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First and second-level digital divides and cultural capital: framing digital lives of seniors in Portugal and Europe

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Abstract. Although research has been mainly focused on mapping individual determinants of digital exclusion, stressing the role of schooling, less attention has been paid to explore the role of pre-existing cultural practices and capital, beyond formal education, as determining factors of first-level and second-level divides among seniors and across western societies. The diffusion of digital devices with access to the internet is reaching a level close to 90% in European societies. However, the digital divide is still a noticeable issue when comparing generations and among seniors of age 65+ years (Friemel, 2016). As access to the internet, digital literacy, and use of digital services are increasingly prerequisites for public life and accessing public and commercial services in Europe and elsewhere (Alexopoulou, Åström, Karlsson, 2022), it is pertinent to look at the digital lives (or lack of) of seniors. Therefore, our study explores the influence of variations in cultural capital on the digital divide among seniors (aged 65+) in Portugal and Europe. The analyses are based on data from Eurobarometer and a representative survey concerning cultural practices on and offline in Portugal. The first part of the study introduces a comparative perspective of different regions of the European Union (EU) concerning the distribution of digital access and of online practices with cultural purposes, tracing digital first and second-level digital divides across Europe according to indicators of social and cultural inequality. The second section focuses on the results of the national survey regarding Internet use for cultural consumption. In the third part, also based on the same national data, we explore the association of various offline and online practices related to culture with types of digital divide. With this analysis we hope to find alternate ways of considering the links between technology usage and seniors and go beyond traditional analysis of this relationship.

Keywords: Internet, seniors, digital inclusion, social inclusion, ICT

1 Introduction

Past research has been mainly focused on tracing individual factors of digital exclusion, emphasizing the role of schooling. Less consideration has been paid to investigate the role of pre-existing cultural practices and capital, beyond formal education, as influential factors of first-level and second-level divides among seniors across western societies, albeit the digital transformations of, at least, part of the senior population in Europe and elsewhere.

Among seniors, the digital divide is still an evident issue, especially when comparing seniors of age 65+ years with younger generations (Friemel, 2016). Besides access to digital technologies, digital literacy, and use of digital services are increasingly prerequisites for public life and accessing public and commercial services in Europe and elsewhere (Alexopoulou, Åström, Karlsson, 2022). Therefore, it is appropriate to glance at the digital lives (or lack of) of seniors. In this line of research, our study explores the influence of variations in cultural capital on the digital divide among seniors (aged 65+) in Portugal, placing the country in an European comparative perspective. Our analysis is based on data from Eurobarometer and a national representative survey regarding cultural practices on and offline in Portugal.

2 Seniors and digital and social inequalities

As recognized by the European Declaration on Digital Rights and Principles, technological advances bring about transformations in our lives, offering opportunities for learning, socialization, entertainment and promoting opportunities for access to health and culture (EC, 2022). Furthermore, it recognizes that the recent COVID-19 pandemic has accelerated the pace of digitization by further perennating the role it plays in society and the economy.

Similarly, digital inclusion policies are now a priority of the Portugal Digital Programme (Government of Portugal, 2020) that fosters the digital transformation of companies, public bodies, and people's training in media and digital literacy. However, this brings us to the critical point of the intersection between digital and social inequalities that lead to social exclusion. Social inequalities are both the negative cause and consequence of e-exclusion, especially in countries like Portugal where there are notable percentages of people without access or limited access to the Internet, and/or with the lack of capacity or skills to use Information and Communication Technologies (ICT). An example of this is older people who are deprived of access to services that have been digitized, namely public services. The access and use of technologies such as the computer and mobile phone as means of digital inclusion is relevant (Dias, 2012). In addition, as Helen Helsper (2008, 2009 and 2012) argues, access, use, skills, and attitudes are the mediating factors of digital inclusion that, consequently, lead to social inclusion. In Portugal 87.3% of households have internet connection at home, where 84.1% of this connection is by broadband (INE, PORDATA, 2021). Table 1 shows an increase in internet use from 68.6% in 2015 to 82.3% in 2021. While younger cohorts already

