Internet Sectoral Overview

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Mobile digital practices of older people in Brazil:

data and reflections

By Dr. Mireia Fernández-Ardèvol, IN3 – Open University of Catalonia[1]

Our relationship with digital technologies has been changing over the years, but this is not just because they are in constant transformation. How people use digital technologies also depends on personal contexts, personal interests and physical and digital skills (Chirumamilla, 2014). For these reasons, the digital communication practices of older people are different from those of younger generations (Givskov, 2017; Rosales & Fernández-Ardèvol, 2016) and change throughout the stages of old age (Fernández-Ardèvol, Sawchuk & Grenier, 2017). However, very little is known about this phenomenon. First, industry and academia primarily focus their interest on children and adolescents – definers of most digital trends. Second, there is no data on the adoption and use of digital technologies in advanced old age, or the data on this population is not sufficiently disaggregated (as observed in ITU, 2017).

Through the work carried out by the Regional Center for Studies on the Development of the Information Society (Cetic.br), Brazil stands out for its publication of data on the uses and adoption of digital technologies by the older population, without a maximum age limit set for collecting data. However, the data breakdown is only in reference to a single age group: people aged 60 years old or older. By providing an analysis that breaks this group down into two distinct profiles – 60 to 74 years old and 75 years old or older – this article gives a more detailed characterization of the digital uses of the older population. This is a diagnosis of special interest, given that, on one hand digital exclusion increases with age and, on the other, current societies are aging.

Why the older population?

The world population has been aging at an accelerated pace, and Brazil is no exception. The life expectancy of the population is rising, and birth rates are dropping. Brazil is becoming an aged society. In 2012, the young population (0 to 19 years old) ceased being the largest demographic group. It is estimated that, in 2022, the most important segment, in demographic terms, will be older people (CELADE, 2013).

[1] PhD from the University of Barcelona and senior researcher at the Interdisciplinary Internet Institute (IN3), of the Open University of Catalonia. Since 2003, she has been studying the effects of mobile telephony from the perspective of digital sociology. An expert in econometrics, she is engaged in a line of research focused on the digital practices of older people. – twitter.com/mireia

Age – like sex, color/race and social class – is one more element in the social structure that can lead to different treatment that, on certain occasions, is discriminatory (...).

Table 1 – BRAZILIAN POPULATION PROJECTIONS FOR SELECTED YEARS

	2018	2035	2055
Life expectancy at birth (in years)	76.3	79.3	80.8
Women	79.8	82.6	84
Men	72.7	76	77.7
Older population (60 years old or older)	28,025,302	47,967,557	70,285,779
% of the total population	13.4%	20.9%	30.4%
Young-old (60 to 74 years old)	20,559,730	32,488,319	42,771,496
% of the total population	9.9%	14.2%	18.5%
Old-old (75 years old or older)	7,465,572	15,479,238	27,514,283
% of the total population	3.6%	6.8%	11.9%

Source: IBGE (2018).

In 2018, there were 28 million older people in Brazil, representing slightly more than 13.4% of the population (Table 1). The population projections indicated that, in 2035, the 60 years old or older group will account for 20.9% of the population and will reach 30.4% in 2055. Gerontology considers the different personal conditions that older people experience as they age and recommends making a distinction between different stages of old age, in order to adequately reflect the heterogeneity of this phase of life (e.g., Neugarten, 1996; Higgs & Gilleard, 2015). One way to illustrate this diversity is by segmenting the category "older population" or "older people" into two profiles: young-old population (60 to 74 years old) and old-old population (75 years old or older). According to demographic data, life expectancy will increase, and the overall aging of the population will be accompanied by a more accelerated growth of old-old people. It is estimated that, in 2055, they will represent 11.9% of the Brazilian population.

The different stages of life can be understood as a social construction. Traditionally based on the biological dimension, societies define each period according to expectations and obligations linked to one's age. In this sense, age – like sex, color/race and social class – is one more element in the social structure that can lead to different treatment that, on certain occasions, is discriminatory (Brah & Phoenix, 2004). One form of discrimination – invisible to most people – is addressing the topic of old age only from a medical and care perspective (Ayalon & Tesch-Römer, 2018). Given these approaches, various studies have considered aging to be a substantive stage of human development (Lloyd-Sherlock, 2010), and have maintained that it should,

therefore, be analyzed as another stage of life. In this regard, studying in detail the use of digital technologies in old age is highly relevant.

