

# EVOLUTION AND ADVANCE USAGE OF INTERNET IN PERU

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## ABSTRACT

Information and communication technologies produce changes in society as they facilitate access to information. The research seeks to publicize the increase in the use of the Internet in Peruvian homes, covering the percentage of the population with access to the Internet, the frequency of use, and the activities carried out. Making use of the technical report “Statistics of Information and Communication Technologies in homes”, and through a documentary review of various sources, including the one prepared by the National Institute of Statistics and Informatics (INEI), with emphasis on the use of the Internet since It is essential to have access to the Internet. A comparative analysis of the evolution of its use was also carried out, considering a range of 5 years, taking as reference the first quarter of 2015 and the first quarter of 2020. The applied research method is descriptive. As a result, it was found that compared to 2015, where for every 100 households, 91 had at least one ICT; In 2020, the number of families that have at least one ICT has increased to 95. The population has considerably increased the daily use of the Internet, obtaining a variation of 26.8.

## KEYWORDS

ICT, Internet, Usage, Information, Comparative analysis, Evolution.

## 1. INTRODUCTION

Currently, in a situation where it is essential to have access to the Internet since it is used for various activities such as communication, obtaining information, and for recreation. It is also thanks to the Internet that Information and Communication Technologies have been developing. The questions arise from everything: How much has the use of the Internet varied in our country? Who most frequently uses the Internet; Men or women? What activities do they carry out with the Internet?

Information and Communication Technologies, also called ICTs, are developed from the scientific advances in computing and telecommunications; the most representative element is the computer, being more specific, the Internet (Belloch, s.f). There are several definitions of ICT:

ICTs are the technologies that are necessary to manage and transform information, and particularly to make use of computers and programs that allow creating, modifying, storing, protecting, and retrieving said information (Sánchez, 2007; Daccach, s.f).

Information and Communication Technologies revolve around three basic media: computing, microelectronics, and telecommunications, interactively and interconnected to achieve new communicative realities (Cabero, 1998).

The development of Information and Communication Technologies (ICT) has a strong potential to transform economies and societies in various ways, reducing information and transaction costs, improving education and access to basic services (Arellano, 2017).

Since the mid-90s, the development of ICTs showed great advances, introducing the computer and the Internet. Initially, the costs of its use were quite high; however, over the years, this cost has decreased considerably, thus increasing the possibility of accessing them (Instituto Nacional de Estadística y Geografía (INEGI), s.f). It is not only the technological environment that affects society; it is also society.

With its demands and its ability to adopt innovations, it manages to influence the advancement of ICTs (Bouza, 2002).

Internet is the heart of a new socio-ethnic paradigm that constitutes, in effect, the material basis of our lives and the ways of relationship, work, and communication; the internet processes virtuality and transforms it into our reality, composing the network society, the society we live in (Castells, 1999).

The Internet has become something indispensable in society; today's boys and girls are born and grow up surrounded by new technologies; people tend to classify them as digital natives. In most homes, they have a computer, smartphone, tablet, or video game console. The ease of accessing the Internet from various devices makes it an essential tool (Elkartea, 2016).

But we must also know that there are dangers when surfing the Internet; users are all exposed to risks, especially children; parents should have control of what their children and the Internet do. In Spain, a study was carried out on the establishment of norms by the parents of children between 6 and 16 years of age on the use of the Internet in their homes, resulting in a lack of knowledge on the part of parents about the dangers that exist in the network, or at least, act in an unreasonable way (Sureda, Comas, & Morey, 2010).

In this article, the comparison of internet use will be made, evaluating the percentage of the population that has internet access, the frequency of use, and the activities carried out, from the first quarter of 2015 with the first quarter of 2020 already Due to the circumstances that the country is going through as a result of the pandemic and the measures taken by the government to avoid the spread of the disease, information has only been collected until the January - February - March 2020 quarter (National Institute of Statistics and Informatics (INEI), 2015, 2020).

## 2. METHODOLOGY

As support of methodology, use has been made of the Technical Report “Statistics of Information and Communication Technologies in Homes”, a document published by the Peruvian National Institute of Statistics and Informatics (INEI); it has been developed based on the results obtained from the National Household Survey - ENAHO-quarterly, this technical report is prepared due to the growing importance of Information and Communication Technologies (ICT) in all areas of society (National Institute of Statistics and Informatics (INEI), 2015, 2020).