reached a plateau, this increase happened because of the growing digital inclusion of older cohorts. As shown in Table 1, in 2015 only 27.2% of individuals between 65 and 74 years had access to the Internet, today the figures are almost double with 47.7% (2021), but still below 50%. Furthermore, the data analyzed by age group reveals a consistent gap between cohorts, with internet usage declining as age advances. In this sense, first-level digital inequalities (related to access) increase from younger to older age groups, to the extent that people without access or limited access to the internet are deprived of access to digitized services (Neves, 2021) and away from online public participation. Specially if we consider social network sites and other online services as new forms of culture that bring new arrangements of socialization (Amaral & Sousa, 2012).

Table 1. Internet use in Portugal from 2015 to 2020 by age group (%).

	16-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	Total
2015	99,3	94,9	87,5	64,6	42,0	27,2	68,6
2016	99,1	97,2	88,8	71,6	47,0	28,3	70,4
2017	99,0	97,6	93,2	75,2	55,1	31,1	73,8
2018	99,4	98,2	92,9	78,7	53,4	32,7	74,7
2019	99,5	98,0	95,1	78,4	57,3	33,1	75,3
2020	99,5	98,2	95,7	82,7	65,3	39,0	78,3
2021	99,7	98,4	96,4	88,2	71,0	47,7	82,3

Source: Pordata (2021)

It is noticeable that although there is a greater democratization in access to ICT, that is a decrease in first-level digital inequalities, albeit late in European standards, there is still a digital gap in usage and types of use (related to second-level inequalities) (Lapa & Vieira, 2019). The European Community (EC, 2022) also recognizes that the COVID-19 pandemic has increased the digital divide throughout the European Union, not only between urban and rural areas, but also that weak access to connectivity and internet access has been notorious, in addition to limitations in digital skills and understanding of ICT, causing major risks of social cohesion.

At the same time, other countries, such as Switzerland in particular, Digital Senior 2020 (Swissinfo et al., 2020) reported that, at the time of the study, 74% of individuals over 65 used the internet, a situation that in 2009 the figures were 38%. The study also points out that the use of internet on mobile phones and tablets amounts to 68% and that this evolution of digital inclusion was due to the offer of courses that allowed older people to explore the new ICT. As Cunha (2017) states for greater social integration, technological inclusion is needed, and positive experiences and interactions are needed for technologies to be accepted and adopted by them.

Gil and Easter (2018) identified that learning ICT by seniors is related to their participation and inclusion in the digital society, so it will be important to reflect whether the non-use of ICT by older people is associated with the non-relevance they consider for

their lives (Helsper, 2009; Neves, 2013) or for the lack of interest in the use of the Internet because they consider it not for you, do not have usability capacity or do not have access (Helsper, 2009). However, it is still worth considering that there are differences between the younger and the older seniors, because older adults are the most infoexcluded, "(...) these represent citizens with the lowest rates of access to and use of digital technologies." (Gil, 2019). This author constifies that the digital fracture entails with him not only a potential social exclusion, but also everything that this involves, and the consequences inherent to it.

When talking about social exclusion based on internet studies, we should consider the first-level digital divisions dependent on the lit, where people do not have information, do not know, or do not want to be linked to the forms of use, motivations, interests, and competencies that can be barriers in this use (Gómez, 2018). At a second level, the use in whose abilities may be a barrier (DiMaggio & Hergittai, 2001). And finally, to a third level linked to the benefits they can enjoy online, namely the social benefits of using the internet at the social, economic, political, health and culture level (Van Dursen, 2010).