The digital divide diminishes with age, but there is still a way to go

As the age of the population increases, Internet access decreases. The age-based digital divide is a serious problem in many countries, particularly those with low Internet diffusion (ITU, 2017). This gap will not be overcome by the mere passage of time, since digital innovation is continuous, which means that, throughout life, everyone will have to constantly learn to navigate in new digital environments. In Brazil, the proportion of Internet users that are aged up to 44 years old is higher than the national mean, and then sharply drops among older people (Table 2). However, it is precisely in the older population that Internet adoption has grown the fastest, with a 56% increase between 2015 and 2017. Despite this significant growth rate – almost four times higher than the national mean – only one out of four older people used the Internet in 2017. One-quarter of the older population were Internet users, whereas the national mean corresponded to 67% of the Brazilian population, which confirms the magnitude of the digital divide.

Table 2 – INTERNET USE IN THE LAST THREE YEARS – BRAZIL, 2015 AND 2017
Percentage of the total population and growth rate (%)

	2015	2017	Growth rate
TOTAL	**58%**	**67%**	**15.5%**
10 to 15 years old	76%	84%	10.5%
16 to 24 years old	86%	88%	2.3%
25 to 34 years old	74%	85%	14.9%
35 to 44 years old	64%	76%	18.8%
45 to 59 years old	40%	54%	35%
60 years old or older	16%	25%	56.3%

Source: NIC.br (2016, 2018).

One-quarter of the older population were Internet users, whereas the national mean corresponded to 67% of the Brazilian population (...).

Internet use by mobile phones is more accessible than by computers, in terms of both cost and usability.

Mobile phones – the most popular devices for Internet access

The levels of Internet adoption on mobile phones have increased substantially in recent years (Table 3), which indicates a relevant change in online digital practices. Once again, it is the older population that has had the most accelerated growth (107.7% between 2015 and 2017), although its level of adoption continues to be the lowest (27%) among all the age groups.

Internet use by mobile phones is more accessible than by computers, in terms of both cost and usability. Although there are numerous ways to access the Internet, it is possible to estimate the price through the broadband connection basket (ITU, 2017), which is divided into the sub-baskets of fixed (wired)[2] and mobile broadband. In Brazil, in 2016, the fixed sub-basket was 20% more expensive than the mobile one. The first accounted for 2.06% of gross national income per capita, compared to 1.72% for the second. In addition, smartphones tend to be more affordable than desktop or portable computers.

Table 3 – INTERNET USE ON MOBILE PHONES IN THE LAST THREE YEARS – BRAZIL, 2015 AND 2017

Percentage of the total population and growth rate (%)

	2015	2017	Growth rate
TOTAL	**56%**	**71%**	**26.8%**
10 to 15 years old	70%	85%	21.4%
16 to 24 years old	87%	93%	6.9%
25 to 34 years old	74%	90%	21.6%
35 to 44 years old	61%	79%	29.5%
45 to 59 years old	37%	58%	56.8%
60 years old or older	13%	27%	107.7%

Indicator considers the users of applications that require Internet connection.
Source: NIC.br (2016, 2018).

[2] The ITU fixed-broadband sub-basket refers to the price of a monthly subscription to an entry-level, fixed-broadband plan, with a monthly minimum data usage of 1 GB and a minimum download speed of 256 KB/s. To find out more, go to: https://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2017/IPB2017_E.pdf

In relation to usability, smartphones have a comparatively less steep learning curve than computers. Qualitative studies conducted with older people in Europe and Latin America have shown that smartphones have become daily use items, regardless of previous experience with computers (Fernández-Ardèvol, in press). Some of the people who participated in these studies did not consider themselves to be Internet users, although they regularly used mobile online applications and, therefore, the Internet. An example of this is WhatsApp: since it is an application, its use may not be understood as "Internet use." In these cases, Internet use is limited, since it is restricted to certain applications that do not permit advanced use of digital resources.

Table 4 – INTERNET USERS, BY DEVICE USED – BRAZIL, 2017

Percentage of total Internet users (%)

	Total – computers*	Mobile phones	Game consoles	Television
TOTAL	**51%**	**96%**	**9%**	**22%**
10 to 15 years old	51%	93%	19%	27%
16 to 24 years old	49%	98%	13%	24%
25 to 34 years old	52%	99%	10%	24%
35 to 44 years old	52%	96%	5%	20%
45 to 59 years old	50%	93%	4%	20%
60 years old or older	55%	87%	5%	17%

*Includes desktop computers, notebooks and tablets.

