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Public Policies to solve the differential access to digital technologies and connectivity in Argentina

Abstract:

In 2020 the COVID-19 pandemic manifested our heightened dependency on digital technologies for the operational functioning of all aspects of our lives under lockdowns: access to information, jobs, education, good governance, entertaining, and social and family relations. However, in Argentina, as in all Latin American and Caribbean countries, the pandemic has revealed the many inequalities that affect its population. It is important to recognize the present digital divide, considering the existence of multiple gaps: socio-digital, cognitive, socioeconomic, socio-spatial, gender, linguistic, among others. This paper is focused on the new needs faced to the construction of Knowledge Society in Argentina through the study of its public policies for digital inclusion. It proposes measures to be included in the country`s public policies for Knowledge Society.

Keywords: COVID-19, Digital Divide, Digital Inclusion, Digital Technologies, Knowledge Society

Agenda:

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Is the digital divide still a relevant problem in 2022?

Is it pertinent to discuss connectivity and information access in 2022? Is it yet necessary to review public policies to close the digital divide? Are Knowledge Societies (KS) effectively implemented in peripheral countries? From the beginning of the millennium governments, decision-makers, international organizations, researchers, technologists all over the world assumed that our gradual progress towards an inclusive KS was adequate. Once the infrastructure was in place, our information for development and information access goals as set out in the WSIS meetings would eventually be met.

In 2020 the COVID 19 pandemic demonstrated our increased dependency on digital technologies for the operational functioning of all aspects of our lives in lockdowns: access to information, jobs, education, health, good governance, entertaining, and sustaining social and family relations.

However, in Latin American and Caribbean countries (LAC), as in many peripheral nations, the pandemic has revealed the many inequalities that affect our populations. It is important to assume an expanded vision of the digital divide, considering the existence of multiple gaps: socio-digital, cognitive, socioeconomic, socio-spatial, gender, linguistic, among others. These gaps coexist, are connected, and feedback each other.

A great proportion of the population does not have access to remote education, and to digital services in critical areas such as health (e-health), justice (e-justice) and even core public services (digital government), at times when they are most necessary. Digital inclusion is far from being achieved. Even if the region has made appreciable advances towards e-education, information access, and information rights, its deep social and economic polarization is translated into significant connectivity gaps. It is difficult to build KS in urban and rural areas that are not reached by technical networks such as clean water, electricity, gas, sanitary facilities, etc. Successive technical facilities and the current stage of the contemporary world produce in urban and rural spaces fields with bright spaces and opaque spaces as defined by Brazilian geographer Milton Santos (2006). Nowadays, LAC countries show their opaque fields in KS. These areas need to be identified and answered.

This paper is focused on the construction of Knowledge Society in Argentina, a contradictory Latin American country, through the study of its public policies for digital inclusion. It proposes measures to be included in the country`s public policies for Knowledge Society.

The case of Argentina

With a Gross Domestic Product (GDP) of approximately US $400 billion, Argentina is one of the largest economies in Latin America. It has vast natural resources in energy and agriculture. It is a leading food producer with large-scale agricultural and livestock industries. Argentina has significant opportunities in some subsectors of manufacturing and innovative services in high-tech industries.

However, the historical volatility of economic growth, as well as endemic corruption, has hampered the development of the country. The Covid 19 pandemic and the consequent social isolation as a strategy to manage it aggravated the situation. Urban poverty increased, reaching 42% of the population in 2020 (10.5% extreme poverty and 57.7% child poverty).

Since the launch of the first broadband connections in the late '90s, Argentina has become one of the countries with the highest rate of internet penetration in Latin America, with more than three-quarters of its population having access to the network of networks (Statista, 2021). In 2019, 83% of the households in the country had access to the internet. In September 2020 alone, more than thirty-nine million fixed and mobile internet accesses were registered (Statista, 2021). 84% of the people in Argentina have a mobile phone. By the end of 2026, 40.94 million Argentine mobile phone users will access the internet from their devices, up from 35.74 million in 2021. However, only 60% own a computer.

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Nevertheless, these optimistic numbers should be taken carefully. In its latest Internet Index study (2021), the Argentine Internet Chamber (CABASE) revealed that 32% of homes in Argentina do not have fixed connectivity (Statista, 2021), with a huge disparity in access nationwide. Access had grown at an average rate of 2.8% over the past five years[1]. Full coverage nationwide and universalisation of the service, would take a further 12 years at the current rate of growth, warns CABASE.

As in the rest of the world, lockdowns, and restrictions on circulation due to the Covid-19 pandemic had an enormous impact on Internet consumption in Argentine homes, producing greater demand on the infrastructure and networks of the country's Internet service providers. Strict isolation rules imposed in March 2020, generated a surge in data traffic circulating in the National Network of CABASE's 32 regional Internet Interconnection Points (IXP). Data traffic exceeded the 1,000 Gbps mark on May 2020, 10% higher than the average for the previous month.

