



Received: 26-10-2014
Reviewed: 05-12-2014
Accepted: 15-01-2015



RECYT Code: 31096
Preprint: 15-04-2015
Final Publication: 01-07-2015

DOI: 10.3916/C45-2015-02

Use, Consumption and Knowledge of New Technologies by Elderly People in France, the United Kingdom and Spain **Uso, consumo y conocimiento de las nuevas tecnologías en personas mayores en Francia, Reino Unido y España**

Dr. Cristina González-Oñate

Professor in the Department of Communication Sciences at the Jaume I University of Castellón
(Spain) (onate@uji.es).
(<http://orcid.org/0000-0003-3509-0117>)

Dr. Carlos Fanjul-Peyró

Professor in the Department of Communication Sciences at the Jaume I University of Castellón
(Spain) (fanjul@uji.es).
(<http://orcid.org/0000-0001-5940-5270>)

Dr. Francisco Cabezuelo-Lorenzo

Associate Professor at the University of Valladolid (Spain) (cabezuelo@hmca.uva.es).
(<http://orcid.org/0000-0002-9380-3552>)

Abstract

Our population is ageing very quickly. This increase is added to the rapid, exponential breakthrough of new technologies in our everyday lives. These two factors are generating great interest and many studies have been published on how information technology and communication simultaneously exist in ageing western societies. This paper analyses the main habits of use and consumption of new technologies by older people, in particular, the level of knowledge and their level of education. The purpose is to analyse whether the technological skills of our elderly are sufficient, as well as to know if the audio-visual resources are appropriate. This study wants to know if the ageing society is prepared to handle everything the internet has to offer. This study has taken place in three countries of the European Union: the United Kingdom, France and Spain. An attempt is made to generate comparisons and conclusions that help to increase the opportunities and to take on challenges of our current digital society. This study has used a methodology based on surveys which collect information on the use and habits in the three countries and the level of media literacy, as well as the interest of our elderly in training in new technologies.

Resumen

La población está envejeciendo de una manera muy rápida. A esta realidad hay que añadir el exponencial y rápido avance de las nuevas tecnologías en nuestras vidas cotidianas. Este binomio está generando gran interés y muchos son los estudios sobre la convivencia de las tecnologías de la información y de la comunicación en los diferentes colectivos de las envejecidas sociedades occidentales. Este trabajo analiza los principales hábitos de uso y consumo de las nuevas tecnologías en las personas mayores pero, sobre todo, el nivel de conocimiento y preparación que tienen. La finalidad es comprobar si la competencia mediática en materia tecnológica de nuestros mayores es la adecuada, así como conocer la adecuación de la oferta audiovisual actual. Este trabajo quiere responder a la cuestión de si los públicos de una sociedad europea



envejecida están preparados ante la gran oferta online. Con este fin, se estudian los datos de tres grandes países de la Unión Europea como son Francia, Reino Unido y España, intentando establecer comparaciones y conclusiones que ayuden a aumentar las oportunidades y retos de nuestra actual sociedad digital. Para ello, se ha utilizado una metodología basada en encuestas de elaboración propia en los tres países en las que se retratan tanto los hábitos de uso y consumo como el nivel de competencia mediática, así como el interés o no por parte de los mayores en la formación en las nuevas tecnologías.

Keywords / Palabras clave

Elderly people, technology, population research, digital literacy, social media, Internet, sociology of change. Personas mayores, tecnología, investigación demográfica, alfabetización digital, redes sociales, Internet, sociología del cambio.

1. Introduction and explanation of the question

1.1. Older population and new technologies

Nowadays the ageing population is one of the most relevant phenomena in western societies. The proportion of the population aged over 55 is growing. It is estimated that in 2050 32% of the Spanish population will be made up of elderly people, which will make Spain the oldest country in the near future. This fact is due to an increase in life expectancy as a consequence of advances in medicine, improvements in nutrition as well as in education. This data is supported by a decrease in birth rates, especially highlighted by the economic crisis which weighs heavily on the decision to have children (Abad, 2014). The aim of this paper is to provide a renewed focus on new technologies and to verify, through a comparative study in the United Kingdom, France and Spain, how the elderly are adapting to this avalanche of new forms of communication (Santamarina, 2004: 47-76). Information and communication technologies (hereinafter ICT) open a huge field of possibilities, in dissemination of information as well as in direct capacity connection between emitters and potential audiences (Ferrés, 2000; Castells, 2001; Cornelissen, 2011). Nevertheless, it also includes a series of barriers when used by elderly people (Hamelink, 2000). The recent increase and development of new technologies has not allowed a continuous contact with this group. Moreover, they feel unfamiliar with technology and are not comfortable or prepared for it as they have not received proper training. Quite often a feeling of distrust appears (Suh & Han, 2003). On other occasions the services offered by new technologies are not focused on or applicable to specific uses for people of a particular age. Therefore, we begin with the hypothesis that there is a lack of ICT training for the elderly. Older people must be convinced of the advantages that these services provide (Abad, 2014) and they must acquire the necessary skills to manage the tools that allow them use them (Silva, 2005), including tools for taking care of and improving their health (Choi & Leung, 2008).