Source: NIC.br (2018).

In every age group of the population that uses the Internet, mobile phones are the most popular devices for accessing the Internet (Table 4). In general, they are not the only means used for Internet use, but are combined with other devices. Older people who use the Internet do so by mobile phones, in first place (87%), and by computers, in second place (55% – proportions that slightly exceed the national mean of 51%). Televisions (17%) and game consoles (5%), although less popular, are also part of the digital life of older people. In addition, the data indicates different generational uses (Fortunati, Taipale & de Luca, 2017). Comparatively, computers are more widespread among older people, and game consoles among adolescents.

(...) smartphones have become daily use items, regardless of previous experience with computers (...).

It is important that analyses of the digital divide by age take into account the various sociodemographic dimensions, so as to consider the heterogeneity of old age.

Dimensions of the digital divide in old age

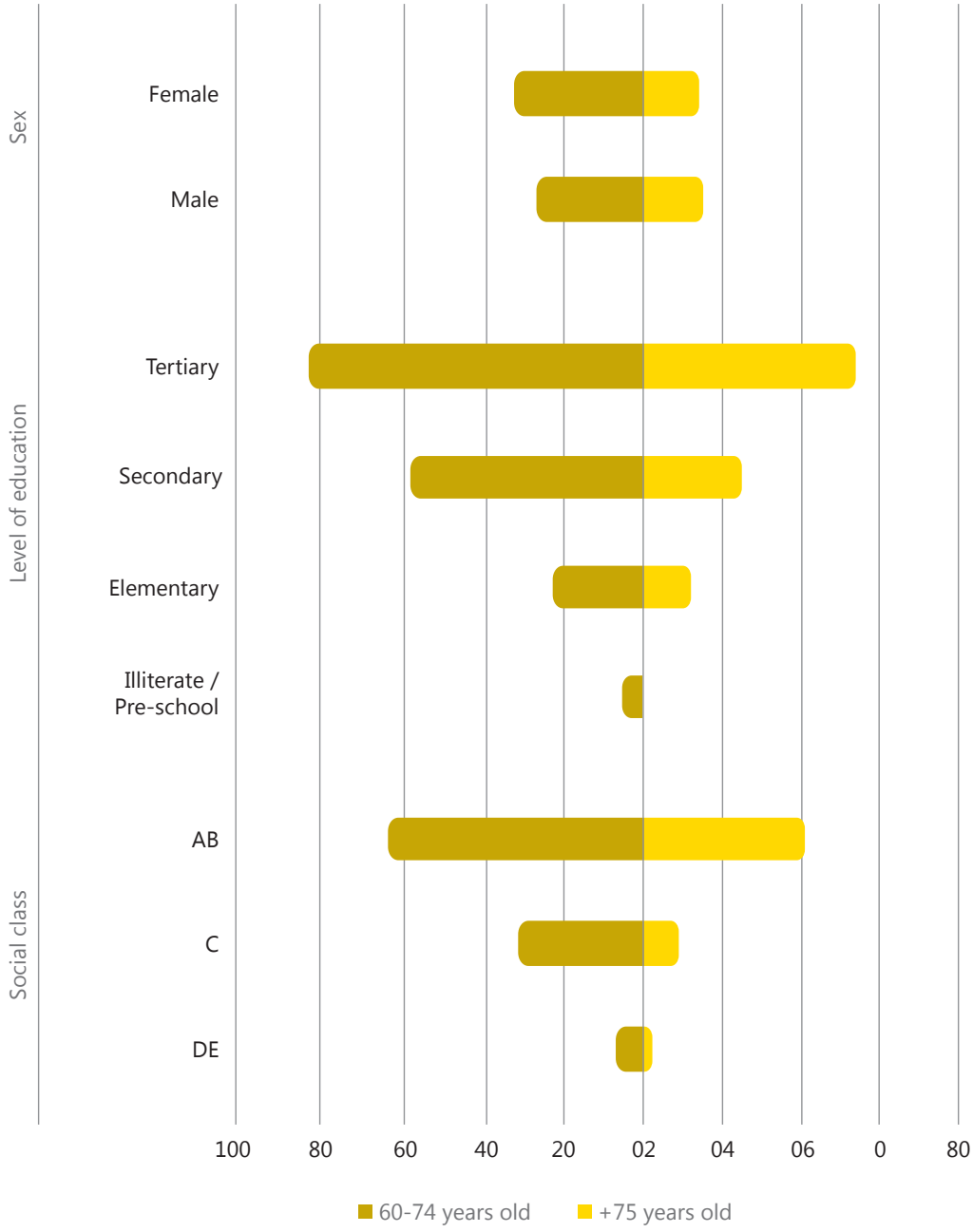
A growing number of studies have highlighted the diversity of digital interests, attitudes and skills among older people. They have also demonstrated that chronological age is not always a good predictor of digital preferences (Harrington, Bielby & Bardo, 2014; Givskov & Deuze, 2018). It is important that analyses of the digital divide by age take into account the various sociodemographic dimensions, so as to consider the heterogeneity of old age.

