



**EXECUTIVE
SUMMARY**

—
ICT HOUSEHOLDS
SURVEY
2021

Brazilian Network Information Center - NIC.br

CEO : Demi Getschko

CFO : Ricardo Narchi

CTO : Frederico Neves

Director of Special Projects and Development : Milton Kaoru Kashiwakura

Chief Advisory Officer to CGI.br : Hartmut Richard Glaser

Regional Center for Studies on the Development of the Information Society – Cetic.br

Executive and Editorial Coordination : Alexandre F. Barbosa

Survey Project Coordination : Fabio Senne (Coordinator), Ana Laura Martínez, Catarina Ianni Segatto, Daniela Costa, Leonardo Melo Lins, Luciana Portilho, Luisa Adib Dino, Luiza Carvalho and Manuella Maia Ribeiro

Statistics and Quantitative Methods Coordination : Marcelo Pitta (Coordinator), Camila dos Reis Lima, Isabela Bertolini Coelho, Mayra Pizzott Rodrigues dos Santos, Thiago de Oliveira Meireles and Winston Oyadomari

Sectoral Studies and Qualitative Methods Coordination : Tatiana Jereissati (Coordinator), Javiera F. Medina Macaya and Luciana Piazzon Barbosa Lima

Process and Quality Management Coordination : Nádilla Tsuruda (Coordinator), Malsa Marques Cunha, Rodrigo Gabriades Sukarie and Victor Gabriel Gonçalves Gouveia

ICT Households Survey Coordination : Fabio Storino

Field Management : Ipec – Inteligência em Pesquisa e Consultoria: Guilherme Militão, Leticia Passos, Moroni Alves and Rosi Rosendo

Editing support team : Comunicação NIC.br : Carolina Carvalho and Renato Soares

Proofreading and Revision in Portuguese : Tecendo Textos: Ana Carolina Nitto and Flavia Baggio

Translation into English : Prioridade Consultoria Ltda.: Isabela Ayub, Lorna Simons, Luana Guedes, Luisa Caliri, Maya Bellomo Johnson and Melissa Barth

Graphic Design : Pilar Velloso

Publishing : Grappa Marketing Editorial (www.grappa.com.br)

Brazilian Internet Steering Committee - CGI.br

(in November, 2022)

Coordinator

José Gustavo Sampaio Gontijo

Counselors

Beatriz Costa Barbosa

Carlos Manuel Baigorri

Cláudio Furtado

Demi Getschko

Domingos Sávio Mota

Evaldo Ferreira Vilela

Fernando André Coelho Mitkiewicz

Jackline de Souza Conca

Jeferson Denis Cruz de Medeiros

José Alexandre Novaes Bicalho

Henrique Faulhaber Barbosa

Laura Conde Tresca

Marcos Dantas Loureiro

Maximiliano Salvadori Martinhão

Nivaldo Cleto

Orlando Oliveira dos Santos

Percival Henriques de Souza Neto

Rafael de Almeida Evangelista

Rosauro Leandro Baretta

Tanara Lauschner

Executive Secretary

Hartmut Richard Glaser

Executive Summary ICT Households 2021

Since 2005, the ICT Households survey has monitored access to information and communication technologies (ICT) in households and the use of the Internet by individuals in Brazil. In its 17th edition, the survey showed that Internet access and use remained at levels higher than those observed before the COVID-19 pandemic. This highlights an increase in the demand for connectivity due to the migration of several activities to the digital environment.

The survey was conducted entirely face-to-face, in a context of greater relaxation of the social distancing measures adopted to contain the pandemic. This favors the comparison of the results of 2021 with those obtained up to 2019, prior to the health emergency.

The survey highlighted the increase in Internet access via televisions, which have become the second most used devices by Brazilians to go online, surpassing computers. Despite the increase in connectivity in households and among individuals, the results point to the inequalities in this access: On the one hand, it was practically universal among users with higher income and those with higher levels of education, who also performed Internet activities at higher proportions. On the other hand, although access advanced among users with lower income and those with lower education levels, these strata still made more limited use of the Internet, in general through a single device (mobile phone) and via a single type of connection (mobile network or Wi-Fi).

Internet access in households

The survey estimated that, in 2021, there were about 59 million households with Internet in the country, representing 82% of Brazilian households (Figure 1). This proportion was stable compared to 2020, but 11 percentage points higher than that observed in 2019. There was a significant increase among all social classes, with a gradual reduction in the difference between class A and classes C and DE. Another important trend occurred among households in rural areas, whose proportion with Internet access rose from 51% in 2019 to 71% in 2021. The presence of Internet remained highest in urban areas (83%), although the gap between urban and rural areas narrowed from 34 percentage points in 2012 to 12 in 2021.

