average older population.

Media consumption patterns make evident the articulation of traditional and digital media. Internet activities of this population mainly combine personal communication and information gathering. Even though the usage of chat programs is similar to that of social network sites in terms of frequency (roughly 50%), this population spends considerably more time on the latter which may indicate a more diversified set of functions.

Non-internet based media on their traditional formats, particularly the TV set, are predominant in terms of mass media consumption habits: almost all respondents watch the TV set (for three hours, on average) and around over half listen to the radio set regularly. Mass broadcast media consumption on newer mass consumption devices, the computer and the mobile phone, has very low expression but integrates differentiation: the computer is privileged over the mobile phone for watching TV (audiovisual media) in terms of usage frequency and time spent but not for listening to radio (audio media). Nevertheless, respondents tend to privilege the online format of newspapers or magazines over their print version. This points to the importance of the digital and interconnected Internet mass media for acquiring information. In addition, although books are mostly consumed in the printed format, a considerable number of respondents chooses their electronic format, something which, together with the previous observation regarding magazines and newspapers, seems to indicate the decline of paper-based printed media in detriment of their digital counterparts. National

and local printed newspapers are also an important source of information for this population, unlike their international equivalents.

While media are mostly consumed at home, Internet activities tend to take place in more variegated places (at home, and indoor and outdoor public places) when compared to the consumption of other media such as TV, radio or press. Mobile phone is central for older Internet users, who use it for not only messaging or voice calling, but also for taking pictures, the temporal management of daily life and the maintenance of interpersonal relations. In terms of mobile phone messaging, Internet-based instant messaging is considerably more important than their cellular network-based equivalents: the SMS. The role of some mediated forms of communication in managing personal contacts seems to be differentiated: while mobile messaging is more used for prompt contact with closer people, social network sites are mostly used for less urgent contact of those who are more distant. Finally, the population under study are highly satisfied with their life in general, and with their physical health in particular.

References

- Eurostat (2016). Database: Individuals - Internet use -Table [isoc_ci_ifp_iu], <http://ec.europa.eu/eurostat/web/digital-economy-and-society/data/database> (last accessed: 10/10/2016)
- Granovetter, M. S. (1973). The Strength of Weak Ties. *American Journal of Sociology*, 78(6), 1360–1380. <http://doi.org/10.1086/225469>
- INE (2016): Population figures. National results. Series detailed from 2002. Resident population by date, sex and age <http://www.ine.es/dynt3/inebase/en/index.htm?padre=1894&capsel=1895> (last accessed 10/10/2016)
- INE (2017a): Indicadores de Mortalidad. Esperanza del vida al nacimiento según sexo, 1975-2016 <http://www.ine.es/jaxiT3/Tabla.htm?t=1414&L=0> (last accessed 18/09/2017)
- INE (2017b): Encuesta sobre Equipamiento y Uso de Tecnologías de Información y Comunicación en los hogares 2016. Resultados nacionales. Resumen de datos de Personas por sexo, característica demográficas y tipo de usos de TIC. <http://www.ine.es/dynt3/inebase/es/index.htm?padre=3031&capsel=3035> (last accessed 18/09/2017)
- INE (2017c): Encuesta de Condiciones de Vida. Renta anual neta media (año anterior a la entrevista): Renta por persona y unidad de consumo por edad y sexo. <http://www.ine.es/jaxiT3/Tabla.htm?t=9942&L=0> (last accessed 18/09/2017)
- INE (2017d): Encuesta de Población Activa. Tasa de actividad (período de la entrevista – 2016T4): Tasas de actividad por distintos grupos de edad, sexo y comunidad autónoma. <http://www.ine.es/jaxiT3/Datos.htm?t=4206> (last accessed 18/09/2017)
- Nimrod, G. (2017): Older audiences in the digital media environment, *Information, Communication & Society*, 20(2):233-249 <http://dx.doi.org/10.1080/1369118X.2016.1164740>

Appendix 1– Survey Technical Details

As usual in online sampling, quotas on age and sex distribution served to design the sample for grating data representativeness and the actual sample resembles the population of Internet users aged 60 and over living in Spain (see Table 21).

