

Chapter 42

Digital Transformation in Spain During the Pandemic: Access, Interaction and Change in Habits



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Abstract The acceleration of the digital transformation in private and public organizations is a topic that has been observed from different perspectives since the beginning of the Covid-19 pandemic since it represents an important turning point in the recent history of humanity. In this study, we examine some of the main conditions, interactions, and habits of users in Spain during the second year of the pandemic. It is based on the CIS 3316 database, considering the dimensions of internet access, change of habits, content consumption and remote work. The results broadly confirm some trends seen in other parts of the world, even though there are some nuances that could make a significant difference in each regional context.

42.1 Introduction

In these last three years, studies that focused on the effects of technology on organizations will invariably be marked by the Covid-19 situation, which forced accelerated changes. Some of the advances that were verified during this period were gestated a long time ago, especially in the past decade. But in many cases, some technological advances were found to be underutilized, while others were barely sufficient for the challenges presented at this historic juncture [1–3].

One of the main lessons of the pandemic is precisely the need for public and private organizations to adapt to a digital transformation process. Those companies or entities that prepared their processes with the logic of providing a better service

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based on digitization before the emergence of the pandemic were able to better overcome the crisis [4].

It is important to establish that Internet access is a necessary condition that helped the digital interactions that accelerated in this historical process. While those countries that had a shorter digital divide will be able to optimize efforts to seek to continue with services that were temporarily interrupted due to social distance, it is also important to note that there was an important sector excluded from this process. In other words, the lack of Internet access becomes a new form of social exclusion [5, 6].

On the other hand, the absence of Internet access is a part of a new social exclusion. Access via converged technology is also required to take advantage of network access. It is necessary to own a mobile phone, tablet, computer, as well as other devices that fall within the category of the Internet of Things. In the case of the Covid-19 pandemic, some people had access to a computer that allowed them to hold video calls and carry out basic tasks, but in the case of many others, it was necessary for them to make an investment so they would not be left behind [7, 8].

In many countries, there has been a significant increase in the use of the Internet. This occurred mainly in those people who already used technology in their daily activities, but with the acceleration during the pandemic, they saw its use increase substantially. It is also possible to argue that, in many cases, new work skills were generated and the organizations themselves found new ways of carrying out their daily activities [9, 10].

But it wasn't a smooth moment either. For a period, some of the major digital platforms had trouble providing service because their demand was particularly high. It is also true that the Internet service failed in many cases. At times when people connected through platforms such as Zoom, Skype or others that allowed access to classes, the capacity of Internet servers was also put to the test [11, 12].

In many cases, this meant a challenge in terms of synchronization, which was addressed to the extent that there was a collaboration between the authorities and the service provider companies. In the meantime, it is important to consider that Internet access alone does not guarantee an optimal experience. In this case, the purpose for which access was sought was very important [13, 14].

It was also the time when the consumption of content from digital platforms increased considerably. During the pandemic, most movie theaters closed, so momentarily the only entertainment alternative is what could be found on Internet platforms. In this sense, an increasingly fierce struggle by digital platforms to compete for the market also began. But, this moment also had a direct impact on customer preferences [15, 16].

But, while this is a reality, the role of traditional media cannot be underestimated either. These were complementary at a time when there was a greater digitization process. The traditional media in many cases had even more credibility than the digital media simply and simply because they had a greater journalistic tradition. In fact, in some countries, the pandemic reversed the process by which digital media had acquired credibility in the 2010s to the detriment of the mass media. The opposite was the case in this period [17].

42.2 Digital Interaction

42.2.1 Methodology

The Covid-19 pandemic has also had important consequences on digital interaction in the case of Spain. The Government of this country started the state of alarm on March 14, 2020. This entailed significant restrictions on the mobility of people, who could only leave their homes under certain assessed assumptions, when declaring the confinement of the population. The new technologies were closed in the alternative for carrying out different activities, such as contact with other people, teleworking, or entertainment.

It is intended to examine the digital transformation that the Covid-19 pandemic has caused among the Spanish population. For this, data from the survey “3316 Trends in the digital society during the Covid-19 pandemic” is used, carried out by the Center for Sociological Research between March 8 and 17, 2021, with the sample of 3014 interviews carried out, representative of the Spanish population aged 18 and over. The main subjects that were analyzed for this study are the following: The main questions that were analyzed in this study focused on the dimensions of Internet access, investment in equipment, changes in habits, teleworking, as well as the creation of new digital skills [18–21].