The data examined in this article are the result of an exploration of microdata from 2017 taken from the ICT Households survey[3], conducted by Cetic.br. Based on this microdata, it is possible to calculate technically solid results for certain variables in reference to the two previously defined profiles of the older population (young-old and old-old), which permits a richer and more detailed analysis of digital practices in these age groups.

The data on Internet use on mobile phones by the older population in Brazil (Chart 1) shows that there is practically no difference according to sex. It confirms the digital divide by age, which worsens in the old-old group; differences in use according to educational level are also worth noting. In the segment of the young-old population with tertiary education, Internet access via mobile phones exceeded the national mean (85% compared to 71%). In turn, the old-old population with university education was below the national mean (54% against 71%). However, the incidence of Internet use on mobile phones by this group was higher than among people with less education in the same age group. No type of Internet use on mobile phones was reported by the segment of the old-old population that was illiterate or had pre-school education. Finally, the figures indicate that the higher the socioeconomic class, the higher the rate of Internet use on mobile phones by the two groups of older people. Once again, an intersection of the determinants of inequality can be noted: Internet use on mobile phones among the old-old in classes DE did not exceed 2%, whereas it was slightly over 40% in classes AB.

[3] Conducted annually by Cetic.br/NIC.br, the objective of the survey is to measure ICT use in households, individual access to computers and the Internet, activities carried out on the Internet, and other indicators. The microdata bases and documentation from the survey can be downloaded on the Cetic.br website.

Graph 1 – INTERNET USE ON MOBILE PHONES IN THE LAST THREE MONTHS, BY SOCIODEMOGRAPHIC CHARACTERISTICS
Total percentage of the population (%)



Source: Prepared by the author based on NIC.br (2018).

(...) mobile phone use by old-old people without education or belonging to lower social classes was focused on phone calls.

Mobile phone uses

Among the population that had a mobile phone, the three activities cited the most were: making and receiving phone calls (93%); taking photos (75%) and sending instant messages (73%) (Table 5). The older age groups manifested less diversity in use of the devices. After phone calls, the most popular uses in the two age groups of the older population (60-74 years old and +75 years old)were watching videos and taking photos with mobile phones. Although using them for making phone calls was similar to, or even higher than, the mean for the population, taking photos dropped from 75% to slightly over 35% among young-old people and to 31% among old-old people.

Once again, the higher the level of education, the more diverse and sophisticated the uses of mobile phones were (Table 6). Major differences in use were noted among older people who were illiterate or had pre-school education. Undoubtedly affected by their lack of literacy, the activities were based on elements of voice (phone calls or listening to music) or image (taking photos or watching videos).

Table 5 – ACTIVITIES CARRIED OUT ON MOBILE PHONES (I) – BRAZIL, 2017
Percentage of mobile phone users (%)

	TOTAL	60-74	+75
Making and receiving phone calls	93	96	92
Taking photos	75	38	31
Sending instant messages	73	37	22
Watching videos	67	26	29

Source: Prepared by the author based on NIC.br (2018).

Finally, joint analysis of the data by level of education and social class (Table 7) confirmed that the different determinants of inequality intersect: mobile phone use by old-old people without education or belonging to lower social classes was focused on phone calls.

Table 6 – ACTIVITIES CARRIED OUT ON MOBILE PHONES (II) – BRAZIL, 2017
Percentage of mobile phone users (%)

Proportion (%)	Illiterate / Pre-school Ed.		Elementary Education		Secondary Education		Tertiary Education	
	60-74	+75	60-74	+75	60-74	+75	60-74	+75
Making and receiving phone calls	96	92	95	88	97	100	98	98
Taking photos	9	3	29	22	57	34	78	86
Sending messages	7	1	27	15	59	22	79	63
Listening to music	10	7	16	15	41	26	59	18
Watching videos	6	5	17	21	41	37	59	71
None of these activities	3	7	2	4	1	0	0	1

Source: Prepared by the author based on NIC.br (2018).