In fact, even with a greater democratization in access to ICT in our country, the reality is that there is still a digital gap in terms of use and types of use (Lapa & Vieira, 2019). As identified by the Eurobarometer (Standard Eurobarometer 84 Autumn 2015 - Media use in the European Union), in a study in the member countries, there are three types of Internet users among the oldest (between 65 and 99 years old): digitally immersed communicators, where internet use is more frequent and diverse; Asynchronous communicators, individuals accustomed to the Internet, but with a less regular use than the previous group; and Phone enjoyers, who have less communication activity and frequency of internet use, as well as with fewer paid Internet services compared to previous users (Vulpe and Crăciun, 2020).

Still, Gil (2019) states that we may be facing a new digital fracture associated with inter or intragenerationality, because there is a clear notion that digital literacy and the digital skills associated with them are only present before, according to the author, "(...) a critical and reflective attitude in the use and mobilization of digital technologies to the detriment of more functional or instrumental aspects."

If, on the one hand, Loos (2012) argues that when it comes to the search for information in an internet context the concepts of "digital natives" and "digital immigrants" have no reason to exist, on the other hand, Lapa & Di Fátima (2019) explain so that we are faced with a more complex model where the life cycle and the form of socialization with the media or physical limitations can make us better understand the online behavior of seniors.

However, older users acquire digital skills through greater internet experience and their time of use with online tools, as technologies become more user-friendly, enabling a continuous improvement in their digital literacies (DiMaggio et al., 2004).

Seniors are a heterogeneous social group associated with life experiences and digital literacy is associated with their routines and interests (Gil, 2019; Barroso, 2021), where for some technology is perceived and part of their daily routines (Berker et al., 2006), where mobile phones, the internet and computers are central in the lives of some people (Haddon, 2011).

3 Digital divides among seniors in Portugal and Europe

By the turn of the 20th century to the 21st century, the European Union had already identified the problem of 'digital divide' (van Dijk 2009) and digital inequality, a term that some authors consider more rigorous to mention the cleavages that go beyond having access or not to use the Internet, and which refer to very different degrees of competence, variety of objectives, social support and conjugation with offline life (DiMaggio and Hargittai 20001). Digital inequality is among a group of European Union countries, representative of the Nordic, Mediterranean, central and eastern regions, where Portugal was among those whose proportion of Internet users aged 16 to 74 were below the EU average rate (table 2) in 2021. The contrast between the situation of the Mediterranean countries (except for Spain), and the eastern one and the panorama of the states of central and northern Europe is noteworthy. In Nordic countries, in 2010, Internet users varied between 88% (Denmark) and 91% (Sweden). The discrepancy observed is characteristic of countries whose political and economic path denotes the later promotion of the so-called information society, as a programmatic orientation of public policies and the economy. Demographic and educational reasons have also contributed to explain the softer pace of appropriation of new information and communication technologies in the Portuguese context.

Regarding the Portuguese society, the lower use of the Internet ends up reflecting its demographic structure, since the population is one of the oldest in the EU-27. The results of a recent survey on cultural practices in Portugal (Martinho and Lapa, 2022) reaffirm a very sharp generational divide (Lapa and Vieira, 2019): while internet use was around 100% among Portuguese aged 15 to 34, only 26% among those aged 65 or older said they used the Internet. Eurostat data for 2021 also show the low levels of digital inclusion of older people in Portugal: less than half of The Portuguese aged 65 to 74 were internet users (table 2), and there was still a significant recovery in the last decade, compared to the proportions that the group assumed in 2010 (10%) and 2005 (2%). The e-exclusion of Portuguese seniors correlates closely with academic qualifications, since the generation aged 65 and over represents the social group that can least benefit from the expansion of the educational system in the country, and with economic resources.

Table 2. Share of individuals aged 65-74 years and 16 to 74 years who used the internet in the last 3 months (2005, 2010 and 2021).