The descriptive method will be developed using the technical report; tables are prepared to visualize the data better and make a more understandable comparison, obtaining; as a result, the graphs to discuss the results later.

## 2.1. EVOLUTION OF ACCESS TO INFORMATION AND COMMUNICATION TECHNOLOGIES IN HOUSEHOLDS

**Table 1.** Households according to the status of possession of Information and Communication Technologies.

Condition of ICT possession	Jan-Feb-Mar 2015	Jan-Feb-Mar 2020
At least one ICT	90.6	94.9
None	9.4	5.1

**Source:** (National Institute of Statistics and Informatics (INEI), 2015, 2020).

## 2.2. POPULATION WITH INTERNET ACCESS

**Table 2.** The population of 6 years and over that uses the Internet, according to the area of residence.

Geographical scope	Jan-Feb-Mar 2015	Jan-Feb-Mar 2020
Total	40.7	60.3
Metropolitan Lima	58.2	78.5
Urban rest 1 /	45.9	64.2
Rural area	9.1	23.8

**Source:** (National Institute of Statistics and Informatics (INEI), 2015, 2020).

\* **Note:** not include Metropolitan Lima.

## 2.3. FREQUENCY OF INTERNET USE

**Table 3.** The population is aged six and over, according to sex and frequency of Internet use.

Sex / Frequency of internet use	Jan-Feb-Mar 2015	Jan-Feb-Mar 2020
Total	100.0	100.0
Once a day	54.4	81.2
Once a week	39.8	17.0
Once a month or every two months or more	5.8	1.8
Man	100.0	100.0
Once a day	55.5	81.5
Once a week	39.1	16.8
Once a month or every two months or more	5.4	1.7
Woman	100.0	100.0
Once a day	53.0	80.8
Once a week	40.6	17.3
Once a month or every two months or more	6.3	2.0

**Source:** (National Institute of Statistics and Informatics (INEI), 2015, 2020).

## 2.4. ACTIVITIES CARRIED OUT BY THE INTERNET USER POPULATION

**Table 4.** Population aged six years and over by sex, according to the type of activity carried out on the Internet.

Activities	Total	Sexo	
		Man	Woman
Communicate	86.5	86.3	86.7
Get information	83.4	83.0	83.8
Entertainment activities (video games, getting music, etc.)	73.5	75.1	71.6

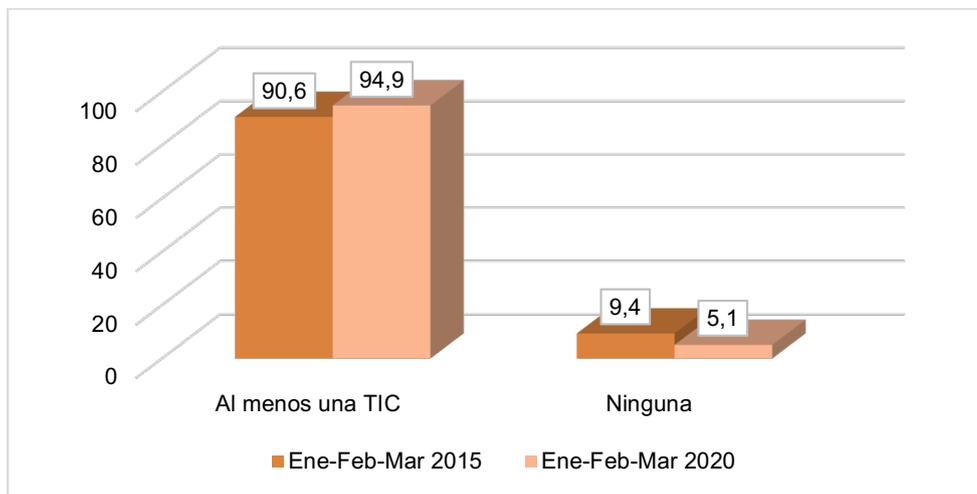
**Source:** (National Institute of Statistics and Informatics (INEI), 2015, 2020).