	Target sample		Actual sample		
	% ¹	N	%	N	
Gender	Male	54	1,204	53.9	1,206
	Female	46	1,026	46.1	1,032
	Total	100	2,230	100	2,238
Age	60 - 64	48	1,070	48.0	1,074
	65 - 69	22	491	21.9	491
	70 - 74	19	424	20.0	448
	75 +	11	245	10.1	225
	Total	100	2,230	100	2,238

¹ Target sample percentages based on Eurostat (2016) and INE (2016).

Table 21: Gender and age distribution: target and actual sample. Wave 1, Spain

Gender quotes and almost all the age quotes meet the target sample. Yet, the 75+ age cohort represents one percent point less than desired, while the 70-74 cohort is imbalanced in the opposite direction. This is caused by the lack of participants aged 75 and over in the commercial panel we relied for conducting the online survey. As the deviance is only of 1 percent point, we do not consider this a major representativeness issue.

Participation rate ascends to 61%, while the valid response ratio ascends to 71% of the completed questionnaires and to 43% of the sent invitations (see Table 22). These are commonly accepted percentages of participations and response. Table 23 provides details on the evolution of fieldwork, and Table 24 on the quality controls applied to get the final valid sample.

Sent invitations [1] (number of persons contacted)	5,169
Completed questionnaires [2] (number of persons who filled the survey)	3,137
Response ratio (percentage of participation: [1]/[2])	60.6%
Valid questionnaires [3] (see details in Table 24)	2,238
Valid responses ratio (as a % of sent invitations: [3]/[1])	43.3%
Valid responses ratio (as a % of completed questionnaires: [3]/[2])	71.3%

Table 22: Invitations sent, completed questionnaires and rate of responses

	Date of invitation	Invited participants	Completed questionnaires	% of participation
M1	03-11-2016	500	304	60.8%
M2	04-11-2016	800	478	59.7%
M3	07-11-2016	1,000	619	61.9%
M4	08-11-2016	1,853	1,190	64.2%
M5	09-11-2016	690	359	52.0%
M6	09-11-2016	326	187	57.3%
TOTAL	--	5,169	3,137	60.6%

Table 23: Sampling evolution: invited participants, actual participants and % of participation.

Final sample size (valid responses)		2,238
Discarded cases		8
	Consistency checking in key variables KO (for instance, total time spent with media)	
Completed surveys (initial)		2,246
Filtered		69
	By ISO ⁽¹⁾	51
	By Age	18
Full Quote ⁽²⁾		798
	By Gender	305
	By Age	63
	Survey already closed	430
Security Question KO ⁽³⁾		24
Non completed surveys ⁽⁴⁾		230

⁽¹⁾ **Filtered cases by ISO:** Following ISO standards, Netquest applies specific controls of gender and age of each panelists (= each participants in the survey). The company discards responses when the information provided in the survey do not coincide with the data available in their database (which participants necessarily provide to become part of the commercial panel).

⁽²⁾ **Full Quote:** Discarded interviews as those obtained after the allocated quote was already achieved in a given profile. It includes also the responses received when the survey was already closed.

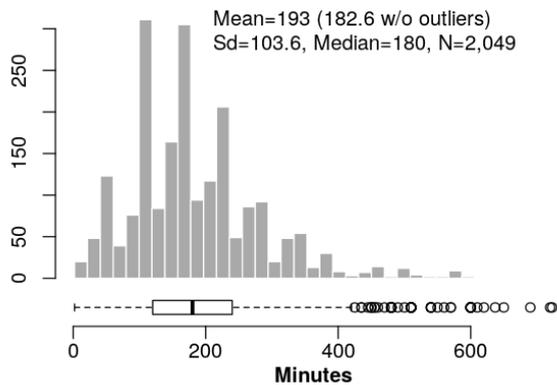
⁽³⁾ **Security Question KO:** A question that appears randomly to check that the participant is paying attention to the contents of the survey.

