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GLOBAL KIDS ONLINE
Comparative report

November 2019

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UNICEF OFFICE OF RESEARCH – INNOCENTI

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Executive Summary

The internet is often celebrated for its ability to aid children's development. But it is simultaneously criticized for reducing children's quality of life and exposing them to unknown and unprecedented dangers. There is considerable debate about when or how children's rights – including the rights to expression, to privacy, to information, to play and to protection from harm, as set out in the United Nations Convention on the Rights of the Child – may be realized or infringed in the digital age. With more children around the world going online every day, it is more important than ever to clarify how the internet can advance children's opportunities in life while safeguarding them from harm or abuse. This requires evidence, from children themselves, that represents the diversity of children's experiences at the national and global level.

By talking to children, we are better able to understand not only the barriers they face in accessing the internet, but also the opportunities they enjoy and the skills and competences they acquire by engaging in these activities. This allows us to enquire about children's exposure to online risks and possible harms, and about the role of their parents as mediators and sources of support. In bringing children's own voices and experiences to the centre of policy development, legislative reform and programme and service delivery, we hope the decisions made in these spheres will serve children's best interests.

Below are the key insights from talking to children.

Children's Internet Access:

- Home is the most common place for children of all age groups to access the internet, especially the youngest.
- In most countries, fewer than 30 per cent of children aged 9–11 years use the internet at school at least once a week.
- A mobile phone is the device children most commonly use to access the internet.
- Children spend more time online on weekends than on weekdays.
- In some countries, children's access to the internet is fairly equal; in others, boys and older children have better access.

Parental Mediation and Support:

- Younger children are more likely than older children to either receive support from parents or have restrictions placed on their internet use by parents. In the Philippines, however, children receive more support as they get older, while in Ghana the degree of support is very low for children of all ages.
- Parents in middle-income countries (Ghana, the Philippines, South Africa) support children's internet use significantly less than parents in high-income countries.
- In countries where parents are more restrictive, the diversity of children's online activities is reduced.

Online Activities:

- More is more when it comes to online activities: The more access to and experience of the online environment that children have, the more likely they are to engage in new and diverse activities.
- Children in less affluent countries are much less likely to watch videos and play games online than children in more affluent countries.
- Children who receive less restrictive mediation from their parents are more likely to do diverse activities online – not only entertainment activities, but also informational and creative activities.
- Restricting some online activities may have the unintended consequence of also reducing engagement in other activities.

Digital Skills:

- Children's engagement in 'entertainment' activities online is associated with positive digital skills development.
- When parents restrict children's internet use, this has a negative effect on children's information-seeking and privacy skills.
- Supportive, non-restrictive approaches by parents to children's online activities are likely to be most effective for positive digital skills development.

Children's Reporting of Online Risks:

- In most countries, fewer than one third of children had been exposed to something online in the past year that had upset them.
- Children were more likely to report being upset in the past year if they had encountered hate speech or sexual content online, been treated in a hurtful way online or offline, or met someone face to face that they had first got to know online.
- There is no direct relationship between watching videos, playing games or interacting socially online and the likelihood of children being upset. But if the activity results in exposure to certain content or conduct (e.g., sexual content in a video or being harassed on a social networking site), then it may lead to a child being upset.
- The number of online activities in which children engage, the digital skills they develop and the online risks they encounter all increase as children get older. The increases in these variables are all likely to be related.
- An enabling approach to children's online activities on the part of parents slightly improves children's development of digital skills and slightly reduces their exposure to online risks in all countries except Ghana and the Philippines.

