Childhood and adolescence in the digital age

A comparative report of the Kids Online surveys in Brazil, Chile, Costa Rica and Uruguay

Daniela Trucco
Amalia Palma
Editors

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Acronyms

AGESIC (Uruguay): Agency for the Development of Electronic Government and Information Society and Knowledge

ATEM: Learning with mobile technologies in multigrade schools

CCEB: Brazilian Criteria for Economic Classification

CRC: Convention on the Rights of the Child

CETIC (Brazil): Regional Centre of Studies for the Development of the Information Society

ECLAC: Economic Commission for Latin America and the Caribbean

eLAC: Digital Agenda for Latin America and the Caribbean

HM: Home-Mobile

HMD: Home-Multi-Device

ICTs: Information and Communication Technologies

ITU: International Telecommunication Union

KO: Kids Online

LCA: Latent Class Analysis

LSE: London School of Economics and Political Science

NFSDD: National Framework Strategies for Digital Development

OECD: Organisation for Economic Co-operation and Development

OER: Open Educational Resources

PISA: Programme for International Student Assessment

PRONIE MEP-FOD (Costa Rica): National Programme for Educational Informatics

RELPE: Latin American Network of Education Portals

SDG: Sustainable Development Goals

SES: Socioeconomic status

UM: Ubiquitous-Mobile

UMD: Ubiquitous-Multi-Device

UNESCO: United Nations Educational, Scientific and Cultural Organization

UNICEF: United Nations Children's Fund

Executive Summary

The purpose of this document is to promote deliberation on public policies aimed at children in the digital age. Strategies that allow new generations to fully participate in their societies are vital, and they must leverage opportunities and mitigate risks for children, adolescents and young people. The analysis in this report is primarily based on the results of the Latin America Kids Online Network survey carried out in four countries: Brazil, Chile, Costa Rica and Uruguay. This research network is an offshoot of the Global Kids Online network, which was originally developed as a collaborative initiative between the UNICEF Research Office – Innocenti, the London School of Economics and Political Science (LSE), and the EU Kids Online network in Europe, with the goal of collecting worldwide information on children's rights, opportunities and risks in the digital age. The Economic Commission for Latin America and the Caribbean (ECLAC) sought to strengthen the efforts of this network in the Latin American region by promoting a comparative analysis and providing a regional perspective. This report was also supported by UNICEF and UNESCO.

Regional policies and statistics: background information on children and adolescents in the digital age

Digital technology can facilitate children's ability to exercise their right to express opinions, promote their civic participation and provide a channel for their freedom of expression and information. It can also foster the development of social and communication skills, promoting creativity and interaction.

However, the use of the Internet during childhood also presents associated risks that should not be ignored, such as access to inappropriate or sensitive content, which will be analysed in depth in Chapter V. Considering the above, it is essential that children learn and develop skills to navigate the digital world during this stage of life. These abilities go beyond learning operational skills and include cognitive and ethical capacities that will enable young people to build and fully participate in the society to which they belong (ECLAC/UNICEF, 2014).

Throughout its research activities, the EU Kids Online network has developed and continually revised an analytical model that analyses the inclusion of children and adolescents in the digital age. It

looks at these issues from the perspective of rights and takes a multilevel approach that considers individual and social indicators to explain the degree of impact the digital world has on young people's well-being. This framework includes three dimensions of analysis: the factors or characteristics that shape the use of technology at the individual level; social factors such as family or peers; and the context of the country and region where they live. This chapter briefly addresses the regional and national context that frames the opportunities and possibilities in the digital age for children in these countries.

In terms of Internet access, the outlook is quite positive as the data show that more than half of those living in Latin America and the Caribbean have accessed the Internet since 2016 (Rojas and Poveda, 2018). The percentage of individuals who accessed the Internet between 2000 and 2017 rose considerably, approaching levels of access seen in the United States. The highest average percentage was observed in the Caribbean, followed by South America and finally Central America and Mexico. Digital inclusion through smartphones is prevalent in developing countries and especially in Latin America. In fact, regional indicators show coverage of 70 of the population in 2017, with projections of up to 84 by 2020 (Patiño, Poveda and Martínez, 2018).

Digital culture, with its momentum and reach resulting from the convergence of formats and the rise of digital mobility, forces us to rethink how children and adolescents are being prepared to face these new and ever-changing challenges with regards to public policy. This is all the more true because digital media access and use provide an opportunity to develop skills that go beyond formal education.

To address the demands that have arisen in step with new digital technologies, the countries of the region have developed national framework strategies for digital development. These planning instruments allow policymakers to set priorities for intervention with a medium- and long-term vision in order to, among other things, coordinate the different areas of public policy and allocate resources for the digital transformation of society in general (Velásquez, in press).

One of the regional efforts that has been promoted since 2000 is the Digital Agenda for Latin America and the Caribbean (eLAC). The eLAC promotes the development of the digital ecosystem in the countries of the region through a process of integration and regional cooperation by strengthening digital policies that promote knowledge, inclusion and equity, innovation and environmental sustainability. The eLAC2018 agenda included a specific objective in the area of education, referring to the need to move forward in the use of information and communication technologies (ICTs) in education, reassess educational systems in light of this new context, and train the education community.

Education policies seeking to integrate digital technology in the classroom were implemented quite early on in some of the countries in the late 1980s. Until the mid-1990s, the main initiatives in Latin America were generally aimed at improving learning and teaching outcomes within schools. Initiatives to integrate ICTs into education then began to focus on giving pupils access to equipment, with special attention paid to areas with lower socioeconomic status as a strategy to level the playing field and support equality. In the early 2000s, with the spread of the Internet, educational portals began to emerge as a tool to bolster and encourage the use of ICTs in education. Meanwhile, since the mid-2000s, a trend of providing laptops to pupils emerged, following the "one laptop per child" model developed in the United States, where the devices were designed specifically for education (Sunkel, Trucco and Espejo, 2014).

In short, digital policies in the region have focused on the education sector as a key actor in digital skills development (this phenomenon will be analysed in Chapter III). However, it is important to shift towards more comprehensive policies with a broader focus, where it is not only the education system that is responsible for training and empowering new generations to seize the opportunities of the digital world.

Types of material access to the Internet in some Latin American countries

Given the importance of digital technologies in today's societies, how children and adolescents access the Internet is a key aspect of policies aimed at supporting their development and well-being

(Livingstone, Carr and Byrne, 2016), as proposed in the Kids Online analytical model. However, the rapid widespread availability of Internet access in recent years – especially through mobile devices – has led to reduced interest in material access to the Internet within public agendas in the developed world. This is a reasonable turn of events considering that the need for material access and other basic aspects related to development and inequality have generally been overcome. In these countries, the focus tends to be on levels of inclusion, such as gaps in uses, skills and tangible outcomes. This approach assumes that the motivation for using these technologies has a greater impact on material access than resources and economic conditions (Büchi, Just and Latzer, 2016; van Deursen and Helsper, 2017; Selwyn, 2010; van Dijk and van Deursen, 2014).

Questioning the assumption that the problem of access has been overcome is especially important given certain media portrayals of children and adolescents now living fully connected lives as "digital natives" (Prensky, 2001). Although this idea has been called into question in various research papers (Bayne and Ross, 2011; Gallardo-Echenique and others, 2015; Palma, 2019), it is pervasive in public opinion and discourse on digital access policies.

This chapter presents a comparative exploratory analysis of Chile, Brazil, Costa Rica and Uruguay based on three elements: the types of material access for children in these countries; the correlation between these types of access and skills and opportunities for participation in the digital society; and the sociodemographic differences that exist in these types of access.

The analysis of the four countries shows that there are four types of access to the digital world (home-mobile, home-multi-device, ubiquitous-mobile and ubiquitous-multi-device), encompassing digital ecologies with various differences, and therefore the different divides in experiences of digital access for children in these countries. These digital ecologies provide a more complex picture of material access than only looking at other indicators such as connecting at home or using mobile devices.

One important finding of this analysis is that the most widespread type of access in the four countries is home-mobile access and that it is associated with having fewer digital skills or less participation in digital environments. This reflects partial inclusion in the digital society, in that it enables and makes certain practices specific to a particular device possible. However, such activities are only available in the home, where users are unable to benefit from the full potential of a device whose main benefit is mobility. The fact that children who access the Internet at home and through their mobile phones have lower usage scores, especially in the areas of "citizenship and community" and "education and learning" (Cabello and others, 2018), suggests the need to guarantee the type of access that makes this possible, as well as to promote these types of use.

Finally, the analysis and the gaps highlighted underscore how complex material access to the digital world is today. This issue has not yet been resolved in these countries, and this is very likely true for the rest of the region. Similarly, the debate on public policies for material access should consider this complexity when developing indicators, since those most widely used today do not take into account the way in which different types of access rely on various devices and places.

Educational context: school use and teacher mediation

In recent decades, many Latin American countries have made significant investments in digital infrastructure in primary and secondary education, particularly in the four countries included in this analysis. Promoting the use of digital devices in education systems as a matter of public policy began in the 1980s (Aguerrondo, Lugo, Marchesi and Grimberg, 2006). Costa Rica, which created its National Programme for Educational Informatics (PRONIE MEP-FOD) in 1987, was a pioneer in the region. This programme was followed by Enlaces Chile in 1992, while ProInfo, the National Programme for Educational Technologies in Brazil, was launched in 1997. Uruguay's Ceibal Plan, which began in 2007,

is the most recent programme, and likely the one with the greatest impact on both the school and home environments, due to its practice of providing students with laptops.

Including technologies in Latin American education systems can help prepare children and adolescents to deal with the challenges and seize the opportunities created by the digital culture in recent years. This chapter focuses on schools as the favoured (and, for some students, the only) environment for access to digital devices for learning in Latin America. It looks at both the individual dimension of access and the social dimensions of digital ecosystems and interaction with teachers within the Kids Online analytical model.

This chapter shows that, while schoolwork activities are widely done by Internet users aged 15–17 in three of the countries surveyed, with Chile at 95%, Brazil at 85% and Costa Rica at 79%, for Internet users aged 9–10, there are sharp differences between the countries. Thus, the differences in levels of Internet access between countries are indissociable from the characteristics of the policies implemented in those countries. Different levels of Internet access limits autonomous use by children and adolescents, while policies are vital for encouraging teachers to support Internet use for learning within and outside the classroom.

The data presented in this chapter point to a need to consider the extent to which the frequent use within schools is spontaneous, managed by the pupils themselves and linked to the use of their own devices, and to what extent the use is part of a pedagogical approach linked to the ICT policy of each country, with active teacher intervention. Based on the available data, teacher mediation focused on setting rules and limits for Internet use prevails in the four countries. Because the school environment is a strategic area that can be leveraged to democratize opportunities associated with online participation by children and adolescents, as well as to mitigate possible risks, it is essential to develop teaching skills for active mediation. The data also suggest the need to strengthen information and empowerment channels for families so they can be involved in mediating Internet use. Among these channels, schools once again have a key role to play as they are identified by parents and guardians as a desirable and necessary point of reference. It is important to take this into account when developing campaigns or digital literacy programmes.

It is worth noting that while digital education policies have shifted from an emphasis on access to a focus on digital skills development, digital literacy and digital citizenship, evidence suggests that much work remains to be done to strengthen the role of schools and teachers in this regard. Because digital technologies and the Internet are important tools for access to knowledge and social and cultural participation, the challenge of guaranteeing equitable access is compounded by the public responsibility of ensuring that this access can be translated into higher levels of well-being, promoting development opportunities, and facilitating the learning, participation and self-expression of children and adolescents. This can only happen if schools are involved.

Participation of children and adolescents in the digital world

What it means to participate online and be a digital citizen is a rather broad concept and includes various perspectives. Some of these consider all the potentially positive activities that young people and adults do online, while others focus on a particular area, such as social or political. Collin (2015) and Mossberger and others (2008) take a broad approach, defining digital citizenship as the ability to participate effectively in society online, specifically using digital technologies to access political information to fulfil civic duties, as well as for economic gain in the workplace.

The issue of how children and adolescents currently use digital technologies and the possible gaps with regard to opportunities they have access to becomes increasingly important. However, with the exception of the data collected by Global Kids Online in the countries analysed here, no comparative studies have been carried out on uses and gaps among young people in Latin America.

In 2004, UNICEF presented a set of ten e-rights, including the right to free expression on the Internet, to online leisure activities and play, and to the educational opportunities that this environment offers. Based on these rights, it is argued that those who are not connected are missing out on educational resources and access to general information, as well as opportunities to learn digital skills, explore friendships and establish new forms of self-expression (UNICEF, 2017). Accordingly, based on online participation rights, the Kids Online survey looked at the frequency at which children and adolescents engage in a set of activities that, with digital skills and appropriate adult mediation, are considered to be opportunities or uses that can have potential benefits (ECLAC/UNICEF, 2014).

The descriptive analysis of data on Internet use in this chapter provides an overview of the areas and types of online participation activities that are more or less widespread among children and adolescents in the four countries where the surveys were carried out and based on the dimension of online behaviour as per the Kids Online analytical model. While the idea "that the more online activities, the better" should be carefully considered, it is important to understand the gaps that exist within the activities with the greatest potential to benefit the development of children and adolescents and to define public policy priorities. Furthermore, there is still a need to better understand the specific ways in which different online activities benefit the development of children and adolescents. New digital spaces offer various opportunities to access resources for learning and entertainment, as well as for being creative and participating with others.

There are considerable socioeconomic inequalities, because generally speaking, the higher the SES, the higher the percentage of users who engage in the various activities, especially in the entertainment and creativity category. The major difference in this category could be explained by the more limited access to devices and access locations for those from lower SES households. This could restrict free time for leisure activities that are more appropriate for those in this age group. There was one particularly interesting finding with regard to education and learning in Chile, where searching for information on health and work opportunities is more widespread among the lower SES. This could indicate that in Chile, children and especially adolescents from lower SES households see the Internet as an opportunity to find information on work, study and health. If this is true, it would be useful to also investigate whether those who seek such opportunities actually find and benefit from them.

The most important results provide several guidelines for the development of digital public policies aimed at new generations. Learning about the distribution of opportunities for entertainment and creativity, education and learning, sociability, and citizenship and community increases concern about those who still do not have access to the Internet, and who are therefore being excluded from these opportunities. It is essential to strengthen digital inclusion policies for this age group.

Managing online risk and coping skills

Like any new invention, information and communication technologies (ICTs) have expanded the potential for human action, enabling a huge range of benefits along with a considerable number of potential risks. When adults talk about the relationship between children and adolescents and technologies, they tend to associate Internet use with risky situations and consider young people to be passive actors when it comes to the effects and appeal of such innovations. While such ideas tend to stem from genuine concern for young people's well-being, they are rarely backed up by empirical evidence, and children and adolescents are seldom included in the conversation.

This chapter addresses this issue, which also shapes the use of technology at the individual level, based on a risk typology developed by Livingstone and others (2015) that distinguishes between content risks (children as recipients of mass productions), contact risks (children as participants in adult-initiated activities), and conduct risk (children as perpetrators or victims of child-initiated activities). The authors also suggest classifying each of these three types of risk according to whether their subject matter is aggressive, sexual or value-related, or commercial. Given the type of questions prevalent in the Kids

Online surveys conducted in the region, this chapter mainly focuses on the three types of risks related to aggression, sexuality and values.

The findings show that between 30% and 40% of children and adolescents were exposed to or accessed content that was distressing or upset them, but only half of them (in the countries where this was studied) spoke to someone else about the incident; the other half kept such negative experiences to themselves. This is problematic because asking for help or discussing it with someone else can be a protective factor in dealing with harm (Dodel and others, 2018).

Moreover, 10% to 40% of children have accessed or been exposed to sensitive content (e.g., content on suicide, anorexia, drugs or violence). While it is impossible to know whether access to this content was intentional or accidental, the data on its prevalence again reinforces the need to provide young people with tools to address and/or determine the relevance and quality of all kinds of content, with particular emphasis on this type of content. It would also be extremely helpful to provide safe spaces where children and adolescents feel they can talk about these issues with key individuals in their environment (e.g., family, teachers and professionals).

Receiving and sending messages with sexual content is a somewhat more common practice, especially among older boys and adolescents. While the studies did not look at whether receiving or sending of these messages was consensual, 10% of Internet users in Brazil, 4% in Chile, and 3% in Costa Rica felt uncomfortable or harmed by this type of content. Among them, older girls and younger children were the groups that expressed the greatest discomfort. This highlights situations of harm linked to cultural stereotypes and norms that are common in populations that are traditionally more vulnerable in this area.

Difficulty self-regulating the use of digital devices is one of the most prevalent problems among those presented in this chapter. It is important to emphasize that this difficulty is not limited to children but is also prevalent among adults. Regarding discrimination, physical appearance and skin colour or ethnic group were the main reasons for discrimination cited both by those who witnessed and those who experienced it.

It should also be noted that none of the negative experiences or risks described here were widespread in the countries studied; however, this does not make them any less important. All these phenomena require attention and new policies to provide children with the skills they need to exercise their rights and ensure their own coping skills in an age where the Internet is a major part of their lives. Given that various groups of children and adolescents have very unequal starting points in terms of their skills, attitudes and coping strategies, the role of States, communities and public policies in general is key to guaranteeing their rights and ensuring their well-being.

Challenges in the experiences of children and adolescents in the digital age

The findings in this report, based on the situation of children and adolescents connected to the digital world in Brazil, Chile, Costa Rica and Uruguay, show that challenges of connectivity and access remain. Despite the progress made in terms of access to the digital world, which is particularly bolstered by the widespread availability of mobile connectivity, there are still considerable gaps in material access to the digital world, which has important implications for the opportunities and participation of new generations.

The Internet is not just an opportunity to level out certain gaps or a democratizing tool enabling people to develop new talents, cultivate their knowledge, develop skills and entertain themselves – all essential activities for children with respect to their rights – but it is also a requirement to be able to participate in this digital culture. The digital world is more than an educational space to develop knowledge: it is a place where play, sharing with others and cultivating interests is necessary.

The study shows that digital policies in the region, and particularly in these four countries, have focused on the education sector as a key area for promoting digital skills development. While the formal education system is a critical component when it comes to helping young people learn digital skills, new policies cannot be limited to this area. Advances in connectivity and ubiquity must consider the opportunities for participation in a digital culture that permeates defined spaces. To this end, a multisectoral approach is needed to develop the necessary measures to reduce gaps in the digital age and fully seize its opportunities.

Likewise, the importance of the use of social media, especially in adolescence, is remarkable. This reflects the place that the virtual environment occupies in the identity construction processes that are so relevant at this stage of life, as well as in the interactions and relationships with other people, which are reinforced by other types of communication that go beyond a face-to-face setting. The virtual environment and social media transform social relations and make it possible to relate to others anonymously, interact with a large number of people (known and unknown) and create virtual communities, among other novel activities. This opens the door to many opportunities along with major risks for children and adolescents who are most exposed to these types of media. Not all children and adolescents start off with the same knowledge, attitudes and learning required to develop and adopt coping strategies to benefit from the opportunities offered by the Internet and to reduce or deal with the risks.

Gaps in in the types of access to the digital world must be urgently addressed in order to allow young people to take advantage of digital tools for their full development and participation in an increasingly digital society. However, it is also crucial to move forward on policies that regulate user protection, especially in terms of children's rights and the private sector's responsibility to protect personal data.

Introduction

Digital technologies have led to exponential breakthroughs in the social, economic, cultural and political reality of Latin American societies. In doing so, they have transformed activities and processes, social relations and opportunities for inclusion. These innovations offer enormous potential benefits and are a tremendous opportunity to support the development, social welfare and productivity of these countries. However, along with such opportunities come disparities in terms of people's ability to fully enjoy the benefits of technology in their daily lives, to actively choose how they want to be a part of our increasingly digitalized societies, or to cope with the associated risks.

In Latin America, these transformational processes are happening against a backdrop of historical and structural inequality that determines the different areas of action and outcomes. Not only do the differences impact access to technology, which has improved with the convergence of media and mobile connectivity, but they have a very profound effect on people's knowledge and ability to be involved in the changes.

The purpose of this document is to promote deliberation on public policies aimed at children and adolescents in the digital age. Strategies that allow new generations to fully participate in their societies are vital, and they must leverage opportunities and mitigate risks for children, adolescents and young people. The analysis in this report is primarily based on the research findings of the Latin America Kids Online network in four countries: Brazil, Chile, Costa Rica and Uruguay. This research network is an offshoot of the Global Kids Online network, which originally developed as a collaborative initiative between the UNICEF Office of Research-Innocenti, the London School of Economics and Political Science (LSE), and the EU Kids Online network, with the aim of gathering information at the global level on the rights, opportunities and risks of children in the digital age. ECLAC sought to strengthen the efforts of this network in Latin America to enhance the comparative analysis and regional perspective.

Chapter I provides background information to shed light on the specific context in which these studies took place, not only in terms of indicators on basic digital infrastructure development and Internet access, but with regard to the main public policies on these issues in the region as well. The subsequent chapters use the Kids Online survey data to analyse the various aspects of how children and

adolescents are involved in the digital world in the four countries studied. Chapter II takes a new look at the challenges of access with the convergence of devices and prevalence of mobile connectivity. Chapter III deals with Internet access and use in schools and adult mediation in the education system. Chapter IV discusses the challenges of participation and shaping digital citizens based on an analysis of the activities that are most and least widespread among the younger generations. Chapter V looks at the risks related to online experiences among children and adolescents as well as coping strategies and tools they need to develop. Finally, Chapter VI provides a summary of the key messages of each chapter with insights on how to continue moving forward on public policies that support the training and experiences of younger generations in the increasingly digital world in which they live.

I. Regional policies and statistics: background information on children and adolescents in the digital age

Daniela Trucco
Amalia Palma

A. Introduction

Digital technologies have led to exponential breakthroughs in the social, economic, cultural and political reality of Latin American societies. In doing so, they have transformed activities and processes, social relations and opportunities for inclusion. These innovations offer enormous potential benefits and are a tremendous opportunity to support the development, social welfare and productivity of these countries. However, along with such opportunities come disparities in terms of people's ability to fully enjoy the benefits of technology in their daily lives, to actively choose how they want to be a part of our increasingly digitalized societies, or to cope with the associated risks.

In Latin America, these transformational processes are happening against a backdrop of historical and structural inequality that determines the different areas of action and outcomes. Not only do the differences impact access to technology, which has improved with the convergence of media and mobile connectivity, but they have a very profound effect on people's knowledge and ability to be involved in the changes. Mature digital technologies (such as the Internet, mobile Internet and others) have created gaps that exacerbate pre-existing inequalities in terms of access to information, knowledge and services. This makes social inclusion more difficult for some, as their possibilities to develop the basic skills needed to fully participate in modern society are limited.

This report seeks to promote deliberation on public policies aimed at children and adolescents in the digital age. Strategies that allow the younger generations to fully participate in society, without

some of them being excluded from these processes, are vital. The growing digitalization of the world has transformed how children and adolescents learn and access knowledge and information, as well as how they relate to their peers and construct their identities. It is impossible to understand the basic aspects of social and psychosocial development, especially for the younger generations, without examining the complex web of relationships they have with digital technologies and the resulting phenomena, such as new ways of encouraging good citizenship and participation, and the skills that are required to simultaneously be part of a virtual and a physical world. These changes have created opportunities, but they have also brought along risks in childhood, adolescent and youth experiences that require support from trusted adults in the private and family sphere, as well from schools and other appropriate areas for socializing.

Although the generational digital divide is clear in terms of younger generations' proximity to and ease with using digital media and devices compared to the adults around them, adults still have a key role to play in helping them deepen their skills to guide how they are included in the digital world. To reap the benefits of digital technologies and mitigate the risks, children and adolescents need skills that go beyond purely operational or instrumental abilities. They also need to develop the cognitive and social skills that will enable them to use these technologies in a thoughtful, ethical and safe way.

The analysis in this report is primarily based on the research findings of the Latin America Kids Online network in four countries: Brazil, Chile, Costa Rica and Uruguay. This network is an offshoot of the Global Kids Online network, which originally came about as a collaborative initiative between the UNICEF Office of Research-Innocenti, the London School of Economics and Political Science (LSE) the EU Kids Online network, with the aim of gathering information at the global level on the rights, opportunities and risks of children in the digital age. This chapter will cover the theoretical framework developed by this network in order to frame the comparative analysis of the Latin American countries. It provides background information to shed light on the specific context in which these surveys took place, not only in terms of indicators on basic digital infrastructure development and Internet access, but with regard to the main public policies on these issues in the region as well.

B. Analytical model for the analysis

The Convention on the Rights of the Child (CRC), adopted in 1989, sets out the fundamental principles for promoting children's rights. At the time, the Internet was virtually non-existent in everyday life and is not directly mentioned in the CRC, but the principle of guaranteeing the fundamental rights of children and adolescents also applies to the digital world. Digital technology can facilitate children's ability to exercise their right to express opinions, promote their civic participation and provide a channel for their freedom of expression and information. It can also foster the development of social and communication skills during this phase of life, thereby helping to encourage creativity and social interaction. However, Internet use during childhood also comes with certain risks, such as exposure to inappropriate or sensitive content. These risks are difficult to ignore and will be discussed in greater detail in Chapter V.

Among the most common risks that people are aware of and which are publicized by the media are harassment and cyberbullying, which infringe upon children's honour and reputation, protected under articles 13 and 16 of the CRC, as well as privacy. To benefit from the opportunities made possible by these technologies to exercise their rights, children and adolescents must learn how to participate in the digital age by reducing risks and adopting coping strategies. Such skills go beyond learning operational skills and imply the cognitive and ethical capacities that will enable young people to build and fully participate in the society to which they belong (ECLAC/UNICEF, 2014). Furthermore, with regard to the protection of these rights, public policies and regulations must hold the private sector – especially large virtual platforms – accountable.

Box 1
Latin America Kids Online: International research challenges

Cristina Ponte[a]

Nearly a decade ago, in 2011, at the final conference held for the EU Kids Online survey in London, Alexandre Barbosa, from the Brazilian Regional Centre of Studies for the Development of the Information Society (Cetic.br); Patricio Cabello, a Chilean researcher who presented a paper on the digital practices of migrant children; and Jasmina Byrne, a UNICEF Research Officer, expressed interest in adapting the project's framework and methodology to other contexts. The survey was initially carried out in Brazil before being rolled out to the other Latin American countries included in this report.

The first national ICT Kids Online survey was conducted in Brazil in 2012, and it has been repeated every year since. The initial comparative analysis with the European findings (Barbosa and others, 2013) showed clear differences in Internet access and online practices.

At the time, asking Brazilian children and adolescents (aged 9–17) if they accessed the Internet "in their own bedroom" sounded strange to many. In 2012, more than a third of young Brazilian Internet users went to private centres such as cybercafes where they paid for access. This was three times higher than the European average, and only one-fifth of them used mobile access, which was twice as many as in Europe. The much lower rate of computer ownership in Brazilian homes went hand in hand with much faster Internet access via mobile phone.

Social media use was also much higher than the European average. Although social networking sites require users to be at least 13 years old to use them, nearly half of the Brazilian children aged 9 to 10 and three-quarters of those aged 11 to 12 reported having a social media profile, well above the one-third of European children (aged 9 to 12) who reported the same.

However, there is one European average that reveals certain differences. In 2014, a comparison of seven European countries showed that Brazilian and Romanian children and adolescents had less favourable Internet connection conditions, even as they also reported using social networking sites more (Sozio and others, 2015). While the disparate conditions across Europe – as in Brazil – were clear, similarities were also obvious in how middle-class children and young people in urban areas used digital media on both sides of the Atlantic.

Kids Online in Brazil has become a reference point for other Latin American countries when it comes to promoting surveys that bring to light the digital practices of children and adolescents and guide public policy development. In Argentina these surveys were conducted by UNICEF, while in Chile and Uruguay they were carried out by university researchers working on national surveys. The Latin America Kids Online network took shape in 2015, with international support from UNESCO and national support from the local ministries of education.

The participation of Latin American researchers in the European network meetings should be noted, as this offered an enriching view of the different contexts and highlighted the mediation efforts that were needed by communities, families, schools and peers. This provided a more open-minded and community-oriented vision as a counterweight to the more individualistic approach that was characteristic of some European cultures.

UNICEF intervention and the Global Kids Online network

Recognition of the importance of gathering rigorous, periodic and comparable data on other regions led to the creation of the Global Kids Online network. It was managed by Jasmina Byrne of UNICEF and Sonia Livingstone of LSE and included members from the EU Kids Online network. Joining the four original countries from four different continents (Argentina, Serbia, the Philippines and South Africa) were Ghana, Albania, Bulgaria and Macedonia, the countries from the Latin America Kids Online network, Canada, New Zealand, India and China.

The Global Kids Online project (2015–2016) aimed to produce findings on Internet use that could be compared between countries by creating a global network of researchers and experts. The project was based on fieldwork in several countries, and included children with disabilities, minorities and children living in situations of social exclusion as well as a network of experts. It created a set of guidelines on research methods (quantitative, qualitative and participatory); dealt with ethical issues of research involving children, opportunities and risks; made regional and international comparisons; took into account considerations on diversity and inequality; and organized the findings so as to be useful for informing public policies and evaluating their impacts.

The results of the fieldwork carried out by these networks on other continents and their critical analysis led to the revision of the European questionnaire. The access and mediation conditions that were considered to be a given in Europe, such as children having their own bedrooms or parents' involvement in determining Internet use, were mainly targeted at urban, middle-class families. The importance of considering other contexts was also recognized, such as rural areas, the poor suburbs of large urban cities and children from ethnic minorities.

As Banaji (2016) points out, research questions should not be automatically applied to every country around the globe or to those with greater means than others. In the case of the EU Kids Online research, we are aware of this critical point and would like to stress the importance of considering social, regional and national contexts as essential background information when interpreting the findings.

One final point that should be noted from this international research is the need for attention on the social impacts in an attempt to "generate change". The aim is not to simply carry out thorough analyses of the data collected in the field using advanced methodologies that differentiate scientific knowledge from impression-based knowledge. These analyses must reach a bigger audience than the narrow circle of academics who move within universities, international conferences and scientific journals. Coordination with international and local organizations, policymakers, health and education professionals, families and adolescents is critical in order to ensure that the findings not only inform policies but also help promote changes at the individual, interpersonal, community and institutional levels. This is an enormous challenge for a continent with such rich community dynamics as Latin America, and for its Kids Online network.

Sources: Banaji, S. (2016), *Global research on children's online experiences: Addressing diversities and inequalities*. London: Global Kids Online. [Online] www.globalkidsonline.net/inequalities; Barbosa, A. and others (2013), "Risks and safety on the internet: comparing Brazilian and European children". EU Kids Online, London, United Kingdom; Sozio, M.E. and others (2015), *Children and Internet use: A comparative analysis of Brazil and seven European countries.* EU Kids Online, London, United Kingdom.

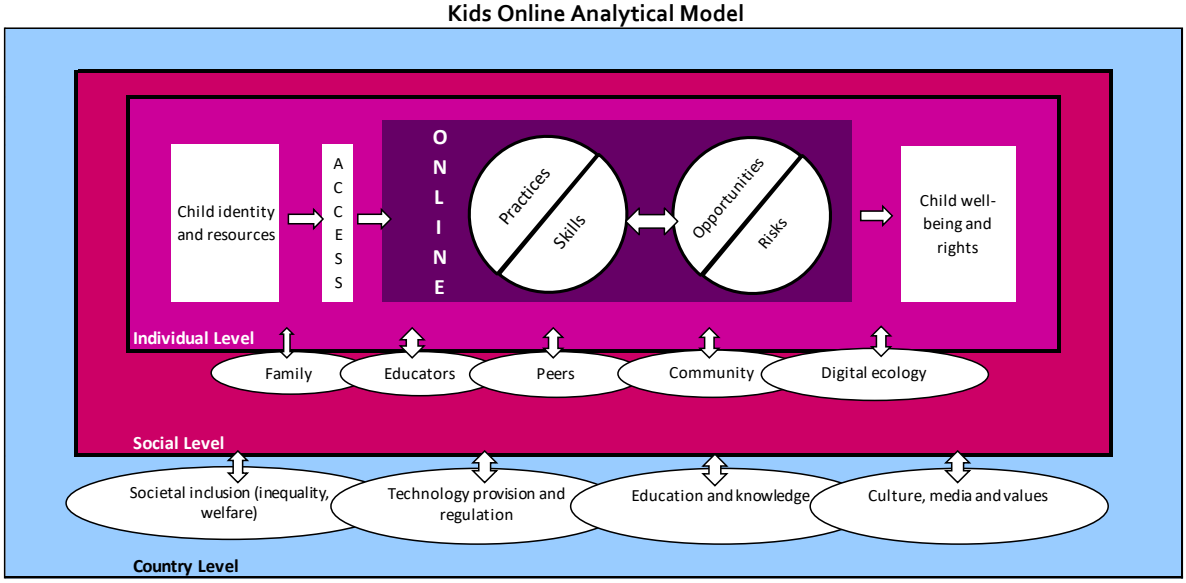
[a] Universidade NOVA de Lisboa, member of the EU Kids Online management team and the Global Kids Online Expert Group.

Throughout its research activities, the EU Kids Online network has developed and continually revised an analytical model that analyses the inclusion of children and adolescents in the digital age. It looks at these issues from the perspective of rights and takes a multilevel approach that considers individual and social indicators to explain the degree of impact the digital world has on young people's well-being (refer to Diagram 1).

This model reflects the factors that are associated with children's online experiences. It should be noted that access to the digital world, accessing the Internet or being online are not an end in themselves; rather, they are activities that contribute to (or diminish) child and adolescent well-being. The analytical model contends that access continues to be an important and basic element, since it is what makes online experiences possible. As will be discussed in detail in Chapter II, the degree of access can differ depending on the geographical area, connection systems and connectivity quality.

There are three dimensions to this analytical model. The first deals with the factors or characteristics that shape technology use at the individual level. More specifically, these relate to children's resources and identities, including demographic characteristics (age and gender) and psychological characteristics such as abilities, interests, motivations and life experiences. This dimension includes the experiences of children and adolescents in today's connected world (that which could be called "online") and must be understood as a combination of practices and skills. Beyond online uses, "practices" connote a much more complex concept that encompasses not only frequency and location of use, but also searching, coping and communication strategies, among others. Also related to practices are skills, which generally refers to what users know how to do. According to the OECD, skills are a "are a set of knowledge, attributes and capabilities, which can be learned, and which allow individuals to consistently and effectively perform activities or tasks, which can be developed and extended through learning" (OECD, 2013). In this report, they refer to the set of digital skills and competencies required to participate in the online world.

Diagram 1
Kids Online Analytical Model



Source: Livingstone, Mascheroni and Staksrud (2015).

The next part of this dimension refers to the combination of opportunities and risks that arise when navigating the digital world. Opportunities represent the activities that children and adolescents can do online and that could provide a benefit. In the Kids Online survey, they are measured based on the activities carried out, but conceptually, they are defined as opportunities in order to reflect the potential positive value that the activity has on well-being. Risks are situations that can be encountered online that may cause harm. According to UNICEF (2018, p. 24), "online opportunities and risks go hand in hand, but risk and harm do not". It is important to make the distinction between risk and harm, as children can acquire tools to manage risk and avoid harm. However, this requires certain knowledge and skills.

The second dimension in the figure refers to children's social environment, which includes five relevant components. The first of these is family, including parents, siblings and other relatives who can mediate children's socializing with regard to their Internet access and online experiences. Next are educators, both in the formal and informal sectors. Peers and friends also play an important role in how children, and especially adolescents, act online, as well as in the strategies they develop to cope with risks and take advantage of opportunities. The community is the broadest environment with which children and their families and friends interact, and is related to the context of the neighbourhood and city. Finally, the digital ecology or ecosystem is the last component of this dimension and refers to the availability of Internet devices, platforms and services that shape the types of digital experiences. These technologies make some activities and actions possible and can block or limit others.

Lastly, the third dimension of the analysis is the context and characteristics of the country. There can be structural variables that affect children's experiences, such as the available technological infrastructure. The proposed analytical model contains four subdimensions at this level that can affect children's online experiences. The first is social inclusion, which refers to the differences and existing gaps due to economic, ethnic, regional and gender-based reasons, and which may have deep social and historical impacts. Additionally, the provision of technology and regulation is also strongly linked to children's opportunities. This is because the available infrastructure defines the ecosystems that are suited to online experiences, and can determine options for Internet access. Third, education and knowledge are relevant factors, and include both formal educational institutions such as schools as well as informal spaces such as libraries, museums and training programmes for the digital age. Finally,

culture, resources and values are also factors that, when taken together, provide a framework of norms in society and have an impact on virtual experiences. To understand the context of the Kids Online surveys in each country, the following section will go into more detail on this level of analysis.

Box 2
The road to the Latin America Kids Online network

Alexandre Barbosa[a]
Guilherme Canela[b]

Children must be taught how to think, not what to think."
Margaret Mead, American anthropologist

Setting up a network is no easy task, and even less so when it comes to creating a Latin American network to research the relationships between digital technologies and children and adolescents. The immediate temptation is to create an official narrative, beginning with the date on which the network's founding members stood under a banner for a photo to mark the start of the initiative. But such a description would not accurately reflect the long and winding road (in fact, the many roads) that led to this "photo under the banner" moment.

The network, which is dedicated to researching how children and adolescents (and the adults closest to them) interact with the Internet, was inspired by the 1989 Convention on the Rights of the Child (CRC), Paulo Feire's thoughts on education and communication, and the first regulations meant to protect and promote the rights of children and adolescents with regard to various media that date back more than 100 years.

In 1911, Sweden passed the first known regulation to protect children and adolescents with regard to the cinema, a brand-new medium at that time. Soon after, the first studies on the impact of cinema on children were conducted, and we now have nearly a century of solid research on childhood and media.

Decades of research, regulations and concerns from experts and families have left behind a series of legacies that today help us to form a complete picture of the relationships between childhood and the digital world.

A robust perspective on rights certainly needed to be included in the discussion. Articles 13 (freedom of expression) and 17 (relations with the mass media) of the CRC clearly convey the message that it is not only about risks, but also opportunities, and not just protection, but also the promotion of young people's rights online.

The Latin American context has been especially enriching for these debates. Work by Paulo Freire, Mario Kaplun, Ismar Soares, Adelaida Trujillo, Guillermo Orozco, Roxana Morduchowicz, Valerio Fuenzalida, Beth Almeida and Elza Pacheco – to name only a few – has contributed tremendously to the debate on media education and wider discussions on the relationship between childhood and the media.

This is why so many public policies (both governmental and from civil society) in Latin America over the last decades have sought, with varying degrees of success and sustainability, to weigh in on these issues.

Research by the National Television Council (CNTV) in Chile, the pact for quality television in Colombia, the Prix Jeunesse Iberoamericano, the Brazilian advisory rating system, the ANDI Latin America Network, various initiatives for quality audiovisual production for children (such as the television channels Pakapaka in Argentina or Televisón Cultura in São Paulo), more than three decades of policies on information and communication technologies (ICTs) in education (e.g., the Omar Dengo Foundation in Costa Rica, and later, Enlaces in Chile and ProInfo in Brazil), and many more examples are all part of the foundations upon which the road to the famous photo under the banner was built.

The rapid progression of the Internet from the early twenty-first century made it clear that the knowledge produced through research on audiovisual media and children, including on ICTs and education, was not enough to fully understand the new phenomena taking place as children and adolescents were becoming increasingly present in the virtual world.

With the creation of the EU Kids Online network in 2006, in which researchers who were well-informed about the discussion on the relationship between children and the media participated, a solid and replicable methodology was rolled out on a large scale. This made it possible to fill in the gaps in information needed not only to understand the new phenomena, but also – and perhaps more importantly – to gather facts to create public policies adapted to the new challenges.

Key members of the network such as professor Cecilia von Feilitzen from the International Clearinghouse on Children, Youth and Media, had always kept a finger on the pulse of discussions in Latin America and the UNESCO agenda. It was without a doubt professor Cristina Ponte, from the Universidade NOVA de Lisboa, who played the most strategic role in bringing the Regional Centre of Studies for the Development of the Information Society (Cetic.br)[c] into the EU Kids Online network, with the support of the UNESCO office in Brasilia.

In Latin America, Cetic.br was the first research centre to adopt an international methodological framework on producing internationally comparable data. In 2008, the annual surveys on ICT use in Brazilian homes conducted by Cetic.br[d] already showed that young people were the most intense users of these technologies. The speed with which they obtained access to digital, converging, mobile and interconnected technologies is unprecedented, with significant impacts on their lives. At a time when ICTs were increasingly present in Brazilian society, the topic of the digital generations was becoming more visible and relevant. As such, there was a need to develop indicators to research these changes, and especially in the lives of children and adolescents.

Today's youth are growing up at a time where the Internet is ever more present in their daily lives. As children become familiar with and appropriate these technologies, the implications of this new situation must be better understood. Accordingly, Cetic.br drew from the EU Kids Online network's experience in Europe to create the methodological framework and analytical model to generate data in Brazil on the opportunities, benefits and risks associated with the Internet that would bring to light relevant facts to inform public policies on the protection and promotion of children's and adolescents' rights.

The various online activities and uses can provide children and adolescents with opportunities to learn and grow, but also expose them to risky situations that can result in negative experiences or have harmful consequences. Opportunities and benefits include learning, participation, creativity and communication. Online opportunities and benefits are also a focal point for the promotion of digital learning technologies in schools, with the aim of developing digital skills. Internet access has also potentially exposed children and adolescents to a wide range of online risks. Some are also common in the real world (such as bullying, pornography and sexual exploitation), while others are specific to being online, such as those related to personal data protection and privacy.

Cetic.br had already shown its interest and competency for research in this area. Its series of surveys on ICTs and education already included components connected to the debate that was prompted EU Kids Online. In 2009, Cetic.br also began doing research using its own methodology on children and the Internet in Brazil. The alliance between Cetic.br and EU Kids Online was a clear win-win for both organizations.

After applying the methodology in Brazil, adapting the questionnaire and conducting cognitive interviews to test the key concepts, Cetic.br very quickly, with the support of the UNESCO Regional Office in Montevideo and national offices of UNICEF, began consulting with Latin American experts to ensure that the EU Kids Online methodology, which had been successfully adapted and implemented in Brazil, could be used in other countries in the region. This is where the photo under the banner comes in.