Fixed broadband was present in 71% of households with Internet access in the country, 10 percentage points higher than that observed in 2019. This technology was more present in connected households in the South (82%), those with family income of more than 5 to 10 minimum wages (91%) or more than 10 minimum wages (93%), and among households in classes A (95%) and B (88%). This type of connection appeared in smaller proportions in rural areas (58%), in the North (61%) and Northeast regions (64%), in households with a family income of up to 1 minimum wage (59%), and in classes DE (52%).

Connections via TV cable or fiber optics reached 61% in 2021. The proportion of connected households that accessed the Internet via mobile connection by modem or 3G or 4G, on the other hand, decreased to 17% in 2021, returning to the level of 2011.

FOR THE FIRST TIME IN THE SURVEY'S TIME SERIES, PUBLIC HEALTH WAS THE CATEGORY OF PUBLIC SERVICE MOST SOUGHT AFTER ONLINE

These changes in the standard of connection type were in line with the results of the indicators on the speed of the Internet connection: 23% of connected households had a connection of 51 Mbps or more, an increase of 16 percentage points compared to 2019.

The presence of computers in Brazilian households remained stable (39% of households). There were marked disparities in the presence of these devices among the strata of the population: This proportion was lower in households in rural areas (20%), those in the North (29%) and Northeast (27%), and among households in classes DE (10%).

Internet use

In 2021, 81% of the Brazilian population 10 years old or older were Internet users, representing about 148 million individuals. This increase was most significant in rural areas (73%), a difference of 20 percentage points compared to 2019 (Chart 1), and among individuals 60 years old or older (48%, an increase of 14 percentage points).

The television became the second most used device to connect to the Internet, mentioned by half the users (50%), behind only mobile phones (99%), an increase of 13 percentage points relative to 2019. In contrast, Internet use via computers (36%) decreased by six percentage points over the same period.

This increase in Internet access via televisions was significant in almost all strata of the population, especially among users 35 to 44 years old (37% in 2019 to 59% in 2021), residents of the North (24% to 45%), and among female users (33% to 51%). Although their use was still more common among users in classes A (74%) and B (66%), the difference compared to 2019 was greater among users in class C (from 36% to 52%).

Online activities

Communication activities intensified during the pandemic: 93% of Internet users exchanged instant messages, 82% used voice or video calls (an increase of eight percentage points compared to the prepandemic period), and 81% accessed social networks (an increase of five percentage points).

More than half of users (57%) accessed the Internet to look up information on goods and services, and half (50%) said they had used the Internet to look up information on health or healthcare services. The proportion of users who carried out financial transactions

over the Internet, such as consultations or payments, increased from 33% in 2019 to 46% in 2021. This increase occurred in almost all crossing variables, with emphasis on users in classes A (69% to 95%) and those 16 to 24 years old (31% to 54%). This proportion increased in class C (45%) by 14 percentage points, and among classes DE (21%), by 12 percentage points.

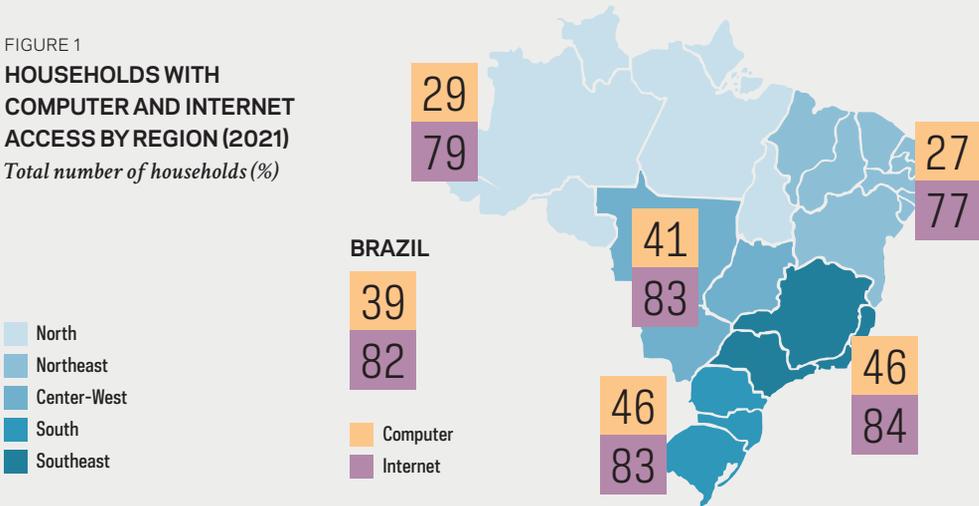
LISTENING TO
PODCASTS WAS
THE CULTURAL
ACTIVITY WITH
THE LARGEST
INCREASE DURING
THE PANDEMIC,
REACHING 28%
OF USERS IN 2021