42.2.2 Results

However, it is also necessary to indicate that 12.8% of the country’s citizens did not have an Internet connection at home, so there would be a part of Spaniards excluded from new technologies and would not have the possibility of resorting to them to counteract the consequences of the restrictive measures implemented by the Government. People who do not have an Internet connection indicate a lack of knowledge of the digital environment and the economic cost as the main reasons which indicates that they are essentially people with low economic resources and older age (Fig. 42.1).

Fig. 42.1 Availability of internet connection at home (%). *Source* Own elaboration based on Study No. 3316 of the CIS

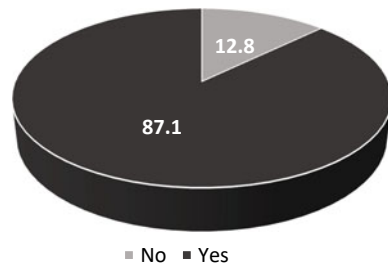
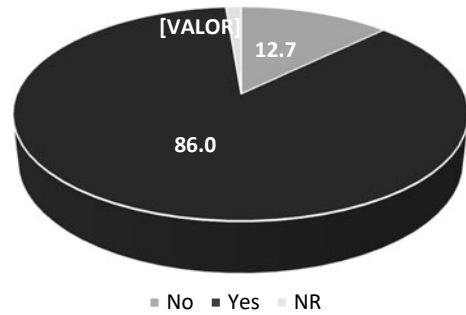


Fig. 42.2 Existence of sufficient internet coverage at home (%). *Source* Own elaboration based on Study No. 3316 of the CIS



Once an Internet connection is available, it is required that it have sufficient coverage and quality to allow its use in full conditions (Fig. 42.2). In this regard, although most citizens indicate that the connection at home has good coverage (86.0%), there is also a part that does not have sufficient conditions to use new technologies normally (12.7%).

In this way, although the change that the pandemic has caused in digital habits will be examined below, it is necessary to record that there is a part of the citizenry affected by the digital divide, thus finding themselves outside the new digital technologies and that They have not had the opportunity to see their behaviors transformed because of Covid-19.

Those who did have the conditions to use the Internet during the confinement decreed on March 14, 2020, and the following phases of restrictions, sometimes had to better equip themselves to cover their digital needs (Fig. 42.3). Thus, 23.0% of Spaniards have bought a computer or other type of computer equipment since the emergence of Covid-19. 13.5% have contracted a higher capacity Internet connection for their home. Finally, 11.6% have had to buy a television with better features. These behaviors show that citizens have needed to use new technologies more during the pandemic, which is why they needed better access conditions, having to improve their equipment on some occasions. This shows that 99.6% of citizens who had an Internet connection at home had the necessary hardware, 20.5% of said individuals had at least one computer or tablet and the rest even more devices.

This reality shows that, despite the existence of a sector of the population excluded from the possibility of using the new digital technologies, most Spaniards either had the previous conditions or have improved them after the pandemic to use the Internet. To accurately observe the transformations that the Covid-19 has generated in the digital habits of citizens, it is necessary to know what their previous habits were. In this regard, 92.5% of the Spanish population was already a regular Internet user before the appearance of the new disease, which means that only 7.5% would not be users (Fig. 42.4).

Consequently, although most Spanish citizens were already using the new technologies, the scenario that opened the new SARS-CoV-2 coronavirus was that of a change in the habits of people who were previously users. In connection with this, the Internet usage time has undergone a considerable change in this new scenario.

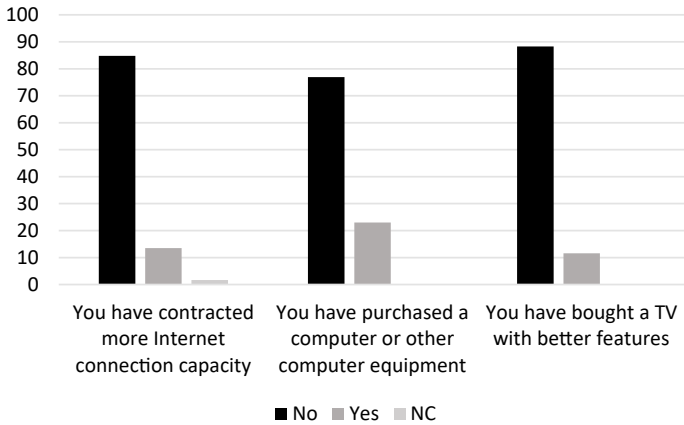


Fig. 42.3 Actions taken to improve internet access since the pandemic began (%). *Source* Own elaboration based on Study No. 3316 of the CIS