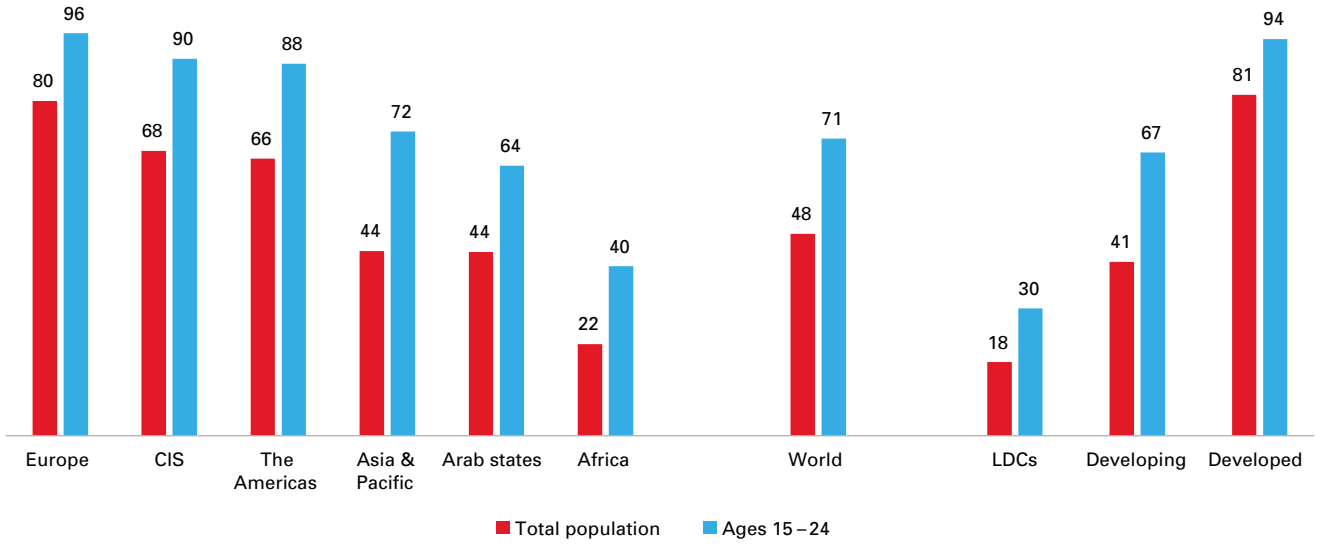
1. Introduction

It has been estimated that one in three children globally is already an internet user and, furthermore, that one in three internet users is a child (under 18 years of age).[1] Few country-specific statistics on internet use among children younger than 15 years are updated annually, but the latest International Telecommunication Union (ITU) statistics show that youth aged 15–24 years lead on internet access and use in every region of the world (*see Figure 1*). Over two thirds of youth aged 15–24 years now use the internet, compared with around half of the total population (aged 15 and over). This has major implications for how prepared adult society is – parents and caregivers, schools, policymakers – to realize young people's rights to provision, protection and participation in an increasingly digital world.

We know comparatively little about how many children worldwide have internet access, but we know even less about how they use it and with what consequences. Yet it is increasingly recognized that internet access has both positive and negative consequences for well-being and life chances. For example, in relation to the United Nations Sustainable Development Goals (SDGs), internet access and use is important for quality education (SDG 4), for good jobs (SDG 8) and to reduce inequalities (SDG 10) and has implications for targets related to the protection of children from violence (SDG Target 16.2).

In 2017, one of the flagship UNICEF annual publications was devoted to this issue. *The State of the World's Children 2017: Children in a Digital World* examined the digital opportunities increasingly open to children, including for education, for expression and to overcome disadvantage or disability.[2] It weighed the evidence for the presence of digital divides

Figure 1. Proportion (%) of individuals using the internet, by age, 2017*



Source: International Telecommunication Union.
Notes: * denotes estimates. CIS: Commonwealth of Independent States. LDCs: least developed countries.
Proportions in this chart refer to the number of people using the Internet, as a percentage of the total population, and the number of people aged 15-24 using the Internet, as a percentage of the total population aged 15-24, respectively.

1 Livingstone, Sonia, John Carr and Jasmina Byrne, 'One in Three: Internet Governance and Children's Rights', Innocenti Discussion Paper 2016-01, United Nations Children's Fund, Office of Research - Innocenti, Florence, January 2016. Available at: <www.unicef-irc.org/publications/795-one-in-three-internet-governance-and-childrens-rights.html>, accessed 12 September 2019.

2 United Nations Children's Fund, *The State of the World's Children 2017: Children in a Digital World*, UNICEF, New York, December 2017. Available at: <www.unicef.org/publications/index_101992.html>, accessed 12 September 2019.

stemming from multiple forms of inequality, most notably gender inequality and discrimination. It also examined a range of online risks of harm – although the available evidence was very limited.

It is proving challenging to extend the evidence base as internet access itself expands, and to keep the findings updated in line with internet innovations and developments. It is also challenging to ensure that the evidence reaches those policymakers making difficult decisions about how to promote and regulate the activities of the entire digital sector in ways that enable, and do not infringe, children's rights. The Global Kids Online project was initiated to meet these challenges.