1.2. ICT education and learning

The digital society proposes a model in which communication converges through multi screens which provide feedback opportunities that have modified relations between individuals (Aparici, 2011). With the ICT a communication system has emerged where users who participate can take the place of emitters by means of creating content and, in particular, through participation. This participation, together with the inclusion process of the internet in the homes of the 21st century citizens, and the use of other mobile digital resources has provoked an authentic social revolution (Barroso, 2002). The ICT industry has had to generate new content and modify the way it relates to consumers (González & Monleón, 2013). Citizens are getting used to a new scenario in which they are beginning to have a more important role. Education is essential in this process of change (Prieto, 1999; Cebrián, 2001). Therefore, new mechanisms are needed to provide continuity for teaching and learning and to reach the largest number of people possible, especially those who are older and in need of new abilities, knowledge and digital skills as demonstrated recently in studies by



Silva (2005: 51-58) and Santamarina (2004: 47-76). Cognitive processes in the elderly are different in regards to younger people and are determined by personal and social-cultural conditions (Pavón, 2000: 133-139). With the passing of the years a change takes place in learning processes as well as in the capacity to retain data, which requires that teaching and learning processes of these groups must be adapted to their characteristics (Freixas, 1997).

2. Material and methods

2.1. Applied methodology and justification of the sample

This study addresses the use, knowledge level and competence that the elderly have in France, the United Kingdom and Spain. This research uses the methodological and quantitative tool of the questionnaire because it allows for studying a social phenomenon as a dynamic process and within its real context (Callejo, 2002: 409-422). The survey conducted in French, English and Spanish allows for viewing the study outside of our borders in order to establish comparisons. It is the ideal method to generate propositions that are susceptible on a social level and that can be contrasted and compared through quantifiable data obtained in interviews. To carry out this study a total of 507 surveys were conducted as follows: 172 in France (Toulouse, Nancy and Paris), 160 in the United Kingdom (London, Bristol and Liverpool) and a total of 175 in Spain (Madrid, Barcelona, Castellón, Valencia and Cuenca).

In order for the surveys to have maximum efficiency and credibility, all of the questionnaires were completed in person with the interviewer. Appointments were made in public institutions where the interviewer handed out the questionnaires in person. The questionnaire was previously evaluated by experts and the questions were translated into the language of those being interviewed (French, English and Spanish). The answers were cross-analysed and structured data was computed from the groups of questions that were related to the following variables (items):

- Technological gadgets: knowledge level, usage level and usage habits.
- Television watching: type of content, devices and watching habits.
- Social networks: knowledge level, usability, participation and synergies with other devices.
- Internet and buying habits: usability and navigation, purchases, level of web terminology control.
- Information: the media to keep informed, habits of keeping informed.
- Media competence: ICT knowledge level, how they learn and the degree of interest in continuing to learn.

The survey had a total of 20 questions that were separated in accordance to age groups (from 55 to 65, from 66 to 75 and over 75), level of education (no education, primary education, secondary or higher), country of residence (France, United Kingdom or Spain) and gender (masculine or feminine). From the very beginning of this research an attempt was made to apply a quantitative method to be able to extract reflections on the present and future of the ICT in the elderly population. Therefore the aim was to collect data regarding the perception, consumer habits, concerns and needs of these groups in light of the impact of internet.

3. Analysis and results

The results obtained for the analysis of data extracted from the surveys are presented below and separated by country.

3.1. Results obtained in France

In France, elderly people make up a third of the population, a synonym of a highly ageing country. A large percentage of France's ageing population made up 24.1% of the internet users in 2014, which equals 11.6 million internet users. The increase compared to the previous year is between 5% and 7%, but the most surprising fact is that they are the age group that spends the most time on the internet. The generation of the elderly 3.0, called silver surfers by the marketing companies, are a target audience for the industry because they are increasingly connected and their role is



growing as active users. The older generation in France has received the new technologies enthusiastically.