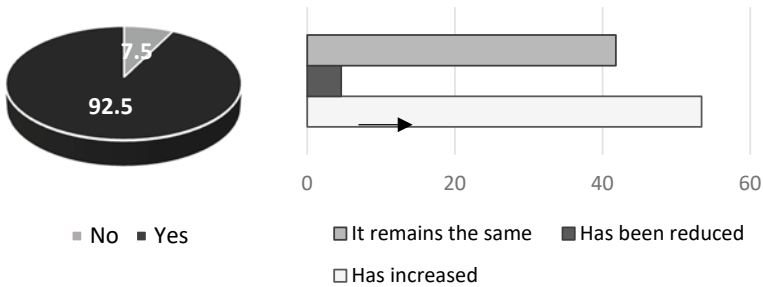


Fig. 42.4 a and b. Regular use of the internet before the arrival of COVID-19 and time spent using the Internet after the start of the pandemic (%). *Source* Own elaboration based on Study No. 3316 of the CIS

Thus, 53.4% of Spaniards who were already users acknowledge that the time they spend using the Internet has increased since the start of the pandemic. In this way, more than half of the citizens would have altered their digital habits regarding the dedication they give to new technologies. 41.8% of users indicate that they make use of like what they used to do before, while only 4.6% state that the time spent connecting to the network has decreased.

The importance that new technologies have had during the pandemic, with the important mobility restrictions imposed, is therefore reflected in a general increase in their use, as well as in the improvement that it has brought to the lives of citizens in that context (Fig. 42.5). Thus, for 28.2% of users, the insufficient capacity or quality of the Internet service in general has been an added problem to the confinement. This reflects the great importance that new digital technologies have had for citizens,

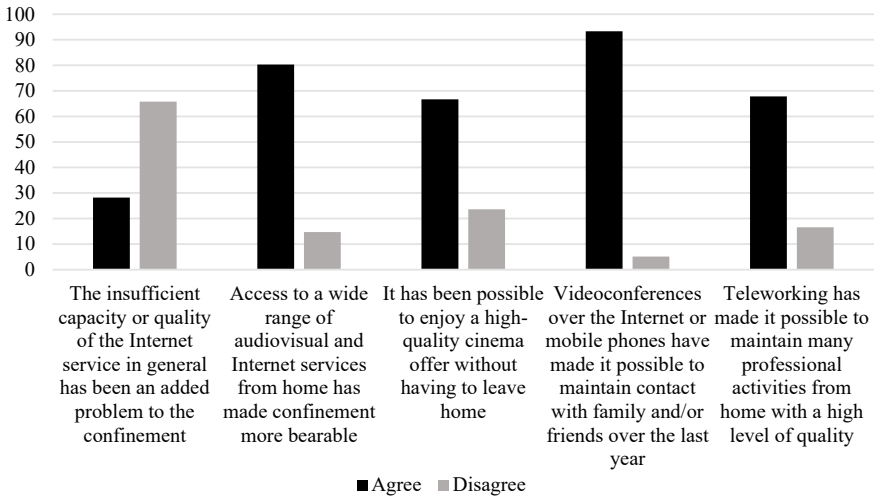


Fig. 42.5 Degree of agreement with different statements about the importance that new technologies have had during the pandemic (%). *Source* Own elaboration based on Study No. 3316 of the CIS

connecting with the previous analysis in which individuals with connection and equipment problems have had to make changes for their improvement.

Likewise, the entertainment available through the Internet has been an important escape route for the user population. In this way, the use of streaming platforms, such as Netflix, Prime Video or HBO MAX, or of video, such as YouTube, would also have increased, as well as the use of social networks, such as WhatsApp, Facebook, Instagram, Twitter or TikTok. Thus, 80.3% of citizens affirm that access to a wide range of audiovisual and Internet services from home has made confinement more bearable. In line with this, 66.7% of the population indicates that they have been able to enjoy a high-quality cinema offer without having to leave home (Fig. 42.5). This would not only be attributable to payment services, but also to a large amount of content that was made available to the public for free during the hardest moments of confinement.