The response was extremely positive: experts, academics, UNICEF officials, and NGO representatives from Argentina, Brazil, Chile, Colombia, Costa Rica, Peru and Uruguay joined what we now call the Latin America Kids Online[e] network. Research data are already available for Argentina, Brazil, Chile, Costa Rica and Uruguay, and data on other countries are forthcoming.

In the grand scheme of things, the Latin America Kids Online network is the result of a long history of debate on the rights of children and adolescents and the media (including the Internet), and more specifically, the indefatigable work of individuals such as professor Cristina Ponte and institutions such as Cetic.br, UNESCO and UNICEF. These multifaceted origins explain in large part its successes and the initiative's promising sustainability.

Many more challenges lie ahead for the network. That said, in the 30 years since the CRC was adopted, one is especially relevant: ensuring that the civil and political rights of children and adolescents (such as freedom of expression) remain core concerns in our strategies for research and public policy development. Ultimately, as Antoine de Saint-Exupéry teaches us in *The Little Prince*, "Grown-ups never understand anything by themselves, and it is tiresome for children to be always and forever explaining things to them."

Source: Prepared by the author.

[a] Head of the Regional Centre of Studies for the Development of the Information Society (Cetic.br).

[b] UNESCO Montevideo Advisor for Communication and Information for Mercosur.

[c] The Regional Centre of Studies for the Development of the Information Society (Cetic.br), under the auspices of UNESCO, develops research and capacity-building activities that contribute to the debate on the importance of ICT mediation in public policies. It also promotes the sharing of experiences among key actors who research the convergence between society and technology and the implications on building knowledge societies.

[d] The ICT Household survey, conducted annually by Cetic.br since 2005, aims to understand the presence of digital technologies in Brazilian households and how individuals use them.

[e] The Latin America Kids Online network strives to enhance knowledge on the access, opportunities, risks and safety of Latin American children with regard to digital media. Latin America Kids Online combines various methods to understand the experiences of children and their parents with respect to the Internet and works with digital policymakers at both the regional and national levels. For more information, see http://www.lse.ac.uk/media-and-communications/research/research-projects/eu-kids-online/participating-countries/kids-online-latin-america.

C. Access and gaps in inclusion in the digital world in Latin America

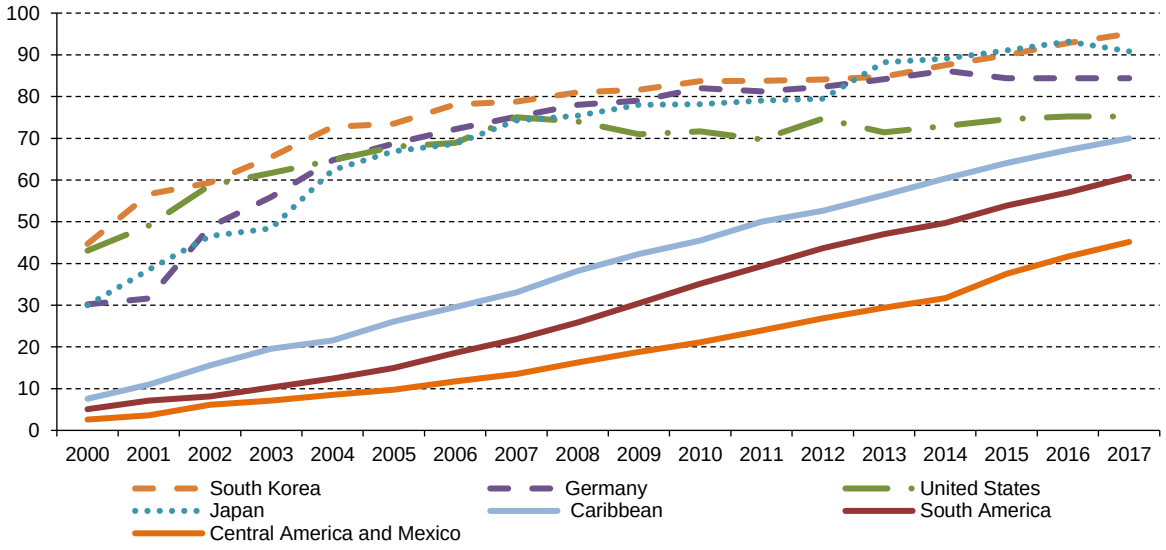
The third dimension of the Kids Online analytical model deals with the regional and national context that determines the opportunities and possibilities for children in these countries in the digital age. What does it mean today to be part of a digital society and how does one participate in it? For nearly two decades, academics, experts, educators, international organizations and politicians have been discussing and offering insights on the challenges of a digital society. The Internet – with all its opportunities and drawbacks – has become a new way of life that has affected educational, civic, productive and, undoubtedly, communicative processes, both in developing and developed countries. The way people learn, communicate, express themselves and connect is dynamic and interactive and requires being prepared for a very different world than that of 50 years ago. There is also an opportunity to rethink the objectives and strategies of an information and knowledge society that reinvents itself year after year, resulting in new challenges.

One of these challenges is the convergence of devices and content that have completely changed the media ecosystem and the role of each format. Today, life is mediated by technology, which permeates experiences and spaces in unforeseen ways, enabling users to enjoy their right to freedom of expression and to choose and produce content. For example, phones are no longer just for talking, watches provide access to much more data than the time, and television as an experience is completely different to what it was a decade ago. The digitization of daily life will not wane in the near future; in fact, all signs point to further expansion. For instance, by 2020, more than 50 billion devices are expected to be interconnected in what is a true reflection of the progress of the Internet of Things, or the exchange of data between sensors and devices (Mekki and others, 2019). In this social, cultural and technological context, the initial question of what it means to be an active part of an information and communication-based society becomes even more relevant.

In a region as disparate as that of Latin America and the Caribbean, it will be critical to consider social inclusion in the digital age and which strategies should be promoted through public policy so as not to widen the gaps. This idea of inclusion is a complex process that goes beyond technology access, and includes using them in ways that allow people to achieve their full potential. This approach is not meant as a normative use of technological devices, since the advantages the devices offer differ according to users' sociodemographic and cultural characteristics, as well as their needs and expectations.

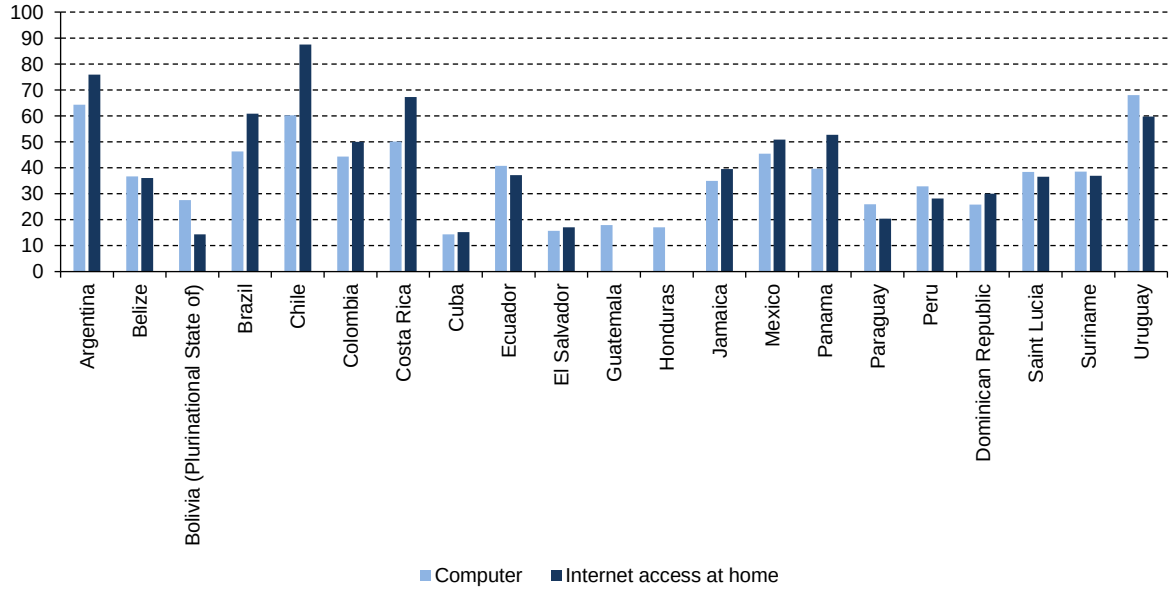
In terms of Internet access, the outlook is positive as more than half of those living in Latin America and the Caribbean have accessed the Internet since 2016 (Rojas and Poveda, 2018). Figure 1 shows a remarkable rise in the percentage of individuals accessing the Internet between 2000 and 2017, reaching the same levels of access as in the United States. The highest average percentage has been seen in the Caribbean, followed by South America, Central America and Mexico. Several countries in Central America have the lowest percentage of individuals with Internet access. In El Salvador, Haiti, Honduras and Nicaragua, less than 35 of the population uses the Internet, while Argentina (75.9%), Chile (87.5%) and Costa Rica (67.3%) have the highest proportion of Internet users in the region (see Figure 2). The data also show that trends in access have changed, with Internet connectivity surpassing access to computers in the home. In Brazil, for example, the number of households with a computer has declined in recent years. Internet access through mobile phones has led to rapid widespread use of new types of access in recent years.

Figure 1
Internet users (selected regions and countries), 2000–2017
(Percentages)



Source: Prepared by the authors on the basis of information available [online] https://www.itu.int/en/ITU-D/Statistics/Pages/ stat/default.aspx.

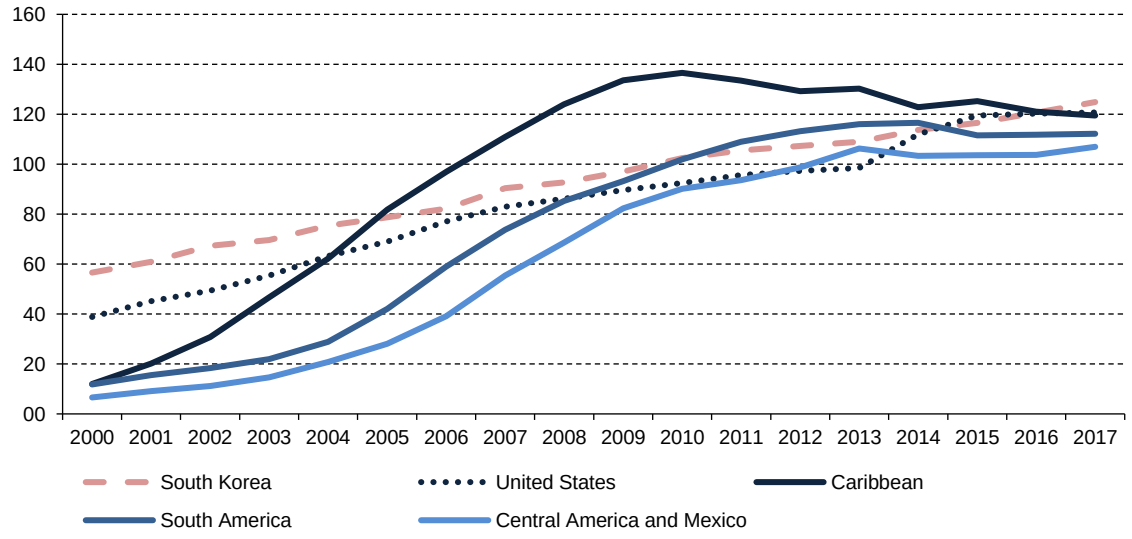
Figure 2
Latin America and the Caribbean (21 countries): households with a computer and Internet access, around 2017
(Percentages)



Source: Prepared by the authors on the basis of information available [online] https://www.itu.int/en/ITU-D/Statistics/Pages/stat/ default.aspx.

Digital inclusion through smartphones is prevalent in developing countries and especially in Latin America, a phenomenon worth analysing with a view to reducing access gaps. In fact, regional indicators show coverage of 70% of the population in 2017, with projections of up to 84% by 2020 (Patiño, Poveda and Martínez, 2018). Smartphone usage was 55% in 2016, with estimates of 70% by 2020, which would be four percentage points above the global average (GSMA, 2017). The change in mobile phone subscriptions per 100 inhabitants, as opposed to Internet or computer access indicators, has increased more rapidly and is converging with access to these devices in countries at the forefront of technological development such as the United States and South Korea (see Figure 3).

Figure 3
Change in mobile phone subscriptions per 100 inhabitants (selected regions and countries), 2000–2017



Source: Prepared by the authors on the basis of information available [online] https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.

At the regional level, this means that Internet connections are expected to occur more frequently through increasingly diverse modalities available from mobile devices (mobile networks or public Wi-Fi) compared to fixed computer connections in households, which can be explained by several factors. One reason, for example, is because mobile devices offer a relatively cheaper way to connect to the Internet than through a fixed connection. In other words, there is no need for an Internet connection at home with these other types of plans, which often more affordable for lower-income households. In terms of abilities and devices, it has also been observed that using a computer or laptop is more complicated than a smartphone with regard to required skills, and that a smartphone tends to be more familiar, especially for new users. Additionally, research on more excluded populations has shown that people who are worried about breaking or damaging a computer tend to treat it with extreme care, making it difficult for them to use it in their daily lives (Pavez, 2014a). Meanwhile, mobile phones are seen as more user-friendly, with a manageable and easy-to-carry size, cost much less than a computer, and offer fewer barriers to entry (Napoli and Obar, 2014). In terms of access, mobile phones are more popular than computers, especially in rural areas.

Box 3
Other structural sociohistorical gaps in this context

Latin America is one of the most unequal regions in the world. This inequality has been reproduced and perpetuated throughout the region's history and is one of the greatest challenges with regard to poverty reduction, sustainable development and guaranteeing people's rights. Moreover, inequality undermines the right of citizens to participate fully in their society.

According to the latest Social Panorama of Latin America report, it is estimated that "income inequality, measured by the Gini index (average of 15 countries in Latin America) fell from 0.538 in 2002 to 0.477 in 2014, 0.469 in 2017 and 0.465 in 2018" (ECLAC, 2019, p. 21). Among the countries included in this study, Brazil has the highest levels of income inequality with a Gini index of 0.540 for 2018. It is followed by Costa Rica, which has a Gini coefficient below 0.5 but without major variations between 2002 and 2018 (0.497–0.493, respectively). In third place is Chile with a Gini index of 0.454, and finally, Uruguay, with an index of 0.391 in urban areas.

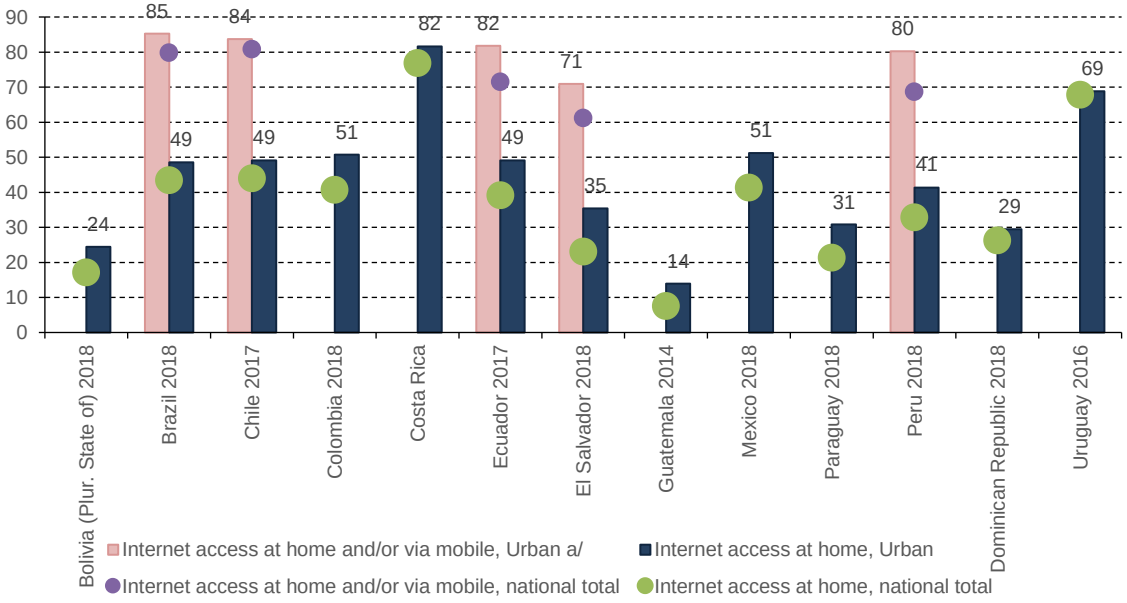
Despite significant progress in recent decades, poverty and extreme poverty persist in the region and have increased slightly in recent years. Furthermore, part of the population that has overcome the poverty barrier is in a vulnerable situation. When considering the social structure by income, the Social Panorama of Latin America 2019 data show that in 2017, 55.9% of the population was in the lower stratum, which accounts for those living both below the poverty line and in a vulnerable situation (income below 1.8 times the per capita poverty line). Next are the lower-middle strata (between 1.8 and 3 times the per capita poverty line), accounting for 20.9% of the population and who are also vulnerable to poverty. In other words, 76.8% of the Latin American population falls within these strata. With regard to the countries included in this study, the vulnerable share of the population totals 66.3% in Brazil, 67% in Chile, 62.1% in Costa Rica and 41.1% in Uruguay.

Another relevant precursor for digital inclusion of the population is the educational attainment in each country. Along with considerable progress in terms of access to and years of education, there are persistent difficulties in to school dropout and completion rates, particularly in secondary education for lower income strata. In 2017, 75% of those in the low-income strata aged 25 or over did not complete secondary school (33.8% primary school incomplete and 41.5% secondary school incomplete). The figures vary significantly between the four countries in the study. Secondary school completion rates for 20–24-year-olds in 2016 were 87% in Chile, 74% in Brazil, 59% in Costa Rica, and 41% in Uruguay.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America* (LC/PUB.2019/22-P/Rev.1). United Nations publication, Santiago.

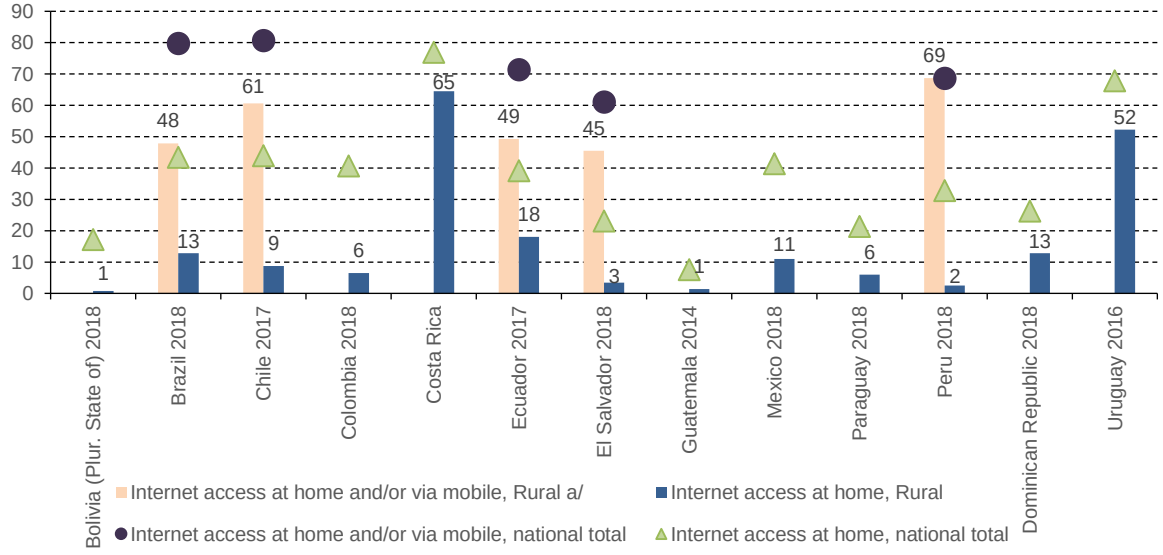
Another important aspect in relation to data on digital infrastructure and connectivity is that, despite advances thus far, a significant gap persists by area of residence, where households in rural areas have considerably less access (Patiño, Poveda and Martínez, 2018). For example, a person living in an urban area in Latin America has between 15 and 41 percentage points more possibilities of connecting to the Internet than someone in a rural area (Galperín, 2016). Generally speaking, communities that are far from large urban centres tend to be disadvantaged in terms of access to public services, health, transport, a variety of jobs, and of course, education. This is where technologies can make a substantial difference in terms of quality of life for these individuals. As the data in the Social Panorama of Latin America 2018 (ECLAC, 2019) show, household connectivity in urban areas is, on average, six times greater than in rural areas, although there are major differences between countries (see Figures 4 and 5). Several of them have very precarious connectivity in rural areas, such as the Plurinational State of Bolivia, Guatemala and Peru, where less than 5 of the rural population has access to the Internet at home. Moreover, the data illustrate how mobile connectivity has reached homes in rural areas in Brazil, Chile, Ecuador, El Salvador and Peru.

Figure 4
Latin America (13 countries): people with Internet access at home and Internet on mobile phones, by total population and urban areas, around 2016
(Percentages)



Source: Economic Commission for Latin America and the Caribbean, on the basis of the Household Survey Data Bank (BADEHOG).
[a] Includes Internet connection through mobile devices (wireless Internet, smartphones and others).

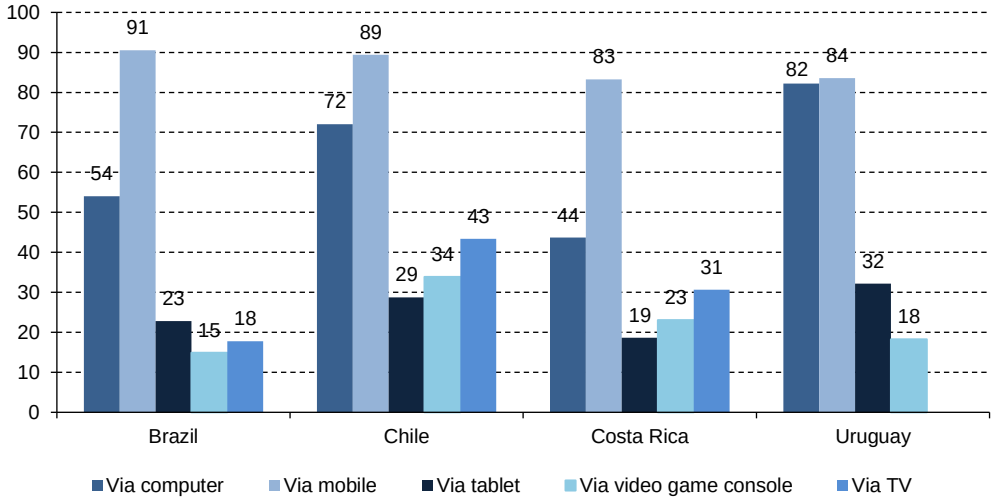
Figure 5
Latin America (13 countries): people with Internet access at home and Internet on mobile phones, by total population and rural areas, around 2016
(Percentages)



Source: Economic Commission for Latin America and the Caribbean, on the basis of the Household Survey Data Bank (BADEHOG).
[a] Includes Internet connection through mobile devices (wireless Internet, smartphones and others).

Among the children and adolescents connected to the Internet in the four countries included in the Kids Online survey in Latin America, the vast majority – between 83% and 91% of users in these countries – access the Internet via mobile phone (see Figure 6). In Chile and Uruguay, computer access is also quite high (72% and 82%, respectively).

Figure 6
Brazil, Chile, Costa Rica and Uruguay: means of Internet access for children and adolescents who go online (2016–2017)
(Percentages)



Source: Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

The disadvantages of mobile versus fixed access are associated with the types of uses, i.e., what a smartphone is ultimately used for. Accordingly, the data show that mobile phones are used for communicating and socializing, particularly through social networking sites (Pearce and Rice, 2013), but not as much for other activities that can be done with a computer. The surveys also showed that the likelihood of making the leap to computer use is low for those using the Internet exclusively through mobile phones, unless it is for educational or employment needs (Pavez and Correa, 2019).

Regardless, Internet access through mobile phones has become a gateway for excluded populations with less access, including children and adolescents. These advances certainly makes data measurement and analysis more complex as it is extremely important to understand not only what is accessed, but also from where, what this connection mobility means, what the possibilities of interaction are and how users can take advantage of the Internet's potentialities in terms of combined access to computers or laptops. Chapter II of this document will take a deeper look at the new challenges to access that arise in relation to the user community. Public policies and digital agendas will need to be revisited and changes will need to be considered with regard to concepts that were previously taken for granted, such as access, devices and content. Policymakers will also need to recognize the breakthroughs and challenges that come with being part of an information and communication-based society that continues to move forward at an unpredictable pace.

D. Public policies and digital inclusion for children and adolescents

Digital culture, with its momentum and reach resulting from the convergence of formats and the rise of digital mobility, forces us to rethink how children and adolescents are being prepared to face these new and ever-changing challenges with regards to public policy. This is all the more true because digital media access and use provide an opportunity to develop skills that go beyond formal education. Accordingly, to reap the benefits of the opportunities technology offers, the relevance of the skills being promoted among children and adolescents must be assessed.[1] There is also a growing need for classroom learning to educate future citizens who will be participating in a society that must tackle the challenges connected to a changing economy, cultural shifts and digital opportunities (PISA, 2018). In this context, education has been described as a key link for social integration and mobility (UNESCO, 2014; ECLAC 2010 and 2019), since it has a direct impact on pupils' acquisition of tools and experiences for dealing with technologies, which affects their educational, social and participation processes in the long term (Alderete and Formichella, 2016).

To address the needs that have arisen in step with new digital technologies, the countries of the region have created national framework strategies for digital development (NFSDD). These planning instruments allow policymakers to set priorities for intervention with a medium- and long-term vision in order to, among other things, coordinate the different areas of public policy and allocate resources for the digital transformation of society in general (Velásquez, in press). More specifically, these goals have been incorporated into strategies, agendas, policies and plans.

One of the regional efforts that has been promoted since 2000 is the Digital Agenda for Latin America and the Caribbean (eLAC). The eLAC promotes the development of the digital ecosystem in the countries of the region through a process of integration and regional cooperation[2] by strengthening digital policies that promote knowledge, inclusion and equality, innovation and environmental sustainability. This agenda lays out objectives for human capital development, productivity, education and gender equality, among others. Within this framework, the aim is to use public policy to ensure not only access to technology, but also empower users, especially in more excluded populations and where the State must intervene (Patiño, Poveda and Martínez, 2018). Since 2012, the Conference on Science, Innovation and Information and Communications Technologies has existed as a subsidiary body of ECLAC. Its stated objectives include "promoting the development and improvement of national policies on science, technology and innovation and those related to the progress of the information and knowledge society".[3] Through the Conference, several versions of a Digital Agenda for Latin America and the Caribbean have been developed, with the most current being published in 2020 (eLAC2020).

The eLAC2018 agenda had a specific objective in the area of education,[4] referring to the need to move forward in the use of ICTs in education by re-evaluating education systems in this new context and training the education community. In evaluating the progress on digital policies in education, the agenda stressed the importance of continuing to move forward on the balanced integration of infrastructure, appropriation, resources and innovation. The agenda also noted persistent gaps in connectivity in schools by geographic area and socioeconomic status in several

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1 Special consideration is needed for pupils around the age of15, since a breakthrough in terms of skills is observed at this age. This is because important decisions regarding education are made at this point, and the development of digital skills at this age will have a significant impact on their future (OECD, 2017).

2 For more detailed information see [online] https://www.cepal.org/es/proyectos/elac2020

3 Quoted from the website available [online] https://www.cepal.org/en/subsidiary-bodies/conference-science-innovation-and-information-and-communications-technologies.

4 Objective 14: Include or strengthen the use of ICTs in education and promote the development of programmes that include teacher training, new pedagogical models, the generation, adaptation and exchange of open educational resources, the management of educational institutions and educational evaluation.

countries. (ECLAC, 2018:11). The report points out that 12 countries in the region have policies, programmes and projects that deal with aspects of appropriation and digital culture, in addition to providing digital resources and infrastructure in schools (ECLAC, 2018).[5] The new eLAC2020 agenda, approved in 2018, also includes an objective in the area of education, highlighting the need to make further efforts to include digital skills and digital-computational thinking in the curricula.

An analysis of the national digital development strategies implemented in 15 countries of the region shows that nearly all of them mention education and "recognize the importance of generating intervention processes through which digital skills (15 of 15) and professional skills (14 of 15) can be developed. More specifically, some countries associate the development of these interventions aimed at technical education (5 out of 15) and tertiary education (6 out of 15), while others see it throughout school life, and emphasize the interest in managing the implications of digital development in early childhood education (2 out of 15), primary education (4 out of 15) and secondary education (4 out of 15)" (Velásquez, in press: p. 66).

Additionally, the need to improve school infrastructure in terms of connectivity is repeatedly mentioned. With regard to the use of ICTs in the school environment, the need to further develop pedagogical approaches and incorporate content for digital learning is highlighted (11 of 15). "Around half of the countries have prioritized the physical integration of ICTs in classrooms and other school management spaces (7 of 15), as well as training for educators (8 out of 15)" (Velásquez, in press: p. 66).

Education policies seeking to integrate digital technology in the classroom were implemented quite early on in some of the countries in the late 1980s. Until the mid-1990s, the main initiatives in Latin America were generally aimed at improving learning and teaching outcomes within schools. Initiatives to integrate ICTs into education then began to focus on giving pupils access to equipment, with special attention paid to areas with lower socioeconomic status as a strategy to level the playing field and support equality.

In the early 2000s, with the spread of the Internet, educational portals began to emerge as a tool to bolster and encourage the use of ICTs in education. They initially focused on producing digital educational resources for teachers and pupils, before moving on to perform support functions in various communication systems between teaching communities (Pavez, 2014b). At the regional level, in 2004 the Latin American Network of Education Portals (RELPE) was formed, covering 19 countries in the region. RELPE seeks to make digital resources available to pupils, families and teachers to foster teaching and learning (Brunner, 2003, cited by Pavez, 2014b). However, producing digital resources is not a high priority in all Latin American countries, unlike in Europe (Vacchieri, 2013).

In 2002, UNESCO coined the term Open Educational Resources (OER), and a decade later published the 2012 Paris OER Declaration, which calls on governments to encourage OER production. Today, as a result of the rise in OER, there is a growing need for quality standards on the use and development of these resources, since they will only be useful if users are able to make use of them autonomously, to appropriate the content and to overcome unequal access (Hinostroza, 2017).

Meanwhile, since the mid-2000s, a trend of providing laptops to pupils emerged, following the "one laptop per child" model developed in the United States, where the devices were designed specifically for education (Sunkel, Trucco and Espejo, 2014). This trend has declined in recent years due to changes brought about by access to affordable mobile devices and a greater focus on skills development for the digital age.

In short, digital policies in the region have focused on the education sector as a key actor in digital skills development (this phenomenon will be analysed in Chapter III). However, it is important to shift

[5] For more information, see ECLAC (2018), *Monitoreo de la Agenda Digital para América Latina y el Caribe eLAC2018*. LC/ TS.2018/ 29, United Nations publication.

towards more comprehensive policies with a broader focus, where it is not only the education system that is responsible for training and empowering new generations to seize the opportunities of the digital world, but where society as a whole is involved, including the private sector that manages the main Internet platforms. The online and offline worlds are intrinsically linked. As such, and as devices and content have converged, this implies accounting for mobility and interactivity, since they are highly relevant to understanding how the digital ecology of children and adolescents is shaped (see Chapter II).

Another key point is the need to become aware that participation in the digital age, as well as the opportunity to develop skills that allow one to navigate it, refers to a life where people are able to fully exercise their rights and citizenship. Accordingly, it would be short-sighted to only consider the skills required for education or school, as doing so would not address the demand for digital skills in broader areas, such as those related to good citizenship, exercising one's rights, or meeting information and communication needs (this will be discussed in Chapter IV).

Finally, in a context of inequality both within and between countries in the region, it is alarming that the findings indicate that a generational shift will not allow digital inequalities to be overcome, but rather that they will persist over time (ITU, 2018). In other words, a child from a socially disadvantaged environment will remain disadvantaged if he or she does not have access to these resources and opportunities. It is important for everyone to be empowered to be part of this digital age, and for them to have the tools and coping skills they need to deal with the risks they may face along the way (see Chapter V).

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II. Types of material access to the Internet and its relation to digital skills and practices

Patricio Cabello
Magdalena Claro
Matías Dodel

A. Introduction

Given the importance of digital technologies in today's societies, how children and adolescents access the Internet is a key aspect of policies aimed at supporting their development and well-being (Livingstone, Carr and Byrne, 2016) (refer to Diagram 1 to see where access falls within the Kids Online analytical model). However, the rapid widespread availability of Internet access in recent years – especially through mobile devices (as discussed in Chapter I) – has led to reduced interest in material access to the Internet within public agendas in the developed world. This is a reasonable turn of events considering that the need for material access and other basic aspects related to development and inequality have generally been overcome. In these countries, the focus tends to be on levels of inclusion, such as gaps in uses, skills and tangible outcomes. This approach assumes that the motivation for using these technologies has a greater impact on material access than resources and economic conditions (Büchi, Just and Latzer, 2016; van Deursen and Helsper, 2017; Selwyn, 2010; van Dijk and van Deursen, 2014).

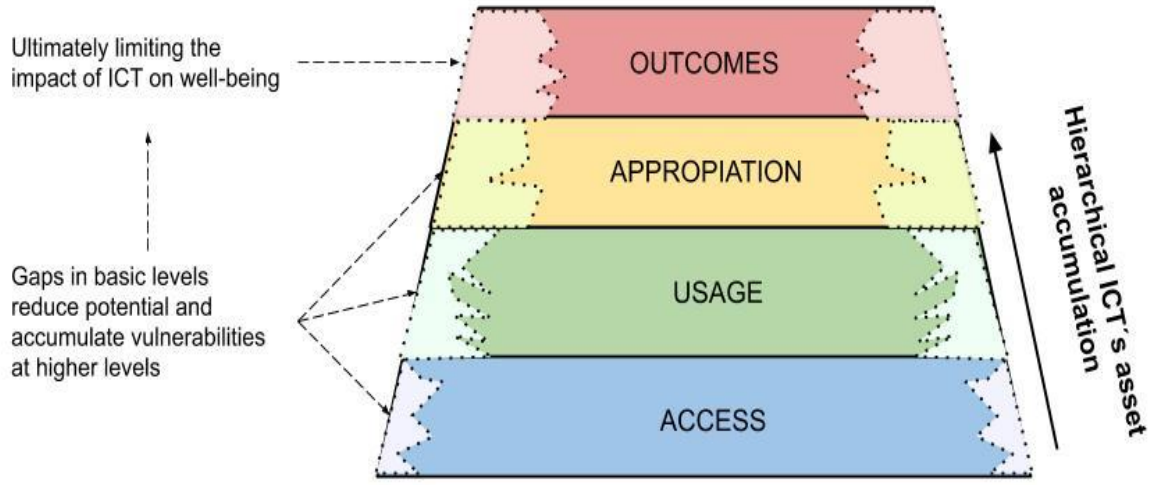
However, in developing countries, and particularly in Latin America, a continent marked by inequality, there are still considerable disparities in material access to the digital world (Ayanso, Cho and Lertwachara, 2014; Third and others, 2017), which are central to the assumption that certain forms of access can have greater potential and enable opportunities for participation in the digital society (Mascheroni and Ólafsson, 2016; Araujo and Reinhard, 2019). Recent research indicates that differences in material access have tangible consequences for opportunities in the digital society and on people's

well-being (van Deursen and van Dijk, 2019). Furthermore, this research suggests that being able to access diverse and cutting-edge technologies leads to new inequalities in material access.

This chapter begins with the premise that material access is a more complex issue than simply having a home connection or not, and is related to being able to gain access from different places and various devices. It follows that there is a link between the types of material access to the Internet and other levels of appropriation and participation in the digital society and that, at the same time, these types of access have a direct correlation with the physical living conditions of children and adolescents, in line with what is proposed by the Kids Online analytical model (see Diagram 1).

The suggestion is that, in order to enjoy full digital citizenship – understood as participation in various online opportunities (see Chapter IV of this report for an extended review of the concept of digital citizenship) – individuals require a series of successive and sequential accesses that must be based on this material access. Only then, and depending on the quality of this access, will they be able to move to other levels of digital inclusion, such as uses, skills and tangible outcomes. Thus, lags at one level impact the achievement of the next (Selwyn, 2010; van Dijk and van Deursen, 2014), which underscores the importance of gaining a deeper understanding of the causes and consequences of gaps in material access. This link between the different levels of access is summarized in Diagram 2.

Diagram 2
Hierarchical accumulation of ICT assets and the relevance of material access



Source: Dodel (2015), based on Selwyn (2004, 2010) and Sunkel, Trucco and Möller (2010).

Questioning the assumption that the problem of access has been overcome is especially important given certain media portrayals of children and adolescents now living fully connected lives as "digital natives" (Prensky, 2001). Although this idea has been called into question in various research papers (Bayne and Ross, 2011; Gallardo-Echenique and others, 2015; Palma, 2019), it is pervasive in public opinion and discourse on digital access policies.

Within this framework, a comparative exploratory analysis was conducted for Chile, Brazil, Costa Rica and Uruguay. It first attempts to identify the types of material access for children and adolescents in these countries, and then explores the correlation between these types of access and the skills and opportunities for participation in the digital society. Finally, it looks at the sociodemographic differences that exist in these types of access.

B. Types of access for children and adolescents in Brazil, Chile, Costa Rica and Uruguay

The Kids Online surveys in Latin America have provided information on where and what devices are used to connect to the Internet in these four countries, shedding light on the types of digital access for children and adolescents. A two-step analysis was carried out. First, for each of the countries, two latent class analyses (LCA)[6] were carried out, differentiated for devices and places of access. Next, groups were created using the constructed classes to combine the main access location and main access device in each country.

In the first step (see Table 1), two clusters were created for the four countries for each aspect of access (site and device) studied. With regard to devices, the LCA showed two large groups in each country, which we have called mainly multi-device (MD) and one with a greater prevalence of mobile only (M). With regard to location, the LCA identified two general groups in the four countries: one that we call mainly ubiquitous (U) and one more centred in the home (H).

Table 1
Building latent classes by device and access location
(Percentages)

Device	Brazil		Chile		Costa Rica		Uruguay	
	MD	M	MD	M	MD	M	MD	M
PC	68	26	74	41	42	14	81	32
Laptop	68	16	73	52	54	21	82	69
Mobile phone	96	89	93	88	95	79	92	82
Tablet/iPad	46	12	52	23	38	11	53	27
Video game console	38	4	68	25	60	9	47	10
TV or SmartTV	41	6	91	31	61	19	*	*
Location	U	H	U	H	U	H	U	H
School	65	18	81	36	79	32	81	54
Home	92	81	99	92	99	82	96	78
Home of friends or relatives	97	72	88	52	92	32	82	30
Public place	41	15	84	11	88	3	65	7
On the way somewhere	85	10	85	10	78	4	71	6

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).
*In this case, access via a Smart TV was not included.

However, this general nomenclature conceals important differences within each country, with some notable exceptions. For example, in Uruguay, more than half of the children and adolescents in both groups of access connect to Internet from school. Moreover, average levels of Internet access from school in both Uruguayan groups are higher or similar to those of ubiquitous groups in other countries. This Uruguayan particularity in terms of digital expansion and equality in access to the Internet from school is largely due to the policies associated with the Ceibal Plan.

[6] LCA is a statistical technique used to model the relationships between observed variables, assuming that the structure of underlying relationships is explained by a latent categorical (unobserved) variable. This technique makes it possible to create groups of cases that are part of a trend with respect to a set of variables (Monroy, Vidal and Saade, 2010).

Another important point is the high proportion of laptops in both groups of access devices, both in Chile and Uruguay (more than half in both cases). This is also important in that it may reflect policies that, through different channels in both countries (see Chapter III), promote the use of and access to these types of devices in school settings.

As a whole, the identified classes make it possible to construct types of access by combining the main class of access place and access device. Accordingly, four types for each country were put together, which we have called: home-mobile (HM), home-multi-device (HMD), ubiquitous-mobile (UM) and ubiquitous-multi-device (UMD) (see Table 2).

Table 2
Types of material access

		Access device	
		Mobile phone	Multi-device
Place of access	Home	Home-mobile (HM)	Home-multi-device (HMD)
	Ubiquitous	Ubiquitous-mobile (UM)	Ubiquitous-multi-device (UMD)

Source: Prepared by the authors.

Home-mobile (HM) refers to the group in which access is mainly at home and through a mobile phone. In this chapter, we have assumed that this is the most restricted type of Internet access, as it applies to devices with a specific set of features, used in a context where full potential cannot be reached. In other words, the devices are used without access to the advantages of mobility and with the disadvantages as compared to other non-mobile devices, which have been widely studied (see Myong-Hee, 2017; Napoli and Obar, 2016). HMD designates the group of those who have Internet access mainly at home, but with access to various devices including computers, tablets, mobile phones and Smart TVs. UM refers to the group with access from multiple locations, but mainly through a mobile phone. The final type of access is UMD, which also includes access from multiple locations through various devices.

As Figure 7 shows, there is a similar trend in the four countries where the most common type of access is from the home via a mobile phone (HM) and the least frequent is UMD, where children and adolescents access the Internet from various places and via various devices. Although not the least frequent, UM and HMD account for less than a quarter in all countries. This result explains different access experiences among young people in the four countries studied. Understanding the implications of these differences in terms of the opportunities and skills that each type of access affords is essential.