**Table 5.** Population aged six years and over by sex according to the type of activity carried out on the Internet.

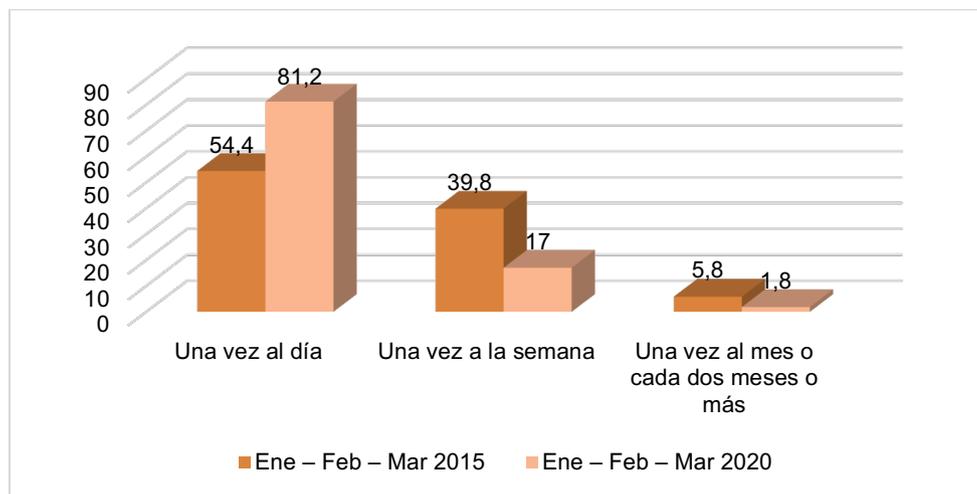
Activities	Total	Sexo	
		Man	Woman
Communicate	92.1	92.0	83.9
Get information	87.8	88.3	87.3
Entertainment activities (video games, getting music, etc.)	78.8	90.2	87.2