1.1 Global Kids Online

The Global Kids Online network is committed to generating cross-nationally comparable and robust evidence that directly reflects children's voices, experiences and concerns. Global Kids Online began 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. Initially supported by the WePROTECT Global Alliance (2015–2016), and since then supported financially by UNICEF and LSE, the network aims to generate evidence and connect this with the unfolding international dialogue around policy and practical solutions for ensuring children's rights and well-being in the digital age, especially in the global South.[3]

The network recognizes the differences between countries and cultures around the world, and that these necessitate considered dialogue among project partners and the adaptation of common frameworks and research tools. At the same time, there are research and policy advantages to being able to compare findings directly across countries. Global Kids Online has developed a research toolkit that allows for cross-country comparisons, which was piloted by national research partners in Argentina, the Philippines, Serbia and South Africa with the support of UNICEF country offices. These partners have been instrumental in building and testing suitable research tools and in demonstrating how research results can be used to inform policy and practice.[4]

The Global Kids Online network continues to grow, and findings are emerging from multiple countries, some of them also members of our partner networks EU Kids Online and Latin American Kids Online.[5] More countries are joining the network all the time and undertaking fieldwork as capacity allows.

1.2 The research framework

The Global Kids Online key research questions are:

1. When and how does use of the internet (and associated online, digital and networked technologies) contribute positively to children's lives, providing opportunities for them to benefit in diverse ways that contribute to their well-being?

2. When and how is use of the internet (and associated online, digital and networked technologies) problematic in children's lives, amplifying the risks of harm that may undermine their well-being?

To answer these questions, the network has developed a multi-level framework.[6] This model recognizes the diversity of children's lives and many of the individual, social and country-level factors that shape children's digital experiences. At the heart of the model is the idea that the relationship between a child's identity and well-being is increasingly mediated – for better or worse – by the child's access to and use of the online environment.

A simplified version of the full model is presented below (*see Figure 2*). The areas shown in white form the focus of this report and the analysis that follows examines the relationships among these selected variables.

3 See: Global Kids Online, 'About the project', <www.globalkidsonline.net/about>, accessed 12 September 2019.

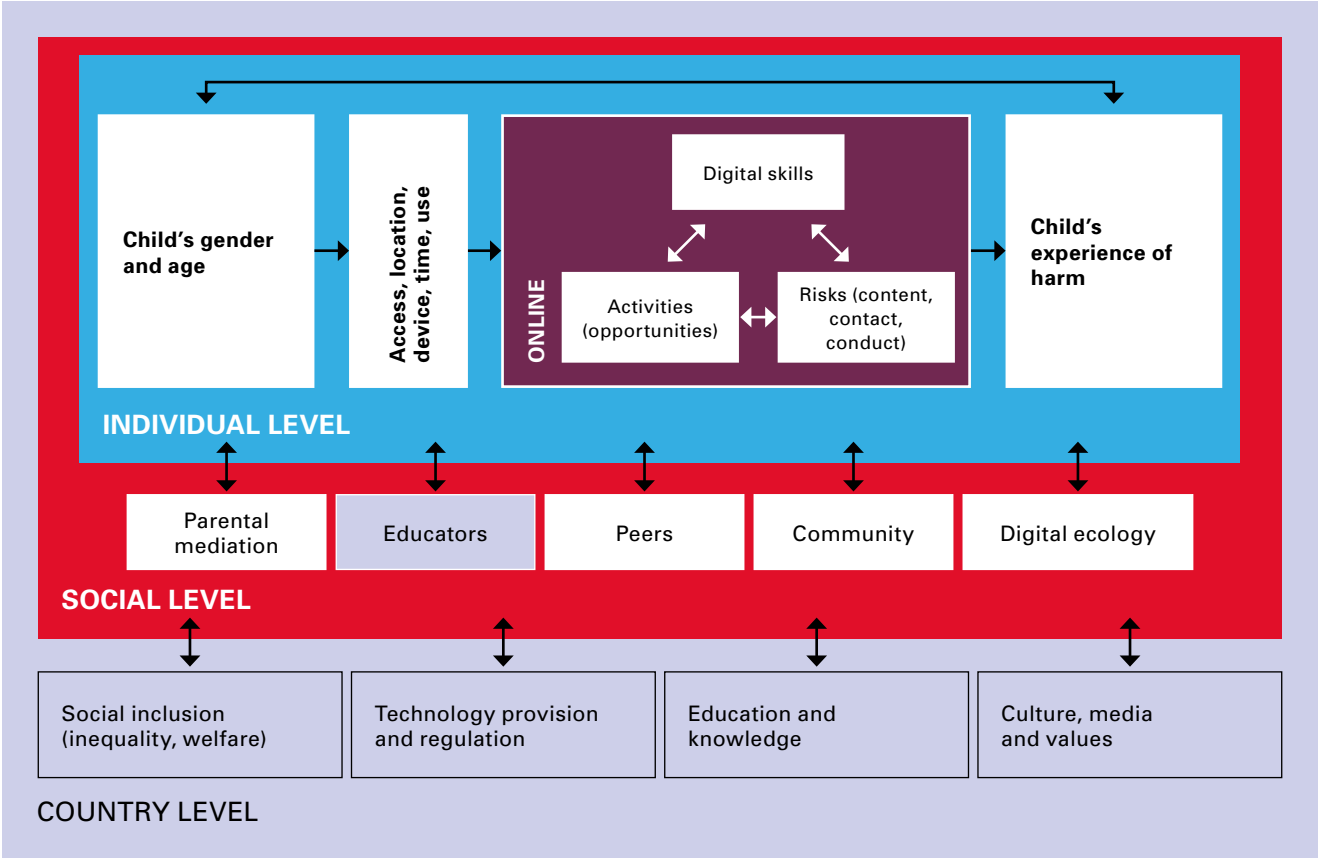
4 See: Global Kids Online, 'Tools for researchers', <www.globalkidsonline.net/tools>, accessed 12 September 2019.