⁽⁴⁾ **Non completed surveys:** Respondents who started answering the survey but did not submit it. They are not considered participants in the table above.

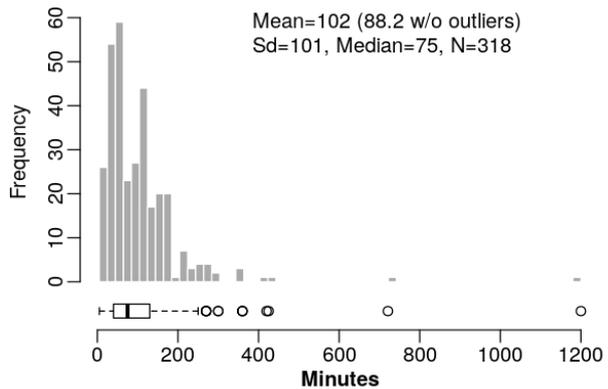
Table 24: Final sample size (valid responses) and detail of discarded responses

Appendix 2– Selected illustrations

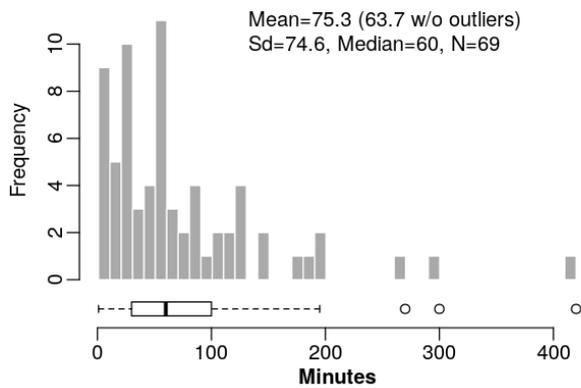
Watched television on a tv set