**Source:** (National Institute of Statistics and Informatics (INEI), 2015, 2020).

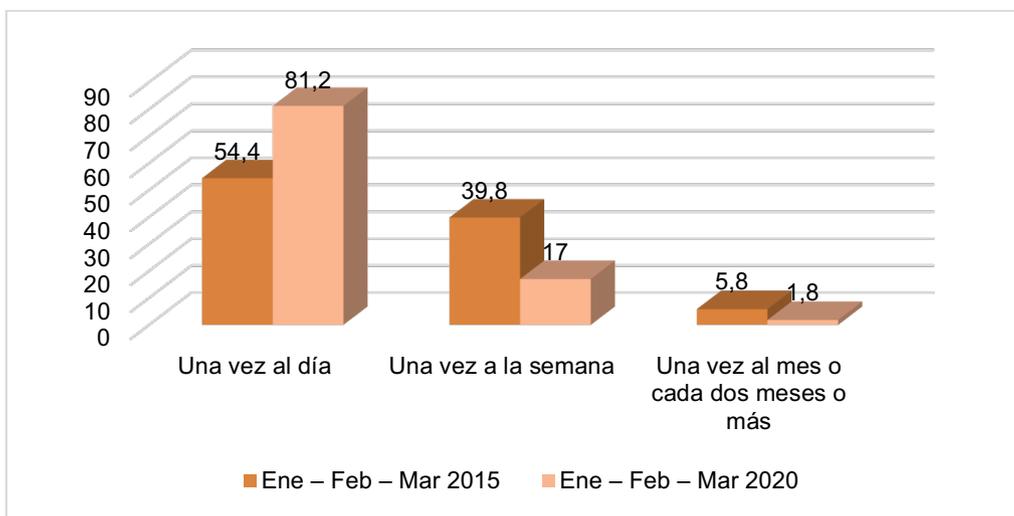
### 3. RESULTS



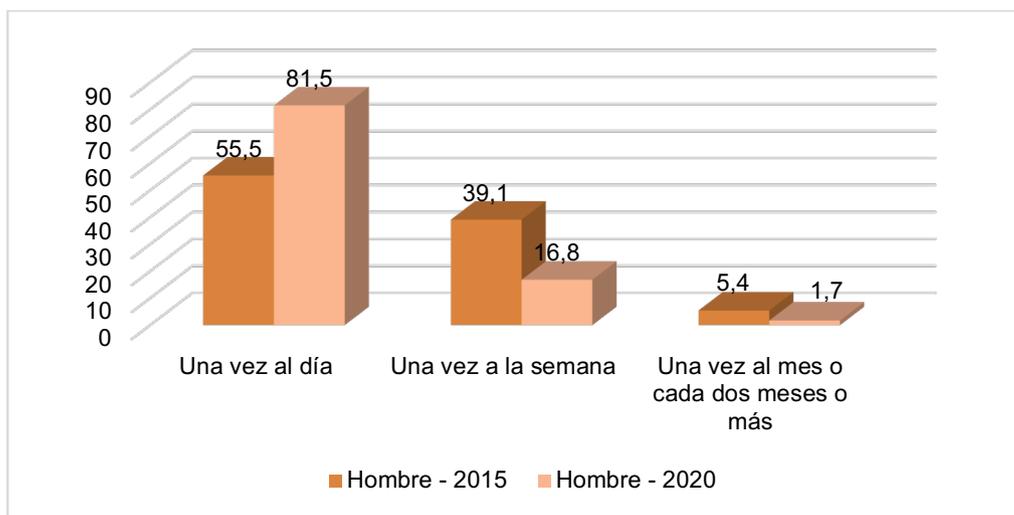
**Figure 1.** Comparison of the percentage of households with access to Information and Communication Technologies in the quarters January - February - March of the years 2015 and 2020, respectively.



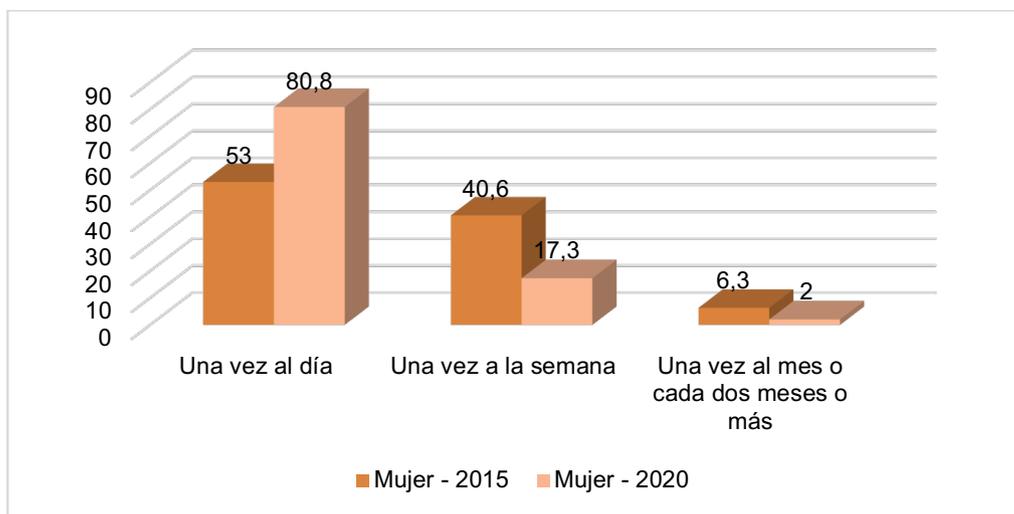
**Figure 2.** Comparison of the population aged six years and over who have internet access in the quarters January - February - March of the years 2015 and 2020, respectively.



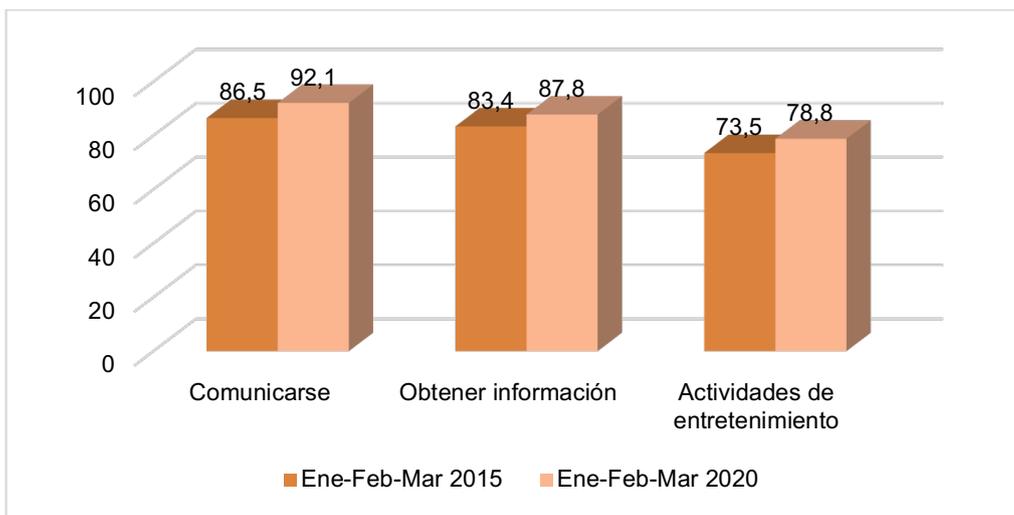
**Figure 3.** The percentage of the frequency of Internet use of the population aged six years and over in the quarters of January - February - March of the years 2015 and 2020 respectively.