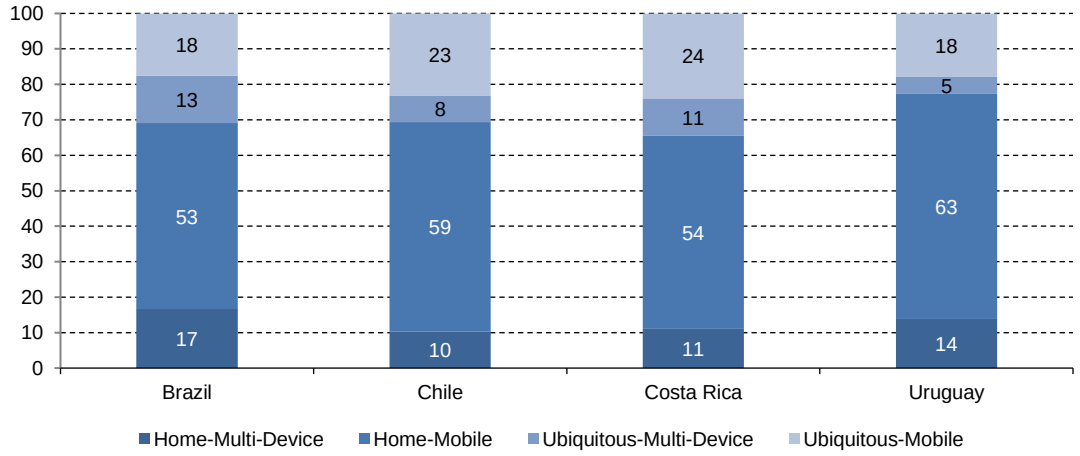
Additionally, as Table 3 shows, the characteristics of these groups with regard to sociodemographic variables, skills and digital participation are different. All differences found are significant ($p<0.05$). In terms of age, the averages for UMD and UM access are generally higher in all four countries, reflecting a shift from one access type to another. This is mainly associated with more autonomous use, which naturally increases as children get older.

As for digital skills, the survey shows that UMD access in each country has a higher average for self-reported digital skills, which is also shared with UM access for Brazil and Chile. In contrast, in all four countries, HM access shows the lowest average in self-reported digital skills. Similarly, the rate of participation in the digital society shows higher averages for UMD access in all countries. The lowest averages are reported in home access, and especially HM.

As for the variations by socioeconomic group, there are significant differences in the four countries, indicating that low SES is characterized by having mainly HM access, while UM and UMD appear to be significantly more widespread in the middle and upper groups. This reflects the

socioeconomic segmentation of the types of available access, which determine unequal access to goods and services in Latin America in general.

Figure 7
Brazil, Chile, Costa Rica and Uruguay: prevalence of types of material access by children and adolescents using the Internet
(Percentages)



Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table 3
Average skills, participation in the digital society and age differentiated by type of material access
(Percentages)

Country	Type of access	Digital skills	Participation in digital society[a]	Age	Low SES	Middle SES	High SES	Male	Female
Brazil	HMD	7.2	77.7	12.7	9	16	29	13	20
	HM	6.9	55.3	13.1	70	53	26	54	51
	UMD	9.6	108.3	14.2	4	11	31	12	14
	UM	9.7	88.4	14.6	17	20	14	20	15
Chile	HMD	7.2	79.6	12.1	9	11	11	14	7
	HM	6.9	73.9	12.4	67	58	49	58	61
	UMD	8.5	113.1	13.9	5	8	11	8	7
	UM	8.4	100.5	14.4	19	23	30	21	26
Costa Rica	HMD	6.9	150.8	12.4	4	8	20	16	6
	HM	5.3	103.3	12.0	68	60	39	52	56
	UMD	8.3	180.6	14.1	2	6	22	14	7
	UM	7.4	148.8	13.8	26	26	20	18	30
Uruguay	HMD	8.5	30.0	12.2	9	15	21	15	12
	HM	7.2	21.2	12.2	72	63	46	64	63
	UMD	9.2	43.9	13.7	4	4	9	5	4
	UM	8.8	33.8	14.0	15	18	24	15	21

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).
[a] The index for participation in the digital society has not been not been standardized for the four countries.

With regard to gender, three of the countries show significant, albeit generally very small, differences in types of access, while in Uruguay these differences are not observed. In Brazil, the difference between boys and girls is marked by a higher proportion of girls with HMD access and a higher proportion of boys with UMD access. In Chile, boys have greater HMD access than girls, while girls have greater UM access than boys. Finally, in Costa Rica, girls have greater HM and UM access than boys, while boys have greater HMD access than girls. No gender differences are observed for UMD access. Finally, beyond these specific differences, it should be noted that the main type of access, for both boys and girls, is HM access.

C. Types of access and sociodemographic variables as predictors of digital skills and participation in the digital society

To analyse the role of types of access in participation in the digital society and the development of digital skills, two linear regression models were built. For both models, the following are considered as predictor variables: gender, age group, socioeconomic status (three standardized levels, although calculated differently in each country) and the four constructed access types.

The first regression model takes the "Ladder of Participation" into account as a dependent variable (Livingstone and others, 2019). This measurement is based on the premise that certain activities are more widespread and constitute the first steps of participation in the digital society, while others are less frequent and are performed by older children and adolescents. A more in-depth exploration of this concept can be found in Chapter IV of this report along with a detailed descriptive overview of the findings in the four countries.

It is worth noting that in order to obtain an effective measurement for this analysis and with the intention of reflecting digital practices with greater complexity, an indicator of participation in the digital society has been constructed from the lists of variables measured in each country, which vary in number (Brazil=16; Chile=23, Costa Rica=23; Uruguay=15). For each country, a score was assigned corresponding to the reverse order obtained for the degree of participation, i.e., less frequent practices are scored higher while more frequent activities receive lower scores. This assumes that as we move up the ladder of participation in the digital society, we find activities that are less frequent and therefore belong to a group whose practices appear to be more advanced and clearly differentiate between subjects (e.g., blogging, participating in online political groups, or signing an online petition). Meanwhile, other much more common practices do not clearly differentiate between subjects and are therefore assumed to be less relevant for determining differences between users (e.g., watching videos or tutorials, using a social network site or chatting online). The simple sum of the scores obtained for each practice provides the digital society participation score. It should be noted that other similar research constructs this indicator by only using a simple sum of activities, which is effective when measuring certain relevant differences. However, it does not include the possibility that the activities themselves have qualitatively different characteristics that affect their combined measurement (see Cabello-Hutt, Cabello and Claro, 2017; Livingstone and Haddon, 2009).

The second model considers the self-reporting of digital skills as a dependent variable or variable of interest. This variable was constructed by a simple sum of the skills reported in the four countries to evaluate five factors: a) operational skills (knowing how to save a photo found online; changing privacy settings on a social network); b) information skills (confirming whether information online is correct or true; choosing appropriate search terms); c) digital social skills (recognizing what information to avoid sharing online; removing/blocking someone from a contact list); d) creative skills (posting a photo online created by the same user; recognizing types of licences and authorization for use); and e) mobile skills (knowing how to install an application on a mobile phone; tracking costs of using mobile applications). It should be noted that this is an indicator resulting from self-reporting and is therefore more similar to self-sufficiency in carrying

out activities, constituting only a proxy or indirect indicator of digital practices. The skills are measured through the ten items, which have slight variations per country as a result of translations and adaptations. In Chile, Uruguay and Costa Rica, a Likert scale with four levels was used.

1. Relation between types of access and participation in the digital society

This section seeks to understand the extent to which the different access types may influence the levels of participation of children and adolescents in the four countries. The findings show that UMD access positively predicts levels of participation in the digital society, as does UC access; however, UC access has a lower predictive value than UMD access. HMD access also positively predicts participation, although to a lesser degree than the previous two types; in Brazil, it has no predictive value.

In contrast, when HM access is used as a reference category, it shows an inverse effect, i.e., it belongs to that group makes it more likely for users to have low participation in the digital society. It is important to consider that the measurement of use included in the analysis gives more weight to the activities that are performed less often in each country. Accordingly, this result indicates that children and adolescents who access the Internet mainly from home and through a mobile phone not only participate in fewer digital activities in general, but also take part in few of the least frequent activities in the population. As will be seen in Chapter IV, these activities are related to "Citizenship and Community" and "Education and Learning", which are of concern in terms of the overall development of children and adolescents in a digital environment.

Table 4
Sociodemographic factors and types of access as predictors of development levels in the ladder of participation in digital society in Brazil, Chile, Costa Rica and Uruguay

	Brazil	Chile	Costa Rica	Uruguay
Gender (ref. male)	.070**	-.033	-.028	.044
Middle SES	.138**	-.014	.173**	-.010
High SES	.169**	.013	.179**	-.045
11–12 years	.080**	.162**	.096*	.233**
13–14 years	.251**	.229**	.265**	.319**
15–17 years	.373**	.485**	.340**	.377**
Home-multi-device access	.173**	.053	.207**	.149**
Ubiquitous-multi-device access	.349**	.170**	.286**	.201**
Ubiquitous-mobile access	.230**	.126**	.217**	.173**
Adjusted R^2	.325	.230	.310	.213
*p<0.05; **p<0.001				
Dependent variable: participation in the digital society				
Reference variable for type of access: Home-mobile				

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

With regard to sociodemographic variables, socioeconomic status is directly related to activities that indicate the level of participation in the digital society in Brazil and Costa Rica, but not in Chile or Uruguay. However, it should not be ruled out that socioeconomic status has no indirect effect on the degree of participation, mediated by the types of access.

Age appears to be a predictor in all four countries, which is to be expected and consistent with the findings of other studies and the behaviour of other variables reported in other chapters of this report. Finally, gender is related to use only in Brazil, where boys score slightly higher on the ladder of participation than girls. This could be due to cultural differences with regard to use that need to be explored.

2. Relationship between types of access and digital skills

This section analyses the extent to which the different access types may influence the development of digital skills of children and adolescents in the four countries. The findings from the regression model indicate that in all four countries the two types of ubiquitous access make a positive contribution to skills development, but unlike participation in the digital society in two countries (Chile and Uruguay), the impact appears to be slightly greater for UM access than for UMD access. The data in these countries could be explained in part by how they were measured, as the items mostly pertain to online social activities and especially those related to the use of mobile phones.

In terms of home access, different results are observed by country and type of access. For HMD access, there is a positive relationship with the development of digital skills in Brazil, Costa Rica and Uruguay, while in Chile this relationship is not significant. For those who access the Internet from home and via a mobile phone, the findings show lower values in digital skills in all four countries. This finding is relevant, since it indicates that the use of mobile phones from home does not promote the development of the digital skills measured in this study. As such, children and adolescents using this type of access may be at a disadvantage in the next levels of inclusion in the digital society, or at the very least not have access to the full range of practices facilitated by more varied and complex connections.

Table 5
Sociodemographic factors and types of access as predictors of digital skills in Brazil, Chile, Costa Rica and Uruguay

	Brazil	Chile	Costa Rica	Uruguay
Gender (ref. male)	-.041	.018	.000	-.004
Middle SES	.066	.069*	.061**	.079*
High SES	.086	.052	.122**	.082**
11–12 years	--	.376**	.243**	.298**
13–14 years	.261**	.434**	.381**	.493**
15–17 years	.388**	.680**	.539**	.498**
Home-multi-device access	.128**	.047	.121**	.150**
Ubiquitous-multi-device access	.213**	.086*	.170**	.085**
Ubiquitous-mobile access	.177**	.093*	.166**	.120**
R^2	.190	.340	.320	.300
*p<0.05; **p<0.001				
Dependent variable: digital skills				
Reference variable for type of access: Home-mobile				

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

The data in the four countries also show that gender does not impact the development of digital skills and that, as expected, the older the users, the greater their skills development. Finally, the findings are inconclusive regarding the role of the socioeconomic status in digital skills development. In Brazil there is no significant relationship between SES and digital skills, while Chile shows a positive relationship with the middle SES in comparison with the low SES. In Costa Rica there is a positive relationship with the high and middle SES groups, as opposed to the low SES group. The same also holds true in Uruguay.

D. Discussion and conclusions

The analysis of the four countries shows that there are four types of access to the digital world, encompassing digital ecologies with various differences, and therefore the different divides in experiences of digital access in Brazil, Chile, Costa Rica and Uruguay. These digital ecologies provide a more complex picture of material access than only looking at other indicators such as connecting at home or using mobile devices.

Box 4
Five ideas to consider for education and technology policies in Latin America

Cristóbal Cobo[a]

i) Access for all. Educational technology policies need to be scalable and replicable. Such policies must also guarantee inclusion and equality. Rather than focusing on ideal contexts (rarely replicable), digital education interventions should implement strategies that support and assist students and teachers, independently of the social and economic context, geographical location or ethnic origin. For example, by closing the digital divide for women, they can help their families out of extreme poverty and become active agents of change. Comprehensive policies are needed to reduce the various digital gaps (in infrastructure, connectivity and technical skills, among others). Making digital education inclusive requires recognizing groups that are excluded in different ways. These aspects must be carefully considered at each stage of policy design, as well as during implementation and monitoring to ensure that no one is left out. To access the opportunities offered by the digital society, policymakers must take into account future challenges and opportunities without ignoring the needs of those who are in less privileged positions today.

ii) Open data, flexible and responsible architecture. Both education and technology are looking ahead to the future. A strategic approach would be to design digital infrastructures that are flexible, inclusive and adaptable to continuous and often unpredictable change. While it is impossible to predict which technologies will be used for education in tomorrow's schools, there are principles that have proven to be resilient and fundamental in fostering sustainable change. Educational technologies must be supported by open, transparent and interoperable digital infrastructures. While education is increasingly becoming data-driven, institutional capacities and regulations to use data effectively, ethically and safely must also be developed. Producing evidence and managing large volumes of data can provide opportunities to bolster education in new ways. It is also an opportunity to develop new frameworks and responsibilities to be incorporated into the roadmap of the countries and administrations seeking to improve education.

iii) A 360-degree view. Understanding the associated factors is crucial when countries seek to encourage the adoption of digital technologies in education. Ensuring adequate integration of digital technology policies requires a systemic, 360-degree perspective. Digital technologies alone are not enough to transform education. To do so, it is essential to develop institutional competencies to be able to coordinate at least five key areas: enabling infrastructure, digital skills for educators, digital skills for students, content provision with quality platforms, and a supportive policy framework. Achieving synergy among all these components requires countries to implement systemic interventions that are sustainable over time. These components must all be systematically designed, promoted and monitored through comprehensive education and technology policies (focusing on technology or education alone is often insufficient). This means that not only is there a need to plan and ensure basic infrastructure (connectivity and access to devices), but also to take into account that digital technologies are multi-contextual devices that require a cross-cutting view that can connect what happens inside and outside the classroom.

iv) Professionalization of teachers supported by technology. Educators are and should remain at the centre of any educational technology policy intervention. Proper implementation of educational technologies should support the role of teachers. It is widely acknowledged that technological interventions alone cannot replace good teaching practices. Teaching is a challenging profession and requires the ability to combine and apply a complex set of skills. It is not enough to simply master the devices; they must also be used in pedagogical and administrative tasks, in social relations and in the development of good citizenship, etc. Regular skills training in the pedagogical use of technology is something that should be integrated and monitored regularly. When considering how to support teaching through technology, simply offering a wide range of courses will not suffice. It is important to facilitate flexible and comprehensive approaches. This means that, in addition to the professional development programmes offered by the State, other approaches must also be incorporated, such as the creation of communities of practice, along with other forums for learning where teachers can continuously support each other. This blended learning approach is critical to systematically transform teaching practices.

v) Professionalization of teachers supported by technology. Educators are and should remain at the centre of any educational technology policy intervention. Proper implementation of educational technologies should support the role of teachers. It is widely acknowledged that technological interventions alone cannot replace good teaching practices. Teaching is a challenging profession and requires the ability to combine and apply a complex set of skills. It is not enough to simply master the devices; they must also be used in pedagogical and administrative tasks, in social relations and in the development of good citizenship, etc. Regular skills training in the pedagogical use of technology is something that should be integrated and monitored regularly. When considering how to support teaching through technology, simply offering a wide range of courses will not suffice. It is important to facilitate flexible and comprehensive approaches. This means that, in addition to the professional development programmes offered by the State, other approaches must also be incorporated, such as the creation of communities of practice, along with other forums for learning where teachers can continuously support each other. This blended learning approach is critical to systematically transform teaching practices.

vi) Allow the education system to learn. Feedback is fundamental to learning, and digital technologies are powerful tools for this. Adopting interactive information processes (evaluation, measurement or monitoring) is crucial to learn how students develop skills and acquire new knowledge. Evidence suggests that not all educational technology policies are equally effective. As such, it is important to develop institutional capacities and strategies that enable education systems to monitor, evaluate and learn from their own practices. A culture of evaluation and continuous improvement helps policymakers consider the effectiveness of the implemented strategies. It also makes it possible to identify which innovations and improvements can be adopted. Today, there are different regional and global assessments that allow public administrations to learn from other experiences in order to identify the best ways to support good use of digital technologies. In times of rapid change it is critical that ministries of education (or equivalent institutions) function as organizations that learn and that can adapt to change in a world in transition.

Source: Prepared by the author.
[a] Senior Education and Technology Policy Expert, World Bank.

One important finding of this analysis is that the most widespread type of access in the four countries (all with a value over 50) is home-mobile access, and that it is associated with having fewer digital skills or less participation in digital environments. This means that the most common form of inclusion in the four countries of the region is the one correlated with the least positive outcomes in terms of the opportunities for using technologies as well as in the skills needed to use them.

In other words, incomplete access without a variety of available devices and access locations equals suboptimal connectivity. This reflects partial inclusion in the digital society, in that it enables and makes certain practices specific to a particular device possible. However, such activities are only available in the home, where users are unable to benefit from the full potential of a device whose main benefit is mobility.

Moreover, the fact that certain types of access – especially ubiquitous access – are generally more "enabling" than others poses a major challenge for public policymakers in guaranteeing diverse ecologies and equivalent digital experiences among children and adolescents in the region. It is worth noting the example of Uruguay, where existing public policies can be assumed to have made a genuine impact by providing access at school and through laptops and tablets. This means that even within non-ubiquitous or non-multi-device access groups, Internet connectivity is not only predominantly through the home and mobile phones.

Use values are lower among children and adolescents who access the Internet at home and on mobile phones, especially in the areas of Citizenship and Community, and Education and Learning (see Cabello and others, 2018), which indicates a need to not only promote these uses but also guarantee the type of access that makes them possible. The data indicate that ubiquitous-multi-device and ubiquitous-mobile access open up more possibilities for a complete experience of the digital technologies available today.

However, this does not imply that access alone promotes this type of use or supports digital skills development. As demonstrated by previous research in the region (see Cabello-Hutt, Cabello and Claro, 2017) and confirmed by the analyses in the following chapters of this report, SES has a major impact on

skills and participation in the digital society, showing once again how structural inequalities are reproduced and even amplified in the digital world.

Mediation by the adults involved in children's lives is also critical. They can play a role in moderating the effects of some of the gaps and increasing the likelihood of young people being able to enjoy the opportunities offered by the digital society. This begs the question of what public policies in the region are doing to support capacity-building for both significant adults and teachers in schools. These findings could be further developed if they were included in the discussion on how to promote digital skills in different life contexts.

Finally, the analysis and the gaps highlighted in this chapter underscore how complex material access to the digital world is today. This issue has not yet been resolved in these Latin American countries, and this is very likely true for the rest of the region. Similarly, the debate on public policies for material access should consider this complexity when developing indicators, since those most widely used today – e.g., home connections or connectivity in schools – do not take into account the way in which different types of access rely on various devices and places.

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III. Educational context: school use and teacher mediation

Ana Laura Martínez
Luisa Adib
Fabio Senne
Rolando Pérez
David Torres

A. Introduction

In recent decades, many Latin American countries have made significant investments in digital infrastructure in primary and secondary education, particularly in the four countries included in this analysis. Although several authors date the first school use of computers in the region to the 1960s, these were specific experiences that did not stem from digital policies. Promoting the use of digital devices in education systems as a matter of public policy began in the 1980s (Aguerrondo and others, 2006). Costa Rica, which created its National Programme for Educational Informatics (PRONIE MEP-FOD) in 1987, was a pioneer in the region. This programme was followed by Enlaces Chile in 1992, while ProInfo, the National Programme for Educational Technologies in Brazil, was launched in 1997. Uruguay's Ceibal Plan, which began in 2007, is the most recent and likely the one with the greatest impact on both the school and home environments, due to its practice of providing students with laptops.

Taking the school environment into account within the analytical model of the Kids Online research findings is a logical approach in the region in general, and in these four countries in particular, because any data on Internet access and use by children and adolescents is influenced by these ICT policies. Conversely, the way in which children and adolescents relate to the Internet also impacts the educational environment, resulting in the need to constantly update policies. Digital technologies have become ubiquitous in most parts of the world. Digital culture pervades the economic, social, political

and cultural spheres, either because people interact directly with them in their daily lives or because, even without being direct users of these technologies, their lives are affected by them through their use in fields such as technology-driven agriculture, genetics, financial services or transport (Gere, 2008).

Generally speaking, the main goal of these policies with regard to education was originally to increase the availability of digital devices and Internet connection in schools to reduce the digital divide, often expressed in terms of social justice and, in some cases, also in terms of the countries' economic development. Many educational institutions did not have the necessary infrastructure to include ICTs in their teaching and learning processes. Meanwhile, the region showed a significant gap in access to computers and the Internet in homes. More recently, pedagogical theory has gained ground in the structuring of these policies. Accordingly, greater use of digital devices in schools was expected to both modernize teaching processes and improve learning (Lugo, Toranzos and López, 2014). Although the findings on the relationship between ICT use and curricular learning outcomes is inconclusive in terms of tangible results, this does not mean that schools play an insignificant role in ICT use in children's lives. They are key players in supporting citizenship development in general, and therefore digital citizenship in particular.

While the access gap has not been entirely bridged, it does offer the most opportunities for reducing digital inequalities. This is due to the relative decrease in the cost of acquiring digital devices combined with States assuming the responsibility for providing these resources to schools, and in some cases, even to individuals and households. Despite their reach and growing ubiquity, the distribution of digital technologies is far from homogeneous. Rather, their expansion has reproduced pre-existing patterns of inequality within countries. The issue of digital inclusion and exclusion has been addressed in different ways. The focus has increasingly shifted away from the binary logic of having or not having access towards distinguishing the various degrees and quality of access (Warschauer, 2006) or digital inequality (Dimaggio and Hargittai, 2001), as discussed in Chapter II of this report.

However, the general consensus is that digital inclusion is far from being achieved through access alone, and that attention should be paid to other persistent aspects of the digital divide. These include use and appropriation, which result from the unequal social distribution of cultural, social and economic capital (van Deursen and Hellsper, 2015). Within this context, where the purpose of education is to prepare pupils to be citizens able to actively take part in society, Sustainable Development Goal (SDG) 4 of the UN 2030 Agenda for Sustainable Development calls on countries to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all". One of the SDG4 targets explicitly includes the promotion of relevant ICT skills. The need to prepare young people to live in a world marked by the ubiquitous presence of ICTs and to teach them how to interact with these technologies in a way that supports learning and critical thinking are issues that must be recognized and addressed through education.

Including technologies in Latin American education systems can help prepare children and adolescents to deal with the challenges and seize the opportunities created by the digital culture in recent years. However, schools must also remain a strategic setting where the inequalities that children and adolescents face in terms of the quality of access to digital devices and the Internet at home can be overcome. In line with these two considerations, this chapter will focus on schools as the favoured (and, for some students, the exclusive) environment for access to digital devices for learning in Latin America. It will examine both access and use, taking into account the role of access through mobile phones. Additionally, teacher mediation within a context of ubiquitous access to digital technologies will be analysed.

The analysis is based on data on schools and teachers from the Kids Online surveys conducted in Brazil, Chile, Costa Rica and Uruguay. The data were collected in 2016 for Chile, in 2016 and 2017 for Brazil, in 2017 for Uruguay and in 2018 for Costa Rica. This chapter will not go into detail on the research methodology used in each case, as this is sufficiently covered in the specific chapter on the topic (see Chapter I and Annex 1).

The analysis only takes into account the variables and response options available for at least two of the four countries, and which have been formulated in a compatible way. Whenever possible, priority is given to the comparative description of data from the four countries. It should be noted that, with respect to the central theme of this chapter, there is more data available on Chile and Costa Rica. This is due to decisions made to shorten the survey forms for the other two countries. In Brazil specifically, this is because the school environment is addressed through a specific annual survey, the "ICT and Education Survey".

Furthermore, despite regional efforts to use a common conceptual and methodological framework, there are some limitations of comparability between the data of the participating countries. They are mainly due to differences in sample designs and the inclusion of different variables when collecting key information, such as the socioeconomic status (SES) of the surveyed population. To a lesser extent, there are also differences in the implementation period of the respective surveys.

This chapter will emphasize the potential of available data to inform public policy considerations on the role of schools and teachers in expanding opportunities and preventing risk and harm to children and adolescents in the region. There are inherent limitations to the Kids Online survey because it is not a school- and teacher-centred survey. However, the available data underscore the strong potential of exploring substantive issues of school use of digital technologies, the relationship children and adolescents have with digital technologies in terms of learning, and the mediating role of schools and teachers. Within the Kids Online analytical model (see Diagram 1), the focus is on both the individual dimension of access and on the social dimensions of digital ecosystems and interaction with teachers.

B. Digital education policies in Brazil, Chile, Costa Rica and Uruguay

Brazil, Chile, Costa Rica and Uruguay have been the main countries in Latin America promoting the inclusion of digital technologies in their education and children's policies. The following is a summary of how each of their digital education policy approaches have evolved.

The first initiatives to integrate technologies into education in Brazil began in the late 1970s, driven by university students and researchers. These experiences were the basis for the launch of the first ICT initiatives in education in the 1980s and 1990s, such as Projeto Educom and Proninfe (Almeida, 2014). However, the most comprehensive and enduring policy for ICTs in education was only implemented in Brazil in 1997, with the enactment of the decree on the National Educational Technology Programme (ProInfo). In its 20 years of existence, ProInfo was responsible for such activities as equipping urban and rural schools with computer labs, training teachers and school administrators, creating educational resource repositories, providing a portal for teachers and installing Internet connections in most of the country's schools.

These actions were conducted through complementary programmes; two of the most relevant were the Broadband in Schools Programme (PBLE), which aimed to provide Internet connections in schools, and the One Computer Per Child Programme (Prouca), based on the 1:1 computing model (Almeida, 2014). In 2017, the Brazilian Ministry of Education launched the Connected Education Innovation Programme (Piec) with the objective of achieving a set of actions outlined in the National Education Plan (PNE), published in 2014. What makes the Piec policy approach different is that it aims to go beyond simply providing infrastructure by supporting the development of innovative pedagogical practices. To do this, Piec has adopted a combined and multidimensional strategy to integrate technologies in schools that remains flexible enough to accommodate specific needs. It takes into account variations in schools' starting points in terms of infrastructure, digital resources, teacher training and visions for technology use.

In the early 1990s in Chile, the Enlaces Network strove to support curricular learning through the use of computer labs, with the aim of creating a school network among pupils and teachers. The Chilean policy – unlike others in the region – focused on bringing computers to schools, rather than to pupils directly (Sunkel and Trucco, 2012). This approach continued until 2011, when targeted initiatives were

created to give pupils personal computers (*Yo Elijo Mi PC* – "I choose my PC" and *Me conecto para aprender* – "Connect to learn"). From 2012, Enlaces shifted its attention towards skills development and created the *Matriz de Habilidades TIC para el Aprendizaje* (ICT skills matrix for learning), which integrates the objectives of certain subjects into the national curriculum (Carrasco and Flores, 2019).

The Enlaces Programme played a very important role in making the education system a gateway for equal access to technology for pupils, regardless of their conditions of access at home. Over time, this divide decreased significantly in Chile, thanks to widespread access to mobile devices. However, this social dimension of the policy remains relevant in poor and rural areas, where Internet access is still lacking. Enlaces set out basic conditions for the use of digital technology in the educational system, which allowed for broad and rising use of digital resources in pedagogical processes. That said, recent efforts were often dispersed through various, less effective initiatives lacking a sufficiently clear purpose. They were not highly relevant to or did not align with the aim of skills training and providing learning experiences that prepare pupils to participate in the digital society. This unit has now been closed as a programme and integrated into a new policy of educational innovation. The "Innovation Centre" of the Ministry of Educacion seeks to more quickly identify, develop and scale up innovative solutions to improve learning for all students in Chile. Unlike Enlaces, the Innovation Centre works in areas of educational innovation with or without the use of technology, and covers all levels of education, from preschool to higher education.

In Costa Rica, the National Programme for Educational Informatics (PRONIE-MEP-FOD) was created in the 1980s and focused on the development of skills for the twenty-first century (Sunkel and Trucco, 2012). It was one of the first attempts to introduce ICTs on a large scale to public schools. From 2011, the promotion of access intensified with the national programme *Conectándonos* ("getting connected") and the "Learning with mobile technologies in multi-grade schools" (ATEM) project, along with the integration of the 1:1 computing model, where pupils receive personal computers (Vacchieri, 2013; UNESCO, 2016). The Costa Rican Ministry of Education has a unit that contributes to digital issues in the education system, with significant efforts aimed at content development and teacher training programmes working to ensure that technologies strengthen teaching and learning.

Costa Rica is an interesting example because it is currently developing nine different initiatives linked to technology in education with a comprehensive perspective that includes a variety of actors outside the Ministry of Public Education, such as the Ministry of Science, Technology and Telecommunications and the Ministry of Culture and Youth. This speaks to a cross-cutting policy approach that makes it possible to capitalize on a range of resources and funds while also integrating different views with a focus on the same population. This means that not only is attention paid to skills development for pupils and teachers and improving learning skills, but progress can also be made on inclusion and innovation issues, as well as on promoting digital citizenship, which is closely tied to the promotion of children's rights. The country's programmes also support the delivery of equipment and software as well as platform development, facilitating access and other types of connections (such as through tablets or mobile phones) for those with less access. There is also a need to draw up guidelines aimed at both regulating and promoting the use of mobile phones in schools, with teacher training activities on their use. However, these advances are not reflected in an adequate appropriation of the Internet for educational purposes and the development of digital citizenship. If current programmes are analysed in detail, support is limited to Internet use, which does not favour the institutional promotion of beneficial uses and risk reduction.

In Uruguay, digital policies began taking root from the mid-2000s, with the creation of the Agency for the Development of Electronic Government and Information Society and Knowledge (AGESIC) and the implementation of the Ceibal Plan. The Ceibal Plan implemented a strategy based on the 1:1 computing model (one computer per child). It went beyond the basic provision of devices, making the country a pioneer in the region with regard to this model. Because it was a policy for both digital and educational inclusion, the Ceibal Plan aimed to bolster social inclusion, reduce inequalities in ICT access and use by children and young people (Sunkel and Trucco, 2012), and eliminate these

inequalities in schools. Part of the plan's success lies in the strong concept of institutionalism adopted from the outset: it depends on the highest level of authority, thereby ensuring that the provision of a computer to every pupil and teacher in primary (and later secondary) education was supported by content development, platform availability and the promotion of innovative teaching practices. To this end, specific lines of work were developed, backed by a team of educators, developers, support staff and maintenance technicians, with additional strategies to promote overall community participation. Among its most noteworthy outcomes, the plan has helped reduce the ICT access gap between households in different income quintiles; connect more than 95% of the country's schools through fibre optics; make the teaching of English more widespread through videoconference classrooms; create nationwide adaptive learning platforms; and establish a library that can be accessed free of charge by anyone residing in the country (including not only the textbooks that are compulsory in formal education, but also a virtual version of the national library).

The Uruguayan government also subsequently set up a similar plan for digital inclusion aimed at retired adults, providing free tablets and implementing free support services and training.

C. Internet access in schools in Brazil, Chile, Costa Rica and Uruguay

Given the complex and multifaceted aspects of the digital divide as mentioned in the Introduction, this section attempts to answer the question of what role Internet access plays in schools in Brazil, Chile, Costa Rica and Uruguay in relation to the other types of access available to children and adolescents. An attempt will be made to consider the extent to which the digital policies implemented in these four countries reflect equitable outcomes. To this end, the analysis will focus on the contrast between home and school Internet access patterns in the four countries.

While home Internet access shows a sustained but modest growth pattern in the region (ECLAC/NIC.br, 2018), the use of mobile phones – and especially smartphones – to access the Internet is rising sharply, and their role in Internet access patterns deserves special consideration.

That said, it should be noted that the full range of digital devices and unrestricted broadband Internet access continues to show clear differences between different socioeconomic statuses (SES): the middle and upper levels have greater access to the full range of options, using a variety of devices to connect and being able to do so with few limitations and in various places, while lower SES individuals mainly obtain access through mobile phones (ITU, 2017). Empirical evidence shows disparities in access to all ICTs between urban and rural populations, between income quintiles, at the gender level, between populations that speak the official language (Spanish or Portuguese) at home and those that do not, and between populations with and without disabilities (Galperin, 2017).

With regard to Internet access in schools, it is important to note that in recent years some countries in the region have seen a shift in digital education policies, marked by the gradual replacement of computer labs with various forms of mobile learning. The clearest example of this is Uruguay. Costa Rica maintains a mixed approach, with computer labs combined with portable equipment. This approach has been applied on a more modest scale in Brazil, where the computer lab model continues to prevail in the public education network and access in communities has been strengthened via public access centres through a policy focused on populations with little or no access (CGI.br, 2014). Chile is implementing so-called "Connected Classrooms" in a shift from its previous computer lab-based strategy towards ensuring access and use of devices in all classrooms.

This new approach has resulted in an increase in portable devices in three of the four countries that, unlike the laboratory model, enable use in different spaces at school, home and community where pupils spend their time. This use, therefore, has a specific potential to be more easily mediated by

relevant figures in children's lives. The following section will seek to shed light on the extent to which this phenomenon is reflected in different Internet access patterns among the countries analysed.

Table 6
Internet access at school and home in Chile, Costa Rica, Brazil and Uruguay
(Percentages)

	Chile		Costa Rica		Brazil		Uruguay	
	School	Home	School	Home	School	Home	School	Home
Total	49.8	94.2	47.3	86.9	32.2	83.4	59.1	80.9
9–10 years	27.0	88.5	31.6	78.6	14.3	82.6	59.7	66.8
11–12 years	41.2	92.5	40.4	80.6	25.5	77.3	49.0	78.1
13–14 years	56.1	95.2	53.0	93.0	32.9	85.0	62.2	88.1
15–17 years	65.4	98.2	63.3	93.8	42.8	85.8	65.4	89.7
High SES	53.1	97.2	54.2	93.1	42.9	96.5	59.9	96.6
Middle SES	46.9	95.6	42.8	89.6	29.4	86.6	60.1	84.5
Low SES	52.3	90.7	44.4	72.5	27.9	68.1	57.3	69.7

Source: Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).
Note 1: The questionnaire used in Brazil employed a dichotomous response scale. The other three countries used a frequency scale, which was dichotomized for the purposes of this report. 2: There are no significant differences between boys and girls in any of these variables; the breakdown by gender was omitted in order to simplify the table.

Generally speaking, the home is the main location of Internet access[7] for children and adolescents in the countries analysed, with interesting differences in terms of access patterns, as well as the role of schools in relation to them. As shown in Table 6, almost all of those in the high SES access the Internet in their homes in Chile (97%), Uruguay (97%), Brazil (96%) and Costa Rica (93%). However, Chile is an outlier, as these high access rates are also true for the low SES (91%), while in the other countries Internet access shows a clear pattern of inequality by SES, one that is especially striking in Brazil (68% for low SES).

As discussed in section A of this chapter, each of the countries considered has developed distinctive education policies to guarantee children and adolescents access to ICTs in teaching and learning. As a result of the Ceibal Plan, higher percentages of Internet access are observed in Uruguayan schools (60%) than in the other three countries. Around half of the children and adolescents using the Internet in Chile (50%) and Costa Rica (47%) accessed it in a school setting. In Brazil, however, Internet use in schools is only 32%. This shows why it is important to distinguish between nominal and effective access to technologies (Selwyn, 2004): virtually all Brazilian schools have computers, mainly in computer labs, which indicates that they are being underutilized, and especially by younger children (CGI.br, 2018).

When the different age groups are taken into account, access in all countries among 13–17-year-olds is higher than among 9–12-year-olds, with the exception of Uruguay, where it is similar to that of the other age groups. This finding is likely related to the implementation of the 1:1 computing model from age six in all public schools in the country.

Another important piece of data, which is complementary to those previously discussed, is the percentage of children and adolescents in each country for whom school offers a clear opportunity for access (i.e., those who access the Internet at school but not at home). It should be noted that only 2% of Chileans, 4% of Costa Ricans, 5% of Brazilians and 9% of Uruguayans are in this situation. The other children and

[7] The indicator discussed here in terms of access applies, strictly speaking, to place of use. What is of interest for the purposes of this analysis is where children and adolescents actually use the Internet and not where the infrastructure is available to them.

adolescents have both types of access (between 27% in Brazil and 50% in Uruguay), access only at home or, to a lesser extent, neither. Although the overall figures for mainly school access are not high, a breakdown by age and SES shows that in Uruguay, this access reaches 15% of children and adolescents with a low SES, while in Brazil and Costa Rica the figure is 10%. In Chile, the proportion is low (4%) and is related to the higher levels of access in this country, as mentioned above. Uruguay is once again an outlier with regard to disaggregation by age group, since mainly school access among the youngest children is as high as 20%, whereas it is only around 5% in the other three countries (see Table A.7).

In sum, Uruguay has the highest and most equitable levels of Internet access in schools, and is where schools have a clearer role in levelling out access opportunities, both by age and by SES. Meanwhile, Chile stands out for its high levels of Internet access among children and adolescents at home, and because of this broad access, has a low variation among the different SES levels. Costa Rica lies between the two, with a pattern of inequality in access in both areas, but where the differences are moderate. The pattern that stands out most in the dataset is that of Brazil, which is characterized by considerable differences in access among the different SES levels with a similar pattern of inequality in the school environment. Accordingly, Brazil has the lowest levels of Internet access in schools for all age groups. Moreover, the difference between access at school and at home is the most pronounced. At the other end of the spectrum, Uruguay stands out for having the smallest percentage differences between school and home access among the different SES levels and age groups.

Given these patterns, there is a clear need to develop public policies for digital inclusion, particularly in Brazil, which guarantee the democratization of the right to access and participate in the Internet for children and adolescents, regardless of their family's income level. Among the possible policy approaches for this purpose, the combination of universal deployment in the school environment with targeted policies aimed at the most isolated populations, such as public access centres, is generally considered effective (Aguerrondo, I. and others, 2006).

D. Digital device uses in schools

As noted in the previous section, there are variations in the proportion of children and adolescents who access the Internet at school among the countries analysed. This is largely related to the characteristics of the education policies implemented in each country. Having identified some features of the patterns of Internet access among children and adolescents, this section will analyse the main uses of digital technologies linked to learning.

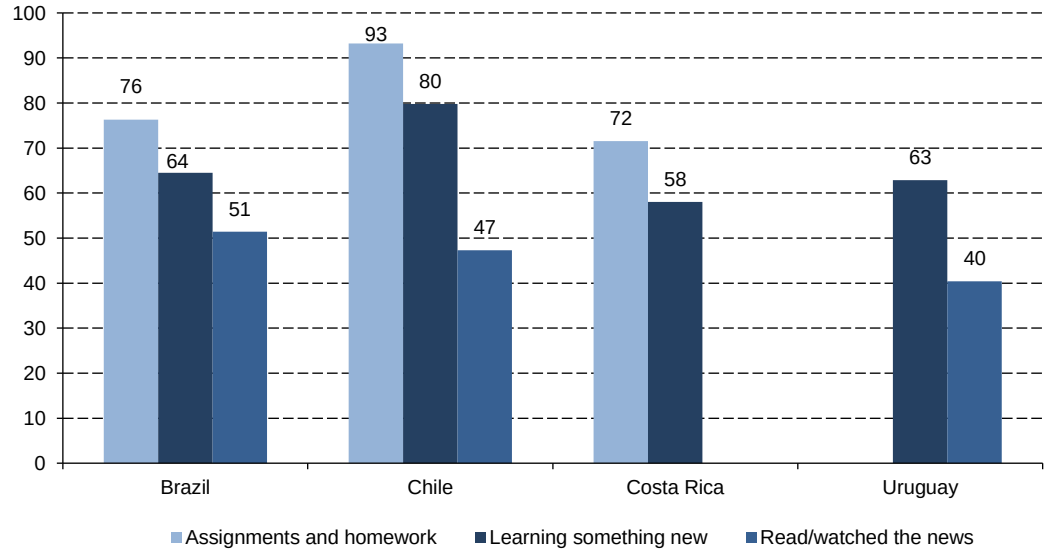
The digital environment is a source of information and a learning environment in a much broader sense than a strictly school-focused perspective. Digital technologies are much more than mere tools: they offer excellent opportunities for schools to enable pupils to process, organize and mediate both learning that is intentionally promoted in classrooms and learning that takes place outside the school environment (NIC.br/UIS, 2016). Given the relationship of children and adolescents with these technologies with regard to digital culture, it is important to mention the difficulty of restricting uses within and outside a certain environment, or to distinguish uses for learning activities from others that would not be categorized as such. The distinction here between learning-based uses has been made strictly for analytical purposes, but it does not correspond to the actual experience of use or to discourse on this subject for these age groups (Martínez, Alonso and Díaz, 2009).

One distinction that does seem relevant and possible to make is between formal and informal learning activities. Formal learning refers to activities conducted within the school environment with pedagogical interventions by a teacher. Figure 8 shows the activities associated with each. Completing assignments for school explicitly accounts for a formal learning activity that is required by the school. The other two activities, "learn something new" and "read/watch the news", may be tied to informal learning,

although either could easily be framed within teaching guidelines. Regardless, it is important to note that children and adolescents are constantly learning and doing activities through digital devices, offering both an opportunity and a challenge for schools to find ways to connect with and leverage these devices.

It should be noted that despite the abovementioned differences in Internet access and use, children participating in online activities associated with learning is high in all four countries. The most predominant of these is the completion of school assignments and homework. The activity "learn something new" also ranks quite high, although to a lesser but still significant extent. Finally, a smaller proportion of children and adolescents go online to "read/watch the news" (between 40% and 47%), which is to be expected for a much more specific and limited activity.