Table 7 – ACTIVITIES CARRIED OUT ON MOBILE PHONES (III) – BRAZIL, 2017
Percentage of mobile phone users (%)

Proportion (%)	Class AB		Class C		Class DE	
	60-74	+75	60-74	+75	60-74	+75
Making and receiving phone calls	97	91	96	92	96	94
Taking photos	63	65	36	19	13	6
Sending messages	61	45	37	12	10	6
Listening to music	37	24	26	13	12	6
Watching videos	44	65	23	15	8	3

Source: Prepared by the author based on NIC.br (2018).

Mireia Fernández-Ardèvol
IN3 – Open University of Catalonia.

This article describes some of the dimensions of digital inequality that affect the older population, the group that has been studied the least in regard to understanding digital adoption and practices. The demographic transformation moving toward increasingly older societies, mainly due to higher life expectancy, is a sufficiently relevant reason for analyzing the digital behavior of older people.

In Brazil, the digital divide increases with age and is comparatively more accentuated at 75 years of age or older. It is highly influenced by other determinants of inequality, such as level of education and socioeconomic class, whose intersection mainly excludes the old-old and low-income population. As for the dimension of sex, there are relevant differences only in the types of mobile phone use, but not in relation to Internet access.

The findings indicate the importance of studying old age based on disaggregated data, as well as taking into account the heterogeneity that exists in this period of life. Specifically, the use of nationally representative statistical data that divides the broader "older population" into two different profiles provides information of interest for defining public policies on digitalization.

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Interview I

I.S.O._ The 2030 Agenda for Sustainable Development will require timely and reliable data so that "No One is Left Behind." Generally, what is the current availability of age-disaggregated data and data on aging? What are the implications of this scenario?

S.C._ One of the priority work strands for the Titchfield City Group on Ageing and Age-Disaggregated data is to assess the current evidence. We hope to deliver this assessment in draft form in 2020. Our understanding so far is that data on aging varies greatly between countries, and existing survey sources were not designed to collect detailed data on older populations. Population censuses are taken every 10 years in some countries, and social surveys tend to focus on populations living in private households only and exclude older people living in institutions. The Demographic and Health Survey, which collects data on population, health and nutrition in over 90 countries, excludes people aged 50 and over from the sample of many of its topics. Additionally, the Labor Force Survey – a popular data source for analysis across the European Union (EU) – caps its highest age category at 75, and the results tend to be grouped for people aged 65 and over. These limitations mean that analysis of older people is very difficult, and it is difficult to identify who in the oldest age groups are being "left behind."
Some countries are making increasing use of administrative data and linking sources together to provide better information on their older populations. In the United Kingdom (UK), the Economic and Social Research Council (ESRC) is funding the Administrative Data for Research Partnership (ADRP), working in partnership with the UK Statistical Office (ONS) to maximize the potential of administrative data as a resource for high-quality research in the UK. One of their themes is "Growing Old." 2011 Census data will be linked to many different administrative datasets to provide data on people as they move from mid-life to old life – people aged 45 and over at the time of the 2011 Census.

I.S.O._ What are the main challenges for producing quality and internationally comparable age-disaggregated data and data on aging? How can they be addressed?

S.C._ One of the priority strands for the Titchfield City Group on Ageing and Age-Disaggregated data is to produce a set of guidelines for countries to improve harmonization and standardization of data on aging. The definition of an older person often varies between countries – this can be driven by state pension ages or relative life expectancies. Some administrative processes in countries (such as the Centenarian award in Japan) lead to particular ages being used in analysis. As with many statistical topics, the quality of data can vary greatly between countries depending on public attitudes toward data collection, legislation, available funds, and the priority given to good data collection by authorities.

Sara Crofts
Head of Ageing and Demography, Office for National Statistics, UK and Lead for the Titchfield City Group on Ageing and Age-Disaggregated Data.

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I.S.O._ Are single age groups (e.g., +60) appropriate for data analysis on aging? What other attributes should also be considered?

S.C._ Sometimes, even where data is available for older people, they are reported for broad age groups such as +60. This hides the heterogeneity of older people and the diversity of experiences and challenges faced by people in different age groups. While single years would be beneficial to maximize flexibility for analysis, any analysis and dissemination of data on older ages are likely to be categorized into meaningful breakdowns. Sometimes 5-year age bands may be appropriate (when analyzing links between getting older and specific health conditions, for example). At other times, categories could be broader – perhaps 10-year age bands when looking at housing needs. Other attributes that would be helpful when analyzing data on older age groups would be ethnicity, socioeconomic classifications, place of residence and living arrangements, household size, education, and potentially previous occupation. These attributes could help identify common factors that affect people's quality of life in older ages.