Moreover, the average volume of traffic countrywide increased by over 50% between December 2019 and December 2020. Extreme demand for home-based Internet services needed by isolation and quarantine measures were met by investments from ISPs (Internet Service Providers) that expanded infrastructure to prepare networks for greater bandwidth consumption (CABASE, 2021).

Geographical inequalities

Lockdowns have uncovered a blatant digital divide within the country provinces and cities, between the inhabitants of wealthy neighbourhoods and those living in poor districts and slums[2]. CABASE´s report (2021) exposes a significant disparity in connection levels by province and region. The nation's capital, Buenos Aires City (CABA), has a total of over 108 connections for every one hundred households, while nine provinces are less than halfway covered. The North-eastern province of Formosa ranked lowest, with just 32%.

In 2020, the Patagonia region registered the highest percentage of growth in terms of total fixed Internet connections, rising 14.17%, according to the report. Other regions with a high percentage of the population with access to the Internet were Greater Buenos Aires (85.9%) and the North-western region (85.5%). Nevertheless, provinces such as Formosa, San Juan, Santa Cruz, Mendoza, and Chaco do not reach 40% of connected homes. It is understandable in the case of Chaco, a poor province. But since the three other provinces are rich in agricultural and mineral resources, we can deduce that access to the Internet depends on political will more than on economic circumstances.

The breach between those who have access to computers and the Internet and those with limited or no access is well documented between rural and urban areas. According to Macrotrends, Argentina's rural population for 2020 was 8.75 % of the total population[3]. In recent decades, tackling the digital divide has focused on bringing the Internet to rural areas and Wi-Fi tablets into schools, along with free Internet in public spaces. Lockdowns have also uncovered a flagrant digital divide within the region's big cities, between the people in wealthy neighbourhoods and those living in poor neighbourhoods and spreading slums.

In Argentina, more than 4 million people (10% of the country's total population) live in 4,416 vulnerable neighbourhoods. 65% of these neighbourhoods do not have Internet access. Most of these districts are in the Buenos Aires Province. This lack of connectivity and access to broadband Internet is one of the problems that limit access to other rights. It took five months since the beginning of the pandemic for the Government to

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[1] Buenos Aires Times (July 2021), 32% of Argentine households without fixed Internet connection, says report, https://www.batimes.com.ar/news/argentina/32-of-argentine-households-do-not-have-a-fixed-internet-connection-says-national-report.phtml

[2] Moloney Anastasia (2020): "Could coronavirus lockdowns help close Latin America's digital divide?" Thomson Reuters Foundation Tuesday, 12 May 2020, https://news.trust.org/item/20200512101826-xui0k/

[3] Macrotrends, https://www.macrotrends.net/countries/ARG/argentina/rural-population

consider plans aimed at guaranteeing access to ICT goods and services. For now, the concretization of the Plans has been limited to small partial assistance measures, while the provision of digital infrastructures has not been started.

Socio-economic inequalities

There are significant socioeconomic inequalities in the population´s access to connectivity and informatics equipment. In the fourth quarter of 2020, the population with both complete and incomplete higher and university education was the one with the highest access to the internet, with more than 96%. Correspondingly, the population with complete and incomplete secondary education also showed a high percentage of internet access with around 89% (Statista, 2021). The proportions change with regards to the possession of a computer. According to INDEC (2021) In the fourth quarter of 2020, it was recorded that only 63.8% of urban households have access to a computer[4].

Almost 58% of the people with completed primary school access the Internet, but only 11.7% have a computer. Among those with a university education, 95.4% have Internet access, and 71.8% have a computer. Not surprisingly, the higher the level of education, the greater the access to the KS. There are major differences among the devices used to access. While high-income individuals and families often have diverse computers, low-income families depend on mobile phones. However, there are weighty restraints to what can be done on a mobile phone. Still, it has been accepted that once people have a phone they are connected, and that is all they need. At present, it has become evident that fast digitisation with regards to connectivity means that we need to build better strategies and plans for making access and acquisition of informatics devices accessible at adequate prices for low-income groups.

Gender inequalities are smaller: in the period from October to December 2020, a high percentage of the population, about 85%, had access to the Internet. The male population had a slight advantage in Internet access of about 0.4 percentage points compared to the percentage of women who had access to the internet.

The result of these inequalities is that a great proportion of the population does not have access to remote education and to digital services in critical areas such as e-education, e-health, e-justice, e-government, e-commerce, at times when they are most necessary. Digital inclusion is far from being achieved.

Linguistic inequalities

In Argentina, there are fifteen living indigenous languages and one million indigenous people, of which one fifth only use their language. Of these languages, four are official but have little incidence since they were made official for their preservation and survival. The use of digital technologies favours the communication, preservation, and dissemination of indigenous languages. However, we have identified little or no public policies on multilingual media on the Internet in Argentina, although there are interesting experiences implemented by NGOs and indigenous communities. Despite community initiatives, the presence of indigenous peoples in cyberspace is scarce, bordering on total invisibility (Finquelievich & Odena, 2017).