EDUCATION AND WORK

About four out of ten Internet users went online to carry out school activities or research (41%) and study on their own (40%). The use of the Internet to carry out school activities was more present in the school-age groups, among those 10 to 15 years old (72%) and 16 to 24 years old (52%). Almost a fifth of Internet users said they had taken distance learning courses (18%) in the past three months, an increase of six percentage points compared to 2019.

The Internet was used to carry out work activities by 36% of users, especially among those in classes A (84%) and B (55%) and among the population with a Tertiary Education (71%).

FIGURE 1
HOUSEHOLDS WITH COMPUTER AND INTERNET ACCESS BY REGION (2021)
Total number of households (%)



31.4 M households with Internet only	564,000 households with computer only	28 M households with both computer and Internet	12.9 M households with neither computer nor Internet
--	---	---	--

CHART 1
INTERNET USERS BY AREA (2011-2021)
Total population (%)



ELECTRONIC COMMERCE

In 2021, 46% of users bought goods or services online, representing an increase of 16 million individuals compared to 2019, a good part of which belonged to class C (14 million). Despite the most significant increase in class C (from 36% to 49%), users in classes A (90%) and B (66%) carried out this activity the most, and only one-fifth (18%) of those in classes DE purchased goods or services online.

ELECTRONIC GOVERNMENT

In 2021, 70% of Internet users 16 years old or older used or consulted a public service online, an estimated increase of 12 million individuals compared to 2019. For the first time in the survey's time series, public health was the category of public service most sought after online, mentioned by 34% of Internet users 16 years old or older (Chart 2).

CULTURAL ACTIVITIES

About 130 million Internet users accessed audiovisual content online: 73% watched videos, shows, movies or TV series, an equal proportion (73%) listened to music, 54% read newspapers, magazines, or news, 37% played games online, and 10% visited exhibitions and museums through the Internet.

Listening to podcasts was the cultural activity with the largest increase during the

pandemic, reaching 28% of users in 2021, 15 percentage points higher than in 2019. This represents an estimated 23 million more individuals than in 2019.

Although a higher proportion of users in classes A and B paid to watch movies or series online, in absolute terms, the biggest difference compared to 2019 was among individuals in class C: between 2019 and 2021, there was an increase of about 6 million individuals who paid for this content (Chart 3).

Survey methodology and access to data

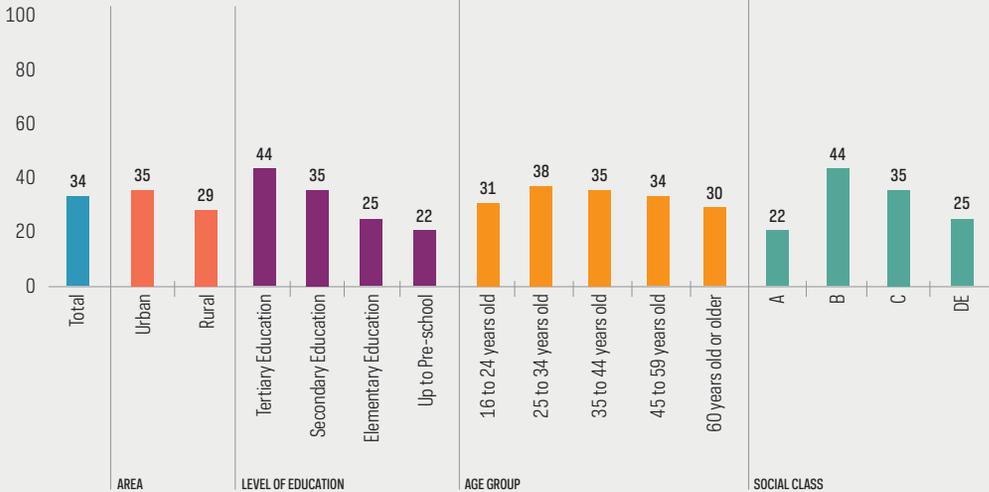
The ICT Households survey has been carried out since 2005 and investigates access to ICT in households and its use by individuals 10 years old or older. In this edition, interviews were conducted in 23,950 households and with 21,011 individuals across the country. Data collection was carried out by face-to-face interviews between October 2021 and March 2022. The results of the survey, including tables of survey proportions, totals, and margins of error, are available at <https://cetic.br>. The "Methodological Report" and the "Data Collection Report" can be consulted both in the publication and on the website.