I.S.O._ Given the emerging methods for data collection that are enabled by the use of technologies (e.g., Big Data, web surveys etc.), what are their possible advantages and disadvantages for the production of age-disaggregated data and data on aging?

S.C._ Increasing use of new data produced from administrative processes (such as registering for a doctor or claiming a pension) has great potential statistical benefits. The downside is that documentation and information about quality are often not available, and much work is usually needed to prepare the data for statistical use. If administrative data sources could be linked, then it could provide opportunities for analysis on wealth, health, education, income, previous employment and other topics without burdening individuals through surveys. Other sources such as web surveys and Big Data are less costly than field-based surveys, but considerable work would be required to ensure that they were inclusive of all people, since current evidence shows that older people and marginalized groups are often missing or underrepresented in these sources.

I.S.O._ Would you be able to share general recommendations or good practices on how to improve data collection on this theme?

S.C._ The Titchfield City Group officially started in 2018 and is expected to deliver recommendations on how to improve aging-related data by 2022. Therefore, it is too early to share what those recommendations are likely to be. The main outputs the group will deliver are:

- Standardization and harmonization guidelines;
- A report on the suitability of sources for the future and recommendations to address shortfalls;
- A report on data relevant to current government policies;
- Development of a platform to disseminate and share best practices on aging and age-disaggregated statistics.

Interview II

Dr. Sandra Huenchuan
Regional specialist on aging and the rights of older people of the Economic Commission for Latin America and the Caribbean (ECLAC).

I.S.O._ How is the older population included in the Sustainable Development Goals (SDGs)? In this context, what are the main challenges to advancing the rights of this population?

S.H._ In 2015, with the adoption of the 2030 Agenda for Sustainable Development, older people or age or both were more explicitly included in some SDGs. Older people will be directly integrated into the implementation and monitoring of certain objectives, particularly the following targets: 1.3 social protection for all; 3.8 universal health coverage; 5.4 recognizing and value unpaid care and domestic work; 10.2 social, economic and political inclusion; 11.7 universal access; and 17.18 disaggregated data and statistics. In addition, a cross-sectional view of the needs and interests of older people permits identifying opportunities in other SDGs that do not particularly address this population but apply to all people. Therefore, SDGs 1 to 6 and 8 deal with issues that are fundamental to the life of older people as individuals, while SDGs 7, 11, 12 and 16 facilitate the creation of an environment that favors them, as in the case of other disadvantaged groups. In turn, SDGs 10 and 17 are directly related to structural and institutional aspects that focus more on issues that affect the older population and their families.
Universality as a principle for implementation and monitoring of the 2030 Agenda also offers opportunities for older people. In this sense, the Inter-American Convention on Protecting the Human Rights of Older Persons serves as a guide for emphasizing the implementation of the SDGs, whether they explicitly include this population or not.

I.S.O._ In the context of the SDGs, how can digital technologies impact older people? How does this happen in the region of Latin America and the Caribbean?

S.H._ Development of and access to digital technologies can create opportunities to improve the living conditions of older people, particularly in the areas of health, education and electronic government.
Some countries have used technology to facilitate the older population's access to health care, particularly in isolated areas. In Costa Rica, the National Geriatric Hospital provides video conferencing services for medical consultations.
In relation to education, there has been an emphasis on promoting digital literacy among older people, with unprecedented results. In Uruguay, the National Network of Older Persons' Organizations (Redam), with support from the National Institute for Older Persons (Inmayores), works to raise awareness and develop proposals on how to incorporate the older population into the 2030 Agenda. Digital tools were used to facilitate exchanges between

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members of the organization located in different parts of the country. The results of this national consultation led by older persons were presented in a meeting of online experts, "Key measures on aging for the implementation and monitoring of the Sustainable Development Goals."[4]
Finally, in terms of electronic government, there is still much to be done. In this sphere, it is essential to promote accessibility by older people in order to facilitate procedures they need to do personally. The use of technology can also enable putting into practice preferential attention for this segment of the population, as in Costa Rica, which is implementing a unique policy of access to justice for groups in conditions of vulnerability and where the use of digital tools helps prioritize cases involving older persons.

I.S.O._ What are the challenges and opportunities for ensuring the rights of older people, in view of constant technological change?