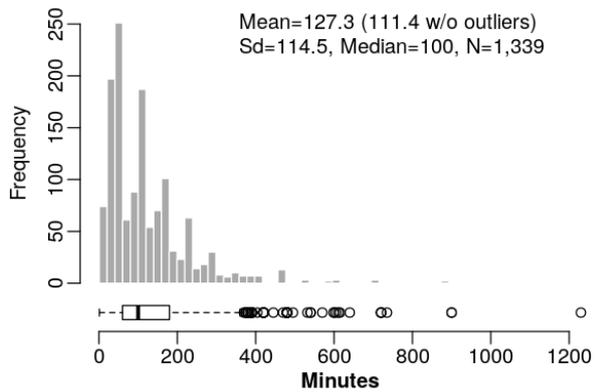
Watched television on a computer



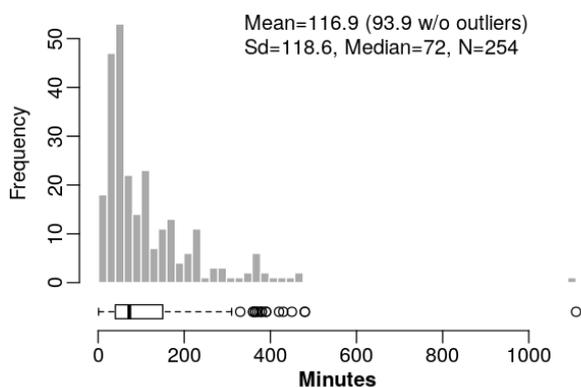
Watched television on a mobile phone



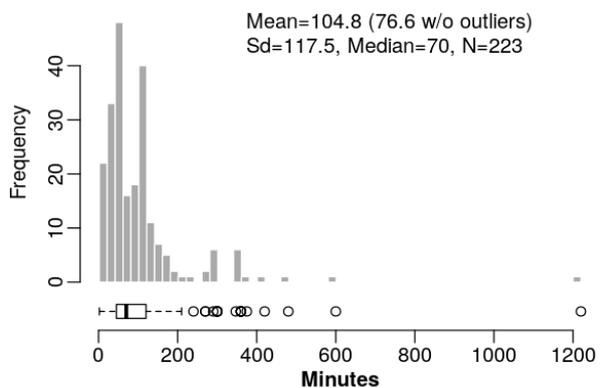
Listened to radio on a radio set



Listened to radio on a computer



Listened to radio on a mobile phone



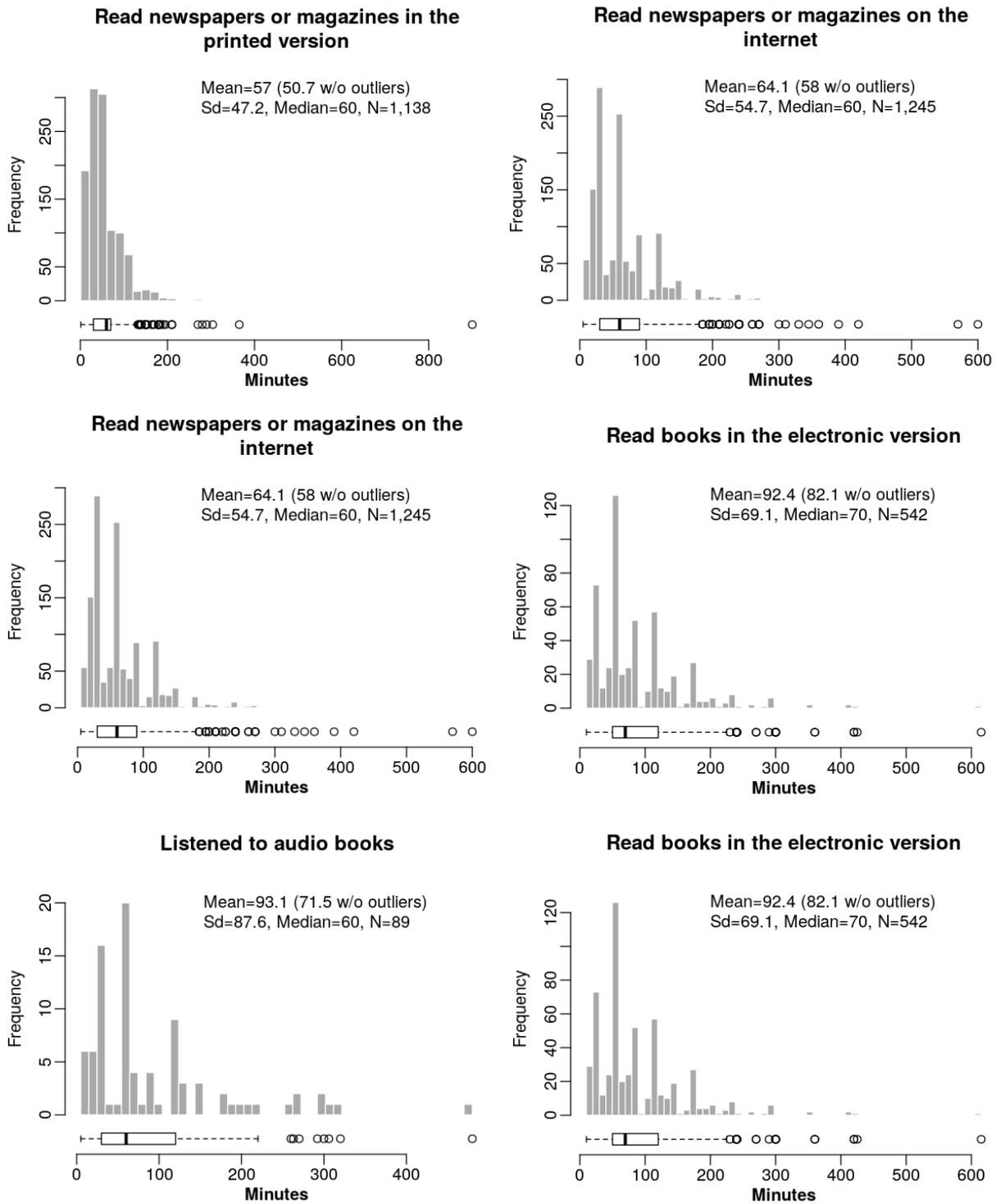
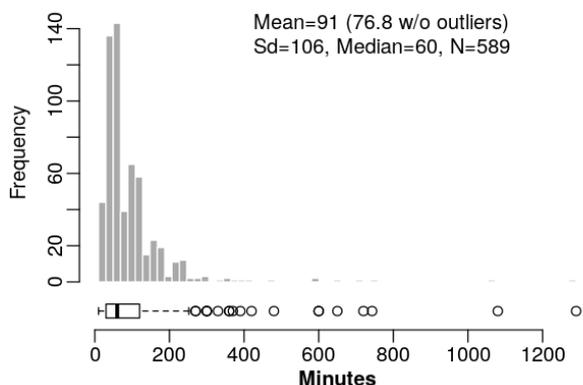