Figure 8
Brazil, Chile, Costa Rica and Uruguay: activities related to online learning and information searches by country
(Percentages)



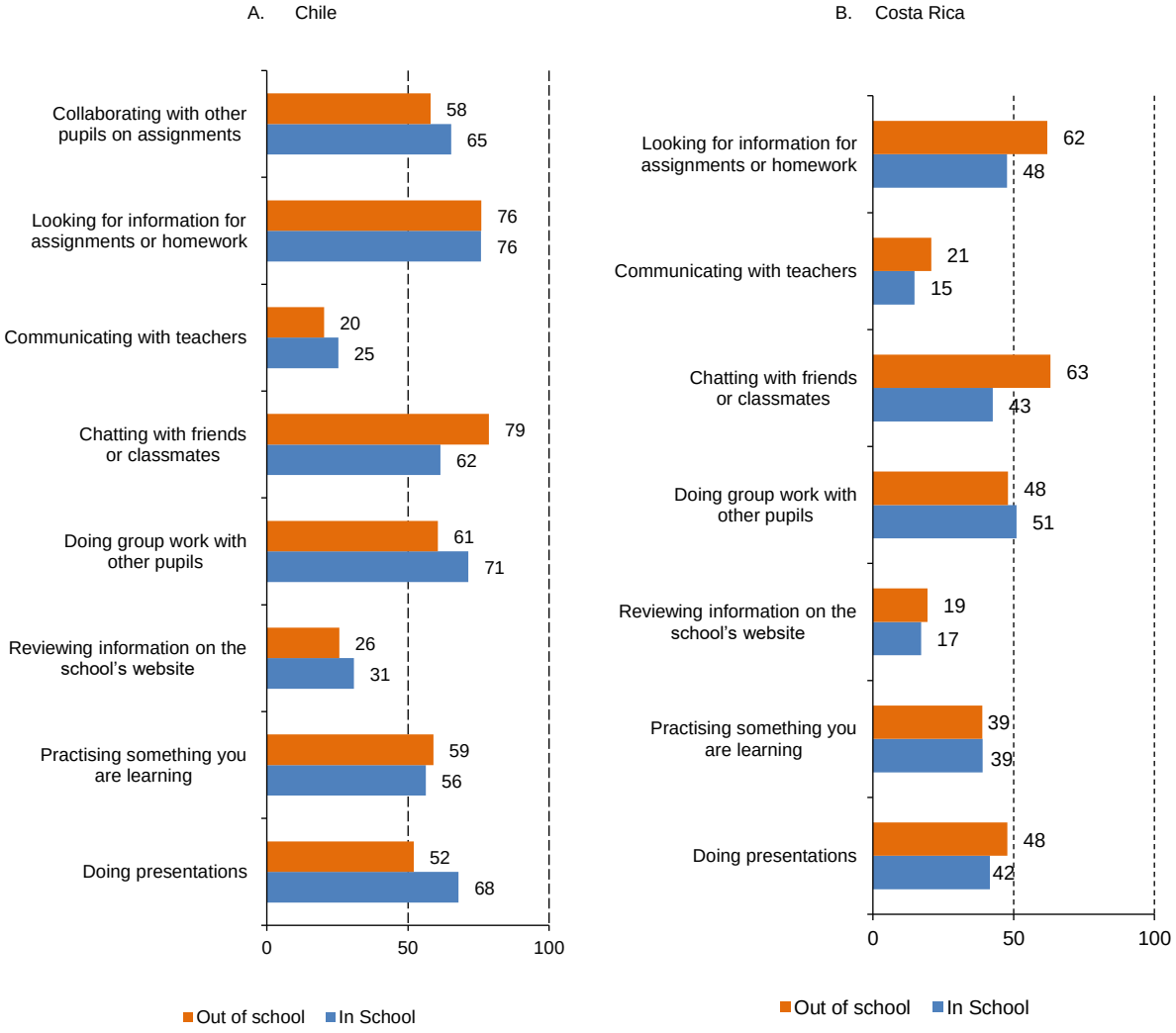
Source: Kids Online surveys for Brazil (2017), Chile (2016), Costa Rica (2018) and Uruguay (2017).

However, there are some differences between countries in the age group analysis. While homework-related activities are widely done by Internet users aged 15–17 in the three countries surveyed, with Chile at 95%, Brazil at 78% and Costa Rica at 79%, for Internet users aged 9–10, there are sharp differences between the countries, with the highest and lowest values in Chile (86%) and Brazil (63%), respectively. Thus, the pattern discussed in the above section is also seen in Internet use for learning activities, with near universal use in Chile and, at the other extreme, use segmented by age group and SES in Brazil. Accordingly, the differences in levels of Internet access both at home and at school between countries are indissociable from the characteristics of the policies implemented in those countries. The lack of Internet access limits autonomous use by children and adolescents, while policies are vital for encouraging teachers to support Internet use for learning within and outside the classroom. This issue will be addressed more specifically in the following section.

A complementary approach to that presented above is to consider activities according to whether they are carried out in or outside the classroom. The following set of questions was only asked in Chile and Costa Rica. The uses of digital technologies in the educational environment can be separated into two categories. The first includes those focused on facilitating collaboration and exchange between peers, while the second includes those connected to knowledge management and

searching for, selecting, processing and producing information (Aguerrondo, I. and others 2006). Figure 9 shows the activities associated with each category.

Figure 9
Chile and Costa Rica: Internet use for learning activities based on whether they are done in or outside of school
(Percentages)



Source: Kids Online surveys for Chile (2016) and Costa Rica (2018).

In both countries, searching for information for homework and doing group assignments with other pupils using the Internet are the activities most often reported by children and adolescents, with Chile recording the highest percentages. Chile also stands out in that these activities are done at higher levels in schools than outside; the opposite occurs in Costa Rica. The predominant use of mobile phones may be one factor that facilitates such activities among children and adolescents, while activities such as presentations generally require the use of a computer.

In terms of communication-related uses, a very common practice is to chat with peers, which in both countries happens more often outside of school, as would be expected given that it is a more social activity than educational. Even so, high numbers of pupils chat with others at school (61.5% and 42.6% in Chile and

Costa Rica, respectively), which is similar to most of the activities on the survey, and without significant percentage differences between the two environments. This reflects the continuity between how children and adolescents interact as mediated by digital technologies, mentioned at the beginning of this section. This predominance of communication-based activities, searching for information and group interaction across the many environments in which they are involved ties in to the way Internet-connected mobile phones facilitate sociability and exploration, which are common in adolescence, in all of these different spaces. In contrast, the practice of communicating with teachers, whether in or outside of school, is not widespread. Again in Chile, it is more common within classrooms than outside, unlike in Costa Rica.

Among the activities specifically linked to learning, it is worth noting that Chile has a significant proportion of children and adolescents who report using digital devices to do group work, as well as to collaborate with peers on assignments, both in and outside of school. The widespread practice of collaborative work and peer learning is a relevant finding and one worth exploring further. Collaborative learning is considered fundamental for developing cognitive skills, and there is evidence of its potential to positively impact learning outcomes (Hattie, 2011; Comi and others, 2016; among others). As such, this finding should be studied in greater depth, in order to better understand the specific characteristics and any connection of these practices reported by Chilean children and adolescents with various types of learning, including curricula-based requirements.

Evidence suggests that when schools encourage greater Internet use for educational activities, it may lead to students participating in more online activities for learning outside the classroom, as long as there are activities outside the classroom that appear to be – or at least could be – encouraged by schools. As mentioned above, it is important to consider how the encouragement from school and the conditions of access to the Internet at home and in the community environment are connected in each of these countries.

Given that the environment created with the classroom and teacher mediation play a fundamental role benefiting from online opportunities and mitigating the risks for children and adolescents, the following section offers an analysis of the activities developed by teachers to guide and regulate such use by the 9–17 year age group in the different countries.

E. Educational mediation of Internet and mobile phone use

Teacher mediation in this context refers to the pedagogical intervention by a teacher regarding the use of the Internet and digital devices by children and adolescents. It is possible to identify different teaching strategies depending on whether they are mainly oriented towards setting restrictions or rules, providing guidance or support, monitoring or promoting the autonomous use of these technologies.

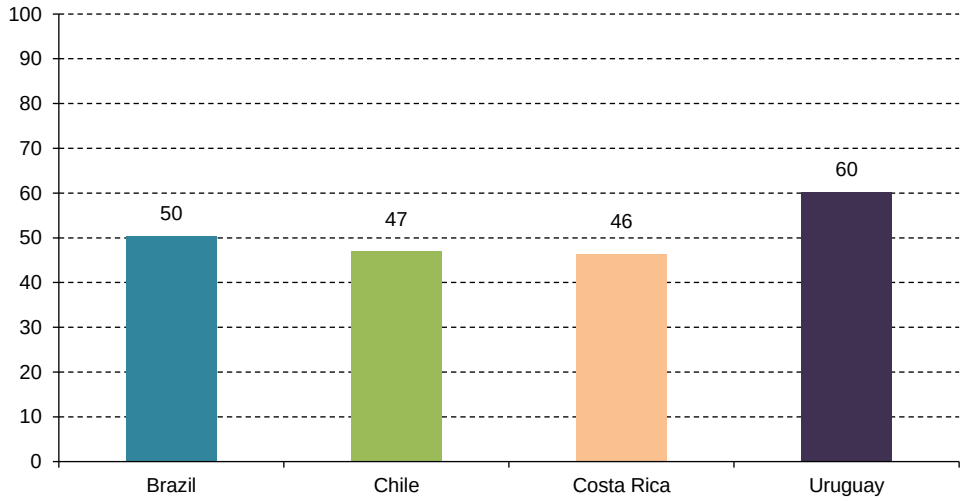
Empirical research indicates that teachers tend to develop strategies that mainly focus on guidance or restriction largely based on their perception of the possibilities or limitations offered by the Internet in relation to learning goals (Karaseva, Siibak and Pruulmann-Vengerfeldt, 2015). Additionally, in terms of the considering teaching as a protective factor, Shin and Lwin (2017) found that teacher intervention aimed at providing guidance and support is an effective resource that helps reduce risks for children and adolescents.

In Chile, Costa Rica and Uruguay, a style of educational mediation is most common, and is mainly aimed at setting rules and restrictions for Internet use. Uruguay shows the highest percentage of this type of mediation (60%), while the rest of the countries are between 46% and 48%. In all four countries, this mediation style occurs most frequently with regard to younger students (9–12-year-olds).

Another set of teaching practices were identified that are specific to active mediation and which aim to guide or support the use of these technologies. The surveys showed that Brazilian girls and adolescents (58.8%) most frequently report that their teachers advise them to use the Internet safely, followed by Uruguay (52.2%), Costa Rica (46.2%) and Chile, which has the lowest percentage (42.8%).

In Chile and Uruguay, the 9–12 year age group receives the most guidance, while in Brazil and especially in Costa Rica, it is the 13–17 year age group.

Figure 10
Brazil, Chile, Costa Rica and Uruguay: teacher mediation aimed at setting Internet use rules and restrictions, by country
(Percentages)



Source: Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

With regard to this type of mediation, it should be noted that between 34% and 49% of children and adolescents surveyed in Chile, Costa Rica and Brazil indicate that teachers help them when they have difficulty finding something on the Internet, with the highest proportion of such support reported in Brazil (49.5%) and the lowest in Chile (34.8%). In all three countries, more female respondents report receiving this type of guidance from their teachers.

In Chile and Costa Rica, research was done on the type of teacher mediation when using the Internet for specific school activities (including teacher recommendations on web pages, explanations of why some pages are better than others for doing assignments, guidance on how to cite others' ideas in their work, and supervision while using the Internet). It was found that children and adolescents surveyed in Chile report that they receive teacher guidance more frequently for various school activities than pupils in Costa Rica. In both countries, these teaching interventions are most prevalent in the 13–17 year age group. Also in these two countries, the main activity carried out by teachers is to explain which pages are better than others for performing homework (51.7% in Chile and 36.2% in Costa Rica).

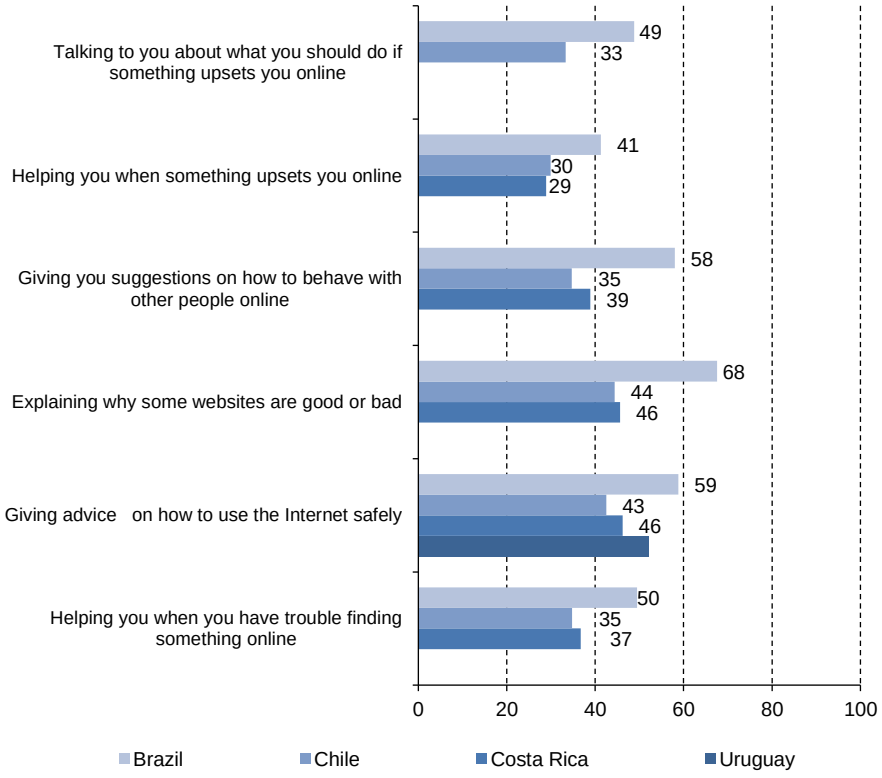
More Brazilian children and adolescents reported that their teachers advised them on safe Internet use (58.8%). They also more often mentioned the role of teachers in helping them to find something on the Internet when they have difficulties (60%). Although Brazil has the lowest levels of Internet use in schools, the reference to teachers as an important actor in mediating online experiences is an interesting element to consider, as it can become a facilitating factor to better leverage opportunities associated with online participation. It is worth noting that in Uruguay, where Internet access in schools is higher, the proportions of support and guidance from teachers on safe use were similar to those identified in Brazil (52.2%).

One relevant area of teacher intervention is speaking to pupils about what they actually do online, as doing so goes beyond the one-way flow of information from teacher to pupils. Low proportions of discussion activities with teachers were reported in all countries: Brazil (36%), Costa Rica (29%) and Chile (23.2%).

It should be noted that, although Chile has high levels of Internet access in schools compared to the other three countries, and that learning activities in and outside of school are also common, the indicators on the active role of teachers in providing guidelines for safe use (42.5%) and in offering help in finding information (34.8%) were the lowest. The data point to a need to consider the extent to which the frequent use within schools is spontaneous, managed by the pupils themselves and linked to the use of their own devices, and to what extent the use is part of a pedagogical approach linked to the ICT policy of each country, with active teacher intervention.

Within this support or guidance activity, it is important to determine the role played by teachers when children and adolescents experience uncomfortable situations online. In this regard, none of the four countries showed that teachers were the first option for seeking help. In terms of age, in Uruguay and Costa Rica children aged 9–12 ask for more support from teachers, while in Chile 13–17-year-olds do.

Figure 11
Brazil, Chile, Costa Rica and Uruguay: teacher mediation aimed at providing guidance or support for Internet use, by country
(Percentages)

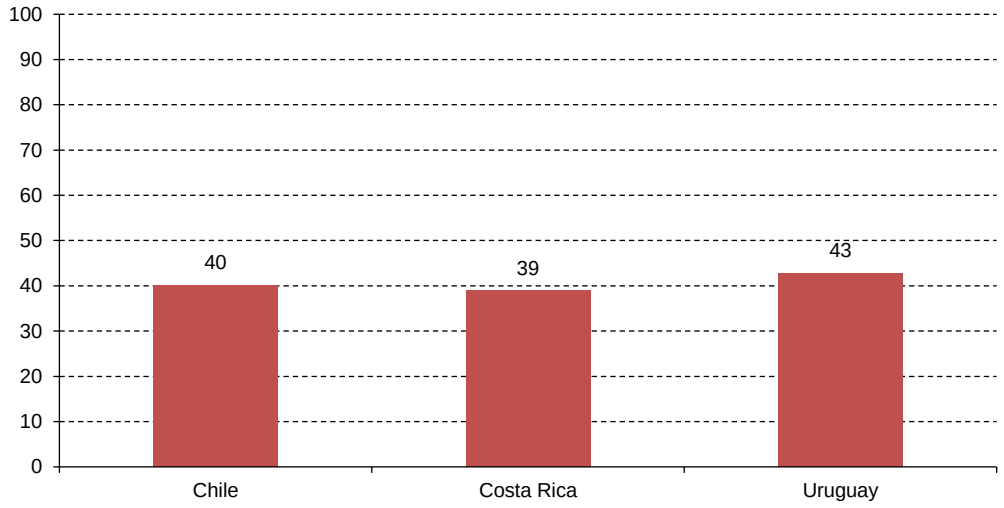


Source: Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

A third type of mediation is aimed at promoting autonomous use of the Internet. Between 39% and 43% of children and adolescents in Chile, Costa Rica and Uruguay say their teachers encourage them to explore and learn on their own online. In Uruguay, the group that indicates that teachers most frequently adopt this objective is the 9–12-year-old group, while in Costa Rica and Chile it is the 13–17-

year-old group. It is not possible to say that there is a pattern associated with gender on this point: in Costa Rica female pupils say that they receive this type of guidance more, with male pupils saying the same in Chile, and in Uruguay no significant differences were noted.

Figure 12
Chile, Costa Rica and Uruguay: teacher mediation aimed at promoting autonomous Internet use, by country
(Percentages)



Source: Kids Online surveys for Chile (2016), Costa Rica (2018) and Uruguay (2017).

Finally, mediation aimed at following up on or monitoring Internet use turns out to be the least employed approach by teachers in Brazil, Chile, and Costa Rica, the countries where this issue was explored. Between 23% and 36% of children and adolescents say that teachers talk to them about what they do online. In Chile this practice is more common with those aged 9–12, while in Costa Rica it is more common among those aged 13–17, and in Brazil there is no difference. In Brazil and Chile, this practice is more common among girls, with a difference of at least 4% compared to boys.

Figure 13
Brazil, Chile and Costa Rica: teacher mediation aimed at monitoring Internet use, by country
(Percentages)

Source: Kids Online surveys for Brazil (2016), Chile (2016) and Costa Rica (2018).

Regardless of the type of mediation, the surveys found that in Chile, Brazil and Uruguay, teacher guidance on Internet use is reported more frequently at the middle and low SES levels, while in Costa Rica it is often provided at the middle and high levels. This could be because of differences in the approach to Internet use for educational purposes in Costa Rican public schools with respect to other countries, reflecting the need to strengthen educational policy guidelines on guidance and support from teachers on Internet use in Costa Rican schools that students from the middle and lower SES households receive.

Box 5
Connected teachers

Mário Volpi[a]

Since the advent of the Internet, the debate on the appropriation of new information and communication technologies (ICTs) in schools has been mainly based on generalized ideas and initiatives aimed at guaranteeing access for students, such as "One computer for every child" or "All schools connected". "Internet in the classroom" and various other initiatives attempt to address the most basic need: providing access to the Internet and the necessary devices. Governments and institutions in different countries have made investments, and continue to do so, to ensure that education policies benefit from technological developments. Although empirically significant progress has been observed in the adoption of new technologies in education, achievements in the quality of learning are still not well documented to clearly define which aspects of the pedagogical process benefit most from ICTs. However, regardless of what new studies may reveal, ICTs are part of the social dynamic. They influence educational processes, both inside and outside the school, to such a degree that it would be a serious mistake to ignore them.

For example, the Brazilian ICT and Education Survey (2018) shows that, despite the various initiatives being implemented, serious challenges exist in all areas. This section addresses the challenges faced by a key actor in the process: teachers. According to the survey, 20 of teachers "participated in a continuing education course on the use of computers and the Internet for teaching". With regard to Internet use, 5 said they used it more than once a day; 11 reported using it at least once a day; 20 once a week; and 18 reported using it at least once a month. A total of 32 reported using online resources to prepare their classes. It is interesting to note that 100 of the teachers reported having access to the Internet and 88 have a laptop.

It can be inferred that teachers' use of the Internet in their private lives does not lead to their use in their professional activity. This finding shows the need for policies to enhance the value of teachers so that, in addition to being connected citizens, they can also perform their teaching duties in a connected way. School is an important place for children and adolescents to socialize, learn and develop affective relationships that are fundamental to their well-rounded development. The vulnerabilities they face in society have corresponding vulnerabilities in the virtual world. This is why mediation by conscientious adults is so important, so that children and adolescents can enjoy their right to be connected and be able to protect themselves from risks and threats to their integrity and rights.

The importance of teachers in mediating the use of ICTs by children and adolescents has long been discussed. They are, in fact, a fundamental human resource, with great potential to guide, educate, protect and ensure safe Internet use by children and adolescents. In Brazil, although there are a variety of successful experiences in strengthening the role of teachers as educators in the safe use of technologies and social networks, fewer than half of teachers feel prepared and motivated to do so. Best practices should inspire initiatives that value this mediating role of educators, since daily contact with children and adolescents naturally puts them in a position where they can influence both appropriate Internet use and social media experiences, as well as help them learn to protect themselves from cyberbullying, sexting, harassment and other online risks. One excellent idea would be to combine the pedagogical use of technologies to improve learning processes with guidelines so that recreational use does not expose children and adolescents to risks.

Ensuring the right to digital inclusion of children and adolescents is society's responsibility as a whole. Schools and teachers play a key role in guaranteeing the right to digital citizenship for children and adolescents. To truly fulfil this role, education policies must make significant investments that can connect schools and teachers, creating an educational community that enhances its pedagogical approach through the integrated use of technologies rather than through programmes that are disconnected from real-world pedagogical practice.

Among the main challenges that the Brazilian education system must tackle is that of connecting schools, teachers, principals and educational policies with the twenty-first century. If it fails to do so, the country will be unable to fully achieve inclusive and sustainable development.

[a] UNICEF Adolescent Citizenship Programme Coordinator, Brazil.

The fact that there is less teacher participation in guidance on Internet use for children and adolescents from high SES households in Chile, Brazil and Uruguay is striking. Given that there is a high correlation between SES and the probability of attending a private school, (although this variable is not measured in the Kids Online survey), one possible hypothesis is that the highest level of teacher mediation among pupils from the lowest SES households reflects the fact they attend public school, where the digital inclusion policies that are implemented promote, to a greater or lesser extent, this role by teachers. This would offset the limited mediation by parents and guardians with a lower level of education and digital skills. In contrast, for high SES students the data suggest that it is the resources, cultural capital and digital skills at the home and peer group level that determine the mediation they receive, with schools not playing a significant role. However, for children and adolescents who receive a lot of support in general, there is the possibility that teachers' contributions will be less significant in relative terms, even if they do provide guidance.

With regard to these types of mediation, children and adolescents were also asked about the use of mobile phones within the school environment. Between 74% and 84% of pupils in Chile, Uruguay and Costa Rica indicate that there are rules for their use at school, with Chile being the country where these limits are most frequently in place and Uruguay the least. The 9–12 age group reports the existence of these rules the least. This should not be directly interpreted as due to a tendency to not set rules for younger children, but rather linked to the rare presence of mobile phones in classrooms among this age group.

In Chile and Costa Rica, pupils were also asked whether there was a ban on mobile phone use, which was the case for 71.1% of pupils in Chile, compared to 34% in Costa Rica, with the difference that in Chile a ban was more frequently noted among the 13–17 age group and in Costa Rica among the 9–12 age group. Similarly, in Costa Rica it was reported that 51% of activities are done in the classroom using a mobile phone, compared to 38% in Chile; in both countries, this was true to a greater extent in the 13–17 age group. In-class device use is more frequent in the upper and middle SES levels, while in Chile it is similar across the three levels. It would be useful to further explore the type and quality of that use, as well as its implications for skills and knowledge development.

In summary, mediation aimed at setting rules is the most common in Chile, Costa Rica and Uruguay, followed by that aimed at providing guidance and support. This occurs to a greater extent among children and adolescents from middle and lower SES households, mediated by public education and the related policies. In Brazil, mediation aimed at providing guidance and support is found most frequently. It should be noted that all types of mediation are reported more frequently by girls than by boys, although with few substantial differences, in line with what has been found in the literature on the intersection between gender and mediation, where there are different approaches to supporting boys and girls.

F. Sources of information for safe Internet use for parents and guardians

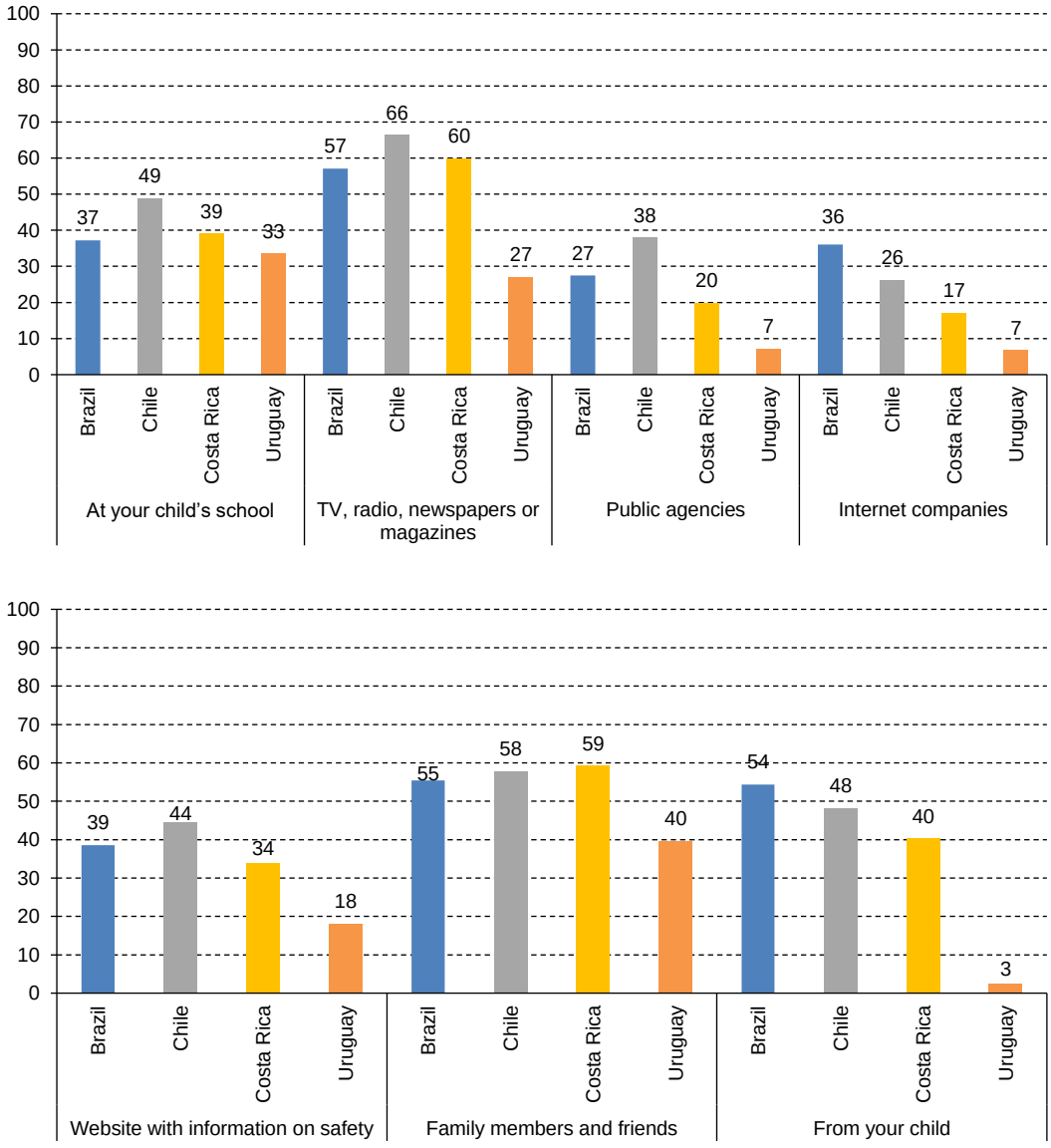
Digital skills development among parents and guardians is essential to promoting both safe use of the Internet and the opportunities it offers children and adolescents. It is important to understand the sources of information and support resources available to these adults, as well as to compare them to those they would like to have, to be able to better guide the development of relevant initiatives.

Parents and guardians draw on a variety of sources of information about safe Internet use, including the media (television, radio, newspapers or magazines), family members, schools and their own children. Evidence suggests a lack of programmes and projects targeted to them: in Chile, Brazil and Costa Rica, the media is the main source of information on Internet use (between 57.1% and 66.3%

in the three countries). Schools only rank fourth among sources of information on the subject, with percentages between 37.2% and 48.8%, behind family and children themselves.

The pattern in these three countries shows an interesting contrast with Uruguay, where schools are in second place as a point of reference for Internet use (33.4%), just behind family (39.6%). Children as a source of information accounted for only 2.6% of answers, coming in last place among the seven reported sources.

Figure 14
Brazil, Chile, Costa Rica and Uruguay: information sources used by parents and guardians, by country
(Percentages)

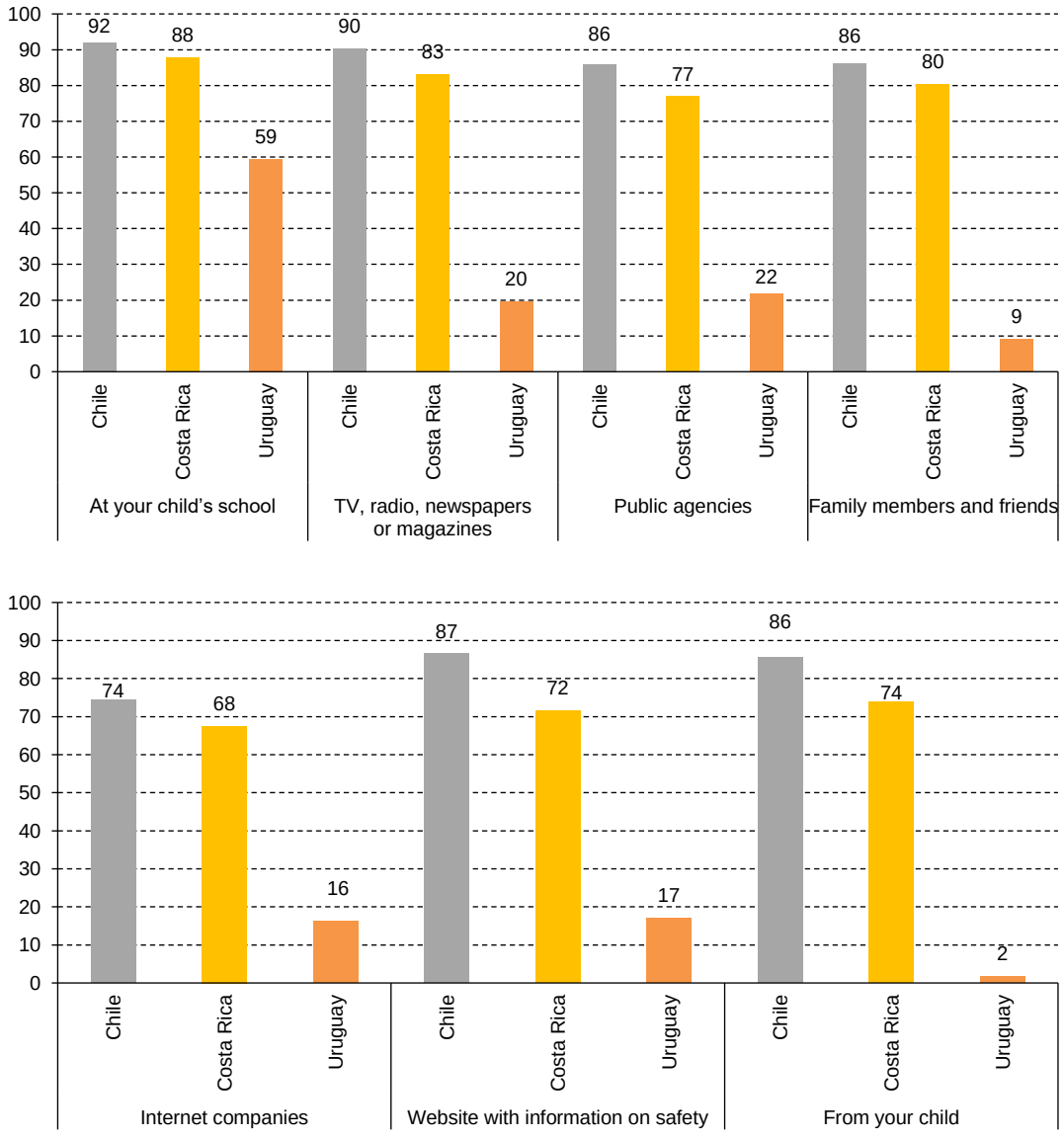


Source: Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Additionally, knowing which sources of information on Internet use that parents and guardians would like to use is important. In Costa Rica and Chile, schools and the media were the two most

selected sources of information, with percentages above 80 for both countries. In Uruguay, in line with the country's strong public policy intervention on digital inclusion, as well as the central role the State plays in local social issues, the most selected sources were schools (59.4%) – a preference that was much stronger in the middle and low SES levels – and public organizations (22%).

Figure 15
Chile, Costa Rica and Uruguay: Sources where parents and guardians would like to obtain information, by country



Source: Kids Online surveys for Chile (2016), Costa Rica (2018) and Uruguay (2017).

The data suggest the need to strengthen information and empowerment channels for families to perform their role as mediators with regard to Internet use by children and adolescents. Although schools are not currently the main source of information or point of reference in the countries studied,

it is relevant for parents and guardians as a possible source of information and possibly the development of mediation skills regarding Internet use. It is important to take this into account when developing campaigns or digital literacy programmes.

G. Final considerations

Throughout this chapter, we have been able to observe the digital ecosystem children and adolescents in four countries of the region are growing up in, based on their daily participation in two key social spaces: home and school. It has been shown how each of these settings offers or limits opportunities for Internet access and use, with an analysis of the effective availability of resources and how they use them mainly for learning and communication.

This chapter analyses how universal access policies in education impact use through the availability of devices and Internet access, and how students are encouraged to engage in activities. The digital inequalities that occur in the domestic sphere are offset to a certain extent in the school environment, within the broader and more disparate context of digital education policies in the region. In this regard, patterns of access in terms of quantity and equality have emerged that are characteristic of each of the countries analysed.

In each case, the policies that affect schools and the rules they establish regarding Internet use, as well as the type of teacher mediation, were shown to shape how children and adolescents use this technology. These activities were also shown to have an impact on this configuration through their own patterns of use and participation in digital culture. Mobile phones radically alter opportunities for Internet access, while significant inequalities in the quality and variety of access remain when all types of ICTs are considered.

Efforts to address the digital divide must go beyond infrastructure availability, and this is even more true with regard to children and adolescents, given that greater access occurs in contexts marked by socioeconomic and cultural inequalities. Accordingly, the type of teacher mediation available to these groups at school was analysed, with an emphasis on the potential of each one to support new opportunities and prevent risks, as well as consideration of the opportunities to provide guidance and access to information available to parents and guardians.

The data point to a need to consider the extent to which frequent use within schools is spontaneous, managed by the pupils themselves and linked to the use of their own devices, and to what extent use is part of a pedagogical approach linked to the ICT policy of each country, with active teacher intervention. Based on the available data, teacher mediation focused on setting rules and limits for Internet use prevails in the four countries. Because the school environment is a strategic area that can be leveraged to democratize opportunities associated with online participation by children and adolescents, as well as to mitigate possible risks, it is essential to develop teaching skills for active mediation.

In other words, it is crucial for teachers to be able to guide, expand and monitor Internet use by children and adolescents rather than simply limit it. To this end, in addition to addressing teachers' initial and continuing training needs, digital literacy will need to be well incorporated in schools, either as a specific subject or as a cross-cutting skill. The data suggest the need to strengthen information and empowerment channels for families so they can be involved in mediating Internet use by children and adolescents. Among these channels, schools once again have a key role to play as they are identified by parents and guardians as a desirable and necessary point of reference. It is important to take this into account when developing campaigns or digital literacy programmes.

The four countries analysed here have developed education policies with distinctive characteristics in terms of ICT access for children and adolescents in the school environment. Uruguay, which implemented its digital education policy through the 1:1 computing model, is the country with the highest proportion of Internet use in schools (60). This use is also the least segmented, both by age and by socioeconomic status. At the other extreme is Brazil, which has focused its efforts on the

computer lab model, with a proportion of school Internet use of only 32. This shows why it is important to distinguish between nominal and effective access to technologies (Selwyn, 2004). Brazilian schools do have computers, but they are mainly in computer labs, which means that they are being underutilized, and especially by younger children (CGI.br, 2018).

Costa Rica and Chile are in between, and both have mixed models (computer labs plus laptops in many schools). Although a more detailed study of other influential factors is needed, the trend linking digital policy models based on mobile technologies with higher levels of use (which are even higher when such devices are in the hands of students) has been corroborated in various contexts (Lugo, Toranzos and López, 2014; among others). Although linear conclusions cannot be made when considering the use of any particular technology, a policy that seeks to decisively increase the use of digital technologies and the Internet in schools should consider the option of having mobile devices to support the regional trend of replacing computer labs with mobile access options, available in various areas of the schools.

The pattern that stands out in the dataset for its high segmentation is that of Brazil, which is characterized by considerable differences in access among the different SES levels with a similar pattern of inequality in the school environment. Accordingly, Brazil has the lowest levels of Internet access in schools for all age groups. Moreover, the difference between access at school and at home is the most pronounced. Given these patterns, there is a clear need to develop public policies for digital inclusion, particularly in Brazil, which guarantee the democratization of the right to access and participate in the Internet for children and adolescents, regardless of their family's SES. Among the possible approaches for this purpose, the combination of universal policy deployment in the school environment with targeted policies aimed at the most isolated populations, such as public access centres, is generally considered effective (Aguerrondo, I. and others, 2006).

Additionally, the low percentage of students who use computers and the Internet in Brazilian schools[8] indicates an underutilization of these resources for teaching and learning purposes, combined with a prioritization for administrative use. This phenomenon reflects the relevant distinction between nominal and effective access (Selwyn, 2004) to technology in schools, and the inadequacy of any approach that simply makes equipment available without addressing effective use and shifting the responsibility to the end user. In a similar vein, any policies that aim to expand access must also set out conditions and measures to foster use.

In conclusion, it is important to note that while digital education policies have shifted from an emphasis on access to a focus on digital skills development, digital literacy and digital citizenship, evidence suggests that much work remains to be done to strengthen the role of schools and teachers in this regard. Because digital technologies and the Internet are important tools for access to knowledge and social and cultural participation, the challenge of guaranteeing equitable access is compounded by the public responsibility of ensuring that this access can be translated into higher levels of well-being, promoting development opportunities, and facilitating the learning, participation and self-expression of children and adolescents. This can only happen if schools are involved.

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[8] This is true despite the fact that virtually all schools in Brazil have computers in the computer lab, as well as an Internet connection – even if it is not always broadband, and may not always available in all areas of the school (CGI.br, 2018).

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IV. Participation of children and adolescents in the digital world

Magdalena Claro
Amaranta Alfaro
Amalia Palma
Juan Manuel Ochoa

A. Introduction

What it means to participate online and be a digital citizen is a rather broad concept and includes various perspectives. Some of these consider all the potentially positive activities that young people and adults do online, while others focus on a particular area, such as social or political. Collin (2015) and Mossberger and others (2008) take a broad approach, defining digital citizenship as the ability to participate effectively in society online, specifically using digital technologies to access political information to fulfil civic duties, as well as for economic gain in the workplace.

More social- or community-focused perspectives see the possibilities the Internet offers to connect and socialize with others, such as the ability to communicate, interact and connect online (Meikle, 2016; Botha and Mills, 2012; Richardson and Hessey, 2009; Preece, 2000). The goal is mainly to relate to others and to one's own community (Gil de Zúñiga, Jung and Valenzuela, 2012) and access spaces for self-expression and interaction (Gil de Zúñiga, Molyneux and Zeng, 2014).

Two more specific perspectives can be identified in other political-oriented research. One views the Internet as a space for extending and broadening the possibilities of participation in traditional politics towards new or more inclusive online spaces, while the other identifies a new space in the digital sphere that breaks away from or changes certain dynamics of existing political participation.

With regard to the first perspective, some scholars have described the Internet and its digital platforms as forums with considerable democratic potential thanks to the positive correlation between their use and various indicators of political engagement (Xenos, Vromen and Loader, 2014; Min, 2010; Bennett, 2003; Norris, 2001), such as taking part in political discussions, persuading others, mobilizing, or engaging in a variety of forms of online activism. These practices are echoed in Bennett's theory of "actualizing citizenship" (2008), where people frequently share information, offer their opinions and participate in forms of online microactivism, refining and perfecting their own political identity. Others see a more inclusive dynamic in the digital space through new forms of social mobilization, increased citizen participation and engagement and new mechanisms of empowerment (Boulianne, 2018; Haro-de-Rosario, Sáez-Martín and Caba-Pérez, 2016; Gainous, Wagner and Gray, 2016; Warren, Sulaiman and Jaafar, 2014; Contreras, Sepúlveda and Alfaro, 2012; McDonald, 2006; Rueda, 2005; Jenkins and Thorburn, 2004). These spaces renew political interactions among citizens and members of the political sphere (Min, 2010 Blood, 2002; Kedzie, 1997) and expand the range of issues and actors that contribute to public opinion (Papacharissi, 2009).

As for the second perspective, which notes more novel practices, there are identified forms of participation in the digital sphere that break away from more traditional politics by being decentralized, with a non-linear and non-hierarchical structure, and that seek to influence change in the social order (Dennis, 2018; Kaun and Uldam, 2017; Coleman, 2006; Choi, 2016; Longford, 2005).

Table 7 presents a summary of these perspectives and some of the authors who deal with them.

Table 7
Perspectives on digital participation

Perspective	General definition	Authors
Societal perspective	Possibility of effective participation in all areas of society	Collin (2015); Mossberger and others (2008); Livingstone & Helsper (2007)
Social or community perspective	New possibilities to connect and socialize with others	Meikle (2016); Gil de Zúñiga, Molyneux, & Zeng, (2014); Botha & Mills (2012); Richardson & Hessey (2009); Preece (2000)
Political or civic perspective	Extension and expansion of the possibilities of political participation	Boulianne (2018); Haro-de-Rosario and others, (2016); Warren and others (2014); Xenos, and others (2014); Contreras and others, (2012); Min (2010); Papacharissi (2009); Bennett (2008); McDonald (2006); Rueda (2005); Jenkins & Thorburn (2004); Blood (2002); Kedzie (1997); Norris (2001)
	A new space for political activism that breaks away from the dynamics of traditional participation and seeks to transform society	Dennis (2018); Kaun & Uldam (2017); Coleman (2006); Longford (2005)

Source: Prepared by the authors.