	65-74 years			16 to 74 years		
	2005	2010	2021	2005	2010	2021
European Union	na	25	65	na	67	89
Portugal	2	10	48	32	51	82
Spain	4	14	73	44	64	94
Greece	1	4	35	22	44	78
Italy	4	11	52	34	51	82
Denmark	30	56	95	77	88	99
Finland	18	43	85	73	86	97
Sweden	27	58	90	81	91	97
Netherlands	34	56	90	79	90	95
Germany	20	41	74	65	80	91
Belgium	12	35	77	58	78	93
Ireland	8	20	97	37	67	99
Slovenia	na	12	62	47	68	89
Hungary	5	13	62	37	61	89
Czechia	2	19	56	32	66	89

na: not available

Source: Statistics | Eurostat (europa.eu)

The appropriation of digital culture and connectivity anywhere and anytime is currently seen in about 77% of European citizens aged 65 to 74, with the mobile phone or smartphone as the predominant web access technology (table 3). This indicator reveals the progressive familiarization of Portuguese s and niores with mobile phones, adhering to a much lesser extent the 'other mobile devices' to access the internet, such as smart TV, smart speakers, console game, e-book reader, smart watch, predominantly suitable by Finland, Netherlands, and Spain.

An in-depth analysis of the data collected in the Eurobarometer (Standard Eurobarometer 84 Autumn 2015 – Media use in the European Union) identified, in all member countries, three types of older Internet users, from 65 to 99 years: digitally immersed communicators, denoting a more frequent and diversified internet use; the A synchronous communicators, familiar with the Internet, but more distant from its use than the previous group; and Phone enjoyers, with lower levels of communication activity, paid Internet services and Internet use frequency (Vulpe and Crăciun, 2020). The study

concludes that in the Northern regions, the type of users that prevails is Asynchronous communicators. The situation is similar in Western European countries, but the category of Digitally immersed communicators is higher in this area, unlike Northern countries. In the Southern and in Eastern Europe, the dominant profile is “mobile phone enjoyers”.

Table 3. Devices to access the Internet among people aged 65 to 74 years old. Percentage of individuals who used the internet in the last 3 months (2021).

	Desktop computer	Mobile phone or smartphone	Other mobile devices (smart TV, smart speakers, console game, e-book reader, smart watch)
European Union	37	77	12
Portugal	31	83	8
Spain	26	100	30
Greece	33	75	9
Italy	42	88	8
Denmark	35	79	4
Finland	27	80	53
Sweden	38	83	14
Netherlands	46	87	30
Germany	41	65	7
Belgium	34	69	13
Ireland	24	87	27
Slovenia	47	79	10
Hungary	43	59	4
Czechia	44	55	25

Source: Statistics | Eurostat (europa.eu)

In the approach to the online dimension, Eurostat's cultural statistics consider two axes: the use of the internet for selected cultural activities and the use of the internet for purchasing selected cultural goods and services. Considering the first axis, the most accomplished activity, without cutting of ages, corresponds to 'watching internet streamed TV or videos' (72%), followed by 'reading on line news sites/newspapers/news magazines' (71%), 'listening to music (e.g. web radio, music streaming) or downloading music' (60%) and 'playing or downloading games' (32%) (Eurostat 2022). But there are particularities related to the different adhering of different age groups (table 4). Thus, while the audiovisual domain is markedly juvenilized, the practice of 'reading on line news sites/newspapers/news magazines' is the only one in which there is an overall

growth in the passage of the age range '16-24 years' to the group '25-54 years'; moreover, even if it tends to decline among those between 65 and 74 years old, it represents the online cultural activity preferred by European seniors, including the Portuguese. In the survey conducted in Portugal in 2020, it was found that online activity reinforced by the group of 65 and over, in the stages of social confinement, was 'reading books, newspapers and magazines', while 'watching films and TV series' assumed a low expression. Another aspect that stands out in Eurostat data is the most pronounced decrease in 'listening to music (e.g., web radio, music streaming) or downloading music' in the transition of the group '25-54' to those between 65 and 74 years old.

Table 4. Using the internet for cultural purposes, by age group. Percentage of individuals who used the internet in the last 3 months (2022).