Illustration 4: Time spent with each medium (the previous day)

MP3 CD Wifi radio listening yesterday



Video, DVD, TV box DVR watching yesterday

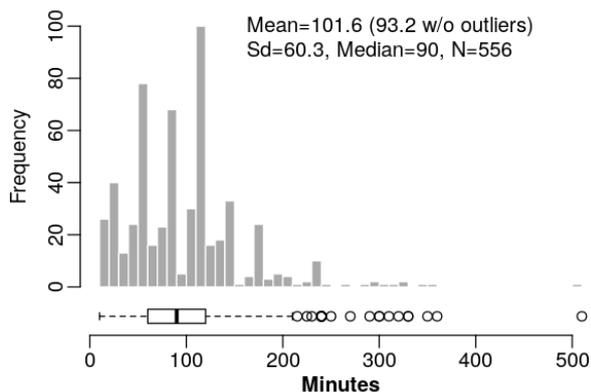
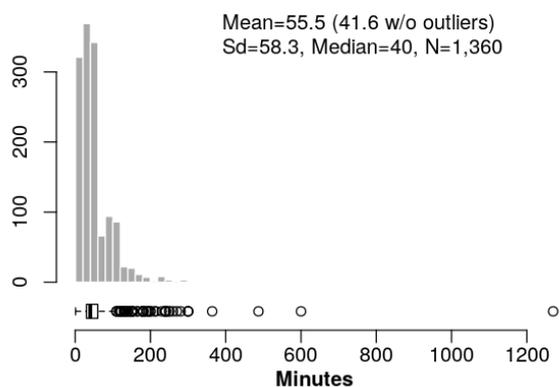
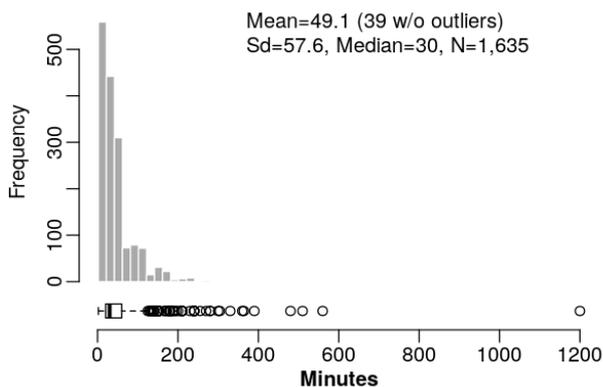


Illustration 5: Time spent with digital audio and video devices (the previous day)