With regard to youth participation, it should be noted that both in academia and in politics some claim that youth are apathetic and apolitical. However, others note that the problem is that their participation is not recognized (Collin, 2015). Bennett (2008) asserts that youth participation reflects a generational change, where the focus of action is on social identity, emphasizing the empowerment of young people as expressive individuals. In other words, they express their feelings and opinions by encompassing different forms of political communication among citizens (Dennis, 2018), resulting in the growing importance of social networking and online communities. In other words, because young people

have grown up with digital media, they are particularly attracted to these collective experiences and the new types of citizenship they offer. Furthermore, in recent years strong social movements led by young people have emerged in the Latin America and the world, where technology has played a key role in mobilizing, organizing and disseminating messages, particularly through social media (Maldonado, 2015). In line with this perspective, ECLAC has suggested that the distance and disenchantment shown by Latin America's youth with the political system and electoral competition should not overshadow the identification of new types of participation that have a growing anti-establishment potential with a high impact on the public policy agenda of some countries (Maldonado, 2015).

From an educational point of view, several authors consider the importance of preparing new generations to be informed and educated digital participants, equipped with the skills to be able to actively interpret the world around them (Choi, 2016; Gleason and von Gillern, 2018; Ribble, 2011). More specifically, technology provides opportunities for them to engage in new types of social, civic, learning and work activities, and it is important that they are able to do so in a critical way (Hague and Williamson, 2009). Research has also looked at different types of Internet use as indicators of children's and adolescents' participation in the digital society and as being synonymous with opportunities, assuming that the greater the number of activities, the greater the inclusion and access to online opportunities (Livingstone and Haddon, 2009). Some authors also suggest that it is possible to build a ladder of participation by placing simpler and more generalized practices, such as searching for information or playing, at the bottom of the ladder and other more complex and less frequent activities, such as creating content, at the top of the ladder (O'Neill and Dinh, 2012; Livingstone and others, 2019). While there is no consensus on which activities are most desirable for children and adolescents to engage in and at what age it is most positive to do so, thinking about online participation in this way helps decision makers define priorities with inclusion in mind (Livingstone and others, 2019).

As such, the issue of how children and adolescents use digital technologies and the possible gaps with regard to opportunities they have access to becomes increasingly important (see the table for the individual dimension of the Kids Online analytical model from Diagram 1). However, with the exception of the data collected by Global Kids Online in the countries analysed here, no comparative studies have been carried out on uses and gaps among young people in Latin America. Comparative studies in other countries have shown that there are important gaps in use by age, gender and socioeconomic status (SES). For example, PISA data for 15-year-olds have shown that pupils from the highest SES households in OECD countries are five percentage points more likely than those from the lowest SES households to engage in one of the three most common online activities among teenagers: chatting, social networking and playing video games. Additionally, the PISA 2012 data showed that pupils from higher SES households are more likely to use the Internet to read the news and get practical information compared to socioeconomically disadvantaged students who are more likely to play games and chat online. In relation to gender differences, playing online is significantly more popular among boys than girls, while no significant differences are found for other activities (Hooft Graafland, 2018). The accumulated evidence from Kids Online in Europe also shows that older children from higher SES households tend to have more opportunities for online learning, entertainment, sociability and participation (Livingstone, Mascheroni and Staksrud, 2015).

In 2004, UNICEF presented a set of ten e-rights, including the right to free expression on the Internet, to online leisure activities and play, and to the educational opportunities that this environment offers (see Text box 6). Based on these rights, it is argued that those who are not connected are missing out on educational resources and access to general information, as well as opportunities to learn digital skills, explore friendships and establish new forms of self-expression (UNICEF, 2017). Accordingly, based on online participation rights, the Kids Online survey looked at the frequency at which children and adolescents engage in a set of activities that, with digital skills and appropriate adult mediation, are considered to be opportunities or uses that can have potential benefits (ECLAC & UNICEF, 2014). This

chapter analyses the data from Brazil, Chile, Costa Rica and Uruguay on the frequency at which they report performing this type of activities. To analyse these uses, the common items included in the questionnaires in the four countries were selected. Based on the results of a factor analysis previously carried out with the data from Chile (Cabello and others, 2018), these items can be grouped into four major categories (see Table 8): (i) education and learning, which refers to activities relating to the use of the Internet for formal and informal learning; (ii) entertainment and creativity, which includes activities linked to leisure and developing content; (iii) sociability, which deals with activities for connecting online with others; and (iv) citizenship and community, which covers activities that involve or enable participation in political or community issues.

Although the number of common items among the four countries is limited, grouping them by category brings to light certain trends in the types of opportunities that children and adolescents have available in the four countries analysed here (see Table 8).

Table 8
Items included by category

Category	Items
Education and learning	Learn something new
	Look for work/study opportunities
	Look for information on health/diseases
Entertainment and creativity	Create and share your own video/music
	Play online games
	Watch videos
Sociability	Talk to people from other countries
	Chat online
	Use a social networking site
	Participate on a website where people share their interests/hobbies
Citizenship and community	Discuss social/political issues
	Learn about activities in your community
	Read/watch the news

Source: Prepared by the authors.

Box 6
Participation of children and adolescents

Alejandra Trossero[a]

Participation of children and adolescents is covered by several articles of the Convention on the Rights of the Child. It recognizes that all children and adolescents have the right to freely express their opinions, to have them taken into account and to participate in all decisions that affect their lives, in accordance with their abilities and developing skills. The most relevant aspects in the convention include:

- The importance of ensuring that girls and boys are able to form their own views, to express them freely in all matters affecting them, and that their views are given due weight (Article 12).
- Freedom of expression, which includes the freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or by any other means they chose (Article 13).
- Freedom of thought, conscience and religion, provided that it respects the rights of others (Article 14).

- Freedom of association and freedom of peaceful assembly, provided that this does not adversely affect the rights of others (Article 15).
- Access to information and material from a diversity of national or international sources, especially those aimed at the promotion of their social, spiritual and moral well-being and physical and mental health (Article 17).

Why is it important to promote the participation of children and adolescents in issues that affect them?

- Because it offers them a chance to learn new skills and improve their self-esteem.
- Because it empowers them to challenge abuse and neglect so that their rights are respected.
- Because they have so much, they want to say.
- Because they think adults are often wrong.
- Because they think their contributions can lead to better decisions.
- Because they believe it's their right to be heard when their life is at stake.
- Because they want to contribute to making the world a better place.
- Because it can be fun.
- Because it gives them the opportunity to meet children from other regions, of different ages and with different experiences.

Access to the Internet and the use of technology provides children and adolescents with new opportunities to exercise their rights, allowing the development of new skills and opportunities to form their own opinions and have their ideas heard. The development of digital skills not only stimulates the search for information, but also stimulates creativity, promotes communication and offers tools to create digital content and develop their own ideas. Digital connectivity offers new ways to participate and connect with the world and other individuals. But participation must be considered in the broader context of social life, as it allows adolescents to engage in a variety of activities beyond the digital world that benefit their community, their society and themselves. New social movements, such as "Fridays for Future", present a novel model in which young people use technology as a means of communication and participation, in defence of their rights. This type of participation is beginning to be woven into the fabric of adolescents' lives as a new way of acting and participating in issues that concern them. Young people are redefining participation processes, establishing new paradigms that allow social mobilization, making use of their digital skills and technological connection, replicating actions across different continents and cities, and mobilizing millions of young people with a single goal in mind: saving the planet. These new models of participation are made possible by access to and use of digital technology, but the driving force that unites all these adolescents is the recognition of their right to participate and to guarantee the exercise of their rights.

Source: UNICEF (2017) El camino al empoderamiento de las niñas: 5 Derechos. [Online] https://www.unicef.org/lac/informes/el-camino-al-empoderamiento-de-las-niC3B1as-en-amC3Agrica-latina-y-el-caribe-5-derechos; UNICEF (2019), Convention on the Rights of the Child. [Online] https://www.unicef.org/child-rights-convention/convention-text.

[a] Adolescent and HIV Specialist, UNICEF-LACRO.

B. Levels of participation in online activities by children and adolescents in Chile, Brazil, Costa Rica and Uruguay

First, in line with the analysis by Livingstone and others (2019), a ladder of participation was created by putting activities in order by frequency, from the most performed activities at the bottom of the ladder to the least performed activities at the top for all countries together and for each individual country. The activities carried out by the majority were also highlighted and differences by age group were analysed.

Table 9 presents an aggregated overview of the four countries. It shows that the entertainment activities of watching videos and playing games online are the two uses most often engaged in by children and adolescents surveyed in the four countries, followed by the online social activities of using a social network and chatting online, and educational activities to learn something new. The remaining activities are carried out in fewer than half of those surveyed in the four countries, which indicates that

only a minority engage in citizenship and community or creative activities (e.g., creating and sharing their own music videos).

The age group analysis shows that, in general, as age increases, the percentage of those who engage in each of the activities also increases. It is interesting to note that the only case where this trend does not occur is for playing online, where the opposite is observed: the younger the age, the higher the percentage who report playing online. The most pronounced differences between the youngest and oldest groups were found in the following activities: using a social networking site (55.8%), chatting online (38.2%), looking for work/study opportunities (29.4)%, reading/watching the news (26.6%) and participating in a website where there were people who shared their interests/hobbies (26%). These data show how, as they grow up, children and adolescents in these Latin American countries participate more actively in the opportunities that exist online, particularly in sociability and citizenship and community activities.

Table 9
Aggregated ladder of participation for the four countries
(Percentages)

Activity	9–10 years	11–12 years	13–14 years	15–17 years	Total
Discuss social/political issues	5.06	9.96	16.86	21.64	15.63
Create and share your own video/music	13.99	15.91	20.21	23.76	19.47
Learn about activities in your community	12.18	18.62	21.09	23.03	19.55
Participate on a website where people share their interests/hobbies	9.03	16.28	24.79	35.07	22.94
Talk to people from other countries	13.25	19.59	28.00	35.27	25.42
Look for work/study opportunities	15.93	21.73	31.37	45.33	30.84
Look for information on health/diseases	26.14	34.92	37.50	46.14	37.49
Read/watch the news	26.02	35.31	44.09	52.61	41.48
Learn something new	54.21	60.97	68.72	75.61	66.06
Chat online	44.83	60.81	75.13	83.02	67.61
Use a social networking site	34.01	68.81	82.79	89.85	69.31
Play online games	75.26	73.94	70.24	63.54	70.03
Watch videos	73.69	78.03	86.42	86.45	81.41

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017) and calculated using the simple average of the four countries.
Note: Percentage of children and adolescents who perform each activity at least weekly, by age and in order of frequency. The shaded cells indicate the activities performed by approximately half of the age group or more.

The analysis by country (Tables 10-13) revealed some differences, particularly between Costa Rica and the other three countries analysed. In Brazil, Chile and Uruguay, the most widespread activities are watching videos and chatting online, while in Costa Rica they are playing online followed by watching videos. The low percentage of online chatting in Costa Rica is striking, with fewer than half reporting this activity. This could be associated with the higher connectivity costs in that country compared to the others in the study, leading to the high proportion of people accessing the Internet via prepaid cell phone plans, which tends to restrict the type of everyday use.[9] Another important difference in Costa Rica is the high percentage that reports discussing social and political problems,

[9] https://www.cable.co.uk/mobiles/worldwide-data-pricing/#highlights.

which appears in the middle of the ladder with 30.7%, while in the other three countries it ranks at the top, with percentages ranging from 6 to 13. This could be explained by the fact that the survey was carried out between the first and second rounds of the presidential elections in that country, which could possibly lead to greater participation of children and adolescents in this area. Additionally, it is curious to see the low percentage reporting *reading/watching news*, which ranks at the top of the ladder at 2.6%, while in Chile and Uruguay it is in the middle with 47.7% and 40.4%, respectively, and in Brazil it is among the first three most frequent activities, reaching almost 90% of the 16–17 age group. This is an area that should be further explored for Costa Rica.

In Uruguay, it is interesting to note the relatively low percentage of 9–10-year-olds who report engaging in the online social activities of *using a social network* (less than 20%) and *chatting online* (36.3%). While in the other three countries there are marked differences in this group compared to the oldest age group, in Uruguay the differences are more pronounced (71% and 59%, respectively). This could be related to access through the Ceibal Plan public policy, which could be associated with more regulated use by younger children.

Table 10
Ladder of participation in Brazil
(Percentages)

	9–10 years	11–12 years	13–14 years	15–17 years	Total
Discuss social/political issues	2.38	3.82	10.34	6.45	12.35
Learn about activities in your community	14.84	16.70	21.90	29.45	22.49
Look for information on health/diseases	16.16	21.08	25.00	41.10	28.90
Look for work/study opportunities	4.53	7.81	27.59	53.51	29.41
Participate on a website where people share your interests/hobbies	20.26	24.83	41.11	47.06	36.26
Talk to people from other countries	19.78	27.60	43.10	53.37	39.68
Create and share your own video/music	25.81	35.30	46.55	58.81	45.28
Learn something new	52.48	54.10	61.90	74.76	63.60
Play online games	77.06	72.92	70.69	63.35	69.42
Use a social networking site	34.91	62.85	81.03	92.58	73.55
Read/watch the news	46.71	64.29	79.74	89.62	75.66
Watch videos	82.33	76.04	77.24	79.25	78.65
Chat online	55.60	70.14	82.59	92.39	79.01

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016).
Note: Percentage of children and adolescents who perform each activity at least weekly, by age and in order of frequency. The shaded cells indicate the activities performed by approximately half of the age group or more.

Table 11
Ladder of participation in Chile
(Percentages)

	9–10 years	11–12 years	13–14 years	15–17 years	Total
Discuss social/political issues	2.35	7.76	15.16	22.84	13.44
Create and share your own video/music	22.99	17.14	15.83	18.85	18.71
Talk to people from other countries	19.32	24.41	29.81	37.98	29.19
Participate on a website where people share your interests/hobbies	9.97	24.62	29.92	51.56	31.95
Learn about activities in your community	20.65	35.19	36.98	46.62	36.43
Look for work/study opportunities	23.18	28.27	39.19	54.90	38.81
Read/watch the news	33.84	37.78	47.84	61.32	47.27
Look for information on health/diseases	28.02	45.43	57.46	69.3	52.57
Play online games	92.13	87.28	74.13	69.55	79.30
Learn something new	68.88	78.55	78.68	87.96	79.76
Use a social networking site	42.72	77.60	93.80	96.02	79.99
Chat online	68.48	84.72	92.97	97.24	87.35
Watch videos	90.67	96.2	96.46	96.61	95.21

Source: Prepared by the authors on the basis of the Kids Online surveys for Chile (2016).
Note: Percentage of children and adolescents who perform each activity at least weekly, by age and in order of frequency. The shaded cells indicate the activities performed by approximately half of the age group or more.

Table 12
Ladder of participation in Costa Rica
(Percentages)

	9–10 years	11–12 years	13–14 years	15–17 years	Total
Read/watch the news	0.41	1.77	3.85	4.20	2.63
Create and share your own video/music	1.63	2.71	4.64	7.75	4.36
Learn about activities in your community	5.71	8.41	15.83	8.42	9.54
Participate on a website where people share your interests/hobbies	2.48	3.60	10.04	19.93	9.61
Talk to people from other countries	7.38	10.62	13.33	20.77	13.38
Look for work/study opportunities	14.40	20.89	24.79	33.57	23.90
Discuss social/political issues	13.17	23.35	34.17	48.43	30.69
Chat online	18.95	24.67	38.43	47.39	33.07
Look for information on health/diseases	52.05	51.54	49.17	43.71	48.85
Learn something new	43.85	51.56	66.94	67.60	58.02
Use a social networking site	38.93	53.1	75.1	81.18	63.03
Watch videos	45.56	62.11	89.26	88.54	72.14
Play online games	76.52	82.3	86.36	86.11	82.95

Source: Prepared by the authors on the basis of the Kids Online surveys for Costa Rica (2018).
Note: Percentage of children and adolescents who perform each activity at least weekly, by age and in order of frequency. The shaded cells indicate the activities performed by approximately half of the age group or more.

Table 13
Participation scale in Uruguay
(Percentages)

	9–10 years	11–12 years	13–14 years	15–17 years	Total
Discuss social/political issues	2.34	4.90	7.76	8.84	6.02
Create and share your own video/music	5.52	8.50	13.83	9.63	9.51
Learn about activities in your community	7.52	14.17	9.66	7.64	9.73
Participate on a website where people share your interests/hobbies	3.39	12.05	18.10	21.71	13.94
Talk to people from other countries	6.52	15.73	25.74	28.97	19.44
Look for information on health/diseases	8.32	21.62	18.38	30.43	19.62
Look for work/study opportunities	21.60	29.93	33.91	39.33	31.25
Read/watch the news	23.13	37.39	44.94	55.3	40.36
Play online games	55.33	53.25	49.78	35.13	48.44
Use a social networking site	19.47	49.67	81.21	89.63	60.66
Learn something new	51.63	59.67	67.35	72.12	62.86
Chat online	36.30	63.71	86.53	95.40	71.01
Watch videos	76.21	77.78	82.70	81.40	79.63

Source: Prepared by the authors on the basis of the Kids Online surveys for Uruguay (2017).
Note: Percentage of children and adolescents who perform each activity at least weekly, by age and in order of frequency. The shaded cells indicate the activities performed by approximately half of the age group or more.

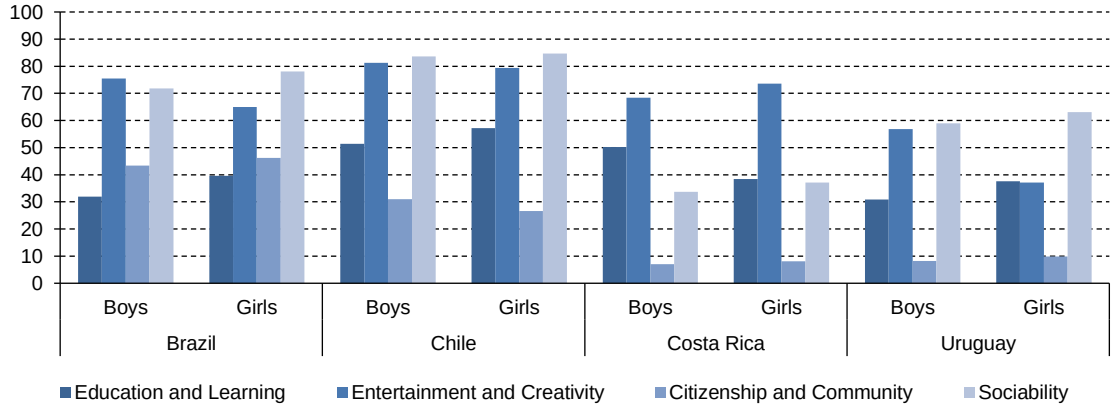
To analyse the differences by gender and socioeconomic status, the decision was made to consider the broader categories by which the various activities were grouped together (see Table 8). To determine participation, or non-participation, in each of the activities, a dichotomous index was created where 1 represents having carried out two or more activities in the "Sociability", "Entertainment and Creativity", and "Education and Learning" categories.

As shown in figure 16, the analysis of these categories by gender shows no significant differences between boys and girls. In Brazil, Chile and Uruguay, boys were found to use the Internet slightly more for Entertainment and Creativity, while girls were found to use it more for Education and Learning. In Costa Rica, on the other hand, the reverse is true. An analysis of the percentages of the items within this category shows that girls in Costa Rica report watching videos at a higher percentage than boys, while there are no differences between the two for playing online. In the other three countries, the differences are quite pronounced (13 percentage points in Chile and 27 percentage points in Brazil and Uruguay). For Education and Learning activities, the findings show that nearly twice as many boys as girls in Costa Rica report looking for information on health and diseases (30%) while in the other three countries the percentage of girsl is higher (difference of seven percentage points or more). The data in Costa Rica are surprising in that they show different numbers than usual in terms of the gender stereotypes associated with the activities, while the other three countries align more with global trends in this regard (OECD, 2015).

In relation to the Sociability category, a higher percentage of girsl than boys tend to engage in this type of activity in all four countries. Finally, with respect to Citizenship and Community activities, Chile differs from the rest of the countries in the survey in that more boys than girls report performing them, while the opposite is true in the other three countries. However, in Costa Rica and Uruguay, differences were negligible.

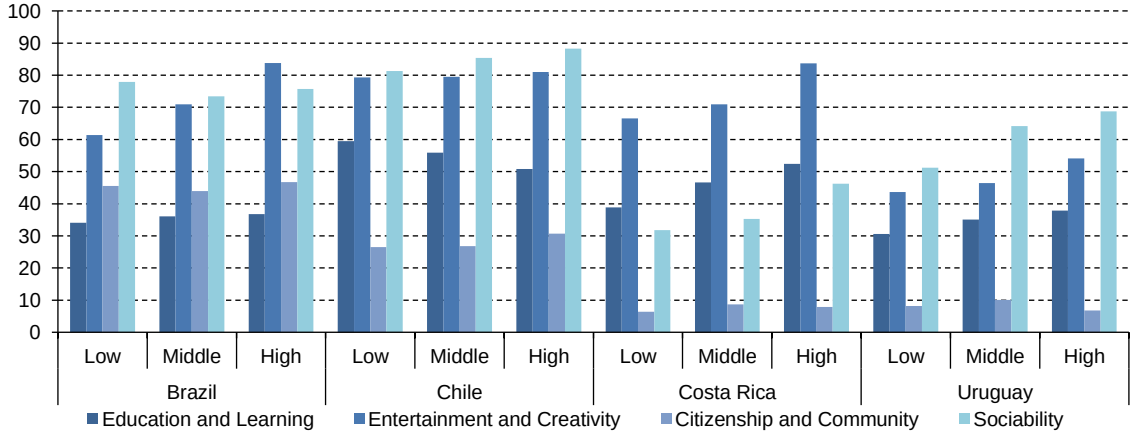
With regard to socioeconomic status (SES) (Figure 17), the general observation was that the percentage of children and adolescents engaged in activities in each category increases in tandem with SES, likely due to levels of access and exposure (see Chapter II). However, in Chile there is an inverse relationship in the Education and Learning category, which can be explained by the items "Looking for work/study opportunities" and "Looking for information on health/diseases" where a higher percentage of lower SES reports doing this activity (see Annex A14). The greatest differences between the various SES levels were observed in the Entertainment and Creativity category. For example, in Brazil there is a 23 percentage point difference between children and adolescents from low and high SES households. Additionally, relatively small differences among SES households were observed in the Education and Learning category (between 8.7 percentage point difference between the lowest and highest SES in Chile and 2.7 in Brazil) and especially in the Citizenship and Community category (between 4.2 percentage point difference in Chile and 1.2 points in Brazil).

Figure 16
Brazil, Chile, Costa Rica and Uruguay: gender differences in the participation categories among children and adolescents using the Internet
(Percentages)



Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

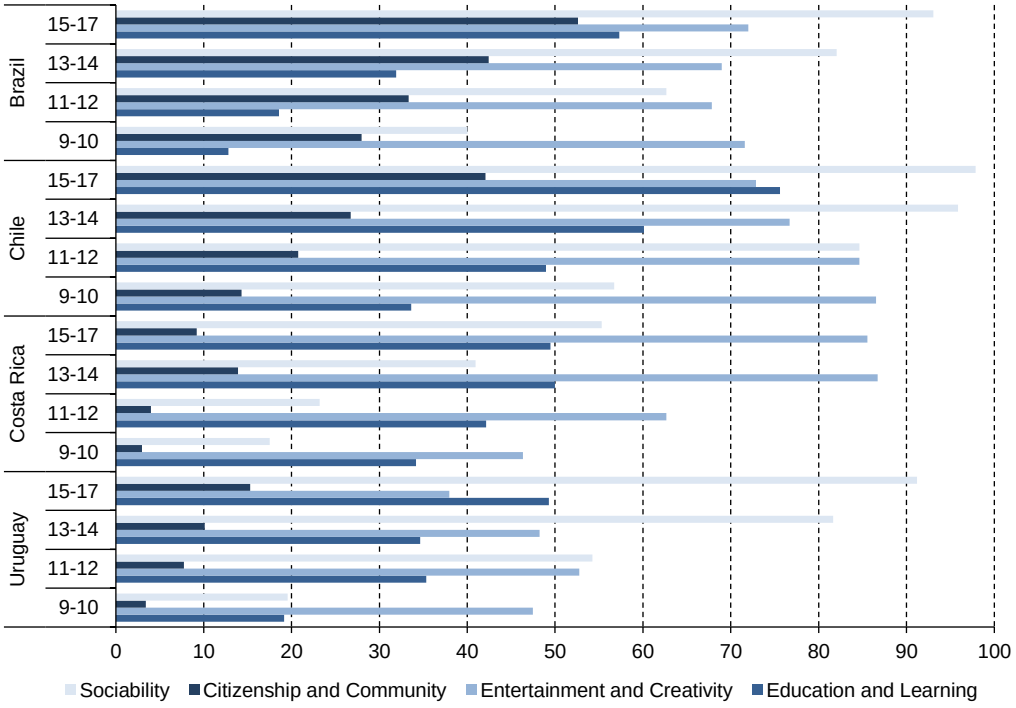
Figure 17
Brazil, Chile, Costa Rica and Uruguay: SES differences in the participation categories among children and adolescents using the Internet
(Percentages)



Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Lastly, an analysis of the differences in participation categories by age (see Figure 18) is consistent with international findings: the percentage of participation across all categories increases with age, except for Entertainment and Creativity, where the trend is reversed. As mentioned before, this is due to the item "Playing online", where the percentage of younger children participating is higher. "Watching videos" and "Creating and sharing your own video or music" also increases with age. Finally, it is interesting to note that Uruguay shows smaller percentage differences between users than Chile and Brazil for all three variables.

Figure 18
Brazil, Chile, Costa Rica and Uruguay: age differences in the participation categories among children and adolescents using the Internet
(Percentages)



Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

C. Implications of online participation among children and adolescents for public policy

The descriptive analysis of data on Internet use in this chapter provides an overview of the areas and types of online participation activities that are more or less widespread among children and adolescents in the four Latin American countries where the Kids Online surveys were carried out in recent years. While the idea that "the more online activities, the better" should be carefully considered, it is important to understand the gaps that exist within the activities with the greatest potential to benefit the development of children and adolescents and to define public policy priorities. Furthermore, as stated in the Introduction, there is still a need to better understand the specific ways in which different online activities benefit the development of children and adolescents. New digital spaces offer various opportunities to access resources for learning and entertainment, as well as for being creative and participating with others.

First, the ladder of participation analysis reveals that children and adolescents begin using the Internet through activities related to socialization and entertainment and then, as they grow up, move on to activities related to learning, creativity, citizenship and community. In line with findings from other countries, playing online is the only activity performed most among very young children in Chile, Brazil and Uruguay (Livingstone and others, 2019). In contrast, using a social networking site is an activity where there is a substantial difference between adolescents and young children. This could be attributed to adults putting more restrictions in place as well as the legal minimum age required to create an account on such platforms. This difference is especially strong in Uruguay, which could reflect the more restricted access of younger children through the Ceibal Plan's policy of providing computers. This policy provides for adult training and mediation at school while also including household members in the process, with a view to overcoming obstacles and enhancing positive outcomes (Martínez and Pérez, 2009).

The analysis of differences according to gender and SES in the four areas or categories of participation showed interesting trends. First, unlike in adults, there are no major differences according to gender in this age group, except with regard to the entertainment and creativity category, where boys tend to play online more and girls tend to go online for social activities. This is consistent with the findings available in other countries (OECD, 2015). In Costa Rica, where no differences between girls and boys are found, it would be interesting to further explore whether there are factors associated with connectivity, social issues, public policy or market incentives that could explain why girls participate more in this activity.

As for the differences according to SES, the general finding was that the higher the SES, the more children and adolescents did the various activities, especially in the entertainment and creativity category. The major difference in this category could be explained by the more limited access to devices and access locations for those from lower SES households (see Chapter II). This could restrict free time for leisure activities that are more appropriate for those in this age group. There was one particularly interesting finding with regard to education and learning in Chile, where searching for information on work/study opportunities and health/diseases is more widespread among the lower SES. This could indicate that in Chile, children and especially adolescents from lower SES households see the Internet as an opportunity to find information on work, study and health. If this is true, it would be useful to also investigate whether those who seek such opportunities actually find and benefit from them.

The most important findings provide insight on how to develop digital public policies aimed at the new generations. First, understanding how widespread certain opportunities for entertainment and creativity, education and learning, sociability, and citizenship and community are for children and adolescents in the region confirms that they have access to and use the Internet on a regular basis. However, there is growing concern for those who still have limited to no Internet access, and who are therefore excluded from these opportunities, as explained in Chapter II. Accordingly, creating stronger digital inclusion policies for this age group is essential.

From the perspective of children's online rights (UNICEF, 2017), these efforts must not only aim to safeguard young people's right to participate in these activities, but also to guide and protect them in the inclusion processes to ensure their participation and development in the different areas of online life remain positive experiences. Educational institutions as well as those promoting the rights of children and adolescents have a fundamental role to play in this task.

The fact that very few children and adolescents participate in citizenship and community activities poses a major challenge for education policies meant to train future citizens and foster their active participation in civic life. These activities should be included in policies or school curricula early on to permanently support the process. A model for use based on such activities could be used to help children become active and constructive citizens in the digital space. Accordingly, activities focused on the social and community perspective of participation should be promoted from early childhood as they provide the gateway to exercising citizenship.

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V. Managing online risk and coping skills

Matías Dodel
Rolando Pérez Sánchez
David Torres Fernández

"(…) online opportunities and risks go hand in hand, but risk and harm do not. (…) children's online experiences are neither inherently beneficial nor dangerous. The degree to which this dual conceptualization is taken into account has important implications for public policy design…" (Dodel and others, 2018 based on Livingstone, 2016).

A. Introduction

Like any new invention, information and communication technologies (ICTs) have expanded the potential for human action, enabling a huge range of benefits along with a considerable number of potential risks, which are also part of the characteristics that shape the use of technology at the individual level proposed by the Kids Online framework (see Diagram 1).

These phenomena, where new technologies open the door to opportunities and risks, are neither new nor typical of ICTs. For example, to paraphrase McLuhan, while the invention of the railway made it possible to bring goods and services to regions where they would have been unthinkable before, its further development also opened the door to the spread of new diseases while also shortening distances between people, without any distinction between how good the intentions were (McLuhan, 1994; Yar, 2006).

When adults talk about the relationship between children and adolescents and technologies, they tend to associate Internet use with risky situations and consider young people to be passive actors when it comes to the effects and appeal of such innovations. While such ideas tend to stem from genuine concern for young people's well-being, they are rarely backed up by empirical evidence, and children and adolescents are seldom included in the conversation.

There is also nothing new about this type of reaction to new technologies. Discussions about the consequences of certain content on the development of children and adolescents occurred with regard to both Victorian novels (Tatar, 1998) and television (Goldstein, 1998). The "inexorable links" between playing video games and physical violence are plagued by misleading or false claims (Ferguson and Wang, 2019), while the excessive focus of adolescent behaviour with regard to issues such as sending sexual material via instant messaging simplifies the diverse online world of enriching experiences for children and adolescents (Kosenko, Luurs and Binder, 2017).

These are all examples of a social phenomenon that is known in the academic world as moral panic associated with the use of ICTs (Livingstone, 1996; McLaughlin, 2014). As this report shows, the Internet is important for young people's well-being, which means that in terms of rights, it is problematic to see fear as the main factor in the relationship between children and adolescents and the media.

Rather than deny the existence of online risks for children and adolescents or the importance of considering a particular approach (UNICEF, 1989), what this chapter suggests is to put them into context. To this end, our aim is to shed light on various types of risky online situations and organize them by degree of risk, while also providing empirical evidence to show how widespread they are across the continent.

To rigorously address the study of online risks, various academic studies have looked at several theoretical clarifications (Dodel and others, 2018). We have focused our attention on the following four:

i) It is essential to differentiate between risky incidents and situations that actually caused harm (whether physical, psychological, emotional or social). With sufficient tools and support, children and adolescents have the potential to manage risk prevention strategies and mitigate harm (Livingstone, Mascheroni and Staksrud, 2015). Peer and adult support are also key to overcoming the consequences of harm, but it is reasonable to assume that in situations of actual harm, different and/or additional strategies are required.

ii) Both the EU Kids Online and Global Kids Online reports and the various countries covered in this report indicate that risks and benefits tend to go hand in hand in the digital world (Livingstone, Mascheroni and Staksrud, 2015). Therefore, mediation and restrictive risk reduction policies, even when successful with regard to their main function, will have negative consequences for children and adolescents in terms of being able to exercise their rights and their citizenship development process.

iii) While some risks are intrinsically technological (e.g., malicious software), often the dangers of the digital world are not actually digital. Instead, they take advantage of the characteristics of digital technologies to expand their reach (Yar, 2005): the ubiquity and ease of contacting global and wider audiences, at low cost and without depending on everyday routines or time zones (Valkenburg and Peter, 2011, p. 122).

iv) The online/offline dichotomy – the physical world as opposed to the digital world – can be useful for academic and political analyses, but actual behaviour does not always respect this barrier. Children and adolescents do not change their behaviour abruptly when they are connected, nor do individuals or organizations with malicious intentions care much about this theoretical border when they act.

As a consequence of these four theoretical challenges, it would be reasonable to assume that coping skills or the effective development of risk management strategies by children and adolescents (in addition to regulations and public policies) are necessary to advance a serious discussion about both online and offline risks.

However, not all children and adolescents start from the same point in terms of the specific knowledge, attitudes and learning required to develop and apply coping skills (see Chapters II and IV).

Therefore, in this chapter we will also describe several practices and skills associated with coping and harm management. Digital skills associated with privacy and safe use of technologies, as well as certain behaviours that are positively linked to coping, harm management, and seeking support for distressing incidents will be discussed.

To "prioritize" such a complex and extensive subject, the typology of risks developed by Livingstone, Mascheroni and Staksrud (2015) will be used as a guide. It distinguishes between content risks (children as recipients of mass productions), contact risks (children as participants in adult-initiated activities) and conduct risks (children as perpetrators or victims of child-initiated activities). The authors also suggest classifying each of these three types of risk according to whether their subject matter is aggressive, sexual or value-related, or commercial. Given the type of questions prevalent in the Kids Online surveys conducted in the region, this chapter will be based primarily on the three types of risks related to aggression, sexuality and values.

Table 14
Classification of online risks for children

	Content	Contact	Conduct
	Child as recipient	Child as participant	Child as actor
	(of mass productions)	(of adult-initiated activity)	(perpetrator/victim)
Aggressive	Violent/gory content	Harassment, stalking	Bullying, hostile peer activity
Sexual	Pornographic content	Grooming, sexual abuse, meeting strangers	Sexual harassment, sexting
Values	Racist/hateful content	Ideological persuasion	Potentially harmful user-generated content
Commercial	Embedded marketing	Personal data misuse	Gambling, copyright infringement

Source: Livingstone, S., G. Mascheroni and E. Staksrud, *Developing a framework for researching children's online risks and opportunities in Europe.* EU Kids Online, 2015.

Pertaining to risks, coping skills and harm management strategies, the analysis will focus on describing the percentages of each of these phenomena in the various countries, as well as the role played in them by gender and age. Some items will also analyse the role of socioeconomic inequalities with regard to exposure and/or participation in these activities.

B. Content risks

The Internet has exponentially increased the amount of information that adults and minors can access in their daily lives. However, not all content available online is of equal truthfulness, quality or legality. Moreover, even on websites that do not violate any laws, it is possible to find content that may not be suitable for children and adolescents, or at least very young children. This section attempts to describe what happens in the four countries studied here in relation to the risks associated with children and adolescents being exposed to negative content.

1. Exposure to content that children and adolescents found upsetting

In Chile, Costa Rica and Uruguay, survey respondents were asked if they had been exposed to content or incidents that were difficult for them or caused distress, i.e., incidents that were closer to harm than risk.

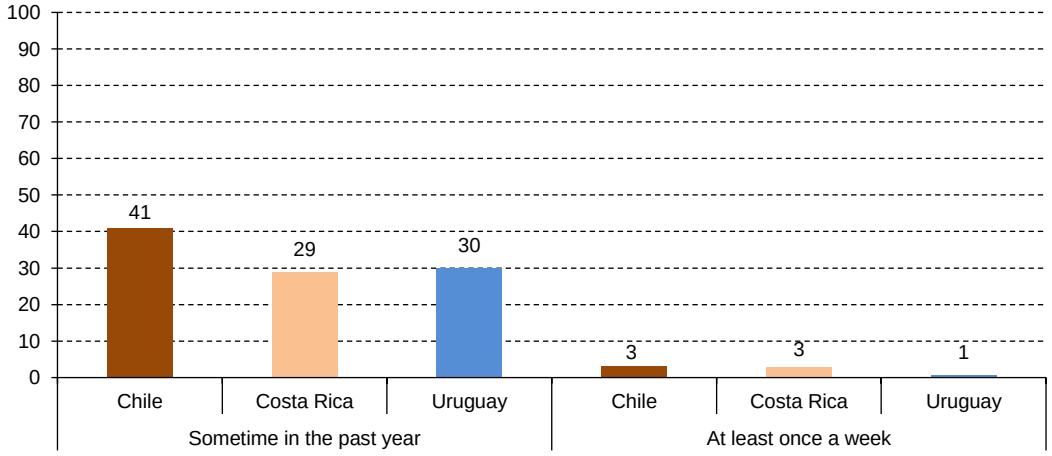
Some 41% of Chileans, 30% of Uruguayans and 29% of Costa Ricans responded that they had experienced such an incident at least once in the past year. In other words, nearly one in three children and adolescents in the study countries has been exposed to content that caused them to feel distressed or upset. However, the weekly frequency of such incidents is substantially lower than the annual frequency, varying from 6% in Costa Rica to 5% in Chile and 2% in Uruguay.

As will be seen throughout this chapter, the percentage of children and adolescents in these three countries who were exposed to content or incidents that upset them in the last year increased with age. However, the relationship between age and risk is not the same in all countries and is stronger in Chile than in Uruguay or Costa Rica (see Table A15).

Gender is also linked to exposure or risk participation, although not in all countries (see Table A15). In Chile, for example, girls tended to report this type of exposure more than boys, something that is not as clear in Costa Rica or Uruguay.

In Uruguay and Chile, children and adolescents in high SES households seem to have slightly greater exposure to this type of content, a finding that was not clearly found in Costa Rica. This is a reasonable outcome assuming that those from higher SES households tend to spend more time online and use more devices (see Chapter II), which increases their exposure potential.

Figure 19
Chile, Costa Rica and Uruguay: children and adolescents who have seen something online that upset them in the last year and at least once a week
(Percentages)



Source: Prepared by the authors on the basis of the Kids Online surveys for Chile (2016), Costa Rica (2018) and Uruguay (2017).

In terms of the intensity of the harm, or the negative feelings caused by exposure to the content, the extreme values ("I felt very upset") range from 6% of this subtotal in Uruguay (2% of Uruguayan children and adolescents) to 12% of Costa Ricans (3% of the total for this age group in this country) and 16% in Chile (6% of this age group in this country). For both Chile and Uruguay, the lower the age, the higher the percentage of those who were upset, although the number of cases was too low to confirm this trend (see Table A16).

Section V.D.2 analyses the responses of children and adolescents to this exposure in terms of talking about the incident to someone else and harm management strategies.

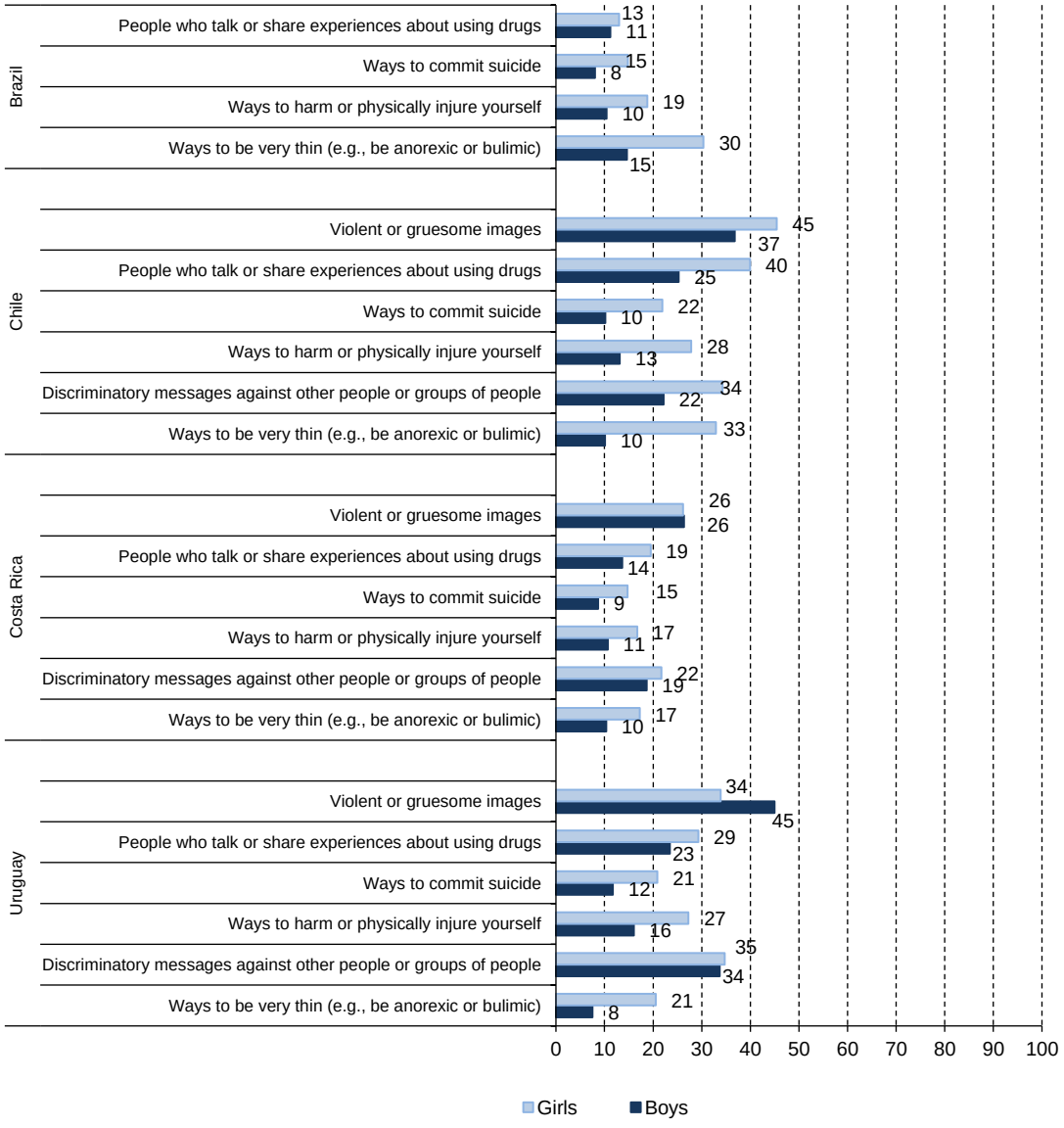
2. Exposure to sensitive content

The teams in Chile, Brazil, Costa Rica and Uruguay inquired about access or exposure to sensitive and potentially risky content for children and adolescents. This type of content refers to: how to harm oneself, how to commit suicide, how to be too thin, discriminatory messages, discussions or experiences about the use of drugs, and violent or gory images.