S.H._ The Fourth Industrial Revolution makes it possible for people to live long, healthy and active lives. The use of digital technologies should ensure that older people have access; according to the International Telecommunication Union (ITU), this refers to the extent to which a product, device, service or environment (virtual or real) is available to the largest number of people possible.
In the region [of Latin America and the Caribbean], digital accessibility is affected by inequality, in that there are groups that are more privileged than others in terms of digital technology. In the case of Latin Americans 55 years old or older, their access to the Internet is lower than in Europe – which is not the case with other age groups – and the number of Latin American users who are 60 years old or older and access social networks is also less than the national European mean.
With respect to challenges, the Declaration of the International Expert-Conference on Human Rights of Older Persons, held in November 2018 in Vienna, emphasizes that: "Older people continue to face challenges in exercising their human rights in various spheres of their lives, including those related to the use of technologies, where they can be subject to technological restrictions, have their right to privacy, autonomy and data protection denied, and experience new forms of isolation and segregation" (*online*)[5].

[4] To find out more, go to: https://www.cepal.org/es/eventos/reunion-expertos-medidas-clave-envejecimiento-la-implementacion-seguimiento-objetivos

[5] To find out more, go to: https://social.un.org/ageing-working-group/documents/tenth/events/ICHRoP%20Conference%20Declaration%20Final.pdf

I.S.O._ What are some general recommendations for public digital inclusion policies in Latin America and the Caribbean?

S.H._ There are different ways to address this topic. Attention must be paid to the risk of exclusion of the older population to access to digital technologies. This exclusion results from technologies that substantially change the relationship of older people with society, leading to their isolation and the reproduction of stereotypes and prejudices conducive to discrimination.

Countries have very distinct realities in terms of access to and use of digital technologies, as well as their population aging indices. Therefore, measures that will be implemented will also be different, even though they must all seek to promote equal access to and use of digital technologies.

Some issues require regulatory measures, such as privacy, data protection, safeguarding older users from any type of abuse or harm, and promotion of informed consent on how the data of older people will be used. Similarly, in order to prevent and eradicate structural discrimination that affects certain groups (such as indigenous older people or elderly women), it is indispensable to implement ongoing educational activities that include digital technologies tailored to the needs, preferences and interests of these audiences.

[The] exclusion results from technologies that substantially change the relationship of older people with society, leading to their isolation and the reproduction of stereotypes and prejudices conducive to discrimination.

Domain Report

The dynamics of the registration of domains in Brazil and the world

The Regional Center for Studies on the Development of the Information Society (Cetic.br) carries out monthly monitoring of the number of domain names registered in the 16 largest country code Top-Level Domains (ccTLDs) in the world. Combined, they exceed 97.8 million registrations.

In March 2019, the domains registered under .tk (Tokelau) reached 23.04 million, followed by Germany (.de), China (.cn) and the United Kingdom (.uk), with 16.21 million, 11.68 million and 9.74 million records, respectively[6]. Brazil had 3.9 million registrations under .br, occupying seventh place on the list. With 1.9 million registrations, Spain (.es) ranked 16th, as can be seen in Table 8.

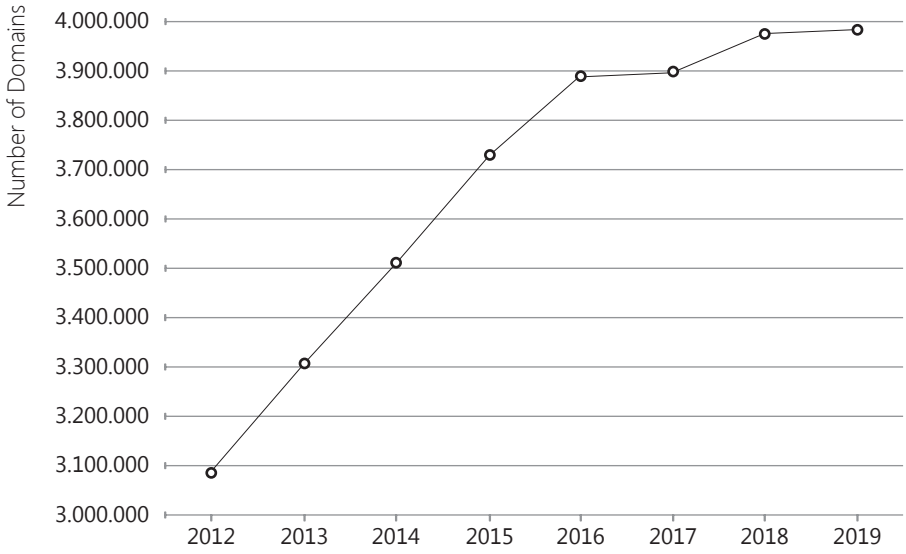
Table 8 – REGISTRATION OF DOMAIN NAMES IN THE WORLD – MARCH 2019