Compared to other forms of traditional entertainment, television and radio are the most used modalities, followed by digital social networks. The use of all these media has increased during the pandemic. Thus, before the pandemic, citizens watched television for a weekly average of 170.8 min, this figure being 188.4 min during the same period. In the case of the radio, citizens spent listening to it from 131.4 min on average per week to 137.8 min. Finally, about social networks, the Spanish spent an average of 93.0 min per week before the pandemic, with their average usage time after the outbreak of Covid-19 being 87.5 min. In this way, there was a general increase in the use of communication media, both traditional and digital, making it necessary to examine more dimensions regarding the latter.

Interpersonal relationships, given the difficulty of face-to-face contact, also moved to the digital sphere. Thus, 93.3% of Spaniards acknowledge that videoconferences over the Internet or mobile phones have allowed them to maintain contact with family and friends throughout the pandemic. The transformation of this habit can have relevant consequences, due to its possible survival after the post-pandemic scenario.

Along with entertainment and personal contacts, the workplace has been another one that has undergone a great transformation after the outbreak of the new SARS-CoV-2 coronavirus. Thus, 67.8% of the population considers that teleworking has made it possible to maintain many professional activities from home with a high level of quality (Fig. 42.5). Regarding the proportion of individuals who have teleworked during this period, it is noteworthy that 46.3% of Spaniards have used the Internet to telework since the arrival of the pandemic, which is practically half of them.

The greater time devoted to new technologies has also translated into an increase in carrying out other activities through the network. In this sense, the performance of activities related to the provision and satisfaction of the basic needs of the human being stands out. Thus, the purchase of all kinds of food, as well as clothing and footwear, has experienced a significant increase during the pandemic. In this way, if the percentage of Spaniards who bought fresh food over the Internet was 9.7%, during the pandemic this figure increased to 19.7%. The acquisition of cooked food through the network experienced an increase from 20.3 to 26%. The purchase of beverages and liquors, for its part, also suffered an increase from 8.3 to 12.5%.

Other types of activities have also transferred their scope of action to the digital sphere. Thus, the importance of one's own home during the pandemic, and especially during the confinement phase, has led to changes and reforms. For this reason, the number of people who have bought furniture over the Internet has increased. Before the pandemic, 17.4% of Spaniards bought furniture digitally, this figure rising with the pandemic to 21.7%. The purchase of cultural products through the network also experienced an increase. Thus, the purchase of books over the Internet rose from 44.4 to 49.8% after the outbreak of Covid-19. Finally, carrying out all kinds of procedures through new technologies, since both the Administration and different establishments did not attend in person, has also suffered an increase. In this way, the proportion of the population that has carried out procedures with the Administration before the pandemic was 64.9%, this figure increasing to 73.7% after the pandemic. Digital transactions with banks have also experienced an increase, being carried out through the Internet by 83.7% of Spaniards after the outbreak of Covid-19, when said figure was 79.7% before it.

In short, the arrival of the Covid-19 pandemic has brought with it a transformation of the digital habits of Spanish citizens. Although most of the population was already using the Internet and new technologies, the pandemic has led to an intensification of the digitization process that was already underway. The adoption by the Government of restrictive measures of the rights and freedoms of citizens, especially the confinement with the approval of the state of alarm on March 14, 2020, implied that a large part of the population had to move to the digital sphere to perform behavior and activities that were previously exercised in person. In this way, entertainment,

interpersonal contacts, and teleworking were carried out to a large extent through new technologies. In addition to this, the performance of other activities through the Internet increased, such as negotiations with different organizations and the purchase of all kinds of products.

42.3 Conclusions

When reviewing the information from the survey carried out by the CIS, we find that what happened in Spain is part of the challenges that were experienced in other parts of the world during the pandemic. In the first case, we find that the digital divide in Spain is relatively short, so a significant part of the population could carry out some of the main tasks that were carried out remotely during the pandemic [8]. It is also possible to highlight that this process contributed to accelerating the process of digital transformation that began in the past decade [1, 3]. But they also experienced some of the challenges they had in other contexts. As in other countries, the first part of the pandemic represented enormous challenges in terms of Internet access, but it also meant an opportunity to increase people's digital skills [11].

Even though several of the studies focus on analyzing the digital transformation process, we can see that in the case analyzed, the general lines coincide with what happened in a good part of the world. But it is also true that there are contextual factors such as Internet access, the economic capacity of the average population, access to technological devices, educational level and flexibility of organizations, among other factors that can contribute to improving and accelerating digitization trends that undoubtedly had a huge boost during the pandemic. But so far, it is possible to visualize that many of these habits have consolidated in the post-pandemic Spain.

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