It is important to note that in Chile and Brazil these questions were asked to all children aged 11 and older, while in Costa Rica and Uruguay they were asked only from the age of 13, so care must be taken when comparing these results in aggregate terms and by gender. Beyond age, due to the sensitivity of the topics and in order to respect the privacy of children and adolescents, the responses were gathered through self-reporting in all the countries of the network. Similarly, the questions do not allow for distinction between those who actively sought the information and those who came upon it accidentally.

Between 10% and 45% of children and adolescents were exposed to this type of content in the four countries (see Figure 20).

Figure 20
Brazil, Chile, Costa Rica and Uruguay: children and adolescents who use the Internet who have visited websites with sensitive content in the past year
(Percentages)



Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

The most prevalent sensitive content in Uruguay, Costa Rica and Chile seems to be similar: that linked to violence (about 40% in Chile and Uruguay, 26% in Costa Rica) and discrimination against others. In Brazil, these two items were not researched.

Generally speaking, with a few exceptions, exposure to this type of content tends to increase with age (see Table A17). Moreover, along with the risks of sexual content, this is one of the risks with the greatest differences by gender. Girls are consistently more exposed than boys to all of this type of content, with the exception of violent images in Costa Rica and Uruguay (equal between boys and girls in Costa Rica, higher for boys in the case of Uruguay) and drugs (similar to boys in Brazil). The relationship between exposure to such content and household SES does not seem to be as clear-cut.

To sum up, exposure to this type of content is considerably widespread in the population studied, with particular emphasis on adolescents and girls. However, it is important to put this finding into perspective, given that regardless of how sensitive these issues may be, they are evidence of risks and not harm per se. For example, it is impossible to determine whether sites linked to anorexia or bulimia encourage this type of behaviour or if they inform and/or support children and adolescents suffering from this type of disorder.

Moreover, strategies to restrict content type can be complex in terms of their effectiveness due to how widespread this content is online and how easy it is to access it, especially for the older age group. We believe that the findings point to a need to go in another direction: to provide children and adolescents with the tools and skills to be able to make informed decisions about the quality and relevance of websites with such content, as well as have the confidence to talk about these issues with key adults in their environment (e.g., family members, teachers or other professionals).

3. Exposure to sexual content

As in the previous section, the exposure of children and adolescents to sexual content is generally characterized as negative in public discourse (Kosenko, Luurs and Binder, 2017). However, as mentioned above, the phenomenon should not be automatically considered as harmful or risky, and the quality of the content must be considered (e.g., sex education versus violent pornography), the age of the children (e.g., a 9-year-old versus a 17-year-old) and whether access to the content was intentional or unintentional (e.g., search for information versus intrusive advertising).

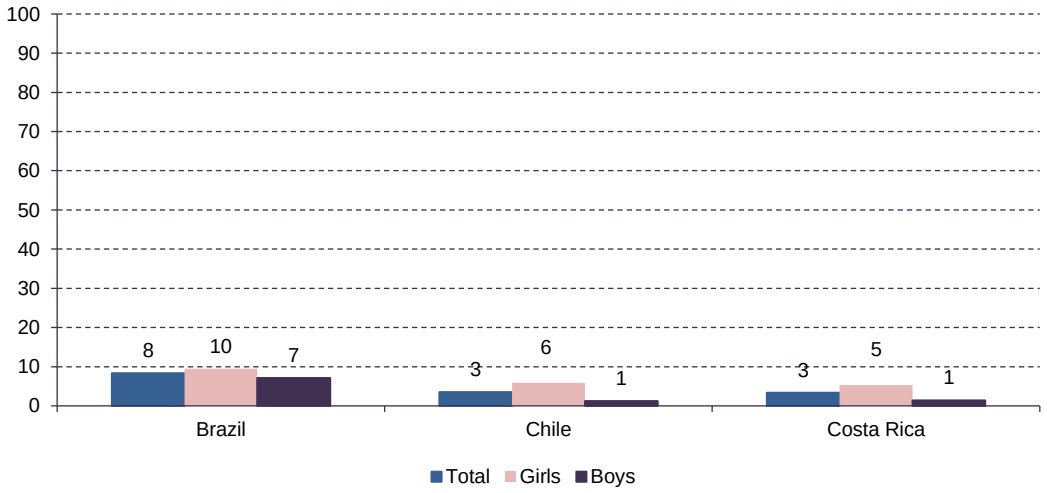
Survey respondents in Chile, Costa Rica and Uruguay were asked whether they had seen sexual images or images of naked people in the last year, in both digital and non-digital media (see Table A18). Between 24% and 35% responded that they had (24% of children in Costa Rica, 29% in Chile and 35% in Uruguay).

As in the previous section, the percentages of exposure to this content increase substantially with age for all countries, which is to be expected if children's development stages are considered. There is also a positive correlation with household SES: in line with the theory of more use leads to more exposure, children and adolescents from households with a higher SES reported having seen more sexual content. In terms of gender, only in Uruguay did boys mention more than girls having seen this type of image (41% compared to 29%).

It is important to note that this is not an exclusively digital issue. Although such exposure to sexual content does not imply that the images were seen or received via the Internet, of the children and adolescents who saw sexual images, 77% in Chile, 79% in Costa Rica and 85% in Uruguay said they accessed this content online (see Table A19). Television ranks second after the Internet as a source of exposure to such content, but with significantly lower percentages: more than half of Uruguayans saw

sexual or nude content on TV (52%), two out of every five Chileans (40%) and one out of every three Costa Ricans (36%) (see Table A19).

Figure 21
Brazil, Chile and Costa Rica: children and adolescent Internet users who felt upset or uncomfortable about having seen images of sexual content online in the last year, by gender
(Percentages)



Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018).

In Brazil, the only question asked was whether they had seen this type of image online in the past year, to which 18% replied in the affirmative, with a slightly higher percentage of boys. This percentage increases in step with the household SES and according to age (see Table A19).

For Chile, Brazil and Costa Rica, it is possible to know whether exposure to sexual content made children and adolescents uncomfortable by asking directly how they felt about having seen the sexual content (Chile and Costa Rica) or whether having seen these images made the recipient feel uncomfortable (Brazil). Based on differences in the response categories (having made them feel "upset or very upset" in Chile and Costa Rica, or "uncomfortable" in Brazil), about half of the Brazilian children and adolescents who saw sexual images online were uncomfortable with the sexual content, while 27% of Costa Ricans and 15% of Chileans who saw sexual images felt upset or very upset. However, if we analyse these numbers in absolute terms (over the total number of children and adolescents), the percentages of harm, although relevant, are significantly reduced: 8% in Brazil and 3% in Chile and Costa Rica.

However, the harm felt is strongly segmented by gender and age: the figures for all female respondents doubled (for Brazil), quadrupled (for Costa Rica), or quintupled (for Chile) compared to the number of boys exposed to this type of content, with harm clearly having occurred. With the exception of 9- and 10-year-olds in Brazil, there is also a strong relationship between age and discomfort/harm, which is greater among younger children than among adolescents (see Tables A20 and A21).

To sum up, it seems necessary to refocus the issue of exposure to sexual content. While it is to be expected that children and adolescents will seek out content of this type as they get older, one thing the data do seem to confirm is that situations of harm are concentrated in certain populations that are more vulnerable to this type of content: young children of both genders and older girls. Behind these disparities in digital harm are likely to be cultural stereotypes and norms that reinforce patterns of inequity where older girls and children are more exposed to aggression from a particular group of older men. In many cases, the difference between the content that caused discomfort in children and adolescents and that which did not

may have to do with its type or quality, as well as the intentional or unintentional exposure to it. Furthermore, while the Internet is the medium through which most of this type of content is accessed, TV also appears to offer considerable levels of access to sexual content or images of naked people.

C. Contact risks

The life of children and adolescents in contemporary societies constantly involves being in contact with others. Moreover, to enjoy a full life and be able to exercise their rights, belonging to and participating in their communities, families and peer groups is indispensable (Dodel and others, 2018).

However, this reasoning is far from what parents, teachers, researchers and public policy decision makers consider when they talk about children, adolescents, ICTs and contact with others. The concepts of risk, harm and predators, which are all generally grouped together within the concept of "stranger danger" (Livingstone, Mascheroni and Staksrud, 2018), tend to prevail.

While not denying that there is a real risk from contact with strangers through the use of ICTs – as is also true in the offline world – concern about this risk tends to be exaggerated. Although stranger danger is not exclusive to ICTs, because they facilitate the exchange of information and communication between individuals far beyond the circle of people with whom one might have had contact in past decades, genuine concerns about the safety of children and adolescents in virtual media have risen and abound in media coverage.

Contact with strangers or unknown persons, in addition to risky situations with unknown adults, broadens the peer group, and the possibility of engaging in activities that are typical for children and adolescents, such as finding a partner or meeting with communities that share their ideological ideas or culture that they may have difficulty finding in their inner circle of family and friends.

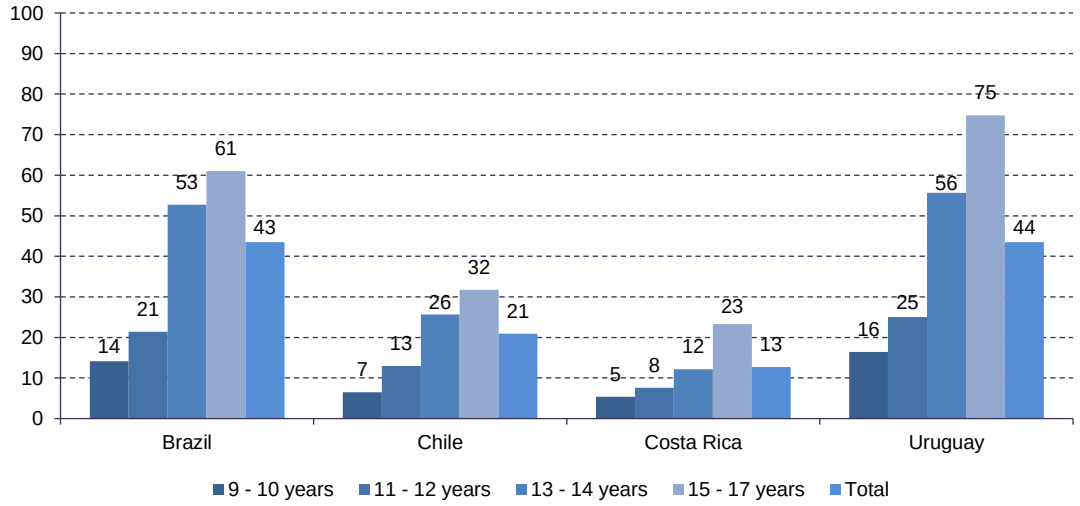
However, incidents of harm associated with other adults can have significant consequences and dominate public discourse (e.g. grooming and abuse). These consequences, together with excessive media coverage, lead to moral panic to the detriment of the fact that serious incidents (sexual aggression or abuse) are actually more frequently committed by other children and adolescents, adult relatives and/or those who knew the underage victims (Finkelhor and others, 2014). In other words, efforts to protect and ensure that exposure to risk does not lead to harm must be balanced with perspective and not falling victim to moral panic.

1. Contact with strangers online

In all four countries in this report, the survey respondents were asked about online contact with people they did not know (who they had never contacted in person before). Some 44% in Uruguay and 43% in Brazil said they had experienced this type of contact, while in Chile only 21% and in Costa Rica only 13% said the same. These percentages increase significantly with age, quadrupling or more in all countries, with the most contact shown among 15- to 17-year-olds compared to 9- to 10-year-olds (see Figure 22).

However, not all digital contacts resulted in a face-to-face meeting. Among those who had online contact with strangers, half of Brazilian children and adolescents (53%) met up in person, followed by nearly four in ten in Chile (44%) and Costa Rica (41%), and one in three in Uruguay (30%). It is important to note that if we present the data for all children and adolescents and not just this subpopulation, these percentages are substantially lower: 22% in Brazil, 18% in Uruguay, 8% in Chile and 5% in Costa Rica had face-to-face meetings with a person they met online. These encounters, although less frequent than in the case of digital technology, are also related to age: the older the child, the higher the percentage of children and adolescents who meet in person with strangers they first contacted online (see Table 15 and Tables A22 and A23).

Figure 22
Brazil, Chile, Costa Rica and Uruguay: children and adolescents who use the Internet who have been contacted by someone they did not know in the past year
(Percentages)



Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table 15
Brazil, Chile, Costa Rica and Uruguay: children and adolescents using the Internet who have had contact with strangers in the last year
(Percentages)

Percentage	In the last year, did you meet the individual(s) in person?			
Yes	Chile	Costa Rica	Brazil	Uruguay
Total	8	5	22	18
Girls	7	5	22	16
Boys	9	5	22	21
9–10 years	2	2	5	5
11–12 years	3	3	7	13
13–14 years	8	6	27	22
15–17 years	15	9	34	32
High SES	11	7	18	18
Middle SES	8	4	22	18
Low SES	8	5	24	18

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Additionally, in Chile and Costa Rica it is possible to see even more clearly which of these incidents indicate cases of risk associated with stranger danger. Survey respondents were asked whether the unknown people they met were known to relatives or friends: in Costa Rica, 82% said they were, while in Chile 66% said the same. In other words, only 3% of children and adolescents in Chile and 1% in Costa Rica met people they had previously known only through the Internet and who were not known to relatives or friends[10] (see Tables A24 and A25).

Survey respondents were also asked about the age of these unknown persons (see Table A26). Some 81% of those who had such an encounter in Chile and 66% in Costa Rica said the individuals were

[10] The analysis of the prevalence of these phenomena that can be done in this type of study is limited and the margins of error are considerable due to the low percentage of the general population that experiences them. A specific analysis that over-samples the affected population would be required to correctly estimate the factors and characteristics associated with the risks of harm and rights violations.

the same age or younger. Between 19% and 30% indicated that the unknown person was older than them, but was not an adult. In Chile, no cases of encounters with adults were reported, while in Costa Rica there were only two cases.

Lastly, survey respondents from Chile, Uruguay and Costa Rica were asked how they felt during the encounter (Table A27). Between 68% and 75% said they felt very good and only between 2% and 3% felt bad. Overall, this means that less than 1 of children and adolescents in each country had a face-to-face encounter with a person they first met online and felt bad or very bad about it (harm).

To sum up, Internet contact with unknown people seems to be a common practice in the region, although one engaged in by a minority of individuals. Personal encounters seem to occur about half the time, and these people tend to be acquainted with family or friends and are of the same age, and in general the encounters are a positive experience. There are problematic cases with potentially high risks of harm, but the available data suggest that the risk of such situations is comparatively low compared to other risk and/or damage phenomena that receive less media coverage.

2. Receiving sexual messages

Children and adolescents can also participate in conduct with a sexual component initiated by other people. Although, strictly speaking, receiving sexual messages can be classified as a contact or conduct risk depending on whether the sender is an adult or another child or adolescent, it was decided to create a general category in the absence of such information. It is also impossible to know whether receiving the message was a desired/enabled behaviour for the child or if it happened without his or her consent.

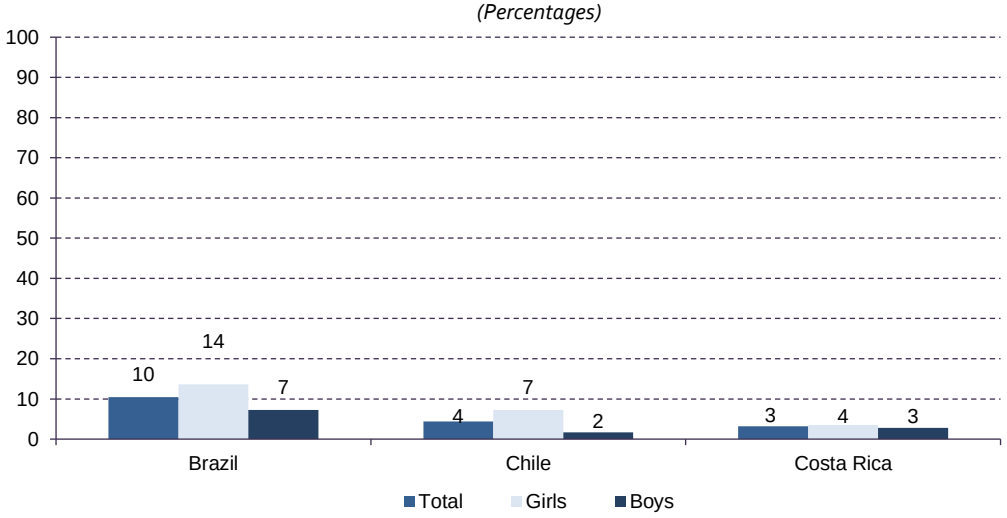
The survey in the four countries looked at whether children and adolescents had seen or received messages with sexual content (Table A28). It should be noted that in Brazil and Chile the survey included questions on this issue with children from age 11 and in Costa Rica and Uruguay from age 13. Some 21% of Chileans, 10% of Costa Ricans, 17% of Brazilians and 25% of Uruguayans said they had seen or received this type of message. As with other risks of a sexual nature, the older the children or adolescents, the more they responded that they had seen or received these messages. In Brazil and Uruguay, male respondents reported receiving more of these messages than female respondents. In Chile and Uruguay, receiving messages with sexual content was more prevalent among those living in households with a higher SES.

The surveys in Chile, Brazil and Costa Rica also explored whether receiving the messages led to harm in underage children, although there were differences in the response categories: Chile and Costa Rica used ordinal scales ranging from feeling "good or very good", "neither good nor bad" and "bad or very bad" for the messages received, while in Brazil respondents were asked a direct yes/no question about whether they felt upset.

Among the Brazilian children and adolescents who received a sexual message, nearly half (47%) said they were upset by one of these messages, while 30% of Costa Ricans and 27% of Chileans said the same. It is important to note, however, that in terms of total percentages among all children and adolescents, the cases that could be categorized as harmful because of the type of message received were 10% in Brazil, 4% in Chile and 3% in Costa Rica (see Figure 23).

A similar situation is seen among the most vulnerable populations with regards to exposure to sexual content: more than two to three times as many girls as boys in Brazil and Chile were exposed to such content, and 26 more in Costa Rica (Figure 23). There is a stronger correlation between age and discomfort/harm among the youngest children than among adolescents, but no correlation based on SES (see Table A29).

Figure 23
Brazil, Chile and Costa Rica: children and adolescents using the Internet who were upset or uncomfortable about having received images of sexual content online in the last year, by gender
(Percentages)



Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018).

As mentioned at the beginning of this section, it is important to know who sent such messages in future Kids Online surveys in the region. However, the very low occurrence of risks of contact with unknown adults discussed in this section, as well as a relatively higher occurrence of sending messages with sexual content by children and adolescents (see section C.1), leads us to think that the examples analysed here are more likely to be sharing between peers than high-risk situations initiated by adults, such as grooming or sexual harassment.

D. Conduct risks

Children and adolescents have rights, both online and off. Far from being passive players in their digital lives, they have online behaviours and practices that, while often positive, at times have negative consequences for their own peers. Kids Online categorizes these practices as conduct risks.

In situations where children and adolescents are key participants in risky situations for themselves and others, it is important to avoid blaming or re-victimizing them. Nevertheless, in order to intervene with relevant policies within the different sub-themes, it is important to identify the populations most at risk in such situations.

1. Sending sexual messages

As previously discussed with regard to receiving sexual messages, sending this type of message should not necessarily be considered risky behaviour. Older children and adolescents could use ICTs both to express or share their sexuality (considering all the challenges related to privacy and respect for others) and to share other types of sexual content of a more sexist or discriminatory nature. None of the Kids Online studies that explored these topics asked specifically about these practices.

In Chile, Brazil and Uruguay, children and adolescents were asked if they had sent or posted sexual messages of any kind online (whether text, images, audio recordings or videos; see Table A30). Compared to those who had reported receiving such messages, the percentages of those who had sent them are substantially lower: 4% in Chile, 6% in Brazil and 5% in Uruguay.

Again, it is possible to see a clear correlation with age in all three countries (the older the children, the more they send), as well as with gender, where more than twice as many boys in Uruguay sent sexual messages compared to girls, while Brazilian boys sent five times as many as girls. With regard to SES, only in Chile do children and adolescents from high SES households report sending more messages of this type than those living in middle to low SES households.

In summary, as with receiving sexual messages, sending such content is more common among boys and increases with age. However, we do not have any information about the type or quality of sexual content or whether the recipient wanted to receive it. These are two key aspects that should be further explored to inform public policy on the subject.

2. Online harassment: recipients, senders and witnesses

Peer harassment is a type of group or interpersonal violence (Soto and Trucco, 2015), often linked to the school environment (Trucco and Inostroza, 2017) and which can be described as "*bullying*".[11] However, there is no single definition of bullying in literature specialized on the topic (Sabella, Patchin and Hinduja, 2013) and the phenomenon is subject to various myths. These same authors distinguish eight major generalized but problematic conceptualizations of bullying in the digital world, which is known as cyberbullying. Among them, we would like to highlight several beliefs that are problematic when it comes to public policies and which have been debunked by the Latin America Kids Online data: a) there is a cyberbullying epidemic; b) it happens more than traditional bullying; c) those who harass others are only children or adolescents who are outcasts or malicious individuals within their peer groups.

i) Victims of harassment, frequency of incidents and means by which it is carried out

With regard to the abovementioned myths, it is important to note that the phenomenon of peer harassment is not the most frequent of the risks reported by Kids Online in any of the countries studied in this report.

The survey questions first explored whether the child or adolescent had been treated in an offensive or unpleasant way by anyone in the last year, regardless of the channel by which it occurred, the frequency, or the age of this person. Kids Online Chile, Costa Rica and Uruguay all included this question. Even in this extremely broad concept of harassment, the percentages are around 20% in all countries (20% in Chile, 16% in Costa Rica and 18% in Uruguay; see Table A31). Moreover, among those who mentioned having been treated this way, nearly half mentioned that the frequency of occurrence of these incidents was once or twice a year (55% in Chile, 43% in Costa Rica and 74% in Uruguay; see Table A32). There is no clear correlation between age or gender and this phenomenon. In terms of household SES, harassment appears to be more frequent in higher SES households in both Chile and Costa Rica. However, if we only look at incidents of frequent harassment (every or nearly every day), this occurs most frequently in lower SES households in countries such as Costa Rica and Uruguay.

That said, as previously mentioned, the most widespread definition of bullying involves a type of harassment perpetrated by close peers in the school setting (Trucco and Inostroza, 2017). In Chile and Costa Rica, survey respondents were asked if any of the people who had treated them in an offensive or unpleasant manner in the past year were from their school: nearly 70 of Chilean and Costa Rican children answered in the affirmative (see Table A34). Beyond the potential effects of cyberbullying, which we will deal with in the following paragraphs, this data underscores the need to avoid considering only the virtual aspects of a phenomenon rooted in the immediate social circles of children and adolescents.

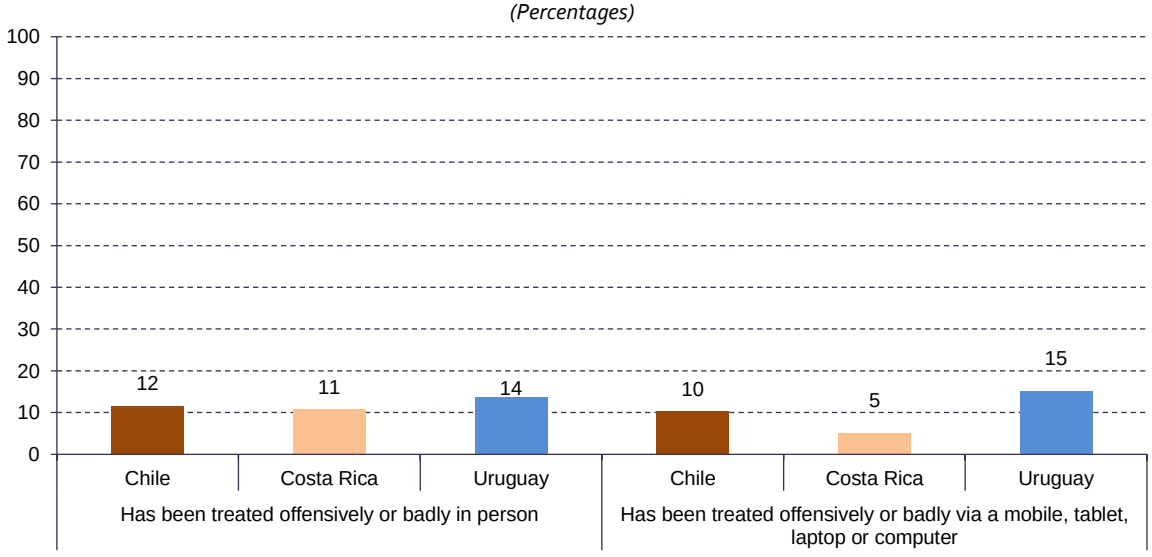
Secondly, it is important to think about the role of the Internet and ICTs in harassment. In Chile, 58% of those who responded that they had been harassed said that it had happened in person (12% of

[11] As an example, Soto and Trucco define it as "physical or psychological aggressions that occur repeatedly and for extended periods of time" (2015).

all children and adolescents), while 51% said that it had happened through a mobile phone, tablet or laptop/computer (10% of the total). In cases where there was a combination of the two, the percentage was 22% (4.5% of the total). In Costa Rica, in-person harassment (76%) was significantly higher than digital harassment among the total number of victims (11% of the total number of children and adolescents), with harassment occurring through digital media less than half the time (36% among victims, 5% of the total number of survey respondents). The combination of both situations was 13% (2% of the total number of children and adolescents). In Uruguay, 62% of those who suffered bullying said it was in person (14% of the total), 68% through digital media (15% of the total) and the combination of both types at 29% (7% of the total children and adolescents).

In Brazil, the surveys only showed the percentage of children and adolescents who claim that something was done to them that they did not like or that offended or bothered them through the Internet. However, since Kids Online Brazil has been conducting annual surveys continuously since 2014, it is possible to build a historical series of this data. As Figure 25 shows, the percentage of Brazilian children and adolescents who reported having been treated offensively online is stable over time, varying between 12% and 16%. Through these data it is possible to assume that, at least during the second decade of the twenty-first century in Brazil, there does not seem to be an epidemic or sustained growth of this phenomenon.

Figure 24
Chile, Costa Rica and Uruguay: children and adolescents using the Internet who have been treated offensively or unpleasantly in person and through digital media
(Percentages)



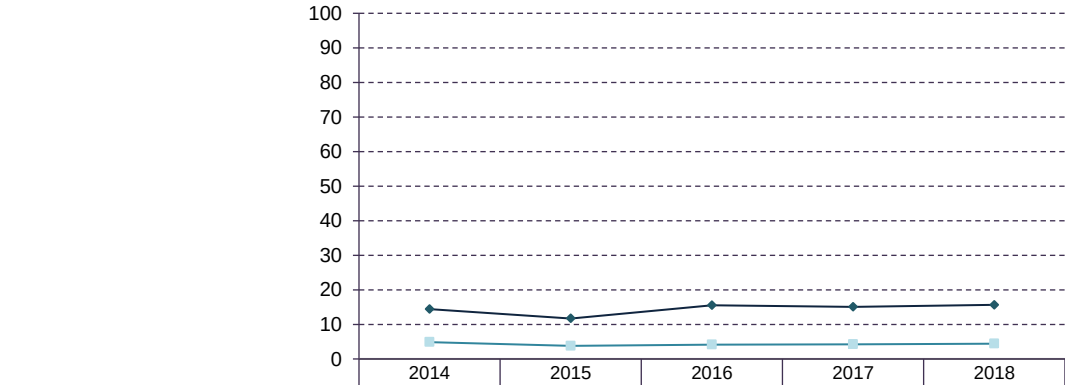
Source: Prepared by the authors on the basis of the Kids Online surveys for Chile (2016), Costa Rica (2018) and Uruguay (2017).

To sum up, not only is there no evidence of a cyberbullying epidemic in the region (at least compared to other risks), but in some countries it is not even the most prevalent type of harassment. Harassment and face-to-face bullying continue to be a problem in the countries of the region, and most often start with harassment at school (Chile and Costa Rica). These findings are consistent with previous research on school violence in Latin America (Trucco and Inostroza, 2017). However, questions still remain with regard to what is new about cyberbullying and how it affects the well-being of children and adolescents differently than traditional bullying.

Beyond harassment that only takes place in the digital sphere, we believe that the most serious aspects of the problem lie in the combination of face-to-face harassment with that occurring online.

This combination of channels may not only worsen situations of social vulnerability in the physical world, but it can also potentially make it difficult for the person being harassed to escape from the harassment as it seeps into other areas of life where the anonymity afforded by the Internet can increase the levels of aggression and violence towards the victim. This twofold harassment has exacerbated a problem that has always existed in classrooms on the continent.

Figure 25
Brazil: children and adolescents using the Internet who have been treated offensively or unpleasantly through digital media
(Percentages)



	2014	2015	2016	2017	2018
Has been treated offensively or badly online	14	12	16	15	16
Has treated another person offensively or badly online – according to parents or guardians	5	4	4	4	4

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil 2014, 2015, 2016 and 2018.

ii) Perpetrators of harassment, frequency of incidents and means by which it is carried out

The percentages of children and adolescents who express having treated someone in an offensive, unpleasant or hurtful way, regardless of the means, are below 15% in the three countries where this information was collected: 14% in Chile, 8% in Brazil and 13% in Uruguay. In all three countries, the percentage of children and adolescents who admit to having treated another person badly increases with age (see Table A35). The frequency of this negative behaviour, which was only explored in Costa Rica and Chile, tends to be sporadic, with reports of one to two times a year (52% in the case of Chile and 48% for Costa Rica; see Table A36).

With regard to how the perpetrators treated someone badly (see Table A37), most of the harassment happened in person, although a considerable percentage was also carried out online. In Chile, 76% of those who claim to have treated someone badly say it was face-to-face (11% of all children and adolescents) and 40% via the Internet (6% of all children and adolescents). In Costa Rica, the percentages are similar: 92% in person (7% of the total) and 26% through digital media (2% of the total). The figures in Uruguay are similar among those who harassed or offended someone in person (72%, 10% of the total) or through digital media (50%; 7% of the total number of children and adolescents). In Brazil, the percentages of those who claim to have treated a peer in an offensive or unpleasant manner range between 4% and 5% for the entire historical series (between 2014 and 2018).

Box 7
Efforts undertaken in BRAVE UP! school programmes

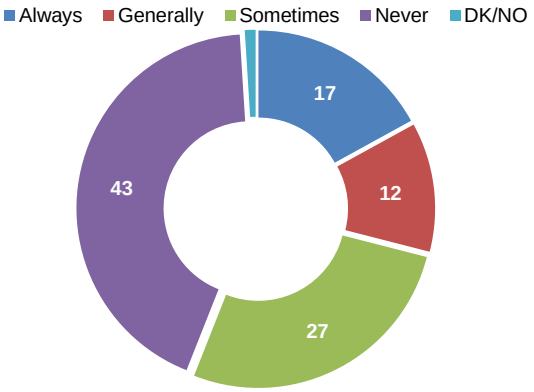
Álvaro Carrasco[a]
Felipe Zanoni[a]

The coexistence of children and adolescents has moved from a physical to a virtual space. Technology has evolved considerably in recent years and now permeates all areas of our lives, bringing with it not only progress and benefits, but inevitable risks as well.

These risks increase when the users of technology and the Internet are children and adolescents. In our work with more than 60 schools in Chile, Spain and Colombia, we have been able to share experiences and identify risks for school-age youth. Initially, we entered classrooms with a focus on cyberbullying and peer relations, but the students themselves have shown us that these efforts did not go far enough. The risks and problems that emerge in the virtual world are much broader, but still have consequences in the school setting and personal space of the members of that community. As such, among the risks we have identified, two major areas stand out: on the one hand, the times of exposure to technology and, on the other, the types of interactions that children and adolescents have on digital platforms.

As we collected data in 2019, it became clear that most of the time that children and adolescents are connected to the Internet is used for leisure activities, playing games or interacting through social networking sites. Additionally, regulating exposure times to technology is an area rarely addressed by the adults in charge. The figure below shows that usage times are not very regulated by responsible adults, and even less so as students get older.

Children and adolescents who use the Internet claiming to have restrictions on their mobile phone use time
(Percentages)



Source: Prepared by the authors.

Regarding the risky behaviour of children and adolescents on social networking sites, we have identified that they are exposed to interactions with strangers, do not understand what a digital fingerprint is, and receive messages or images with inappropriate content. Two additional dangers stem from these risks: grooming and sexting. While international studies show a low prevalence of grooming, experiences in schools show that a higher percentage of students are constantly exposed to it. How young people view online relationships is a significant challenge for society. The concept of friendship today is changing, and as a result, we must better understand how young people establish relationships with others and how they view sexuality and emotional attachment, meet and get to know each other, share interests, interact and view romantic relationships.

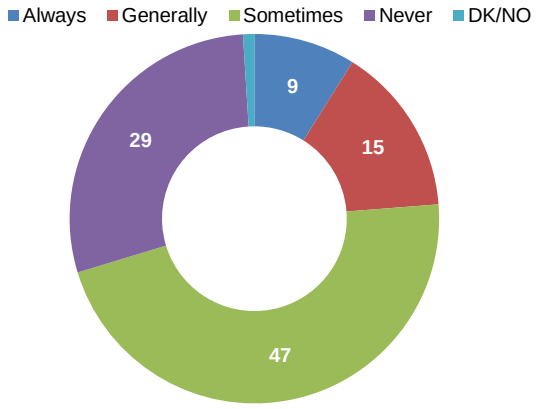
Additionally, every year the use of technology moves forward, and access to devices such as mobile phones, tablets or game consoles and advances in artificial intelligence increase exponentially. This underscores how important it is to involve families in this process, as well as encourage parents and schools to agree on how to handle these issues.

As a space for socialization, schools play a central role in educating children and adolescents on new technologies, since young people also socialize through them. Interactions occur between these two spaces, with both positive and negative consequences. More specifically, what happens online has consequences within school walls, and what happens in schools can impact how students interact in the virtual world.

We chose to work inside schools because this space is conducive to modelling behaviours and creating spaces of trust for new generations to learn to operate safely in virtual spaces.

At BRAVE UP! we work with different groups: school principals, teachers, pupils, parents and guardians, through digital literacy and the promotion of good digital behaviour. We provide tools to strengthen teams and/or those in charge of social coexistence, together with a safe and confidential space for the early detection of cases of school bullying and digital bullying.

Children and adolescents who use the Internet claiming they feel better online than in the real world
(Percentages)



Source: Prepared by the authors.

We also use a tool to collect data in order to shed light on the most urgent issues to address, which allows us to talk about the problems and challenges that technology poses for society today.

One issue that raises the most questions is based on the question "Do I feel more comfortable online than in the real world?" Some 24% of young people say that they generally or always feel this is true (see figure below). This allows us to start a conversation that touches on various aspects. For example, what are these young people finding in the digital world that makes them feel good: experiences, motivations, relationships, adventures, support? What are they missing in the real world?

These types of questions, along with many others that come up every day, allow us to develop conclusions about our work in the field, which encourage us to continue working. Among these are that technology is constantly changing in the same way that trends in student use change, and that we must support this shift and teach responsible technology use at school and at home. Second, today the Internet is a space for socialization, which means that behaviour must be guided. Moreover, it is through this technology that young people develop their perception of reality and construct their identities. Finally, we should mention that students are rarely able to accurately gauge the risks of misuse of virtual platforms.

These conclusions challenge us to continue learning, working and constantly educating young people as well as those close to them so that the process of participating in society through digital media is an enriching experience free of negative experiences.

Source: Prepared by the authors.

[a] BRAVE UP!

E. Managing harm and coping: managing online contact, digital coping skills and finding support for distressing incidents

1. Digital skills associated with coping

This section covers the skills associated with safe and reliable use of the Internet and mobile devices as self-reported by children and adolescents. These abilities include operational, informational and social skills for

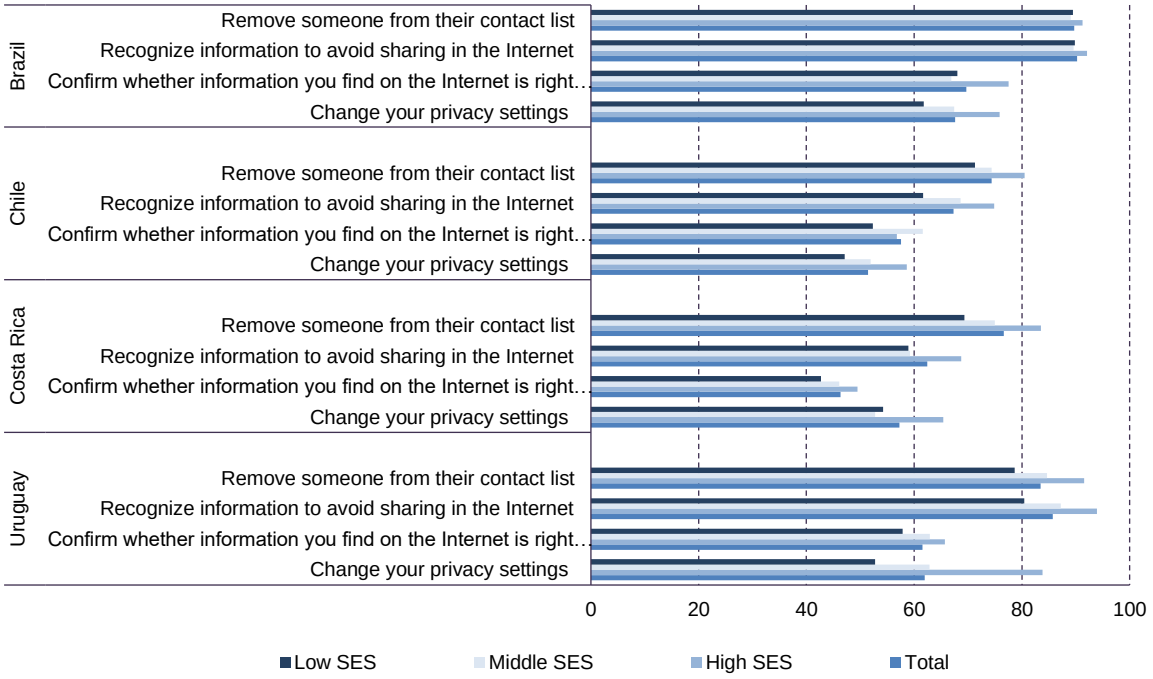
Internet use to safeguard a person's privacy and protect their identity as well as to tell the difference between true and unreliable information (Van Deursen, Helsper and Eynon, 2016). More specifically, skills associated with controlling security settings, identifying reliable or true information, knowing what information can be safely shared, and understanding how to delete people from contact lists are discussed.

Based on the assumption that these skills help young people better manage risk and navigate coping strategies, the first important finding is that, as discussed in previous chapters, these four skills are not common among all children and adolescents. Although the overall percentages of survey respondents who say it is true or very true that they can carry out these activities autonomously range from 45% to 90% in for the four countries, there are considerable differences depending on the characteristics of the children and adolescents and their household SES, which creates significant public policy challenges.

More than two out of three children and adolescents in all three countries say they know how to remove or block someone from their contact list: 90% in Brazil, 83% Uruguay, 77% in Costa Rica and 74% in Chile. Some 90% of children and adolescents in Brazil, 86% in Uruguay, 67% in Chile and 62% in Costa Rica say they are able to recognize what type of information can be safely shared or not online. With regard to the perceived ability to identify whether online information is correct or true, the percentages of those who believe they can do this autonomously drop substantially, reaching 70% of Brazilian children and adolescents, 62% of Uruguayans, 58% of Chileans and 46% of Costa Ricans.

Finally, with regard to whether they know how to change privacy settings on websites or apps, 68% of Brazilian children and adolescents say they do, a slightly higher percentage than in Uruguay (62%), Costa Rica (57%) and Chile (51%).

Figure 26
Brazil, Chile, Costa Rica and Uruguay: level of digital coping skills of children and adolescents using the Internet, by socioeconomic status
(Percentages)



Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Generally speaking, these four skills are more prevalent among girls than boys. One exception is being able to determine whether information found is true, with the highest numbers seen among boys in Brazil and Uruguay. Similarly, in all countries, the 13–17 age group reports the most skills of this type, which is indicative of maturing or acquiring these skills throughout their lives.