Position	ccTLD	Domains	Ref.	Source
1	Tokelau (.tk)	23,044,355	Mar/19	research.domaintools.com/statistics/tld-counts/
2	Germany (.de)	16,213,686	Mar/19	www.denic.de/
3	China (.cn)	11,687,965	Mar/19	research.domaintools.com/statistics/tld-counts/
4	United Kingdom (.uk)	9,745,358	Dec/19	www.nominet.uk/uk-register-statistics-2018/
5	Netherlands (.nl)	5,853,923	Mar/19	www.sidn.nl
6	Russia (.ru)	5,027,527	Mar/19	www.cctld.ru
7	**Brazil (.br)**	**3,987,024**	**Mar/19**	**registro.br/estatisticas.html**
8	European Union (.eu)	3,620,030	Mar/19	research.domaintools.com/statistics/tld-counts/
9	France (.fr)	3,347,253	Mar/19	www.afnic.fr/en/resources/statistics/detailed-data-on-domain-names/
10	Italy (.it)	3,191,450	Mar/19	www.nic.it/
11	Australia (.au)	3,186,452	Mar/19	www.auda.org.au
12	Canada (.ca)	2,830,795	Mar/19	www.cira.ca/
13	Poland (.pl)	2,604,683	Mar/19	www.dns.pl/english/zonestats.html
14	Switzerland (.ch)	2,203,351	Feb/19	www.nic.ch/reg/cm/wcm-page/statistics/index.html?lid=em*
15	United States (.us)	2,072,758	Mar/19	research.domaintools.com/statistics/tld-counts/
16	Spain (.es)	1,927,493	Mar/19	www.dominios.es

[6] It is important to note that variations exist among ccTLD reference periods, although it is always the most updated one for each country that is used.

Graph 2 shows the performance of .br since 2012.

Graph 2 – TOTAL NUMBER OF DOMAIN REGISTRATIONS PER YEAR FOR .BR – 2012 to 2019*



*Data in reference to March 2019.
Source: Registro.br

In March 2019, the five generic Top-Level Domains (gTLD) totaled more than 171 million registrations. With 140.28 million registrations, o.com ranked first, as shown in Table 9.

Table 9 – MAIN GTLDS – MARCH 2019

Position	gTLD	Domains
1	.com	140.287.878
2	.net	13.725.827
3	.org	10.244.866
4	.info	4.768.896
5	.biz	2.123.429

Source: DomainTools.com
Retrieved from: http://research.domaintools.com/statistics/tld-counts/

Did you know?

Of Brazil's total population

31% of people 60 years old or older have never used the Internet due to lack of computer skills.

31% of people between the ages of 60 and 74 years use the Internet on mobile phones.

14% of people over the age of 75 years do not use the Internet on mobile phones.

Among Internet users who are 60 to 74 years old

53% used social networks.

81% used the Internet every day or almost every day.

55% in classes AB & **25%** in classes DE seek information about health and health services.

You can find this information and more on the Cetic.br website, as well as download microdata bases for doing further analyses.

NIC.br has other initiatives on Internet use by the older population:

- *The booklet #Internet with Responsibility +60*, which contains tips on precautions and responsibilities when using the Internet (available only in Portuguese): *nic.br/media/docs/publicacoes/13/internet_com_responsa_+60.pdf*
- *Web Accessibility Booklet Volume III*, which talks about accessibility issues (available only in Portuguese): *w3c.br/Materiais/materiais/cartilha-w3cbr-acessibilidade-web-fasciculo-III*
- Booklets with safety tips on passwords, social networks, privacy and much more! (Available only in Portuguese) *https://internetsegura.br/*

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TEXT
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Dr. Mireia Fernández-Ardèvol
(IN3 – Open University of Catalonia)
DOMAIN REPORT
José Márcio Martins Júnior (Cetic.br)

EDITORIAL COORDINATION
Alexandre Barbosa
(Cetic.br)
Tatiana Jereissati
(Cetic.br)
Javiera F. M. Macaya
(Cetic.br)

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