Meaningful connectivity: Beyond access

For those who have already overcome the access barrier, qualitative features of this access affect their appropriation of the Internet. Almost 10 million users did not access the Internet every day or almost every day, 9 million of whom belonged to classes C and DE. Users in these classes also accessed the Internet exclusively through mobile phones and connected exclusively via mobile networks (subject to data caps) to a greater extent. Although the presence of quality connections (with adequate speed and enough data) and the use of the Internet through appropriate devices are not sufficient conditions for online engagement, data from the ICT Households 2021 survey showed that these factors affected the group of activities carried out online. This, in turn, can limit the development of digital skills that could enhance the appropriation of the outcomes enabled by the Internet.

CHART 2
INTERNET USERS WHO CARRIED OUT PUBLIC SERVICES ONLINE RELATED TO PUBLIC HEALTH (2021)

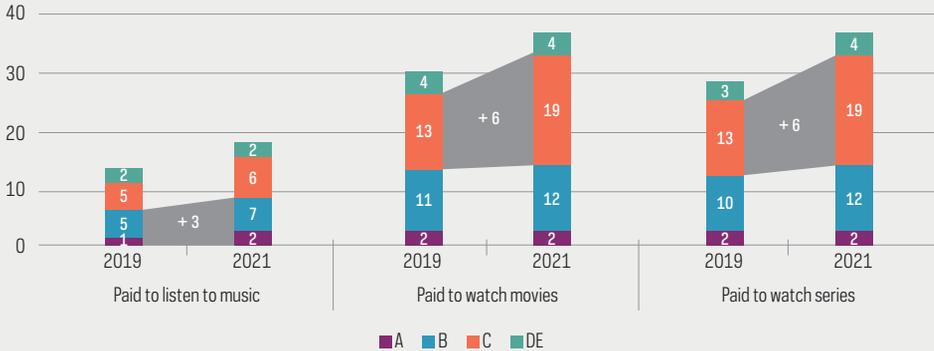
Total number of Internet users 16 years old or older (%)



<p>93% of Internet users sent instant messages</p>	<p>73% of Internet users watched videos, programs, movies, or series online</p>	<p>70% of Internet users 16 years old or older used electronic government</p>	<p>46% of Internet users searched for financial information, made payments, or other financial transactions</p>
---	--	--	--

CHART 3
INDIVIDUALS BY PAYMENT TO ACCESS MUSIC, MOVIES OR SERIES ONLINE, BY SOCIAL CLASS (2019 AND 2021)

Total population (millions)



ABOUT CETIC.br

cetic.br

The Regional Center for Studies on the Development of the Information Society, a department of NIC.br, is responsible for producing indicators and statistics on the access and use of the Internet in Brazil, disseminating analyzes and periodic information on the Internet development in the country. Cetic.br is a Regional Study Center, under the auspices of UNESCO. More information at <http://www.cetic.br/>.

ABOUT NIC.br

nic.br

The Brazilian Network Information Center – NIC.br (<http://www.nic.br/>) is a non-profit civil entity, which in addition to implementing the decisions and projects of the Brazilian Internet Steering Committee, has among its attributions: coordinate the registration of domain names – Registro.br (<http://www.registro.br/>), study, address and handle security incidents in Brazil – CERT.br (<http://www.cert.br/>), study and research network technologies and operations – CEPTRO.br (<http://www.ceptro.br/>), produce indicators on information and communication technologies – Cetic.br (<http://www.cetic.br/>), implement and operate Internet Exchange Points – IX.br (<http://ix.br/>), enable the participation of the Brazilian community in the global development of the Web and support the formulation of public policies – Ceweb.br (<http://www.ceweb.br/>), and host the Brazilian W3C office (<http://www.w3c.br/>).

ABOUT CGI.br

cgi.br

The Brazilian Internet Steering Committee, responsible for establishing strategic guidelines related to the use and development of the Internet in Brazil, coordinates and integrates all Internet service initiatives in the country, promoting technical quality, innovation and dissemination of the services offered. Based on the principles of multistakeholderism and transparency, CGI.br represents a democratic Internet governance model, internationally praised, in which all sectors of society participate equitable in the decision-making. One of its formulations is the 10 Principles for the Governance and Use of the Internet in Brazil (<http://www.cgi.br/principios>). More information at <http://www.cgi.br/>.



Access complete data from the survey

The full publication and survey results are available on the **Cetic.br** website, including the tables of proportions, totals and margins of error.