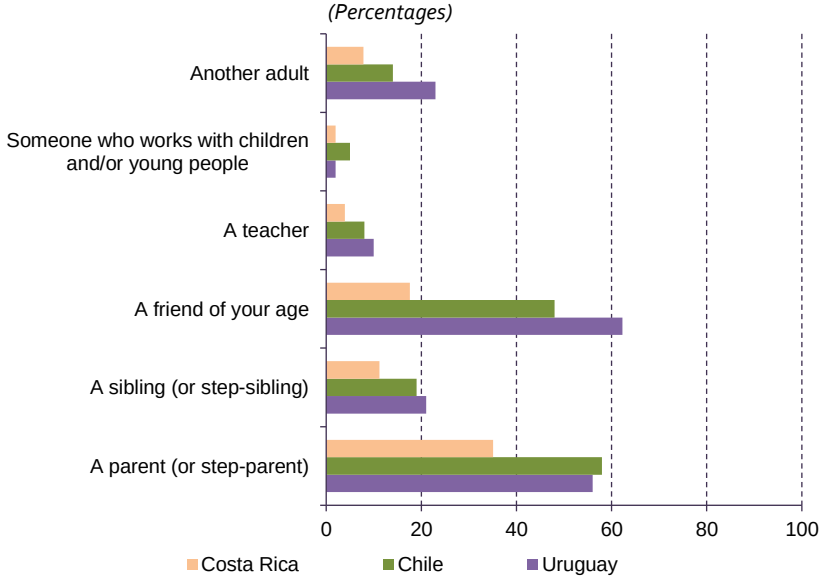
It is important to highlight that this is one of the few aspects linked to risk-taking where there are clear differences in the household SES of children and adolescents in all four countries: young people from middle and high SES households show higher percentages for almost all the skills studied.

These findings reflect a need for public policy to support the development of these skills in the four countries, and most likely across the entire continent. If it is acknowledged that these skills can reduce risks and/or damage, an unequal distribution among children and adolescents would therefore reinforce structural socioeconomic gaps. Since these skills continue to be developed throughout life, education systems and organized civil society, as well as parents and guardians, teachers and other important adults in the lives of children and adolescents, have a key role to play in facilitating the acquisition of such skills.

2. Support for distressing incidents

If children and adolescents ask for support or discuss with others incidents that caused them harm or discomfort, this can be a protective factor in the processing of the harm done, as well as help them build the foundations to develop prevention tools when faced with new situations (Dodel and others, 2018). In Chile, Costa Rica and Uruguay, specific questions were asked about the type of support sought by children and adolescents who said they had been exposed to something that upset them or made them feel bad online (see Table A38).

Figure 27
Chile and Uruguay: children and adolescents using the Internet who saw or experienced something online that upset them and told someone about it, according to the person they spoke to
(Percentages)



Source: Prepared by the authors on the basis of the Kids Online surveys for Chile (2016) and Uruguay (2017).

Just over half of the Uruguayan and Chilean children and adolescents who were exposed to something that bothered them or made them feel bad mentioned the incident or asked someone for

help. In Costa Rica, practically all of them mentioned or asked for help with the incident. Girls tended to talk more about these incidents than boys (a finding that was more prevalent in Uruguay and Costa Rica than in Chile). There does not seem to be such a clear relationship between age and this preventive behaviour, although in Chile the group of older adolescents tended to do it less than the other children.

In Costa Rica, Uruguay and Chile, the surveys also asked who children and adolescents talked to about these issues: parents (or guardians) and friends/peers were most frequently mentioned in the three countries, with 58% and 48%, respectively, in Chile, 56% and 62% in Uruguay, and 35% and 18% in Costa Rica. Girls and younger children seem to be more likely to turn to responsible adults than boys and older children in Chile and Costa Rica, which is not the case in Uruguay. In terms of peers, girls in Chile, Uruguay and Costa Rica tend to talk more to their peers than boys; in Chile and Costa Rica, older children and adolescents tend to talk more to their peers than younger children, while in Uruguay the opposite is true (see Table A39).

Other responsible adults and/or family members were mentioned by about one in five children as references for seeking this type of support. With regard to teachers, the percentages are considerably lower (around 10% or lower), with the youngest children being those who tend to contact them, especially in Uruguay where 28% of 9- and 10-year-olds mention them in their responses.

F. Conclusions

As discussed at the beginning of this chapter, while parents and adults are quick to bring up the related dangers and risks of digital media use by children and adolescents, reliable and accurate information indicates that such problems rarely arise. Unfortunately, risks and benefits seem to go hand in hand in the lives of children and adolescents, both in the digital and physical worlds. Fortunately, exposure to risk does not automatically result in harm, as there are protective factors that can prevent it. It is therefore essential to present quality and contextualized empirical information on how frequent these risks are, as well as their link to other phenomena in the social and digital lives of children and adolescents.

Between 30 and 40 of children and adolescents were exposed to or accessed content that was distressing or upset them, but only half of them (in the countries where this was studied) spoke to someone else about the incident; the other half kept such negative experiences to themselves. This is problematic because asking for help or discussing it with someone else can be a protective factor in dealing with harm (Dodel and others, 2018).

Also, between one and four out of every ten children and adolescents accessed or were exposed to sensitive content (e.g., content on suicide, anorexia, drugs or violence). While it is impossible to know whether access to this content was intentional or accidental, the data on its prevalence again reinforces the need to provide young people with tools to address and/or determine the relevance and quality of all kinds of content, with particular emphasis on this type of content. It would also be extremely helpful to provide safe spaces where children and adolescents feel they can talk about these issues with key individuals in their environment (e.g., family, teachers and professionals).

Nearly two-fifths of children and adolescents have had contact through the Internet with people they did not previously know. This is a common practice in the region, although not a majority one either. It is important to note that the data from the Kids Online surveys in Latin America make it possible to distinguish between the concept of meeting new people through the Internet from "stranger danger", which overshadows public discourse on the subject. Face-to-face encounters seem to occur about half the time, and these people tend to be acquainted with family or friends and are of the same age, and in general the encounters are a positive experience. Face-to-face meetings of this kind with negative consequences are very rare. In other words, although there are problematic cases with potentially high risks of harm, the available data suggests that their likelihood is very low compared to

other risky incidents and that "meeting strangers" is more likely to be with peers (friends of friends) or people with some kind of previous link in the pre-existing networks of children and adolescents.

Receiving and sending messages with sexual content is a somewhat more common practice, especially among older boys and adolescents. While the studies did not look at whether receiving or sending of these messages was consensual, less than one-tenth felt uncomfortable or harmed by this type of content. Among them, older girls and younger kids were the groups that expressed the greatest discomfort. This highlights situations of harm linked to cultural stereotypes and norms that are common in populations that are traditionally more vulnerable in this area: young children and girls.

With regard to bullying and harassment, about one-fifth of children and adolescents in all countries reported having experienced this type of incident in the last year. Harassment tends to occur more in person than online, and is largely carried out by peers from the same school. However, in countries such as Uruguay, face-to-face harassment is about as prevalent as digital harassment, and in all the countries a new and potentially dangerous phenomenon is now possible: both physical and digital bullying. Situations of face-to-face violence between peers, which were already difficult for some to handle, are echoed in the digital world, leaving few social spaces where victims of harassment can escape.

With regard to coping skills, there are greater differences depending on the household socioeconomic status of the children and adolescents, which reflects a need for policies to include efforts to enhance these skills at the national and regional levels. Inequality in the children and adolescents who have such skills would worsen structural socioeconomic divides, a situation that education systems and other relevant social actors could reduce through digital inclusion policies that include a focus on such skills.

We would also like to emphasize that none of the negative experiences or risks described here have been experienced in a generalized way by children and adolescents in the countries studied; however, they are still relevant. All these phenomena require attention and new policies to provide children and adolescents with the skills they need to exercise their rights and ensure their own coping skills in an age where the Internet is a major part of their lives. Given that various groups of children and adolescents have very unequal starting points in terms of their skills, attitudes and coping strategies, the role of States, communities and public policies in general, as well as the private sector and companies that work within the digital ecosystem in which children and adolescents participate, is key to guaranteeing the rights and ensuring the well-being of these populations.

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VI. Challenges in the experiences of children and adolescents in the digital age

Daniela Trucco

A. Introduction

Latin America and the world in general are in the midst of a profound process of transformation driven by the rapid development of technologies and the exponential increase in their impact on the various aspects of our societies. International discussion about the future of work has been dominated by the rising tide of technological change, emphasizing that future employability and competitiveness will depend largely on people's ability to adapt to these changing contexts and to innovate and come up with new solutions. This will require problem-solving skills in practical and technological contexts. All this occurs in a framework of a sharp rise in the amount and availability of information that challenges and transforms our skills and the ways in which we learn, as well as modifying how we relate to and communicate with each other. Such changes offer new opportunities and options for building citizenship and participation, but they also involve certain risks, especially in the experiences of children, adolescents and youth (ECLAC, 2019a).

These changes, driven by technological development and digitalization, are occurring within contexts of historical inequality in Latin America, which structure the different spheres and experiences of life. The expansion of the digital age has been accompanied by digital divides that widen existing inequalities in access to information and knowledge, making social inclusion even more difficult for part of the population, which then finds its ability to develop the basic skills for full participation in today's societies limited (ECLAC, 2019b). With the goal of ensuring that everyone is able to acquire the skills that citizens of the future will need, a series of measures must be implemented to improve access to technology, enhance the quality and relevance of education and training opportunities throughout life,

close historical achievement gaps and inequalities for the entire population, and act in a concerted manner to provide equal opportunities.

B. The minimum standard is to level the playing field in terms of access and connectivity: ubiquity impacts opportunities

As discussed in this report, based on the situation of children and adolescents connected to the digital world in Brazil, Chile, Costa Rica and Uruguay, challenges of connectivity and access remain. Despite the progress made in terms of access to the digital world, which is particularly bolstered by the widespread availability of mobile connectivity, there are still considerable gaps in material access to the digital world, which has important implications for the opportunities and participation of new generations. Chapter II of this document demonstrated that much remains to be done to improve the initial conditions for participation in the digital society and that the idea of a fully connected childhood and adolescence is a distant one.

The minimum standard is to level the playing field in terms of access to equipment and technological infrastructure, particularly in terms of connectivity for those who cannot access it through the market. The rapid deployment of mobile broadband networks over the last decade has improved connectivity and allowed for a freer and more permanent connection that facilitates the ubiquity of digital technology use, but the inclusion of the entire population is still a long way off (ECLAC, 2016; ECLAC, 2019b). The result is that the types of access now available have become more complex, which means that not everyone has the same opportunities. Consequently, it is important to strengthen access for less advantaged populations.

The digital divide exacerbates inequalities in access to information and knowledge, making socialization difficult and limiting the ability to use basic tools for life in society. Social exclusion from the digital world, like other types of exclusion, must be considered from a multidimensional perspective and addressed through strategies tailored to different populations (Helsper, 2017). Therefore, it is key for policies aiming to promote more equal access to technology to begin by recognizing the multiple dimensions that structure social inequalities in the region and working intentionally to reverse them. To this end, it is very important to adopt a multisectoral approach and to develop comprehensive connectivity policies that support the initiatives of the ministries of technology from the different sectors involved, complementing them with tools and mechanisms for inclusion.

C. Efforts must also be made to bridge the gaps in digital skills and abilities that facilitate real digital appropriation and benefits

The Internet is not just an opportunity to level out certain gaps or a democratizing tool enabling people to develop new talents, cultivate their knowledge, develop skills and entertain themselves – all essential activities for children with respect to their rights – but it is also a requirement to be able to participate in this digital culture. The digital world is more than an educational space to develop knowledge: it is a place where play, sharing with others and cultivating interests is necessary.

The heterogeneity of physical and material access to technologies, as well as the uses and skills developed by children and adolescents, all have the potential to widen the structural inequalities that exist in the inclusion processes in Latin America and the Caribbean. This is true not only for those who have or do not have access to equipment, but especially with regard to the skills required to benefit from such technologies (ECLAC, 2019a). Beyond how and how much the Internet is used, the types of activities children and adolescents engage in are also unequal, which in turns makes the opportunity to fully participate in the digital society unequal. Gaps related to digital skills that facilitate the

appropriation of and enjoying the benefits of using digital technologies must also be overcome, since these processes impact participation, sociability, learning and the construction of identity during childhood, and especially adolescence (Trucco, 2018).

Reducing the digital divide in this deeper or secondary way sets in motion virtuous synergies of social and cultural inclusion for children and adolescents, generating opportunities throughout their lives. This report, as well as others produced as part of the Kids Online network, suggests that adult mediation is important in providing support, modelling and guiding the immediate environment of children and adolescents as they grow up and become part of the digital world.

D. Guidance and support in school spaces is a fundamental pillar

The study shows that digital policies in the region, and particularly in these four countries, have focused on the education sector as a key area for promoting digital skills development. As discussed in Chapter III, these policies in the field of education have shifted the emphasis from access to the development of digital skills, digital literacy and digital citizenship. However, the findings suggest that considerable efforts must still be made to strengthen the role of schools and teachers. Because digital technologies and the Internet are important tools for access to knowledge and social and cultural participation, the challenge of guaranteeing equitable access is compounded by the public responsibility of ensuring that this access translates into higher levels of well-being, promotes development opportunities, and facilitates the learning, participation and self-expression of children and adolescents.

The results of the study show that Internet use in schools varies greatly between countries, illustrating the importance of education policy in some countries. Guidance and support in school spaces is a fundamental pillar. "Childhood development needs to be supported by adults who have the skills to guide or promote processes of appropriation and skill development. These adults must be able to help children learn to search for, think critically about, synthesize, analyse and represent information in the digital environment, as well as use digital tools to share and collaborate with others. This means going beyond using technology to teach, with a focus on skills rather than the technology itself" (Trucco, 2018, p. 101). Digital education policy must also consider the school space as a place where tools are provided to benefit from technologies beyond academics (communication, sociability and ethics, among others) and where behaviour guidelines are provided to reduce risks and increase the advantages of technology use.

E. The importance of moving towards comprehensive policies that include other sectors beyond education to train and support capacity-building for the new generations

While the formal education system is a critical component when it comes to helping young people learn digital skills, new policies cannot be limited to this area. It is important to move towards more comprehensive policies with a broader focus, where it is not just the education system that is responsible for training and empowering new generations to seize the opportunities of the digital world, but where society as a whole is involved, including the private sector that manages the main Internet platforms. Accordingly, the advances in connectivity and ubiquity must consider the opportunities for participation in a digital culture that permeates defined spaces. An approach that only takes into account skills that are useful strictly for educational development or school is limiting and out of touch with our highly technological daily lives and the demand for digital skills applied to so many more areas. For example, people need skills related to being active citizens, exercising their rights, or satisfying their information and communication needs. Although it is not the subject of this document, there is also concern about the skills of the adult population to guide children and adolescents in this process.

The analysis of the "Ladder of Participation" described in Chapter IV of this report shows that the most common and basic approach to the Internet by children and adolescents is through activities related to socializing and entertainment, before they begin engaging in learning, creativity and citizenship and community activities as they grow up. This analysis reinforces the importance of digital inclusion policies in this age group because, despite the fact that several opportunities for entertainment and creativity, education and learning, sociability, and citizenship and community are widespread in the region, a significant number of young people have either extremely limited or no access to the Internet, and as a result unequal access to such opportunities. The fact that very few young people participate in citizenship and community activities poses a major challenge for education policies meant to train future citizens and promote their active participation in civic life. These activities should be included in policies or school curricula early on to permanently support the process. A model for use based on such activities could be used to help children become active and constructive citizens in the digital space.

From the perspective of children's online rights (UNICEF, 2017), Chapter IV suggests that these efforts must not only aim to safeguard young people's right to participate in these activities, but also to guide and protect them in the inclusion processes to ensure their participation and development in the different areas of online life remain positive experiences. Educational institutions as well as those promoting the rights of children and adolescents have a fundamental role to play in this task. During childhood this process mainly plays out at home, so we must consider how we can involve parents and how we can prevent any child from being left behind or alone in this formative process. Parental mediation is also unequal and it is therefore important that social policies be adapted to different contexts. These policies must take a comprehensive view of child development, including the various aspects associated with access to digital opportunities, such as access to material resources, the socioeconomic background of the household, the mediating role of parents, educational policies and children's skills, all of which are mutually reinforcing factors of inequality. The process of digital inclusion must be take into account personal, family, cultural and structural factors (Cabello-Hutt, Cabello and Claro, 2017).

F. It is essential to train for self-care and for the effective development of risk management strategies, as well as user protection

The study has highlighted the importance of the use of social media, especially in adolescence. This reflects the place that the virtual environment occupies in the identity construction processes that are so relevant at this stage of life, as well as in the interactions and relationships with other people, which are reinforced by other types of communication that go beyond a face-to-face setting. The virtual environment and social media transform social relations and make it possible, for example, to relate to others anonymously, interact with a large number of people (known and unknown) and create virtual communities, among other novel activities. This opens the door to many opportunities along with major risks for children and adolescents who are most exposed to these types of media. Not all children and adolescents start off with the same knowledge, attitudes and learning required to develop and adopt coping strategies to benefit from the opportunities offered by the Internet and to reduce or deal with the risks.

The analysis in Chapter V illustrated that exposure to risky content is considerably widespread in the population studied, with a particular emphasis on adolescent girls. However, as sensitive as these issues may be, the situation is more one of risk than harm per se. The proportion of children and adolescents studied who claim to have directly experienced harm is minimal, but should be non-existent. Greater exposure to the Internet certainly increases the risks, but it also increases young people's chances to reap the benefits of the digital age and the opportunities to develop the skills required to fully participate in it. Accordingly, policies need to take a balanced approach that supports the opportunities and strengthens the protective factors against risks.

Box 8
What have we learned?

Sonia Livingstone[a]

Throughout history, children have prioritized play, learning, family and friends. They begin life believing that the world is fair, and they value their agency and belonging above all else. This will surely continue. Also of continued importance are the ways in which children's well-being depends on their family's health, wealth and social status, on their community resources, employment prospects and on state provision for education and welfare, among other factors. However, as governments, businesses, civil society and other actors, including families, increasingly rely on the digital environment as the basic infrastructure of their activities, children's well-being is inevitably affected in ways that we are only just beginning to understand.

Many of the consequences of our digital age are exciting for children, and children themselves very often embrace digital technologies and even believe it is their right to have access to them. This report shows that children in Brazil, Chile, Costa Rica and Uruguay, as elsewhere, are gaining valuable digital skills and enjoying new opportunities to participate in socializing, education and entertainment online. As we have learned from the Kids Online research, some of the activities that adults consider "just entertainment" can act usefully as a gateway to more creative or civic activities, because they help children gain digital confidence and skills. But still most children do not do the creative or civic activities online, so policy interventions are needed for children to exercise their rights in a digital world.

In particular, it is vital for governments to support the everyday processes of technology adoption so that technology becomes meaningful and valuable in children's lives. The state support required to optimise children's digital opportunities includes teacher training, curriculum revisions focused on digital literacy, parental awareness-raising, and policies to help disadvantaged families gain internet access. Without such interventions, it is very likely that existing (and long-familiar) forms of socioeconomic inequality will have consequences in the digital environment, and that digital inequalities will exacerbate the inequalities in children's physical lives. Also important are policies and practices which encourage children to express themselves online in diverse ways, since many children in the four countries do not do this. For example, the government could promote online participation tools, give awards to digital services which engage children's creativity, train peer mentors, appoint digital youth champions, and ensure that state-supported online deliberation spaces are welcoming to children.

While the promise of digital opportunities is still exciting, there is plenty to worry about in terms of the content, contact, conduct and commercial risks to children's safety and well-being. The report also shows why it is important to ask children directly about their experiences – adults worry a lot about sexual risks online but interestingly in these countries, children themselves report more likelihood of encountering violent content online, and this too can be problematic. The levels of online risk reported in Brazil, Chile, Costa Rica and Uruguay are not among the highest, although the gender differences are concerning (with more girls than boys seeing violence, hate or suicide content, in all the cases of study).

However, Chilean children are more likely than in many other countries, according to Global Kids Online research, to say that something online upset them in the past year. Since comparative research also suggests that Chilean parents and guardians are among the most responsible adults in trying to manage and guide their children's online experiences, it seems appropriate to suggest that the degree of harm revealed by the study warrants further regulation by digital providers and services. Such regulation would need to be carefully framed, since restrictions on children's online activities, however well-meaning, can restrict their opportunities to climb the ladder of online participation, reducing the benefits to children in the digital age.

Technologies are not beneficial or harmful all by themselves. Much depends on how technologies are designed, deployed and promoted by businesses and the state, on how parents interact with children in relation to digital contents and services at home, and how schools embed technologies in their curricula to support learning and participation. Today we are moving from a world of living with screen media, often chosen by children and more or less under their and their parents' control, to a world of embedded media, of smart cities and smart homes. Policy and practice so far has focused on how to guide children and parents to make wise choices – media literacy, and parental mediation, respectively. But as the digital technologies become less visible, more environmental, we will need a new approach. Media literacy and parental mediation will still be important, but the role of the state in regulating the invisible and increasingly invasive role of businesses in our children's lives, and influencing the realization of their rights, will be crucial.

Source: Prepared by the author.

[a] LSE and Global Kids Online.

For example, online contact with unknown people, one of the main fears among the general public, seems to be a common practice in the region, although not a majority one. Personal encounters seem to occur about half the time, and these people tend to be acquainted with family or friends, of the same age, and in general the encounters are a positive experience. Although the study's findings indicate that there are problematic cases with potentially high risks of harm, the available data indicate that their prevalence is very low. If we compare real-world discrimination to that witnessed and experienced online, we see that physical appearance along with ethnic group affiliation are the most common grounds of discrimination both in and outside the digital world. This finding is relevant, as these two contexts of discrimination should not be seen as separate situations but rather as intrinsically linked: online discrimination can be a continuation of a situation of offline harassment, such as at school. Both situations feed into a context of physical and/or figurative violence requiring intervention.

As mentioned in Chapter V, self-regulation of the use of digital devices is a complex issue that is not specific only to young people, but which is also observed in the general population. As such, mediation as well as modelling of practices of key adults in young people's lives is an essential issue. It is critical to provide children and adolescents with the tools and skills they can use when faced with risky situations, violence or a need for self-control in order to make informed decisions and use strategies for coping and protection. They also need to be able to have the confidence to talk about these issues and their effects with important adults in their environment who can support and guide them (e.g., family, teachers or other professionals).

Any policies or measures implemented must take context into account and truly reflect the issues these age groups face. In this regard, it is important to emphasize the need for comprehensive policies to help adults, teachers and parents acquire the skills they need to support and guide the development of digital skills in children and adolescents. However, it is also vital to move forward with policies that regulate user protection, especially within the framework of children's rights, and the responsibility of the private sector with regard to personal data protection.

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Annexes

Fernanda Rojas[12]

[12] Consultant, ECLAC Social Development Division.

Annex 1
Methodological considerations

First, Kids Online is a survey focused on children and adolescents who use the Internet, so when reading the chapters of this report, certain methodological considerations should be taken into account. Additionally, despite Kids Online's regional efforts to use a common conceptual and methodological framework, there are some limitations of comparability of the data of the participating countries. They are mainly due to differences in sample designs and the inclusion of different variables when collecting key information, such as the socioeconomic status (SES) of the surveyed population. To a lesser extent, there are also differences in the implementation period of the respective surveys.

Secondly, with regard to SES and due to the differences in the variables measured by each survey, it was decided to use the original SES of each country for data analysis. This is because it was not possible to generate a common variable for the four studies that adequately represented the different SES levels. For the survey in Brazil, SES was determined according to the Brazilian Economic Classification Criteria (CCEB), which considers the education level of the head of household and the ownership of durable consumer goods (ICT Kids Online Brazil 2016). Scores were assigned on the basis of these assets, allowing households to be divided into seven economic categories (A1, A2, B1, B2, C, D and E). Groups A1-B2 were considered high, group C medium and groups D and E low.

In Chile, Ipsos Chile was responsible for determining the SES. The classification was based on the educational level and the main activity of the head of household. Scores were used to classify households into five economic categories (ABC1, C2, C3, C, D and E). Groups ABC1-C2 were considered high, group C3 medium and groups D and E low.

The SES variable in Costa Rica was constructed by adding up the assets owned by the household along with a child or adolescent having their own bedroom, and was then divided into three groups (high, middle and low SES).

Finally, in Uruguay, the SES variable was constructed based on a series of variables (household characteristics, services and assets; number of income earners per household; education level and health of the head of household). Each category was assigned a score that allowed households to be classified based on an SES index (INSE), which was broken down into seven categories (B-, B+, M-, M, M+, A- and A+). The groups were later divided into categories with groups A- and A+ considered high, groups M-, M, M+ middle and groups B- and B+ low.

Tables A1-A4 include the fact sheets for the surveys in Brazil, Chile, Costa Rica and Uruguay, where the main methodologies of each survey are detailed.

Table A1
Kids Online Brazil Fact Sheet

Kids Online Brazil	
Objective	Understand how children aged 9 to 17 use the Internet and deal with the related risks and opportunities.
Duration of fieldwork	November 2016 – June 2017
Population	28,902,738
Sample size	2,999 children, aged 9 to 17, plus the father/mother or primary carer
Sample design	Stratified multi-stage cluster sampling
Sampling error	Variable, for totals, maximum error 2
Representativeness	Margins of error calculated at a 95 confidence interval
Target population	Children and adolescents between the ages of 9 and 17
Qualified informant	Internet users between the ages of 9 and 17, plus one parent or primary carer
Survey method	Interviewer-administered survey at home (father/mother/carer, and children and adolescents between the ages of 9 and 17) Self-completed survey at home by children and adolescents between the ages of 9 and 17
Responsible institution	Brazilian Internet Steering Committee (Cgi.br)
Collaborating institutions	
Institution conducting the fieldwork	IBOPE Inteligência

Source: Prepared by the authors.

Table A2
Kids Online Chile Fact Sheet

Kids Online Chile	
Objective	Describe the uses, opportunities and risks in the use of ICTs by children and adolescents in Chile.
Duration of fieldwork	August – October 2016
Population	1,456,422 inhabitants between the ages of 9 and 17
Sample size	1,000 children, aged 9 to 17, plus the father/mother or primary carer
Sample design	Random three-stage sampling
Sampling error	0.031
Representativeness	National (urban areas with populations over 100,000 and under 70,000 in the 15 regions of the country)
Target population	Internet users between the ages of 9 and 17 (User = has used the Internet at least once in the last three months)
Qualified informant	Internet users between the ages of 9 and 17, plus one parent or primary carer
Survey method	Face-to-face CAPI at home (father/mother, and children and adolescents between the ages of 9 and 17) Self-completed at home (CAPI): children and adolescents between the ages of 9 and 17
Responsible institution	Pontificia Universidad Católica de Valparaíso
Collaborating institutions	Centre of Study for Policies and Practices in Education (CEPPE-UC); Institute of Communications and Image, University of Chile
Institution conducting the fieldwork	Ipsos Chile

Source: Prepared by the authors.

Table A3
Kids Online Costa Rica Fact Sheet

Kids Online Costa Rica	
Objective	Describe the types of Internet use, considering the opportunities, limitations, risks and benefits, for children and adolescents between the ages of 9 and 17
Duration of fieldwork	April – May 2018
Population	676,831 (estimated population of children aged 9 to 17, 2018)
Sample size	1,008 children, aged 9 to 17, plus the father/mother or primary carer
Sample design	Stratified/proportional multi-stage random sampling
Sampling error	0.03
Representativeness	Large and small urban areas throughout the country, with samples from additional rural areas
Target population	Internet users between the ages of 9 and 17
Qualified informant	Internet users between the ages of 9 and 17, plus one parent or primary carer
Survey method	Interviewer-administered survey at home using a tablet (father/mother/carer, and children and adolescents between the ages of 9 and 17) Self-completed survey at home by children and adolescents between the ages of 9 and 17, using a tablet.
Responsible institution	Instituto de Investigaciones Psicológicas at the Universidad de Costa Rica (IIP-UCR) and Fundación Paniamor.
Collaborating institutions	
Institution conducting the fieldwork	Fundación Paniamor

Source: Prepared by the authors.

Table A4
Kids Online Uruguay Fact Sheet

Kids Online Uruguay	
Objective	Describe the types of Internet use, considering the opportunities, limitations, risks and benefits, for children and adolescents between the ages of 9 and 17
Duration of fieldwork	August – December 2017
Population	Individual households with children between the ages of 9 and 17
Sample size	948 children, aged 9 to 17, plus the father/mother or primary carer
Sample design	Random and stratified nationwide
Sampling error	
Representativeness	437,918 children and adolescents living in 295,454 homes
Target population	Internet users between the ages of 9 and 17, living in households in cities with populations of 5,000 or more in the country
Qualified informant	Internet users between the ages of 9 and 17, plus one parent or primary carer
Survey method	Interviewer-administered survey at home (father/mother/carer, and children between the ages of 9 and 12 and adolescents between the ages of 13 and 17) Self-completed survey at home by children between the ages of 9 and 12 and adolescents between the ages of 13 and 17
Responsible institution	Catholic University of Uruguay (UCU), Plan Ceibal, Agency for the Development of Electronic Government and Information Society and Knowledge (AGESIC), UNICEF and UNESCO
Collaborating institutions	
Institution conducting the fieldwork	Plan Ceibal

Source: Prepared by the authors.

Annex 2
Statistics

I. General statistics

Table A5

Percentage of children and adolescents who access the Internet using the following applications/websites, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes ()	Facebook				WhatsApp				Instagram				Snapchat			
	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay
Total	76	73	54	63	72	83	84	74	36	46	39	50	27	23	38	30
Girls	77	75	58	61	74	85	87	78	42	54	47	54	34	31	45	35
Boys	75	71	50	64	70	82	81	70	31	39	32	45	19	16	31	24
9–10 years	42	38	13	27	45	69	64	48	16	13	10	15	12	10	16	13
11–12 years	60	66	30	52	60	77	80	72	24	36	25	39	19	21	28	22
13–14 years	86	87	75	85	79	87	94	82	40	53	49	67	29	28	50	40
15–17 years	92	90	88	84	86	93	97	93	49	69	68	76	36	31	55	43
High SES	78	74	55	63	86	87	89	88	50	51	51	65	42	26	47	51
Middle SES	77	73	54	62	73	83	86	81	36	47	39	52	27	25	37	31
Low SES	72	72	52	64	60	82	74	58	26	42	23	40	15	20	27	21

Percentage Yes ()	Google			Wikipedia			Twitter			
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay
Total	92	82	78	56	34	9	16	14	11	19
Girls	92	84	75	57	33	8	15	14	10	17
Boys	92	79	81	55	35	11	16	14	12	22
9–10 years	85	65	71	26	11	7	5	5	2	1
11–12 years	90	82	81	57	30	11	9	16	8	10
13–14 years	95	86	84	59	41	9	16	14	14	29
15–17 years	97	91	75	72	51	11	23	17	18	37
High SES	94	89	86	62	45	8	24	14	14	29
Middle SES	93	85	80	58	32	11	16	14	12	23
Low SES	91	66	72	50	23	7	8	13	6	10

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

II. Statistics on access

Table A6
Percentage of children and adolescents who access the Internet in the following places, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes ()	At school				At home				At another person's home			
	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay
Total	32	50	47	59	83	94	87	81	80	63	53	41
Girls	34	53	48	60	85	95	88	80	79	63	54	40
Boys	30	47	47	58	82	94	85	82	80	64	52	43
9–10 years	14	27	32	60	83	88	79	67	73	46	33	23
11–12 years	26	41	40	49	77	93	81	78	79	57	48	36
13–14 years	33	56	53	62	85	95	93	88	76	68	58	49
15–17 years	43	65	63	65	86	98	94	90	85	76	70	55
High SES	43	53	54	60	96	97	93	97	85	71	62	53
Middle SES	29	47	43	60	87	96	90	85	78	63	51	42
Low SES	28	52	44	57	68	91	73	70	78	60	44	36

Percentage Yes ()	In a public place				On the way somewhere			
	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay
Total	18	33	33	22	34	48	30	23
Girls	14	35	35	23	37	35	32	23
Boys	21	31	30	22	32	31	27	22
9–10 years	13	19	13	13	17	23	13	8
11–12 years	14	17	22	18	24	20	19	15
13–14 years	17	34	36	24	37	33	33	29
15–17 years	22	50	55	33	45	48	50	38
High SES	18	39	39	25	48	44	37	31
Middle SES	18	33	30	21	31	32	27	22
Low SES	16	30	29	23	28	29	24	21

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A7
Percentage of children and adolescents who access the Internet at school but not at home.
Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes ()	At school but not at home				At school and at home			
	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay
Total	5	2	4	9	27	47	44	50
9–10 years	4	5	5	20	11	23	26	39
11–12 years	8	3	5	9	18	38	35	40
13–14 years	4	2	2	4	29	55	51	58
15–17 years	5	1	2	4	38	65	61	62
High SES	1	0	2	2	42	53	52	58
Middle SES	4	2	2	8	25	45	41	52
Low SES	10	4	10	15	18	49	34	43

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A8
Percentage of children and adolescents who access the Internet using the following devices, according to gender, age and socioeconomic status.
Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	Computer				Mobile phone				Video game console				TV		
	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica
Total	54	72	44	82	91	89	83	84	15	34	23	18	18	43	31
Girls	50	70	45	81	91	90	85	87	9	18	12	11	16	44	28
Boys	58	74	42	83	90	89	81	80	21	49	34	25	20	43	34
9–10 years	58	61	32	80	84	80	67	63	16	38	18	9	20	45	27
11–12 years	54	71	41	86	87	86	81	82	16	42	23	18	20	47	26
13–14 years	55	76	42	87	92	92	90	91	13	28	25	26	17	40	32
15–17 years	52	77	57	76	94	96	93	98	15	30	26	18	16	42	36
High SES	81	76	60	88	92	91	87	93	32	34	39	31	34	51	45
Middle SES	57	71	39	84	91	89	85	87	13	37	18	20	18	45	29
Low SES	28	71	31	77	89	89	74	75	5	30	10	11	5	37	14

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

III. Statistics on educational background

Table A9

Percentage of children and adolescents who say they have done the following activities in the past three months, according to gender, age and socioeconomic status. Brazil (2017), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	Learned something new				Looked for work/study opportunities				Learned about activities in their community				Talked to people from other countries				Did school assignments and homework		
	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica
Total	64	80	58	63	30	39	24	31	22	36	10	10	40	29	13	19	76	93	72
Girls	65	82	59	61	33	42	24	33	23	38	10	8	41	26	12	17	80	95	72
Boys	64	78	57	65	27	36	24	30	21	35	9	11	39	33	15	22	73	92	71
9–10 years	54	69	44	52	4	23	14	22	13	21	6	8	20	19	7	7	63	86	58
11–12 years	55	79	52	60	10	28	21	30	16	35	8	14	29	24	11	16	78	94	67
13–14 years	62	79	67	67	29	39	25	34	21	37	16	10	41	30	13	26	83	97	80
15–17 years	75	88	68	72	53	55	34	39	30	47	8	8	54	38	21	29	78	95	79
High SES	69	85	66	77	31	33	24	31	23	38	10	5	40	38	17	21	81	96	78
Middle SES	66	78	58	62	32	38	26	31	22	33	9	8	39	27	12	19	77	92	73
Low SES	59	79	48	60	27	43	20	32	22	40	10	14	41	27	12	20	72	93	59

Percentage Yes (%)	Watched videos or tutorials online		Participated on a website for a social cause/charity		Read/watched the news				Discussed social/political issues				Used a social networking site				Participated in an online campaign/protest		
	Chile	Costa Rica	Chile	Costa Rica	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica
Total	91	70	11	23	51	47	3	40	12	13	31	6	73	80	63	61	4	9	4
Girls	93	73	13	27	53	49	3	38	14	15	32	7	79	82	65	63	4	11	5
Boys	90	67	10	19	49	46	2	42	11	12	29	6	68	78	61	58	3	6	4
9–10 years	91	59	6	9	35	34	0	23	3	2	13	2	33	43	39	19	1	3	1
11–12 years	92	69	6	19	32	38	2	37	3	8	23	5	66	78	53	50	3	3	1
13–14 years	93	75	11	22	53	48	4	45	9	15	34	8	80	94	75	81	2	6	5
15–17 years	90	77	18	38	67	61	4	55	23	23	48	9	92	96	81	90	6	17	10
High SES	94	78	11	23	52	50	2	36	18	16	34	7	71	80	69	69	4	9	5
Middle SES	91	74	12	25	55	46	4	40	12	14	31	6	75	81	64	62	4	9	4
Low SES	91	54	10	19	46	47	0	43	9	12	25	7	72	78	52	56	3	7	4

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Percentage Yes (%)	Joined a civic/religious/political group		Created and shared your own video/music			Created an online blog/story/website		Posted videos/music you find		Talked to family/friends who live far away			Chatted online			Shared photos/videos/music by messenger		
	Chile	Costa Rica	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica
Total	6	2	19	4	10	10	8	44	4	64	67	24	79	87	33	46	71	30
Girls	5	2	16	5	10	11	7	47	4	66	69	22	83	89	35	49	75	33
Boys	7	1	21	4	9	9	10	42	3	63	64	26	75	86	31	42	68	28
9–10 years	5	0	23	2	6	8	8	23	3	50	36	12	54	68	19	25	46	11
11–12 years	4	1	17	3	9	12	9	36	2	67	54	22	70	85	25	33	65	21
13–14 years	7	2	16	5	14	10	7	42	4	69	82	26	85	93	38	48	76	38
15–17 years	7	3	19	8	10	11	9	63	6	69	89	36	91	97	47	60	87	47
High SES	6	3	15	5	6	11	12	47	5	68	74	27	83	92	37	48	76	33
Middle SES	5	1	19	5	8	12	7	42	3	61	67	24	81	88	32	46	71	30
Low SES	7	1	20	3	12	8	5	46	3	67	54	24	74	85	28	43	69	24

Percentage Yes (%)	Watched videos				Played online games				Looked for information on health/diseases				Participated on a website where people share your interests/hobbies				Supported a cause by signing an online form	
	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Chile	Costa Rica
Total	77	95	72	80	69	79	83	48	28	53	49	20	36	32	10	14	7	0
Girls	78	95	75	82	55	73	82	35	33	59	34	23	34	30	11	12	8	0
Boys	77	95	69	77	82	86	84	62	24	46	64	16	37	34	9	16	6	2
9–10 years	84	91	46	76	78	92	77	55	15	28	52	8	17	10	2	3	4	1
11–12 years	70	96	62	78	75	87	82	53	20	45	52	22	26	25	4	12	6	1
13–14 years	79	96	89	83	69	74	86	50	21	57	49	18	42	30	10	18	3	2
15–17 years	77	97	89	81	62	70	86	35	42	69	44	30	46	52	20	22	12	1
High SES	91	98	82	92	82	79	92	48	29	50	59	18	37	44	12	14	11	2
Middle SES	79	96	72	81	73	78	84	48	28	53	49	19	36	31	9	12	7	1
Low SES	65	92	59	73	54	81	67	49	28	54	34	22	34	28	7	16	5	0

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A10

Percentage of children and adolescents who spoke to someone after having seen or experienced something that upset them online, according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	My father or mother (stepfather/stepmother)			My brother or sister (stepbrother/stepsister)			A friend of my age			A teacher		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	58	35	56	19	11	21	48	18	62	8	4	10
Girls	61	37	53	21	10	18	54	22	71	10	4	9
Boys	54	33	60	16	12	25	41	12	49	5	4	12
9–10 years	73	38	60	18	6	18	20	13	74	12	6	28
11–12 years	62	53	58	14	13	23	39	16	60	7	7	16
13–14 years	55	32	61	24	18	20	63	18	62	11	2	6
15–17 years	53	23	49	19	7	21	53	21	59	4	3	3
High SES	50	36	70	18	8	34	57	21	68	9	3	15
Middle SES	66	38	50	27	14	16	51	17	68	10	6	9
Low SES	53	29	59	7	10	23	37	15	49	4	2	10

Percentage Yes (%)	Someone who works with children and/or youth			Another adult I trust			Prefer not to answer	
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Uruguay
Total	5	2	2	14	8	23	3	3
Girls	6	1	2	14	10	20	1	2
Boys	2	3	2	14	5	28	2	4
9–10 years	8	0	0	19	0	25	8	0
11–12 years	2	0	6	17	11	26	5	2
13–14 years	7	4	0	12	12	22	0	8
15–17 years	3	3	1	12	6	21	1	0
High SES	2	1	0	21	13	46	2	0
Middle SES	4	2	2	13	7	19	1	3
Low SES	8	2	2	9	2	19	6	4

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A11
Percentage of children and adolescents who always/almost always say that their teachers do the following things when asking them to look for information online for school assignments and homework, according to gender, age and socioeconomic status. Chile (2016) and Costa Rica (2018)

Percentage always/ almost always (%)	Recommends websites		Explains why some websites are better than others for the assignment		Teaches you how to cite other people's ideas found online in your work		Supervises your Internet use in class	
	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica
Total	45	34	52	36	41	31	49	33
Girls	46	37	51	39	44	34	47	36
Boys	44	32	52	34	39	29	50	29
9–10 years	28	22	41	22	30	19	43	24
11–12 years	41	28	53	33	42	27	53	39
13–14 years	46	41	52	43	41	40	55	39
15–17 years	54	46	56	47	47	38	45	30
High SES	44	42	48	44	38	39	40	40
Middle SES	46	31	50	33	41	28	50	31
Low SES	45	31	56	30	44	25	51	25

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A12
Percentage of children and adolescents who say their schools do the following things, according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	Imposes rules on when mobile phones can be used at school			Bans the use of mobile phones		Organizes activities in classes where they can use mobile phones	
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Chile	Costa Rica
Total	84	82	74	72	34	38	51
Girls	87	83	76	74	31	39	51
Boys	82	82	73	70	36	38	52
9–10 years	75	76	60	70	40	18	23
11–12 years	87	82	71	69	39	39	48
13–14 years	87	85	85	75	29	47	66
15–17 years	87	85	81	74	27	45	67
High SES	88	86	72	70	36	39	57
Middle SES	85	81	76	73	31	37	51
Low SES	82	79	72	72	35	40	43

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A13
Percentage of parents or guardians who say they would like to receive information and advice about Internet use from the following places, according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	Their child's school			Television, radio, newspapers or magazines			Public organizations			Family and friends		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	92	88	59	90	83	20	86	77	22	86	80	9
Girls	92	89	60	89	85	22	87	79	21	86	81	8
Boys	92	87	59	92	82	17	85	75	22	87	80	10
9–10 years	95	93	63	93	83	21	90	77	21	88	78	11
11–12 years	93	87	61	92	81	21	85	77	22	89	79	12
13–14 years	94	88	58	88	83	16	89	76	23	83	79	5
15–17 years	88	83	56	89	84	21	82	77	21	86	84	8
High SES	95	90	39	94	85	13	89	82	30	91	79	14
Middle SES	92	86	61	91	84	20	88	75	23	87	82	7
Low SES	90	89	64	88	79	21	82	74	17	83	77	10

Percentage Yes (%)	Internet companies			Website with safety information			From their child		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	74	68	16	87	72	17	86	74	2
Girls	75	68	16	88	72	17	84	76	2
Boys	74	67	17	85	71	17	87	72	1
9–10 years	78	65	14	89	72	15	84	67	1
11–12 years	78	66	16	87	67	13	90	70	1
13–14 years	72	68	17	85	70	18	85	79	3
15–17 years	71	71	18	86	76	22	84	78	3
High SES	75	73	20	91	80	35	83	72	3
Middle SES	77	67	19	89	68	17	86	77	1
Low SES	71	60	10	81	66	11	86	70	2

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

IV. Statistics on participation and citizenship

Table A14
Percentage of children and adolescents who use the Internet, reasons for participation, according to gender. Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	Education and Learning				Entertainment and Creativity			
	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay
Girls	40	57	38	38	65	79	74	37
Boys	32	51	50	31	75	81	68	57
9–10 years	13	34	34	19	72	87	46	47
11–12 years	19	49	42	35	68	85	63	53
13–14 years	32	60	50	35	69	77	87	48
15–17 years	57	76	49	49	72	73	86	38
High SES	37	51	52	38	84	81	84	54
Middle SES	36	56	47	35	71	80	71	46
Low SES	34	59	39	31	61	79	67	44

Percentage Yes (%)	Citizenship and Community				Sociability			
	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay
Girls	46	27	8	10	78	85	37	63
Boys	43	31	7	8	72	84	34	59
9–10 years	28	14	3	3	40	57	18	20
11–12 years	33	21	4	8	63	85	23	54
13–14 years	42	27	14	10	82	96	41	82
15–17 years	53	42	9	15	93	98	55	91
High SES	47	31	8	7	76	88	46	69
Middle SES	44	27	9	10	73	85	35	64
Low SES	46	27	6	8	78	81	32	51

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

V. Statistics on risk

Table A15

Percentage of children and adolescents who use the Internet who have seen something online that upset them, according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage (%)	Have you seen or experienced something that upset you?											
	Sometime in the past year			At least once a week			Every/nearly every day			Don't know/No answer		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	41	29	30	3	3	1	2	3	1	5	7	2
Girls	44	30	32	2	3	0	2	3	2	6	8	3
Boys	38	29	28	4	3	1	1	3	1	5	6	0
9–10 years	30	23	21	2	2	0	2	2	3	8	9	3
11–12 years	34	29	25	3	3	2	3	5	0	5	7	1
13–14 years	47	31	36	4	3	0	1	5	0	6	7	2
15–17 years	48	33	35	4	3	0	1	1	1	3	7	0
High SES	50	26	34	1	2	1	1	4	0	6	4	0
Middle SES	37	32	30	3	3	1	2	3	1	5	11	2
Low SES	41	27	27	4	3	1	2	3	2	6	6	1

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A16

Percentage of children and adolescents who use the Internet who have experienced negative feelings after having seen something online that upset them, according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage (%)	I felt a little upset			I felt upset			I felt very upset			Don't know/No answer		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	43	36	70	33	25	14	16	12	6	8	27	10
Girls	39	34	68	36	28	16	19	12	5	6	26	11
Boys	48	38	72	29	22	12	12	12	7	11	28	8
9–10 years	30	46	49	27	14	24	27	17	16	15	23	11
11–12 years	41	27	75	27	31	13	23	4	7	9	38	5
13–14 years	42	31	69	32	31	18	17	8	3	9	31	10
15–17 years	48	42	80	37	22	5	9	17	3	6	19	11
High SES	41	31	59	33	31	22	16	11	8	9	27	11
Middle SES	43	40	75	35	21	11	16	9	5	7	30	8
Low SES	45	35	66	30	22	16	16	20	6	10	22	12

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A17
Percentage of children and adolescents who use the Internet who have visited websites with sensitive content in the past year.