	Watching internet streamed TV or videos			Reading online news sites/newspapers/news magazines			Listening to music (e.g., web radio, music streaming) or download- ing music			Playing or downloading games		
	16-24	25-54	65-74	16-24	25-54	65-74	16-24	25-54	65-74	16-24	25-54	65-74
European Union	88	77	49	67	74	65	86	66	28	60	32	17
Portugal	91	75	39	87	85	68	95	78	35	73	34	22
Spain	95	90	63	77	85	71	94	83	41	64	36	19
Greece	90	70	33	85	90	86	97	77	38	77	31	8
Italy	91	83	57	55	66	61	84	66	29	62	33	17
Denmark	99	96	70	87	91	82	97	88	43	74	52	32
Finland	100	98	86	92	96	90	99	89	49	78	50	21
Sweden	94	95	68	73	88	79	92	89	47	73	47	24
Netherlands	100	98	81	75	89	79	96	84	46	73	57	40
Belgium	90	78	38	59	73	61	86	67	26	66	38	23
Ireland	95	85	61	71	81	76	89	75	36	45	22	11
Slovenia	95	85	61	71	81	76	89	75	36	45	22	11
Hungary	95	89	67	93	94	87	93	80	48	57	30	14
Czechia	98	86	50	84	93	93	97	70	23	62	27	8

Source: Statistics | Eurostat (europa.eu)

The study of the uses that seniors have with the use of the Internet and the bonuses they remove from it is still in a very exploratory phase in Portugal. Concluding from the research so far conducted, senior internet users are generally young elderly (average equivalent to 68 years), considering that although Internet use is not among the most important activities of their routines it is hardly expendable. The data show that they mostly access the Internet from home and the motivations that mobilize them more, and from which they derive greater gratification, are access to information, communication

with family and friends, entertainment, and memory sharing (Oliveira, 2019; Rebelo, 2013). The use of this medium also contributes to the strengthening of self-esteem, citizenship, and the sense of utility of some seniors (Oliveira, 2019).

4 Methodology

For the present research, we also used data from the Survey of Cultural Practices of the Portuguese 2020, representative of the Portuguese reality, applied between September 12th and December 28th, 2020, with the aim of carrying out a pioneering survey carried out on a national scale of cultural practices. culture of the Portuguese, whether offline or online. It also encompasses the survey of how, given the change in offline activities due to the constraints imposed by the pandemic, individuals have adapted to new forms of online participation and changed their consumption habits of media and cultural activities.

This article focuses on the quantitative analysis in SPSS of data referring to respondents aged over 65, which covers $n=513$ (which corresponds to 33% of the total number of respondents and reflects the national demographic pyramid), with 40.5% male and 59.5% female. Still, with the aim of perceiving the differences between younger and older seniors, a segmentation by age was chosen: 65-74 years (55.4%); and over 75 years old (44.6%).

Relevant data from the sample, which were weighting factors in the analysis of the results, are the fact that 89.6% of the sample is made up of retired or disabled individuals; 77.5% have an education up to the 3rd cycle; 50.3% are married and 36.9% are widowed. Still on the sample, the composition of the household is essentially composed of one (39.4%) or two people (50.2%) reflecting the predominance found in terms of marital status. And regarding the use of the internet, only 25.6% of respondents are users, which is why the rate of e-excluded is still high in this age group in Portugal, although 74.4% of individuals are non-users. If we look at the age group of 65-74 years old, 36.6% use it and 63.4% do not use it; while among seniors over 75 years old, 11.8% use the internet and 88.2% do not, meaning that the older the age, the lower the rate of internet use.

5 Portuguese seniors in digital transformation

The European Union (EU) (2007) focuses on the importance of e-inclusion in order to ensure social justice and to ensure equity in the knowledge society. And in this sense, it made public the i2010 Initiative measures to combat inequalities and e-exclusion among older people.