Argentina's public policies on multilingualism on the Internet related to indigenous peoples are currently weak. One of the most evident problems is not so much the insufficiency of good multilingual rights legislation, in cyberspace or otherwise, but the lack and inadequacy of policy implementation, due to deep-rooted discriminatory practices. Overcoming these limitations would require more participatory and democratic consultation policies with indigenous peoples.

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[4] https://www.indec.gob.ar/indec/web/Nivel3-Tema-4-26

Policies for digital inclusion

It is difficult to build Knowledge Societies in urban and rural areas that are not reached by technical networks such as clean water, electricity, gas, sanitary facilities, etc. Successive technical facilities and the current stage of the contemporary world produce in urban and rural spaces fields with territorial disputes, setting bright spaces and opaque spaces as defined by Brazilian geographer Milton Santos (2006). Nowadays, Argentina shows KS opaque fields, which need to be identified and solved.

Connectivity is more necessary than ever. As a response to the COVID-19 health crisis, Argentina closed schools, colleges, and universities in 2020. Online and digital learning has become vital for students to continue developing their skills. Lockdowns throughout the region have blocked many adults from physically going to work, making the use of digital technologies and smart working arrangements, more imperative than ever. Quarantined persons and families had to use e-commerce tools to buy their food and medicines. Strengthening the digital skills of populations and improving access to online learning opportunities is critical to face the challenges of the future. Its significance will be intensified in the stormy post-COVID-19 world.

It becomes imperative to recalculate, based on empirical evidence, the importance of ICT use as a mitigating factor in the pandemic and its consequences, as well as to constantly assess and monitor how the country is positioned to meet this challenge. The State, Universities and research centres, enterprises, businesses, and citizens´ and workers' organizations have a key role to play in planning and implementing responses –in the form of public policies, strategies, and actions- to deal with the COVID-19 crisis and alleviate the negative impacts that the crisis itself and the responses to it may have on people, the environment, and society.

Since March 2020, the National government, as well as provinces' governments have taken emergency measures to address not only the health aspects of the COVID-19 pandemic in the region, but also its immediate economic, financial, and social consequences, with a special focus on social plans and on the protection of jobs and employment. Medium and long-term policy solutions will be needed, requiring a whole-of-government approach, in dialogue with business, labour, and affected people. Internet connectivity was one of the priority issues to be tackled, even with still poor concrete results.

The relevance of the connectivity issue in the Argentine National Congress is reflected in the bills that focus on Internet access. Of the total sixteen bills until October 2020, eight of them focus on Internet access. Half of the bills seek economic regulation, defining the Internet as a public service, essential, strategic, as a human right, and establishing free data traffic for specific purposes.

In August 2020, the Argentine President signed the Decree of Necessity and Urgency (DNU) 690/2020. It raises access to the Internet as an essential right. Therefore, the fees for connectivity, cable TV and telephony were "frozen". Due to the pressure of Internet providers, these fees were "unfrozen" in January 2021. They have been in continuous augmentation since. Although the decree advances in the recognition of Internet access as a right, it declares little about what policies the State will take to ensure the provision of said service and its territorial expansion (Finquelievich & Odena, 2021).

The following month, in September 2020, the President presented the new Connected Argentina Plan 2020-2023. Its four central axes are the Argentine Satellite System; the National Data Center (CND); the Federal Fiber Optic Network (REFEFO): Open Digital Television (TDA). Investments will be made in the four axes. Also, vulnerable districts were addressed programmes aimed at granting the inhabitants access to ICT goods and services, through the Ente Nacional de Comunicaciones (ENC National telecommunications Entity) (Finquelievich & Odena, 2021).

Since for the time being these measures have not been proven completely effective, we propose actions to integrate public policies for digital integration.

Ten proposals for public policies

1. Effectively implement, monitor, and assess the policies proposed by the State to ensure the provision of Internet service and its territorial expansion
2. Promote broadband access and connectivity that is genuinely affordable and of satisfactory quality in remote, rural, and semi-urban areas, and vulnerable neighbourhoods.
3. Promote the development of alternative connectivity providers (cooperatives, community networks, rural operators), and cost-efficient technologies.
4. Strengthen innovative digital, technical, and professional skills and competencies in the educational system, enterprises, and governmental organizations
5. Promote incentives for companies and governments to provide opportunities for continuous learning to workers.
6. Establish a gender-inclusive perspective in public policies for digital inclusion, guaranteeing full access and use of digital technologies for women, girls, and older persons, and promoting their online participation and safety.
7. Stimulate telework, updating labour policies to defend adequate social protection, social dialogue, proper work, and participation of workers in the digital economy.
8. Reinforce distance education programs in national education systems, using digital tools expressly conceived for low-connectivity contexts
9. Support the continuous training and digital literacy of teachers in all educational levels, and the development of digital educational content.
10. Promote strategies and programs on digital health, including reinforcement of public and private telemedicine services, interoperability of health information and records systems, protocols to protect patient privacy, and new means of delivering health services.

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