In the technological devices section (knowledge level, usage level and consumption habits), we can highlight that the French elderly are very knowledgeable about new technologies and especially about social networks. All of those interviewed claim to have some type of device to be connected, with the tablet as the most used gadget with 52% followed by a desktop computer and laptop (17%). They mainly use the devices to keep informed (29%) and connected to their families by sharing photos and videos with them (14%). Entertainment is another one of the reasons they include to explain their use (13%).

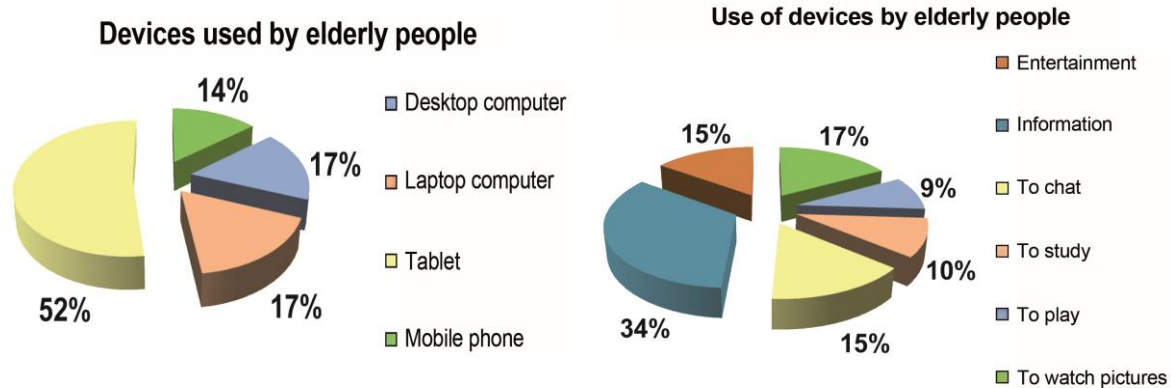


Figure 1. Use of technological devices and main uses in France.

Adapting to new technologies is considered a trend and a tendency that the elderly in France are actively participating in. Companies are greatly interested in this dynamic group's training, adaptation and interest in this field. In fact, the communication is appropriate for the type of message that is transmitted. Nevertheless, the results of the survey in France highlight that most (66% of those surveyed) are self-learners in relation to learning and improving their knowledge of ICT. Therefore, older users are willing to adapt and improve their knowledge in this field. The platform that they most commonly use to improve their knowledge is with tutorial videos. The mobile applications are also appealing to them but they only use them for personal leisure. The most used application is a video game called Candy Crush. Another result worth highlighting is that age is not the main element that distinguishes between degrees of knowledge in technology, but rather the lifestyle they lead as well as how they live and adapt to technological changes. ICT culture and education are essential so that the ageing population in France do not encounter obstacles for people over 55 years old.

In regards to the item of television viewing, it is worth pointing out that the French elderly continue using television as the main audio visual platform, with entertainment and providing Company as the main reason for said use. Television is still the main medium used to keep informed (28%) followed by the newspapers (24%) and radio (23%). Most of the French who were surveyed are aware of the concept of «a la carte TV» (85%) and they use it by downloading the programme directly from the television channel (30%) and from their home desktop computer (23%). On the contrary, 83% have never accessed any TV programme via social networks; only 8% have ever done it once with Facebook (50%), the main social network for participation followed by Twitter (33%). In regards to the knowledge level item and usability in social networks in general, we highlight that in France most of those surveyed use Facebook as the main social network (69%) and blogs are another phenomenon that has reached the elderly population in France (20% of those surveyed claimed to have a personal blog). 30% of those surveyed answered that the main activities they do on social networks are sharing photos or videos with friends and family because they think it is a good way to keep in touch with them, followed by looking for profiles in networks of people they are interested in (24%). The next most popular activities are making comments (22%) and modifying and updating their profile (12%).



Finally, the results in relation to usability and navigation on the internet and purchasing habits are of interest. Most of the French elderly who were surveyed purchase directly on websites (45%); while 32% state that before buying they look for information on the internet prior to going to the sales site. These data reflect the lifestyle of older people in France and their adaptation to new technologies, especially in regards to the changes in purchasing habits. The Internet links them to the world outside; it is a medium that provides them with an open window to the world and a way of keeping in touch with the French society. In France the ICT knowledge level is very high amongst younger generations, but as we can observe, it is also quite high in the elderly population. Their most common purchases online are transport tickets (train, bus and aeroplane) and food products they purchase weekly on their tablets.