E-exclusion is a relevant factor and quite evident in seniors in Portugal. The representative data used by this study shows the main reasons that lead to the non-adhering to the use of the Internet by seniors. There are two main factors associated with non-

use of the Internet: not seeing utility and lack of interest (45.4%) and illiteracy regarding the way of using the Internet or because it feels confused by technology (42.7%). Then with less relevance are the issues related to the lack of access to a computer or the internet (8.8%) and the lack of economic conditions (2.3%) to bear the cost of the internet.

From the point of view of the type of technology most used in internet access, we can say that technological seniors today use their smartphone (17.3%) more frequently than the laptop (8.8%), the desktop computer (6.1%) and tablets (3.8%). Access through SmartTV (0.8%) and Game Console (0.2%) have little expression in this age segment.

The growing expansion of smartphone use in Portugal in recent years (Marktest, 2018) has allowed better access conditions. In addition, ease of use and more affordable prices has given older age groups the opportunity to have access and open their horizons in the technological field.

And while smartphones allow easy access to the internet that may contribute to greater digital inclusion of seniors, some studies in this area show that the use by these older individuals is linked to the perception of benefits (Mohadis & Ali, 2014) and they need to feel motivated (Rosales & Fernández-Ardèvol, 2016).

The Model of Acceptance and Adoption of Technology by Seniors (Renaud & Biljon, 2008) states that for seniors to accept and adopt technology it is essential to understand that it is useful and effective to them, as it is easy to use and learn. On the other hand, in the appropriation of mobile devices by seniors it is necessary that they are encouraged to use the technologies and informed of their potential (Rodrigues & Morgado, 2019). With this, these authors determined the three levels of mobile phone appropriation: the first encompasses the evaluation of the utility and is called "Motivation"; the second linked to those who are willing to explore and experiment, is called "Try/Adopt"; and the third when they are part of the routines and in different areas, it is called "Integrate".

Helsper et al. (2020) developed, through a study with young people, the Youth Digital Skills Indicator (yDSI), a tool that allows the evaluating of digital skills and digital knowledge issues, which can be used for large-scale population research. According to the authors (Helsper et al., 2020): "A review of the literature led to a framework identifying four dimensions that constitute digital skills: (1) technical and operational skills; (2) information navigation and processing skills; (3) communication and interaction skills; and (4) content creation and production skills. Across all four dimensions a distinction should be made between being able to use the functionalities of information and communication technologies (ICTs) (ICTs) and understanding why ICTs are designed and content is produced in certain ways and being able to use that knowledge in managing interactions in and with digital spaces (critical aspects)."

It is therefore important to reflect that digital skills should be weighed in older ages; digital skills should be weighed in the approaches to data analysis. If technical and operational skills are considered, in the context of seniors in Portugal; navigation and information processing skills; communication and interaction skills; and content creation and production skills, one can explain the percentages corresponding to the activities developed and expressed in this study, as well as the impact that digital skills are

important for motivation, experimentation/adoption and integration, as Rodrigues & Morgado (2019) argues.

There are two main functions of internet access. The first focused on access to information that, although not regular activities, but accessing one or several times a year, but not every month, seniors use the internet to search for information. However, it can be observed that the online activities developed by older individuals in their routines about the search for cultural information are still very low.

The frequency of use from monthly to daily increases, there are fewer seniors who carry out this type of activities, being the most sought after activity or several times a year, but not every month, "Search for information about museums, galleries, art, archaeological sites" (4.6%), followed by "Search for information on books, music, cinema and shows" (3.7%). This data is reversed when it comes to analyzing a more frequent search, from one to several times a month, but not every week, where "Search for information about books, music, cinema and shows" (2.2%) is the most used activity, followed by "Listening to music from the internet (Through any streaming service like Spotify)" (1.8%), similarly the same happens with the activities performed most frequently (one or several times a week, but not every day), which reveal the same behavior: "Search for information about books, music, cinema and shows" (1.6%) and "Listen to music from the internet (Through any streaming service like Spotify)" (1.5%).