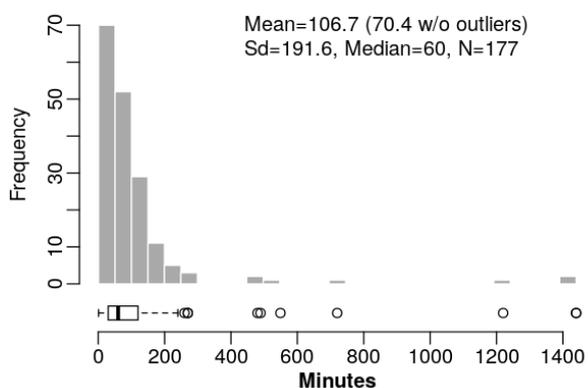
Internet use yesterday / Getting news



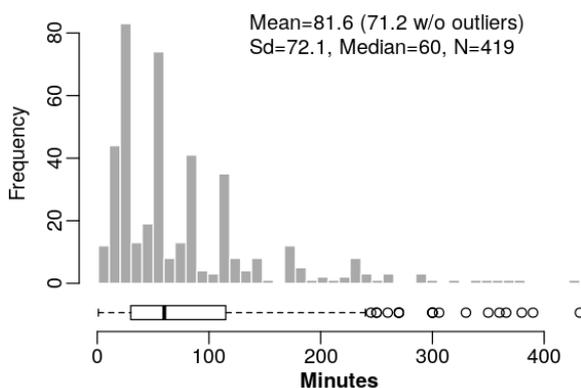
Internet use yesterday / Writing and reading e-mails