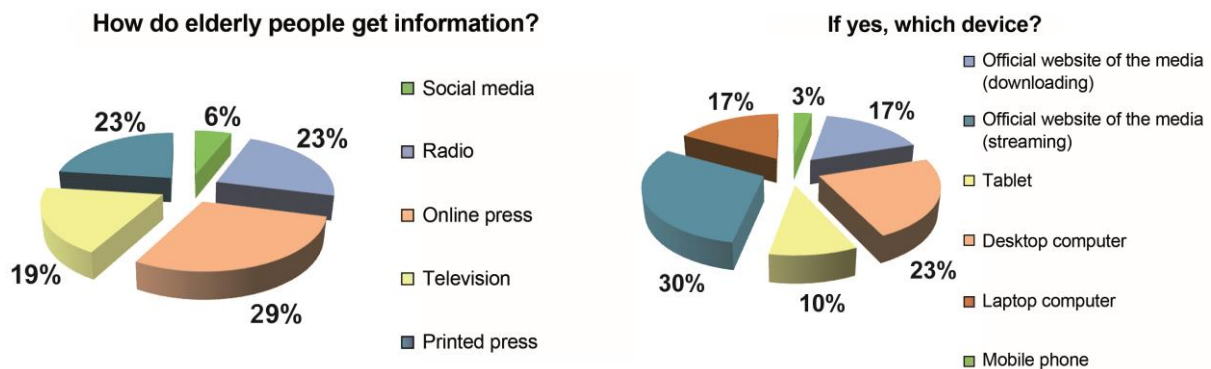


Figure 2. Mass media and main platform for getting news in France.

3.2. Results obtained in the United Kingdom

The British elderly have a very active role, especially in new technologies. Faced with higher life expectancy and a better economic situation, many older people have begun to enjoy new forms of leisure, to travel and to have a more active retirement. In this social context, learning and immersion in the world of technology have taken an active role for older people and are quite important in the lifestyle of British society. Specifically in this study we have found a clear distinction between those surveyed between the age of 55 to 65 and those between 65 and 75. In regards to the first item about knowledge, use and habits of technological device usage, those surveyed between 55 and 65 have a high level of knowledge of terminology. The concept of streaming is the least known by those interviewed (only 5% knew this term), followed by the term hashtag (9%). Most are familiar with a la carte TV or on demand TV (23%) and Apps (18%). These data show the relation with data obtained in France where the knowledge of these terms was lower.

The most used device is the mobile telephone (60%), followed by the tablet (30%), while those in the 65+ age group use the desktop computer more often (85%) in comparison with other devices. Both groups confirm that they use them mainly due to their convenience (65%) and habit (32%). In the United Kingdom, as in France, there is an important trend in regards to adaptation of the elderly to new technology. There is a high level of interest to learn and improve in this field, especially because most British people are aware of their needs, their surroundings and the potential of new technologies to improve their living conditions. The need to feel independent is the main incentive for this increase in using and consuming technology in the UK. That is the reason we understand that for the 55 to 65 age group, studying is the main use of ICT (54%).

On the contrary, in people over 65, the main use is still the need to keep informed (24%) and entertainment (22%). Moreover and as is the case in France, despite the high interest and degree of adaptation of this profile with ICT, most of those surveyed are self-learners (69%) or learn through the help of a family member (22%), with tutorials being the most used platform for self-learning amongst those between the ages of 55 and 65 (72%). On the contrary, those older than 65 learn by attending conferences and specialized courses.



We can therefore observe that in this country there are ICT training courses for this audience. Mobile applications are commonly used amongst the British elderly, most of those surveyed had more than one application downloaded on their devices (71%) with apps related to gambling being the most used (32%), followed by games (27%), specific purchasing apps (21%), Facebook (11%), Google Maps (6%) and PayPal (3%). The use of email is very popular amongst the British population (92% claim to have an email account), but the most interesting piece of data is related to how it is used: 72% use it to send and receive emails but 28% use it for promotions for product brands. In regards to viewing TV, as in France, the traditional TV set is still used for audio visual consumption (70%). As far as other screens are concerned, the mobile phone is also used, but at a much lower rate (16%) and always in their free time, although the time frame when they most use this device is in the mornings. TV is still the most used medium for keeping informed (27%), but traditional press (26%) and online press (24%) follow closely for keeping informed. Most elderly British people know and have used at least once a la carte TV (92%), by downloading the content from the web page of the TV channel (42%), watching in their free time (72%) and from the desktop computer at home (33%).