Every day, the internet can be used as entertainment, with 1.3% of respondents describing listening to music from the internet (Through any streaming service like Spotify). The other activities developed, considering, however, their little expression, are associated with entertainment, and demonstrate a greater ability to use technology: buy or download music (0.3%); share cultural content (Videos, music, images, others) generated by themselves (0.2%); and interact online on culture-related topics (Placing messages and likes on social networking sites and other virtual groups) (0.1%).

This study also shows that respondents still have an interest in other activities, but without much expression. It can be noted that about 5.8% of respondents expressed interest in daily news sites (not including newspapers and magazines) and that 6.1%, use the internet to, one or several times a month, but not every week, to search for accurate information (meaning of words, historical facts, etc.) , although 3.3% do so one or several times a year, but not every month, and 1.9% perform these tasks one or several times a week, but not every day.

6 Seniors, practices, and online cultural consumption

Lifelong learning has been a concern of the United Nations Educational, Scientific and Cultural Organization (UNESCO) which considers that in this way people prepare to act, reflect and respond to the various social, political, economic, cultural and technological challenges (UNESCO, 2009). And, if, on the one hand, aging can allow positive activities such as educational activities (Martin, 2007), consequently, cultural

organizations need to implement changes in their practices to attract, educate and listen to a wider audience (Holden, 2010).

We believe that ICT can be a contribution to encouraging cultural practices among seniors, particularly in terms of online consumption, but as Lapa & Vieira (2019) refer, although there is already a greater democratization in the use of ICT, the digital gap between use and types of use is still significant. The Digital News Report Portugal 2021 (OberCom, 2021) states that: "Television and the Internet (including social networks) continue to be the most used sources by the Portuguese for access to news – about three quarters of respondents say they used these sources in the previous week. Television is the main source of news for 57.7%, the Internet (excluding social networks) for 17.4% and social networks alone to 13.4%. The press is the main source of news for 7.3% and the radio for 4.2%."

Following this trend that television is the most used media by the Portuguese in access to information, the data from the study of the Survey on Cultural Practices 2020 reveal that the news, reports, and information are in the list of television programs that individuals usually see the most (87.8%), and 97,8% of individuals watch TELEVISION daily, and of these 98.7% do so through the television set. Furthermore, at the informative level the debates (pros and cons, Circulation of the square, Axis of evil) and the interview programs (e.g., High definition, Great interview) are still of interest with 20.5% and 20.6%, respectively.

Also, and based on the data of the study, in addition to informing television is still the main entertainment medium for seniors, to the extent that 52.9% have in their list of programs that usually see soap operas, then 37.5% other contests (e.g.: Right Price, Got Talent Portugal, etc.), 33.4% General culture competitions (e.g. Who wants to be a millionaire, Mental samurai); 32.8% films; 31.1% documentaries and entertainment programs (reality shows, talk shows, humor, etc.); 31% sports shows (games, news, debates, etc.); 27.9% Mass or other religious programs.

Other cultural consumptions seen on television reveal less interest among older individuals when: 17.7% watch series; 9.9% look for other cultural programs; 4.9% are interested in theater; 3.2% watch programs related to books and reading; and 3% other performing arts programs (circus, opera, etc.). In terms of musical interests, respondents seek to see on television: concerts of popular music (8.1%); other music programs (7.6%); and classical music concerts (4.3%).

7 Pandemic and the change in cultural habits and digital consumption by seniors

Television has always been the most consumed medium by the Portuguese, according to the ERC study (2016) 99% of respondents say they regularly watch television programs. Although there have been significant changes in media consumption practices in recent years, television content continues to generate the most interest among the Portuguese population, and according to the Survey on the Cultural Practices of the

Portuguese in 2020 (Pais, J. M.; Magalhães, P. & Antunes, M. L., 2020) 90% of people said they see content in this medium daily. This study also revealed that the age group of 65 years or more is the most exposed to television, of which 98% use daily, and in global indicators women (92%) watch more television than men (87%).