**Figure 4.** Comparison of the percentage of the frequency of Internet use of the male population aged six years and over in the quarters of January - February - March of the years 2015 and 2020, respectively.



**Figure 5.** The percentage of the frequency of Internet use of the female population aged six years and over in the quarters of January - February - March of the years 2015 and 2020 respectively.



**Figure 6.** Comparison of the percentage of activities carried out on the Internet by the population aged six and over in January - February - March of 2015 and 2020, respectively.

In Figure 1, we can see that there is a percentage increase of 4.3% of the population that has at least one ICT since in the first quarter of 2015, for every 100 households in 91 there was at least one ICT and in the first quarter In the year 2020, for every 100 families, in 95 there was at least one ICT, this means that in the last 5 years access to ICTs has increased by 4 households.

Figure 2 shows that, in the first quarter of 2015, 40.7% of the population aged 6 and over in our country accessed the Internet, and in the first quarter of 2020, it was 60.3%. This leads to a percentage increase of 19.6%.

Figures 3, 4, and 5 show that, in the first quarter of 2015, 54.4% of the population aged 6 years and over used the Internet daily; however, in the first quarter of 2020, it was the 81.2% of the people made daily use of the Internet, presenting a variation of 26.8%, with men in both years being the ones who used the Internet the most daily.

Likewise, it is observed that, in the first quarter of 2015, 39.8% of the population aged six and over in our country used the Internet once a week. In the first quarter of 2020, 17.0% of the population used the Internet once a week, presenting a variation of -22.8%, in this case, women using the Internet the most once a week.

Figure 6 shows the percentage of activities carried out by the population aged six and over, noting that in both years, the predominant activity is communicating.

## 4. DISCUSSION

In accordance with the results, regarding the evolution of ICT access in the households where for every 100 households, 95 had at least one ICT; Due to the adaptability of ICTs to the characteristics of any physical environment, it is probable that in the future changes will be achieved in homes due to environmental conditions (Mañas, Cuadrado, & Martí, 2006).

To the frequency of Internet use in people from 6 years to more than age, we have noticed that the daily use of the Internet has increased considerably; among those surveyed, we will find both minors and adults; Focusing on children, they should have control of the use of the Internet since excess could lead to an addiction, in 2013 a group of San Marcos carried out a study regarding internet addiction and aggressiveness in students from secondary education and a significant direct relationship was found between aggressiveness and Internet addiction, which would imply that if the adolescent behaves aggressively, he or she will have a greater chance of being addicted to the Internet or vice versa (Matalinares *et al.*, 2013).

Likewise, another study carried out in Spain in 2010 tells us that the problems related to excessive use of the Internet are similar to those that occur with other behavioral and technological addictions (Muñoz, Fernández, & Gámez, 2013).

To the activities carried out on the Internet that of communicating stands out, the Internet has allowed the creation of various virtual spaces that promote and stimulate people's communication, under freedom of expression, sociability. Many of these are free, both locally and internationally. The current communicative interaction is unprecedented; the impact it causes in the history of humanity cannot be measured (Álvarez & Rodríguez, 2012).

## 5. CONCLUSIONS

With the results of this research, it can be seen that the country has improved over the last five years at the household level in terms of the possession and use of ICTs, and specifically the use of the Internet in the metropolitan, urban and rural areas of Lima.

The internet is used in all areas of daily life, whether to communicate, obtain information or carry out recreational activities; with greater need in the social distancing by the COVID-19, the internet has revolutionized our ways of life, providing us with both benefits and threats. In the last 5 years a large part

of the country has been able to adapt to the use of the internet in both positive and negative aspects, and in the near future there will probably be new changes in behavior and activities with the use of technology that we will have to face.

As time goes by, ICT's are developing on a large scale, we must learn to live with them, we have to adapt to the new changes as the way of communicating, in the way of doing things, because ICT's are already part of our culture and provide us with opportunities for the best social development.

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