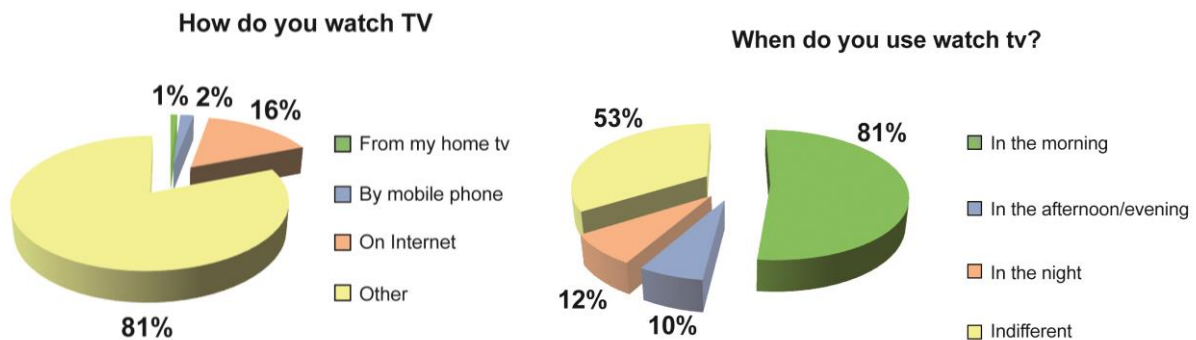


Figure 3. Television consumer use and habits in the United Kingdom.

The British elderly who were surveyed, in contrast to the French, have at times participated in audio visual content through social media (26%), with Facebook (46%) and Twitter (42%) being the two biggest social networks in which they have participated with live comments. In regards to the knowledge and usability item in social networks in general, most of those interviewed use Facebook as their main social network (46%), followed by Twitter (39%). Blogs are also used by the British elderly (15%), also stating that besides having a personal blog, they like to look for opinions in other blogs and forums. The main activities they carry out in social networks are sharing photos and videos with friends and family (32%), followed by writing comments (29%) and looking for profiles of other people who share their same interests (16%) because they consider the social networks as a way to connect and meet other people in the same age group.

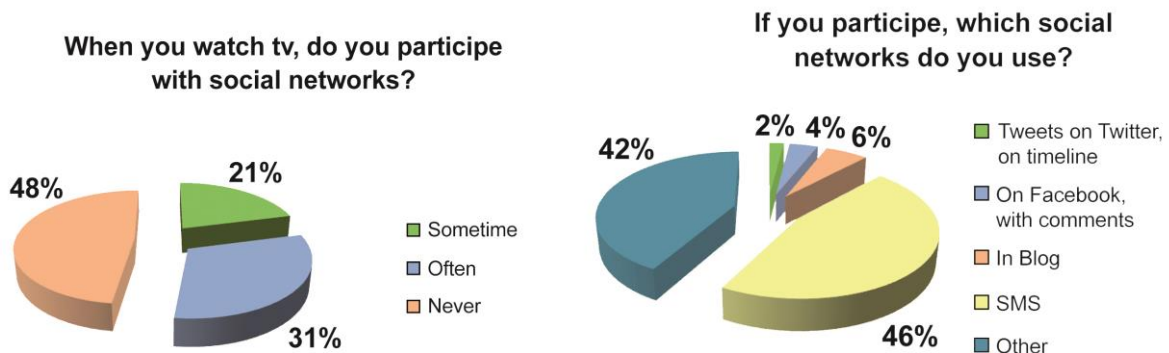


Figure 4. Level of participation of television content through social networks in the United Kingdom.



Lastly, it is worth pointing out the results related to usability and navigation in internet and purchasing habits where we again find differences according to the age groups of those surveyed. Many of those surveyed between 55 and 65 purchase directly on internet (42%), or check first online to look for information and then physically go to a shop to buy the product/service (39%). This highlights the predisposition of the British society to access the internet at the beginning of the purchasing process. On the other hand, those surveyed over 65 look for information on the internet and then go to the point of sale (39%) or only compare prices and buy products in the same shop (37%). They are also aware of price differences, which is why 28% ask a family member to help them look for and compare online first and then inform them.

3.3. Results obtained in Spain

The use of the internet is integrated in a large part of Spanish society (Gabardo, 2014: 41). There is still a long way to go to insert those Spanish users, who due to issues related to age, are still reluctant to engage with the digital world (De Andrés y Lima, 2014: 189-197). According to information from October 2013 to May 2014 of the General Media Study (EGM in Spanish), the problem of the older population is between the ages of 55 and 64; a group that has the necessary devices for most occasions, but does not know how to make the most of them because they are at the beginner level as users of ICT. Those older than 65 are in a worse situation; their low current penetration rate (less than 30%) is difficult to reverse and hopelessly condemns this group to digital illiteracy and exclusion. Lower to mid-lower class elderly have some barriers to overcome in order to completely enter the digital society, especially those older than 55. Moreover, the economic crisis has caused this segment to miss the opportunity they had to directly adapt to the internet. Their growth levels as users have been slower than other social strata. The crisis that has hit Spain hard can easily be seen in the communication sector (Cabezuelo-Lorenzo, 2013: 703-7015).