Following the analysis of the data, 81.2% of men maintained their television watching habits during the pandemic, as well as 79.9% of women. However, males (17.3%) started to use more than females (15.2%) and the reverse happens when women (2.6%) started using less television during this pandemic period than men (0.5%).

TV viewing had an increase in use by seniors during the pandemic period, considering that there would be a longer time available on the part of these individuals, the search for information and entertainment may be the answer to these data obtained.

With the deprivation of offline cultural consumption during the pandemic period, the internet could be a means of access to culture contributing even to greater entertainment and occupation of more free time. As Barroso (2021) demonstrated in his study, in a pandemic time "greater isolation of seniors from the social world contributed to the increase in their digital literacy". However, the results of the Survey on The Cultural Practices of the Portuguese 2020 express that 74.3% of individuals over 65 years of age were omitted in their answers about the use of the Internet to access cultural activities during the pandemic. It is evidenced in this study that, despite being in low percentages, seniors only started to use the internet more for access to information, such as reading books, newspapers and magazines online (2.1%), and to entertain themselves when they see music shows (1.4%), eventually accessing platforms such as YouTube, followed by seeing movies (1%), dance shows (0.8%), theater shows (0.6%), visit library and archive sites (0.5%) and visit museum sites, historical monuments, archaeological sites and art galleries (0.5%).

It should be addressed that the rates of use of the internet and digital services for access to culture by seniors are not of significant relevance, only 13.3% maintained the use to watch movies and 13.2% to read books, newspapers and magazines online, with the remaining activities positioned in the range of 11.1% and 11.8%. It is relevant to understand that these data reflect, similarly, that as observed in the Study of RCS (2016), 100% of people over 65 years of age use television to watch entertainment content, and only 0.9% do so through the computer.

8 Conclusion

Many digital policies implemented in the past and implemented in the present patent a focus on the younger sectors and education, the modernization of the economic fabric and the administrative machine of the State. However, it is in the seniors, in the low-skilled or uninserted sectors of the labor market, and away from urban centers, that we find the most evident cases of e-exclusion and that constitute the groups that most distance Portugal from other European partners. It should be remembered that current seniors were of mature age when 15 years ago the "technological shock" occurred and were young adults in the 1990s, when policies for the information society began to be

implemented. The data suggest, therefore, the lack of a better evaluation, a reduced impact of technological policies on the lives of many Portuguese and, most likely, below the intended and expectations created. Many public policy initiatives have focused on infrastructure and the "device model", with the first-order aspects of the digital divide, i.e. access, and within the adult population, left out particularly vulnerable sectors of society.

The approach developed in this article makes evident the importance of lifelong learning of Portuguese seniors, not only for the personal development of individuals as participatory citizens in the political, economic, social and cultural life of a country, but also for its digital inclusion that is reflected in its cultural inclusion.

It is concluded, demonstrating through the consumption of cultural activities, that today's seniors are transported to new consumption habits and activities through what technology provides them. But there is still a digital divide between the various individuals belonging to this group, which are associated with limited technical skills and availability of these means in a digitally excluded cohort.

Likewise, the study showed that the Pandemic eventually brought new habits and digital consumption to part of this group of individuals, supported by the social distancing and isolation to which they were obliged. Creating more skills in online forms of socialization (Barroso, 2021) and bridging excess free time.

As limitations of this study, we can consider the lack of focus of the study on the relevance of online social networks in the development and promotion of cultural practices, and currently they are part of the global world and are used by many organizations and even the media to disseminate, inform and interact. So, we consider it to be an approach to integrate into future studies. Are these new ICT also a way to inform and motivate the increase in cultural practices among seniors in Portugal? We believe that by increasing the digital skills of seniors we are developing society in a fairer and more competitive way at economic, social, and cultural level.

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