Percentage Yes (%)	Ways to harm or physically injure yourself				Ways to commit suicide				Ways to be very thin (e.g., anorexic or bulimic)			
	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay
Total	15	20	14	22	12	16	12	16	23	21	14	14
Girls	19	28	17	27	15	22	15	21	30	33	17	21
Boys	10	13	11	16	8	10	9	12	15	10	10	8
11–12 years	10	13	-	-	8	14	-	-	16	10	-	-
13–14 years	18	25	10	20	12	16	12	13	21	23	12	13
15–17 years	15	22	17	23	14	17	12	20	27	27	16	16
High SES	14	20	10	18	11	18	9	21	32	22	14	16
Middle SES	16	21	16	21	13	15	15	16	20	23	15	15
Low SES	14	19	15	24	10	16	11	15	19	18	11	12

Percentage Yes (%)	People who talk or share experiences about drug use				Violent or gory images			Discriminatory messages against other people or groups of people		
	Brazil	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	12	33	17	26	41	26	39	28	20	34
Girls	13	40	19	29	45	26	34	34	22	35
Boys	11	25	14	23	37	26	45	22	19	34
11–12 years	4	11	-	-	27	-	-	13	-	-
13–14 years	13	33	14	23	40	21	31	30	18	27
15–17 years	16	45	19	30	50	31	49	36	23	42
High SES	17	32	15	26	44	26	38	32	20	41
Middle SES	11	30	18	25	40	26	41	26	23	37
Low SES	10	36	15	28	41	27	37	29	16	26

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A18
Percentage of children and adolescents who use the Internet who have seen images with sexual content, according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	In the past year, have you seen images with sexual content?		
	Chile	Costa Rica	Uruguay
Total	29	24	35
Girls	30	23	29
Boys	29	24	41
9–10 years	-	-	-
11–12 years	12	-	-
13–14 years	21	18	24
15–17 years	46	29	48
High SES	37	25	49
Middle SES	29	23	36
Low SES	25	22	28

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A19
Percentage of children and adolescents who use the Internet who have seen images with sexual content in the following places, according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	In a magazine or book			On television			On the Internet			In the past year, have you seen images with sexual content online?
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Brazil
Total	10	39	11	40	36	52	77	79	85	18
Girls	6	50	12	39	26	51	82	79	88	15
Boys	14	31	10	41	46	53	71	80	83	21
9–10 years	-	-	-	-	-	-	-	-	-	5
11–12 years	3	-	-	18	-	-	73	-	-	6
13–14 years	22	77	15	46	26	52	61	77	81	19
15–17 years	8	24	8	42	40	52	82	81	88	28
High SES	10	44	4	34	36	48	82	82	85	21
Middle SES	13	40	11	42	30	54	76	83	85	17
Low SES	6	38	15	41	42	51	74	75	86	15

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A20

Percentage of children and adolescents who use the Internet who have seen images with sexual content and were uncomfortable, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016) and Costa Rica (2018)

Percentage (%)	Did it bother you to see any of these images, photos or videos of people being naked or having sex?								
	Yes			No			Don't know/No answer		
	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica
Total	47	15	27	43	9	8	10	11	19
Girls	65	25	42	21	1	6	14	11	12
Boys	34	5	11	59	17	10	7	11	26
9–10 years	55	-	-	43	-	-	3	-	-
11–12 years	73	40		18	7	-	9	15	-
13–14 years	44	20	37	32	7	5	24	10	23
15–17 years	45	10	22	50	10	10	5	11	17
High SES	39	12	19	50	10	12	11	17	26
Middle SES	46	18	32	42	9	9	13	11	15
Low SES	58	13	32	38	9	0	4	5	14

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A21

Percentage of children and adolescents who use the Internet (out of the total number of children and adolescents) who have seen images with sexual content and were uncomfortable, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016) and Costa Rica (2018)

Percentage (%)	Did it bother you to see any of these images, photos or videos of people being naked or having sex?								
	Yes			No			Don't know/No answer		
	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica
Total	8	3	3	8	2	1	2	2	2
Girls	10	6	5	3	0	1	2	2	2
Boys	7	1	1	12	4	1	1	2	3
9–10 years	3	-	-	2	-	-	0	-	-
11–12 years	4	5	-	1	1	-	1	2	-
13–14 years	9	4	7	6	2	1	5	2	4
15–17 years	13	5	6	14	5	3	1	5	5
High SES	8	4	2	11	3	2	2	5	3
Middle SES	8	4	4	7	2	1	2	3	2
Low SES	9	2	4	6	2	0	1	1	2

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A22
Percentage of children and adolescents who use the Internet who have had contact online with strangers, according to gender, age and socioeconomic status.
Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	Has had contact online with strangers			
	Brazil	Chile	Costa Rica	Uruguay
Total	43	21	13	44
Girls	43	21	11	42
Boys	44	21	14	45
9–10 years	14	7	5	16
11–12 years	21	13	8	25
13–14 years	53	26	12	56
15–17 years	61	32	23	75
High SES	45	24	16	53
Middle SES	43	20	12	44
Low SES	44	21	9	39

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A23
Percentage of children and adolescents who use the Internet who have had contact with strangers in the past year, according to gender, age and socioeconomic status.
Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	In the last year, did you meet the individual(s) in person?			
	Brazil	Chile	Costa Rica	Uruguay
Total	53	44	41	30
Girls	53	39	44	29
Boys	54	48	39	30
9–10 years	38	34	31	9
11–12 years	36	27	44	21
13–14 years	54	36	52	29
15–17 years	57	53	38	38
High SES	42	50	43	23
Middle SES	56	41	31	28
Low SES	59	43	60	37

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A24
Percentage of children and adolescents who use the Internet who have had contact online with strangers through friends and/or family members, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	Were the people you met online and later met in person contacts of a friend or family member?	
	Chile	Costa Rica
Total	66	82
Girls	68	86
Boys	64	78
9–10 years	74	100
11–12 years	88	83
13–14 years	79	73
15–17 years	59	86
High SES	65	65
Middle SES	55	92
Low SES	82	100

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A25
Percentage of children and adolescents who use the Internet (out of the total number of children and adolescents) who have had online contact with strangers through friends/family members, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	Were the people you met online and later met in person contacts of a friend or family member?	
	Chile	Costa Rica
Total	5	4
Girls	5	4
Boys	5	4
9–10 years	1	1
11–12 years	3	2
13–14 years	5	5
15–17 years	9	6
High SES	7	4
Middle SES	4	3
Low SES	6	4

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A26
Percentage of children and adolescents who use the Internet who have had contact online with strangers of the following ages, according to gender, age and socioeconomic status. Chile (2016) and Costa Rica (2018)

Percentage (%)	Someone your age		Someone younger than you		Someone older than you		An adult	
	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica
Total	78	49	3	17	19	30	0	4
Girls	67	42	0	13	33	38	0	8
Boys	87	57	5	22	8	22	0	0
9–10 years	33	67	0	0	67	33	0	0
11–12 years	59	43	0	14	41	43	0	0
13–14 years	81	47	0	13	19	40	0	0
15–17 years	82	50	4	23	14	18	0	9
High SES	90	48	5	10	5	38	0	5
Middle SES	77	43	4	29	19	21	0	7
Low SES	70	55	0	18	30	27	0	0

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A27
Percentage of children and adolescents who use the Internet who have had contact online with strangers and felt shame/fear, according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage (%)	At this meeting, did you feel ashamed, scared or that you shouldn't have gone?					
	Good/Very good			Bad/Very bad		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	75	68	72	2	2	3
Girls	76	65	77	6	4	2
Boys	74	71	68	0	0	4
9–10 years	74	75	67	0	0	12
11–12 years	60	57	65	0	14	10
13–14 years	80	57	72	0	0	2
15–17 years	75	77	76	4	0	0
High SES	72	55	75	6	5	3
Middle SES	76	86	68	0	0	4
Low SES	75	70	76	4	0	2

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A28
Percentage of children and adolescents who use the Internet who have received online messages with sexual content, according to gender, age and socioeconomic status.
Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	In the past year, have you seen or received any kind of online message with sexual content?			
	Brazil	Chile	Costa Rica	Uruguay
Total	17	21	10	25
Girls	13	20	10	18
Boys	21	21	10	33
9–10 years	-	-	3	-
11–12 years	5	10	5	-
13–14 years	15	14	12	23
15–17 years	23	31	20	28
High SES	19	30	11	33
Middle SES	17	19	10	25
Low SES	15	18	10	22

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A29
Percentage of children and adolescents who use the Internet who have received online messages with sexual content and were uncomfortable, according to gender, age and socioeconomic status.
Brazil (2016), Chile (2016) and Costa Rica (2018)

Percentage (%)	Did these messages you received make you uncomfortable?								
	Yes			No			Don't know/No answer		
	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica
Total	10	4	3	10	1	2	2	1	2
Girls	14	7	4	5	0	2	1	0	2
Boys	7	2	3	15	2	2	2	1	2
9–10 years	-	-	1	-	-	2	-	-	0
11–12 years	6	6	2	1	0	1	1	0	2
13–14 years	12	4	3	2	1	2	2	1	2
15–17 years	16	7	6	3	3	3	3	2	3
High SES	11	5	1	10	3	3	3	2	2
Middle SES	9	4	3	12	1	1	1	1	2
Low SES	12	4	6	8	0	1	1	0	1

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A30
Percentage of children and adolescents who use the Internet who have posted online messages with sexual content, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016) and Uruguay (2017)

Percentage Yes (%)	In the past year, have you sent or posted any kind of online message with sexual content?		
	Brazil	Chile	Uruguay
Total	6	4	5
Girls	2	4	3
Boys	10	5	6
9–10 years	-	-	-
11–12 years	2	1	-
13–14 years	5	2	2
15–17 years	8	8	8
High SES	7	10	7
Middle SES	5	4	2
Low SES	7	2	7

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A31
Percentage of children and adolescents who use the Internet who have been treated in an offensive or unpleasant way in the past year, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	In the past year, has someone treated you in an offensive or unpleasant way?		
	Chile	Costa Rica	Uruguay
Total	20	16	18
Girls	22	14	19
Boys	18	18	18
9–10 years	13	13	15
11–12 years	21	22	18
13–14 years	24	18	23
15–17 years	21	13	18
High SES	26	17	22
Middle SES	20	16	17
Low SES	17	13	20

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A32
Percentage of children and adolescents who use the Internet who have been treated in an offensive or unpleasant way in the past year (by frequency), according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage (%)	How often has someone treated you in an offensive or unpleasant way?								
	Only once or twice			Every day/Nearly every day			Don't know/No answer		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	55	43	74	12	17	15	8	21	2
Girls	58	46	76	10	16	14	8	23	4
Boys	52	40	72	14	18	16	7	20	0
9–10 years	48	30	69	15	36	26	9	12	0
11–12 years	48	43	74	20	8	22	12	22	0
13–14 years	50	40	77	15	19	7	6	33	6
15–17 years	66	58	75	3	11	10	5	14	0
High SES	58	43	83	6	18	7	2	20	0
Middle SES	56	48	76	14	14	10	7	21	5
Low SES	52	27	68	13	27	24	13	27	0

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A33
Percentage of children and adolescents who use the Internet (out of the total of children and adolescents) who have been treated in an offensive or unpleasant way in the past year (by frequency), according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage (%)	How often has someone treated you in an offensive or unpleasant way?								
	Only once or twice			Every day/Nearly every day			Don't know/No answer		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	11	7	21	2	3	3	2	3	2
Girls	13	6	22	2	2	3	2	3	2
Boys	10	7	19	3	3	3	1	4	1
9–10 years	6	4	14	2	5	5	1	2	1
11–12 years	10	9	19	4	2	4	2	5	1
13–14 years	12	7	26	4	3	2	2	6	3
15–17 years	14	7	22	1	1	2	1	2	1
High SES	15	7	32	2	3	3	1	3	0
Middle SES	11	8	18	3	2	2	1	3	2
Low SES	9	3	21	2	3	4	2	3	2

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A34
Percentage of children and adolescents who use the Internet who have been treated in an offensive or unpleasant way in the past year by someone from school, according to gender, age and socioeconomic status. Chile (2016) and Costa Rica (2018)

Percentage (%)	Yes		Don't know/No answer	
	Chile	Costa Rica	Chile	Costa Rica
Total	65	67	7	6
Girls	66	78	6	3
Boys	64	59	9	8
9–10 years	62	82	6	0
11–12 years	71	61	12	10
13–14 years	65	74	4	2
15–17 years	63	53	7	8
High SES	70	63	2	4
Middle SES	68	69	8	7
Low SES	56	67	10	7

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A35
Percentage of children and adolescents who use the Internet who have treated someone in an offensive or unpleasant way in the past year, according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	In the past year, have you treated someone in an offensive or unpleasant way?		
	Chile	Costa Rica	Uruguay
Total	14	8	13
Girls	15	7	15
Boys	14	9	11
9–10 years	6	3	8
11–12 years	14	7	12
13–14 years	15	12	16
15–17 years	19	10	17
High SES	16	10	11
Middle SES	14	6	13
Low SES	14	10	15

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A36
Percentage of children and adolescents who use the Internet who have treated someone in an offensive or unpleasant way in the past year (by frequency), according to gender, age and socioeconomic status. Chile (2016) and Costa Rica (2018)

Percentage (%)	How often have you treated someone in an offensive or unpleasant way?					
	Only once or twice		Every day/Nearly every day		Don't know/No answer	
	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica
Total	52	48	5	12	8	16
Girls	62	53	4	16	10	13
Boys	42	43	6	9	5	18
9–10 years	27	13	6	13	20	50
11–12 years	55	50	3	6	13	25
13–14 years	53	48	10	21	3	3
15–17 years	55	55	3	7	5	14
High SES	47	48	0	21	3	3
Middle SES	60	50	8	4	7	27
Low SES	44	43	4	9	11	22

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A37
Percentage of children and adolescents who use the Internet who have treated someone in an offensive or unpleasant way in the past year online/in person, according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	Have you treated someone in an offensive or unpleasant way in person?			Have you treated someone in an offensive or unpleasant way using a mobile phone, tablet, laptop or desktop?		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	76	92	72	40	26	50
Girls	73	89	74	41	34	54
Boys	79	95	70	39	18	46
9–10 years	80	100	59	12	0	25
11–12 years	68	94	52	40	25	20
13–14 years	74	89	91	47	30	57
15–17 years	79	92	72	42	27	76
High SES	75	90	89	37	33	62
Middle SES	80	96	67	40	12	55
Low SES	71	89	74	42	32	40

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A38
Percentage of children and adolescents who use the Internet who have sought support when dealing with distressing online incidents, according to gender, age and socioeconomic status. Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	When you saw or experienced something online that upset you, did you talk to someone about it?		
	Chile	Costa Rica	Uruguay
Total	54	94	54
Girls	56	99	59
Boys	53	90	48
9–10 years	61	91	47
11–12 years	61	96	63
13–14 years	62	97	43
15–17 years	46	93	63
High SES	65	97	56
Middle SES	55	96	54
Low SES	47	87	52

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A39
Percentage of children and adolescents who use the Internet who have sought support from the following people when dealing with distressing online incidents, according to gender, age and socioeconomic status. Chile (2016) and Uruguay (2017)

Percentage Yes (%)	My father or mother (stepfather/stepmother)			My brother or sister (stepbrother/stepsister)			A friend of my age		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	58	35	56	19	11	21	48	18	62
Girls	61	37	53	21	10	18	54	22	71
Boys	54	33	60	16	12	25	41	12	49
9–10 years	73	38	60	18	6	18	20	13	74
11–12 years	62	53	58	14	13	23	39	16	60
13–14 years	55	32	61	24	18	20	63	18	62
15–17 years	53	23	49	19	7	21	53	21	59
High SES	50	36	70	18	8	34	57	21	68
Middle SES	66	38	50	27	14	16	51	17	68
Low SES	53	29	59	7	10	23	37	15	49

Percentage Yes (%)	A teacher			Someone who works with children and/or youth			Another adult I trust		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	8	4	10	5	2	2	14	8	23
Girls	10	4	9	6	1	2	14	10	20
Boys	5	4	12	2	3	2	14	5	28
9–10 years	12	6	28	8	0	0	19	0	25
11–12 years	7	7	16	2	0	6	17	11	26
13–14 years	11	2	6	7	4	0	12	12	22
15–17 years	4	3	3	3	3	1	12	6	21
High SES	9	3	15	2	1	0	21	13	46
Middle SES	10	6	9	4	2	2	13	7	19
Low SES	4	2	10	8	2	2	9	2	19

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A40
Percentage of children and adolescents who use the Internet (out of the total number of children and adolescents) who have sought support from the following people when dealing with distressing online incidents, according to gender, age and socioeconomic status. Chile (2016) and Uruguay (2017)

Percentage Yes (%)	My father or mother (stepfather/stepmother)			My brother or sister (stepbrother/stepsister)			A friend of my age		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	10	7	9	3	2	3	9	4	10
Girls	12	8	10	4	2	3	11	5	13
Boys	9	6	8	3	2	3	6	2	6
9–10 years	8	5	5	2	1	2	2	2	7
11–12 years	11	11	9	2	3	4	7	3	10
13–14 years	12	7	9	5	4	3	14	4	9
15–17 years	11	6	11	4	2	5	11	5	13
High SES	13	8	13	5	2	6	14	5	13
Middle SES	11	8	8	5	3	3	9	3	11
Low SES	8	5	8	1	2	3	6	3	7

Percentage Yes (%)	A teacher			Someone who works with children and/or youth			Another adult I trust		
	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	1	1	2	1	0	0	2	2	4
Girls	2	1	2	1	0	0	3	2	4
Boys	1	1	2	0	1	0	2	1	4
9–10 years	1	1	2	1	0	0	2	0	2
11–12 years	1	1	2	0	0	1	3	2	4
13–14 years	3	0	1	2	1	0	3	3	3
15–17 years	1	1	1	1	1	0	2	1	5
High SES	2	1	3	1	0	0	5	3	9
Middle SES	2	1	1	1	0	0	2	1	3
Low SES	1	0	1	1	0	0	1	0	3

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A41
Percentage of children and adolescents who use the Internet who have been treated in an offensive or unpleasant way online/in person in the past year, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	In the past year, has someone treated you in an offensive or unpleasant way online?				Has been treated in an offensive or unpleasant way in person?		Has been treated in an offensive or unpleasant way on a mobile phone, tablet, laptop or desktop?	
	Brazil	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	
Total	23	12	11	14	10	5	15	
Girls	24	12	9	15	13	5	18	
Boys	22	11	12	12	8	6	12	
9–10 years	13	8	10	11	4	2	4	
11–12 years	14	13	12	14	7	8	12	
13–14 years	28	14	13	15	13	6	21	
15–17 years	29	12	8	14	14	4	23	
High SES	29	16	10	12	14	7	25	
Middle SES	21	11	12	12	11	4	15	
Low SES	22	10	8	16	7	3	12	

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A42
Percentage of children and adolescents who use the Internet who have experienced problematic mobile phone use, according to gender, age and socioeconomic status. Chile (2016) and Costa Rica (2018)

Percentage Yes (%)	I need to check my phone to see if something new has happened		It bothers me when I can't check my phone because it has no signal or battery		Sometimes I do things on my phone that don't really interest me		Sometimes I use my phone in places or situations where I shouldn't		I've tried to spend less time on my phone, but it doesn't work		I've had problems with my family or friends because of my phone use	
	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica
Total	51	40	40	40	31	37	27	28	30	37	18	26
Girls	54	37	46	38	33	37	27	31	34	41	23	30
Boys	48	43	35	42	29	38	27	25	26	31	14	22
9–10 years	33	-	29	-	16	-	15	-	23	-	11	-
11–12 years	44	-	30	-	23	-	14	-	27	-	14	-
13–14 years	60	36	49	40	32	32	29	23	34	32	22	28
15–17 years	60	43	48	40	45	42	41	33	33	40	23	24
High SES	52	43	39	46	32	45	31	30	27	40	21	28
Middle SES	53	39	42	38	33	36	26	28	32	37	18	26
Low SES	48	38	39	34	28	31	27	25	28	30	18	23

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A43
Percentage of children and adolescents who use the Internet who have been discriminated against/harassed or have seen discrimination against others online, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016) and Costa Rica (2018)

Percentage Yes (%)	Saw someone being discriminated against or harassed online			Has been discriminated against or harassed online		
	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica
Total	44	49	31	7	9	4
Girls	48	51	31	7	10	6
Boys	40	47	31	8	8	5
9–10 years	16	23	16	7	6	6
11–12 years	37	40	26	5	6	7
13–14 years	48	60	41	8	9	4
15–17 years	55	64	40	8	12	3
High SES	47	53	34	6	9	6
Middle SES	45	50	33	7	8	3
Low SES	39	46	24	8	9	6

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A44
Percentage of children and adolescents who use the Internet who have seen discrimination against someone online for the following reasons, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016) and Costa Rica (2018)

Percentage Yes (%)	For being a teenager/young person			For the colour of your skin/race			For your religion			For your physical appearance		
	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica
Total	11	17	29	66	33	34	27	12	15	45	45	23
Girls	11	15	38	69	30	32	29	14	15	43	50	26
Boys	11	18	19	62	36	35	24	11	15	46	39	20
9–10 years	11	13	14	60	30	23	8	11	9	23	11	23
11–12 years	4	15	10	62	39	55	10	12	19	30	46	23
13–14 years	14	18	35	65	36	40	30	14	0	46	50	24
15–17 years	11	17	34	68	30	23	32	12	0	50	49	23
High SES	11	18	31	75	33	39	32	13	14	58	46	32
Middle SES	9	20	30	64	34	26	24	10	16	40	46	20
Low SES	14	12	19	60	32	43	26	15	14	40	42	14

Percentage Yes (%)	For having a disability		For being poor			For being gay			For not wearing fashionable clothes		For being female		
	Chile	Costa Rica	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica	Brazil	Chile	Brazil	Chile	Costa Rica
Total	13	23	23	12	23	35	21	30	17	11	9	5	11
Girls	11	28	22	11	25	41	26	31	18	14	11	6	17
Boys	15	16	24	14	20	28	17	29	15	9	6	5	4
9–10 years	7	18	26	7	18	17	6	9	6	11	0	4	9
11–12 years	14	23	14	13	23	14	10	16	11	11	2	3	13
13–14 years	16	21	28	16	26	36	18	32	20	15	7	7	9
15–17 years	12	26	22	11	21	42	31	39	17	9	13	6	12
High SES	20	24	29	13	27	39	24	28	19	9	17	7	9
Middle SES	12	21	18	12	18	36	20	26	16	11	7	5	15
Low SES	10	24	24	13	27	28	21	46	15	14	4	5	5

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A45
Percentage of children and adolescents who use the Internet who have been discriminated against online for the following reasons, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016) and Costa Rica (2018)

Percentage Yes (%)	For being a teenager/young person			For your religion			For your physical appearance			For being poor		
	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica
Total	34	15	33	20	8	8	32	25	8	15	4	17
Girls	28	15	14	17	6	0	31	32	0	6	4	29
Boys	39	15	60	24	12	20	34	17	20	22	3	0
9–10 years	62	0	-	12	0	-	8	0	-	21	0	-
11–12 years	20	7	-	10	0	-	16	28	-	7	22	-
13–14 years	39	28	25	17	19	13	50	33	13	10	0	25
15–17 years	24	17	50	27	9	0	33	29	0	17	0	0
High SES	19	6	25	17	20	0	31	17	0	0	0	50
Middle SES	34	23	50	23	3	25	21	26	25	17	0	0
Low SES	42	11	25	19	8	0	50	29	0	20	10	0

Percentage Yes (%)	For not wearing fashionable clothes		For being female			For the colour of your skin/race			For not being feminine enough	
	Brazil	Chile	Brazil	Chile	Costa Rica	Brazil	Chile	Costa Rica	Chile	Costa Rica
Total	13	13	10	3	8	35	1	17	7	0
Girls	15	19	20	5	14	25	2	29	13	0
Boys	10	6	0	0	0	44	0	0	0	0
9–10 years	4	0	0	0	-	51	0	-	0	-
11–12 years	4	14	2	7	-	48	7	-	15	-
13–14 years	10	20	11	0	13	37	0	13	0	0
15–17 years	19	14	14	4	0	25	0	25	10	0
High SES	1	13	20	0	0	25	0	0	6	0
Middle SES	16	17	9	0	25	32	0	25	4	0
Low SES	15	8	4	8	0	44	3	25	11	0

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A46
Percentage of children and adolescents who use the Internet who have been discriminated against for the following reasons, according to gender, age and socioeconomic status. Chile (2016) and Costa Rica (2018)

Percentage Yes (%)	For being a teenager/young person		For the colour of your skin/race		For your religion		For having a disability		For being poor		For being gay	
	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica
Total	29	29	4	7	4	4	2	2	2	4	1	2
Girls	32	31	5	7	4	3	2	2	2	5	2	3
Boys	27	27	4	6	3	4	1	2	2	3	0	1
9–10 years	13	12	4	9	2	4	0	2	2	6	0	1
11–12 years	17	23	7	9	3	5	1	1	2	6	1	0
13–14 years	35	37	5	5	5	3	1	2	1	2	1	3
15–17 years	43	41	3	4	4	2	3	1	2	1	2	3
High SES	25	31	4	5	5	5	2	3	2	5	1	2
Middle SES	29	30	3	6	3	2	2	2	1	3	1	1
Low SES	32	22	6	9	4	4	1	1	2	4	2	3

Percentage Yes (%)	For the way I look or behave		For being female		For not being masculine enough		For not being feminine enough		Because of where I live		For your physical appearance	Because of where my family comes from	For not wearing fashionable clothes	For another reason
	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica	Chile	Costa Rica	Chile	Chile	Chile	Chile
Total	18	13	5	2	1	2	4	2	2	5	18	5	7	16
Girls	21	15	5	4	0	1	9	3	2	7	19	4	9	17
Boys	14	11	0	0	2	3	0	0	2	2	18	6	6	15
9–10 years	6	13	4	3	1	1	0	1	1	4	7	3	1	10
11–12 years	18	13	11	3	1	2	6	1	2	5	23	5	7	21
13–14 years	20	14	3	1	1	2	5	2	2	3	19	6	11	17
15–17 years	23	13	4	2	1	2	5	1	3	6	22	6	9	16
High SES	25	11	10	1	2	2	8	3	2	5	19	7	9	18
Middle SES	16	16	3	2	1	2	4	1	2	5	19	4	7	17
Low SES	16	12	6	3	1	2	2	1	2	2	17	5	8	14

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Table A47
Percentage of children and adolescents who use the Internet who have been the victim of cyberbullying, according to gender, age and socioeconomic status. Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017)

Percentage Yes (%)	Someone used my personal information in a way I didn't like				The device I use (e.g., phone, tablet) had a virus			Someone created a page or image about me that was offensive or hurtful		
	Brazil	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay	Chile	Costa Rica	Uruguay
Total	7	9	10	7	35	19	27	5	3	3
Girls	6	11	11	6	41	15	26	8	3	4
Boys	8	7	9	8	30	22	28	2	2	3
9–10 years	-	-	-	4	-	-	21	-	-	5
11–12 years	3	8	-	9	32	-	28	3	-	3
13–14 years	7	9	10	6	33	19	28	5	2	3
15–17 years	9	10	10	8	39	18	33	7	4	3
High SES	6	9	8	13	39	18	30	5	1	1
Middle SES	7	8	9	7	33	19	28	6	3	3
Low SES	9	10	13	5	37	18	26	4	5	4

Percentage Yes (%)	I lost money from an online scam				Someone used my password to access my information or to impersonate me			
	Brazil	Chile	Costa Rica	Uruguay	Brazil	Chile	Costa Rica	Uruguay
Total	1	3	3	1	4	9	8	7
Girls	1	2	2	1	3	11	7	6
Boys	2	4	3	1	4	8	8	8
9–10 years	-	-	-	-	-	-	-	5
11–12 years	1	2	-	-	2	8	-	9
13–14 years	1	3	3	0	3	12	7	8
15–17 years	2	3	2	1	5	9	8	8
High SES	2	4	4	0	3	11	5	8
Middle SES	1	3	2	1	3	10	8	7
Low SES	1	2	2	1	5	8	10	8

Source: Prepared by the authors on the basis of the Kids Online surveys for Brazil (2016), Chile (2016), Costa Rica (2018) and Uruguay (2017).

Author biographies

Ana Laura Martínez (Cetic.br, Brazil)

Ana Laura Martínez holds a Master's degree in Sociology and Education (Columbia University, New York) and a Bachelor's degree in Sociology from the Universidad de la República (Uruguay), with training as a Change Agent in Education (Stockholm University, Sweden). She works as an International Cooperation Network Coordinator at Cetic.br, a department of NIC.br and UNESCO Category 2 Centre in São Paulo, Brazil. She is a regular consultant to the International Institute for Educational Planning – IIEP, UNESCO Previously, she worked on the Ceibal Plan (Uruguay) as Head of Monitoring and Evaluation, and later as Social Development Manager. She was a professor of sociology at UCUDAL and UDELAR in Uruguay. She has authored various articles and book chapters on education and digital inclusion, coordinated the development of frameworks for measuring ICT access and use, and produced monitoring reports on the region's digital agendas.

Fabio Senne (Cetic.br, Brazil)

Fabio Senne is a doctoral candidate in political science at the University of São Paulo (USP). He holds a Master's degree in Communication at the University of Brasilia (UnB) and a Bachelor's degree in Social Sciences (USP). He is a Research Coordinator at the Regional Centre of Studies for the Development of the Information Society under the auspices of UNESCO (Cetic.br), in conjunction with the Internet Steering Committee in Brazil (CGI.br). He is a researcher in public policy and communication, and his area of focus is the relationship between the Internet and public policy and the behaviour of inequalities. He was one of the technical leads on the thematic analysis of the media carried out by the News Agency for the Rights of the Child (ANDI). He has also worked with the Centre for Media and Political Studies (NEMP) at the University of Brasilia.

Luisa Adib (Cetic.br, Brazil)

Luisa Adib holds a Master of Science in Policy Management (School of Arts, Sciences and Humanities of the University of São Paulo) and a Bachelor's degree in Public Policy Management (University of São Paulo). She is an Information Analyst at Cetic.br, where she coordinates the ICT Kids Online Brazil survey. She worked as a researcher at the Brazilian Centre for Analysis and Planning – Cebrap, namely on the themes of culture and urban mobility. She also worked as an analyst in social mobilization projects developed by the Itaú Social Foundation, specializing in training activities in reading mediation, financial education and reducing school drop-out rates among socially vulnerable young people.

Patricio Cabello (Kids Online Chile)

Patricio Cabello has a psychology degree from the Universidad Central de Chile, a PhD in Social Psychology from Universidad Complutense de Madrid, a Master's degree in Social Research Methods from the Universidad Complutense de Madrid and a Master's degree in Anthropology and Development from the University of Chile. He is a Researcher at the Centre for Advanced Research in Education, University of Chile. His research focuses on digital skills training and its implications for social inclusion, participation, citizenship and education. He also studies collaborative learning and its relationship to skills development for the twenty-first century. He has been a consultant for UNESCO and UNICEF on projects of digital inclusion of children and adolescents. He has participated as a principal investigator in several projects (FONDECYT 11140751, PLU140009, Kids Online Chile) and as a co-investigator in others (FONDECYT 1191704, FONDECYT 1180443). He also serves as coordinator of the Digital Citizenship Committee of the Common Action Forum Foundation and helps coordinate the Digital Citizenship Network.

Magdalena Claro (Kids Online Chile)

Magdalena Claro is the Academic Director of the Observatory of Digital Educational Practices and assistant professor at the Faculty of Education of the Universidad Católica de Chile. She is also a researcher-member of the CEPPE-UC. She has worked on national and international projects related to digital technologies in education, particularly those pertaining to defining, evaluating and developing students' digital skills. Her main research interests are related to the digital society and new divides, teaching and learning in digital environments and digital skills development. Her current research projects are focused on digital inclusion, the effects of the Internet on new generations and teaching and learning strategies in digital environments.

Amaranta Alfaro (Kids Online Chile)

Amaranta Alfaro is a doctoral candidate at the Graduate School of Communication and Media, Universität Hamburg, Germany. She has a fellowship at the Centre for Social Conflict and Cohesion Studies (COES) in Chile. She holds a Master of Arts Erasmus Mundus in Media, Communication and Cultural Studies from Roskilde University, Denmark, and the University of Kassel, Germany. She is currently an adjunct professor in the Department of Journalism and a researcher at the Communication Faculty of the Universidad del Desarrollo in Santiago, Chile; a research assistant for the Social Media Performance Project; and a member of the Kids Online Chile research group. Her research focuses on the possibilities of integration and citizen participation through social media and ICTs in Chile and Latin America, as well as the relationship between social media and journalism.

Juan Manuel Ochoa (Kids Online Chile)

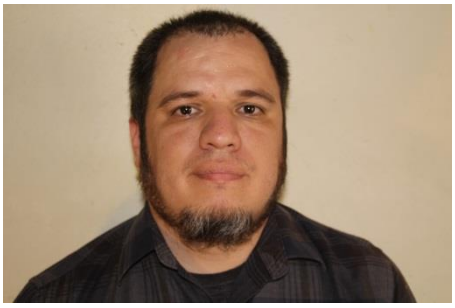
Juan Manuel Ochoa is an adjunct professor at the Faculty of Psychology at the Universidad Católica Silva Henríquez and at the Universidad San Sebastián. He also serves as the National Coordinator of Inclusion, Human Rights and Gender Equality in Chile for the Organization of Ibero-American States (OEI). He has worked on various national and international projects related to education and technology, educational policies and inclusion. His areas of research interest include addressing the new digital divides, the effects of incorporating technologies in education systems, and non-formal learning practices. He is currently working on projects linked to mediation by teachers in digital environments.

Matías Dodel (Kids Online Uruguay)

Matías Dodel holds dual sociology (Universidad Católica del Uruguay) and psychology degrees, with a Master's degree in Sociology (Universidad de la República, Uruguay) and a PhD in Sociology (University of Haifa, Israel). He is specialized in Information Society, Public Policies and Poverty/Inequality, and is an active researcher (Level I) in the National System of Researchers (Uruguay), and adjunct professor for the Communication Department of the Catholic University of Uruguay (UCU). Since 2013, he has been the Coordinator of the UCU's "The People's Internet" research group and is in charge of the Uruguayan chapters of the World Internet Project, DiSTO project and Kids Online Uruguay. He also works as an Information Society expert for the Agency for the Development of Electronic Government and Information Society and Knowledge (AGESIC) for the Office of the President of the Republic of Uruguay, where he works on the design and analysis of the official national surveys on ICT uses (EUTIC – 2010, 2013, 2016, 2019).

Rolando Pérez (Universidad de Costa Rica)

Rolando Pérez is a professor at the Universidad de Costa Rica. He holds a Bachelor's degree in Psychology from the Universidad de Costa Rica and a PhD in Sociology from the Goethe University Frankfurt, Germany. He is a professor at the School of Psychology and researcher at the Institute of Psychological Research of the Universidad de Costa Rica. He is also a member of the International Communication Association (ICA) and the American Psychological Association (APA). He is involved in the Latin America Kids Online network. His areas of research interest are the psychology of uses, reception and the effect of information, communication and entertainment technologies on social cognition. Other related areas of interest include intercultural research, youth, social cognition, identities and intergenerational communication.



David Torres (Universidad de Costa Rica)

David Torres has a Bachelor's degree in Psychology from the Universidad de Costa Rica and a Master's degree in Psychological Research from the Institute of Psychological Research at the Universidad de Costa Rica. He currently works as a professor and Psychology Research Coordinator at the Universidad de Iberoamérica. His research interests focus on human interactions, whether with other humans (partner selection, competition, stereotypes, perceived quality of relationships, computer-mediated communication) or with technological media (use of media, video games, mobile phones).

Amalia Palma (ECLAC)

Amalia Palma is a Research Assistant at ECLAC's Social Development Division. She holds a Bachelor's degree in Economics from the University of Chile and a Master's degree in Social Policies in Developing Countries from the LSE of the University of London. She has worked at ECLAC since 2008, where she has collaborated on various projects related to malnutrition, cost analysis, social investment, social protection and recently the impact of changes in the digital age on social inclusion. She is currently working on issues related to digital citizenship and Kids Online surveys.

Daniela Trucco (ECLAC)

Daniela Trucco is a Social Affairs Officer at ECLAC's Social Development Division, where she has worked on education, children, youth and digital society issues since 2009. She has spent her career working in research and social policy consulting with a focus on social inclusion and bridging divides in Latin American and Caribbean countries. She has a Sociology degree from the Universidad Católica de Chile and holds a Master's degree in Public Policy and Business Administration from the University of Maryland, USA. Some of her most recent publications include: "*Inclusión digital en la infancia en sociedades marcadas por la desigualdad*"; "*Las violencias en el espacio escolar*"; and "*Juventud: realidades y retos para un desarrollo con igualdad*".

Fernanda Rojas (ECLAC)

Fernanda Rojas is a Consultant at ECLAC's Social Development Division. She has a Sociology degree from the Universidad Diego Portales. She completed her PhD thesis as part of the project FONDECYT 1171072 (justice, legitimacy and social change), focusing on topics on procedural justice and status in teaching. She has worked at ECLAC since 2019 and has mainly provided assistance as a data analyst for the Latin America Kids Online Project.

The spread of the digital age across Latin America has brought with it disparities that exacerbate existing inequalities in access to information and knowledge. This makes social inclusion more difficult for some, as their abilities to develop the basic skills needed to fully participate in modern society are limited. To guarantee that all citizens can acquire the skills they need for the future, a series of measures must be implemented to improve access to technology, enhance the quality and relevance of lifelong learning and capacity-building opportunities, bridge historical achievement gaps and inequalities for the entire population, and ensure concerted efforts are made to level the playing field. This report is based on the research findings from the Latin America Kids Online network in four countries: Brazil, Chile, Costa Rica and Uruguay, with the aim of promoting the reflectionabout public policies on children and adolescents in the digital age, based on empirical data.

In Latin America, the spread of the digital age has been accompanied by gaps that have exacerbated existing inequalities in access to information and knowledge. This has further hindered the social inclusion of part of the population, who are limited in their ability to develop the basic skills needed to participate fully in modern society. To ensure that all citizens can acquire the skills they need for the future, a series of measures must be implemented to improve access to technology, enhance the quality and relevance of lifelong learning and capacity-building opportunities, close long-standing achievement gaps and inequalities for the entire population, and ensure that concerted efforts are made to provide equal opportunities. This report has been prepared on the basis of surveys carried out by the Latin America Kids Online network in four countries of the region —Brazil, Chile, Costa Rica and Uruguay—, with the aim of promoting an evidence-based approach to reflecting on public policies for children and adolescents in the digital age.

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