In regards to knowledge, use and consumer habits in technological devices, those surveyed in Spain between 55 and 65 years old have a high level of knowledge regarding a la carte TV or TV on demand (63%), Internet (33%), tablet (21%), WhatsApp (20%) and Facebook (19%), with concepts such as website (8%), hashtag (6%) and streaming (3%) the most unknown. There is little knowledge in Spain about the concept «a la carte TV» (12%). Those familiar with the term have sometimes used it by means of downloading audio visual content and from the TV channel's web page. When they are told what a la carte TV is and what advantages it offers, 72% stated they would like their television set to offer them programmes in accordance with their interests and with the possibility of consuming content when they wanted.

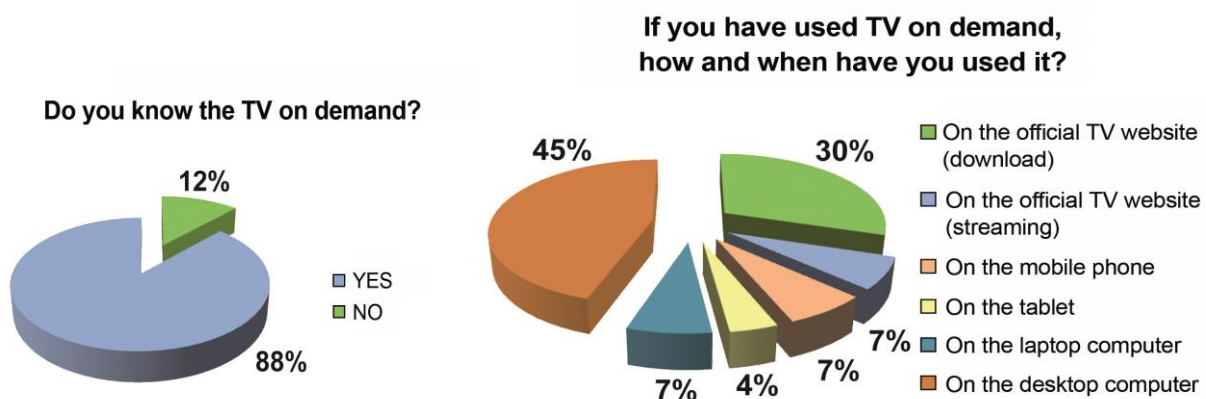


Figure 5. Knowledge and use of a la carte television in Spain.

The most used technological device is the mobile phone (81%), which is used most due to its convenience (62%) and habit (32%) and at different times (71%). The Spanish mainly use this device to keep informed and to keep in touch (69%), for entertainment (18%) and to talk (10%). Only 2%



claimed to have used it for education or training. This is a result that contrasts with the data obtained in France and in the United Kingdom, since we observe that in Spain there is not high adaptation to new technologies and the elderly are unaware of the actual possibilities. The elderly in Spain primarily learn about new technologies from family members and friends (61%) followed by self-learning (26%) and only 13% have attended a course as a way of learning about new technologies.

On the contrary, Spaniards are very interested in learning about new technologies (87% want training and only 13% don't) through classroom courses (62%) and specific conferences about this subject and in accordance with their needs (38%). They demand more specifically designed education for them because they need a more basic language to understand. Training for the Spanish elderly must adapt to their profile and learning limitations/capacities. Applications are not widely used by Spanish elderly, only 15% said they had apps on their devices, amongst which were those related to the news (8%), games (5%) and online banking (2%). The use of email in Spain is quite high (63%) and their main uses are to receive mail (51%) and to send mail (44%), only 3% said they had used it to participate in contests and promotions and only 2% claimed to use it for trends and fashion.