Internet use yesterday / Downloading music, film or podcasts



Internet use yesterday / Playing computer games online / Hours



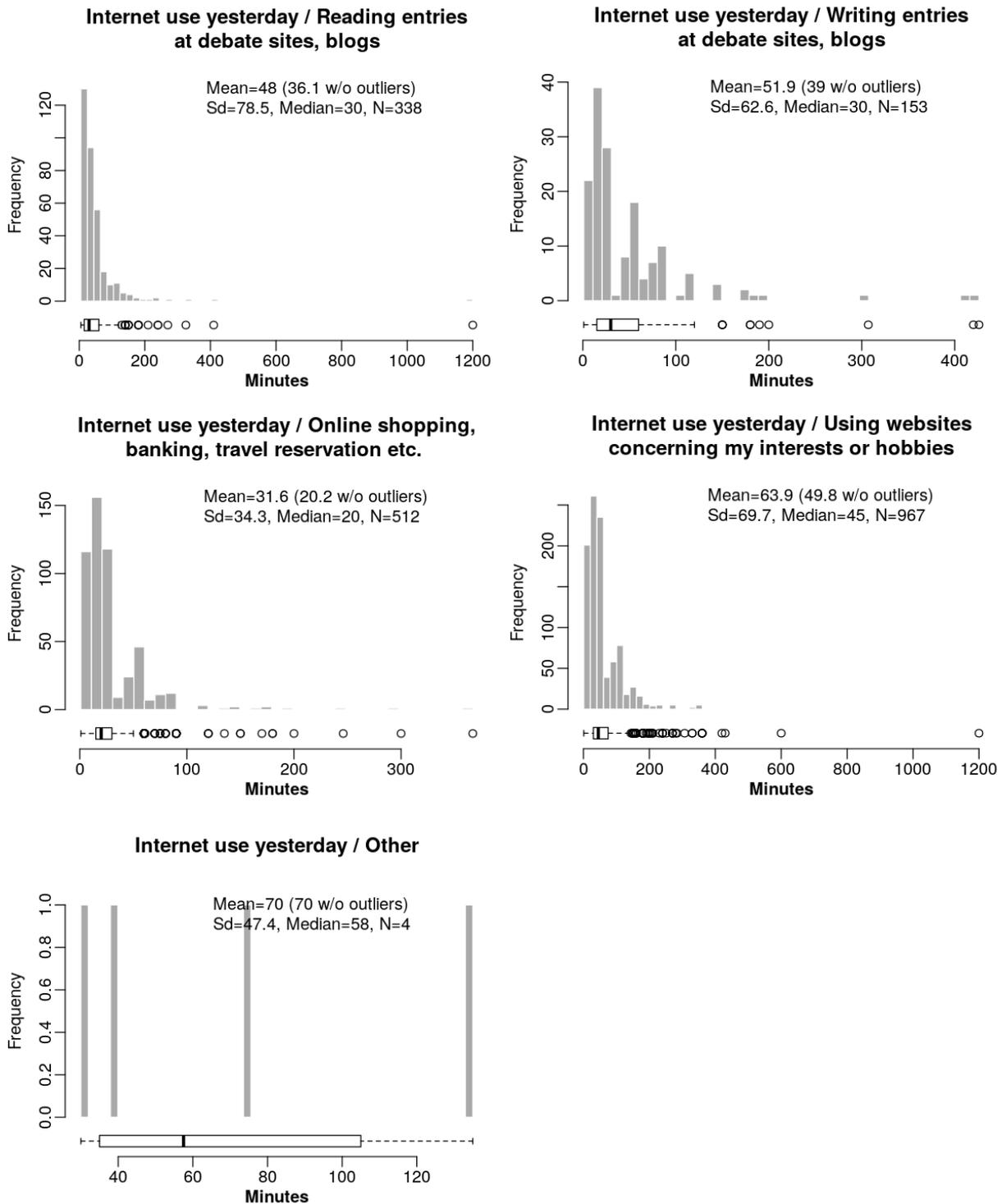
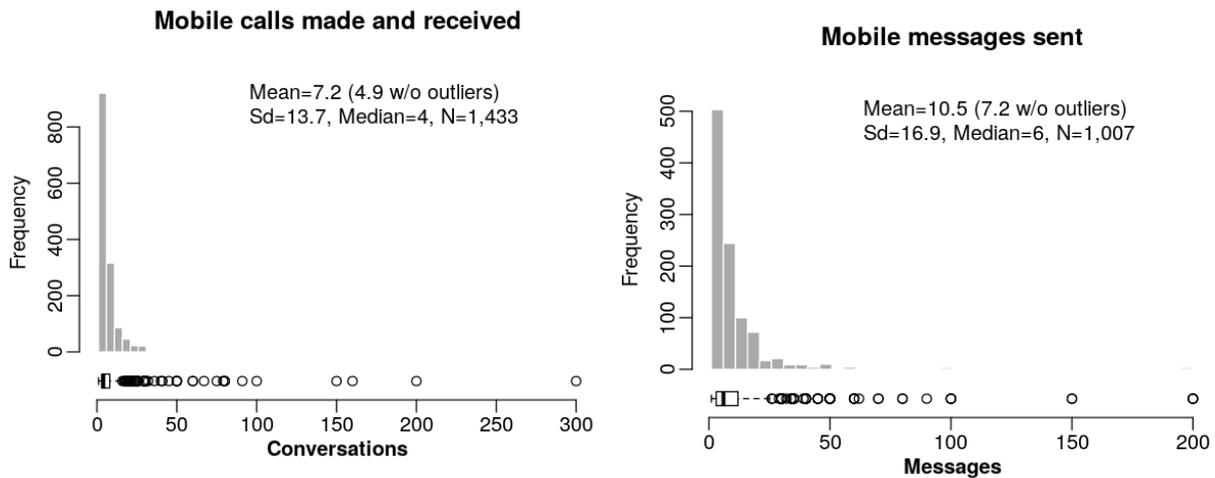


Illustration 6: Time spent with different Internet activities (minutes)



Original questions in Spanish: “Pensando en el día de ayer... ¿Cuántas llamadas convencionales hiciste o recibiste en el móvil (aproximadamente)?” y “Cuántos mensajes (texto, imágenes, mensajes de audio y/o de vídeo) enviaste (aproximadamente)?”

Filtered question: shown if ownership of mobile phone is selected.

Illustration 7: Number of mobile phone conversations and messages (the previous day)



Illustration 8: Life satisfaction and physical health satisfaction II