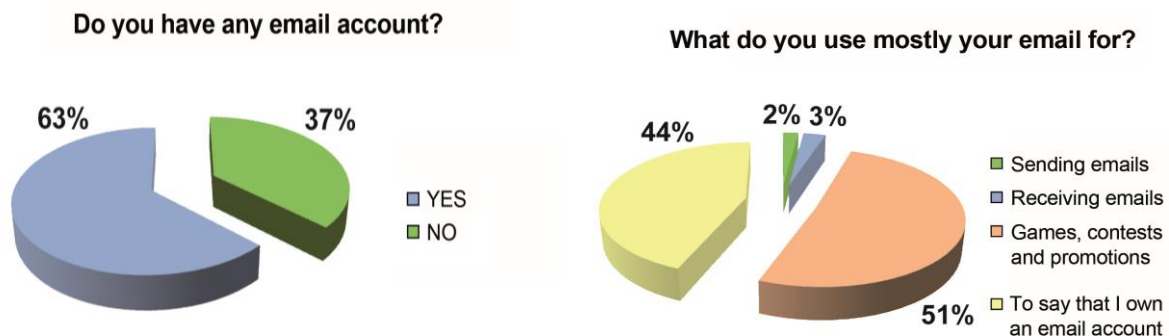


Figure 6. Use of email by the elderly in Spain.

With regard to television viewing, Spaniards use the traditional platform for watching TV (85%). Amongst other possible screens for consumption they also use the desktop computer (8%) and the tablet (4%), while only 3% watch TV on their mobile phones. TV viewing in Spain mainly takes place at home and most Spanish elderly watch TV at night (55%), 25% in the mornings and 20% in the afternoon. The main media used by Spaniards to keep informed are TV (40%), newspapers (30%) and radio (20%). Only 10% claimed to keep informed on the internet. This result contrasts with those obtained, especially, in the United Kingdom. The elderly population in Spain uses online media much less than their British counterparts to keep informed due to their lack of confidence in online news.

Spaniards, quite like the French, have low participation rates in media content on social networks, but in Spain it's even less. 85% of Spanish elderly state they have never participated, 14% have participated sometimes and only 1% claim to participate online regularly. Of the few who have participated, most of them have done it on Facebook (71%), text messages (15%), blogs (10%) and Twitter (4%). Those that have never participated with comments online justify their lack of participation due to lack of knowledge (81%) and only 19% say they are familiar with this option but do not know how to do it. In regards to the item regarding level of knowledge and usability in social networks in general, Spanish older people do not consider themselves as users of social networks (82%), only 3% consider themselves as users and 15% at some time. They do not have basic knowledge about existing social networks; most are familiar with Facebook (75%), a blog (15%) and Twitter (10%), and they are not aware of what an online community is or other types of social media. They say they are familiar with them because of television, the news and their family members, especially the younger ones. They always use them in their free time and the activities they



point out coincide with those of the French and the British: sharing photos and videos with friends and family members is the most common (54%), followed by writing comments (25%) and looking for profiles of people similar to them or with similar interests (21%). It is worth mentioning that none of those surveyed use social networks to participate in contests or to follow a brand, which they justify by saying they don't understand the purpose. Other studies, like Sotelo (2012: 217-230) have pointed out, nevertheless, that in the case of Spain there is a strong alliance between social networks and sports information, especially football.

In regards to usability, navigation on the internet and purchasing habits there are not big differences related to age groups. In general, most Spaniards physically go to the shop to make their purchases (74%) and only 9% look for information online before going to the point of sale. 10% said that sometimes, and depending on the type of product (especially technological ones), they had a family member do it for them. Only 6% said that advertising helps them choose products/services and most of them were unfamiliar with specific online sales sites (88%). We can therefore observe that in Spain electronic commerce is underdeveloped amongst the ageing population and they are a target audience that is not reached by advertising messages since they are not familiar with this type of online activity and they particularly distrust the internet as a way to make purchases. The price is not a relevant factor that changes their behaviour in regards to buying online.

4. Discussion and conclusions

As a result of the results obtained in the three countries, it can be established that the elderly population in Spain has the lowest adaptation in regards to new technologies and that this is mainly due to the lack of training and education in the field of ICT. These results are encouraging for new start-ups aimed at this specific group with methodologies adapted to their needs, capacities and limitations. Our elderly have concerns, which must be answered, especially if we want to attain the same level of certification as other European countries.

The technology industry must offer a wide range of products and services adapted to the needs of our elderly that allow for easy adaptation, use and application. Priority attention is necessary for our elderly so they can gain autonomy and be able to look for information (search, choose, elaborate and share) by themselves in the new digital society. This involves acceptance of cultural, political, ideological and economic implications of this new era so closely linked to technology.

There have been previous success stories in education that have allowed different groups to remain active and integrated in society during their lifetime. Now it is necessary to reinforce those programmes with different transformations through continuous education programmes for the elderly. It is essential to create required mechanisms so information is really permanent and continuous in the current knowledge and information society in order to reach the greatest number of people.

As active actors in our society, the elderly constantly make new demands that must be satisfied and included in our system. All educational institutions, especially those closely linked to research, as is the case of the university, must adapt their content and expand their curricula in order to train future professionals adequately in fields that respond to the needs of our older citizens.

The elderly in France and in the United Kingdom, although they can improve their skills and knowledge in relation to ICT, are seen as an interesting market niche for various sectors as they make up a large sector from the quantitative point of view, from a political point of view (due to their important voting capacity) and they are interesting human capital (because of their knowledge and experiences). Nevertheless, in Spain they are not always seen as an opportunity and on many occasions they are excluded from new technologies. The Spanish elderly need greater motivation to learn. This lack of motivation changes when they discover that ICT can notably change their quality of life.



References

- Abad, L. (2014). Diseño de programas de e-inclusión para alfabetización mediática de personas mayores. *Comunicar*, 42, 173-180. DOI: <http://dx.doi.org/10.3916/C42-2014-17>
- Aparici, R. (Coord.) (2011). *La educación 2.0 y las nuevas alfabetizaciones*. Barcelona: Gedisa.
- Aparici, R., & Silva, M. (2012). Pedagogía de la interactividad. *Comunicar*, 38, 51-58. DOI: <http://dx.doi.org/10.3916/C38-2012-02-05>
- Barroso, R., Romero, J., & Cabero, J. (2002). Las personas mayores y las nuevas tecnologías: una acción en la sociedad de la información. *Revista Innovación Educativa*, XXII, 319- 337.
- Cabezuelo-Lorenzo, F. (2013). Cinco años de crisis en el mercado de la comunicación (2008-13). *Historia y Comunicación Social*, 18, 703-715. DOI: http://dx.doi.org/10.5209/rev_HICS.2013.v18.44358
- Callejo, J. (2002). Observación, entrevista y grupo de discusión: el silencio de tres prácticas de investigación. *Revista Española de Salud Pública*, 76(5), 409-422. DOI: <http://dx.doi.org/10.1590/S1135-57272002000500004>
- Castells, M. (2001). *La galaxia Internet*. Barcelona: Plaza y Janés.
- Cebrián, M. (2001). *La radio en la convergencia multimedia*. Barcelona: Paidós.
- Choi, K.Y., & Leung, R.S. (2008). E-Health for Older People: the Use of Technology in Health Promotion. *Cyber Psychology & Behavior*, 11; 475-479.
- Cornelissen, J. (2011). *Corporate Communication. A guide to theory and practice*. London: Sage.
- De-Andrés, S., & De-Lima, R. (2014). Análisis crítico del discurso publicitario institucional/comercial sobre las personas mayores en España. *Comunicar*, 42, 189-197. DOI: <http://dx.doi.org/10.3916/C42-2014-19>
- Ferrés, J. (2000). *Educación en una cultura del espectáculo*. Barcelona: Paidós.
- Freixas, A. (1997). Envejecimiento y género: otras perspectivas necesarias. *Anuario de Psicología*, 73, 31-42.
- Gabardo, J.A. (2014). Los internautas españoles: quiénes son y quiénes no son. *Anuncios*, 1.489, 41.
- González-Oñate, C., & Monleón, P. (2013). La gestión de intangibles en la Dirección de Comunicación Corporativa. Estudio sobre el Dircom en las organizaciones de Reino Unido. *Doxa Comunicación*, 17, 27-56.
- Hamelink, C.J. (2000). *The Ethics of Cyberspace*. London: Sage.
- Pavón, F. (2000). Tecnologías avanzadas: nuevos retos de comunicación para los mayores. *Comunicar* 15, 133-139.
- Prieto, D. (1999). *La comunicación en la educación*. Buenos Aires: Ciccus La Crujía.
- Santamarina, C. (2004). La imagen de las personas mayores. In Giró, J. [Coord.], *Envejecimiento y sociedad. Una perspectiva pluridisciplinar*. (pp.47-76). Logroño: Universidad de La Rioja.
- Silva, M. (2005). *Educación Interactiva: enseñanza y aprendizaje presencial y online*. Barcelona: Gedisa.
- Sotelo, J. (2012). Deporte y social media: el caso de la Primera División del fútbol español. *Historia y Comunicación Social*, 17, 217-230. DOI: http://dx.doi.org/10.5209/rev_HICS.2012.v17.40607
- Suh, B., & Han, I. (2003). The Impact of Customer Trust and Perception of Security Control on the Acceptance of Electronic Commerce. *International Journal of Electronic Commerce*, 7; 135-161.