5 See: Global Kids Online, 'Participating countries', <www.globalkidsonline.net/countries>, accessed 12 September 2019.

6 See: Global Kids Online, 'Research framework for online risks and opportunities', <www.globalkidsonline.net/framework>, accessed 12 September 2019.

Primary data collection focused on the individual and social level, generating findings on internet access, online activities and digital skills and risks, as well as the role of parents and others in the child's world. The factors that differentiate one country from another support interpretation of the cross-national findings (*for full details, see the individual country reports*). The purpose of our framework and analysis is to keep in balance the various opportunities and risks of growing up in a digital world.

Figure 2. Individual and social influences on child rights and well-being in the digital age



Source: Livingstone, Sonia (2016) *A framework for researching Global Kids Online: understanding children's well-being and rights in the digital age.* Global Kids Online. The London School of Economics and Political Science, London, UK.

2. Methodology

The Global Kids Online network has grown to cover 18 countries, with more than 25,000 children surveyed since 2016.[7] Together with the EU Kids Online network – which created the foundation for the Global Kids Online methodology and later applied this in its 2018 surveys – we have surveyed close to 40,000 children in more than 35 countries using comparable methodologies.

This report draws on the results of surveys conducted using the Global Kids Online methodology in 11 countries across 4 regions from 2016 to 2018. A total of 14,733 children aged 9–17 years who use the internet were surveyed, along with one parent of each child, except in Ghana and South Africa where more children were interviewed than parents. The 11 countries – Albania, Argentina, Brazil, Bulgaria, Chile, Ghana, Italy, Montenegro, the Philippines, South Africa and Uruguay – were selected because the survey data were available and ready to be shared. However, we note that some countries did not collect data for every variable included in this report, meaning that in some cases countries or age groups are omitted due to missing data. Subsequent reports will make use of additional data as these come in from new partner countries. Bulgaria and Italy were included because Global Kids Online works in partnership with the EU Kids Online network.

In addition, qualitative research, in the form of focus groups, was carried out in Albania, Argentina, Ghana, Italy, Montenegro, the Philippines, Serbia and South Africa. Quotations from the focus groups are included in the present report and further details can be found in the full country reports.

Asking children about their experiences of the internet and the contexts and consequences of their internet use is simultaneously an important means of data collection for research purposes and an important means of consulting with children. The Global Kids Online questionnaire asks children about a wide range of online experiences.

This report focuses on five broad categories from the questionnaire: access, activities, skills, risks and parental mediation. While asking children about access, activities and parental mediation is relatively straightforward, it is more difficult to ask children to assess their digital skills, or whether they have been exposed to online risks and if they experienced harm as a result. Ensuring privacy and confidentiality to the greatest extent possible, and with appropriate ethical safeguards in place, children were asked about a range of online risks and how often these occurred, and whether or not they found them upsetting.

To understand the levels of support that children have at home in regard to their use of the internet, the parent or caregiver most involved in the child's internet use was selected to participate in the survey (the presence of other adults in the household was also recorded). Throughout this report, the term 'parent' refers to the parent or caregiver most involved in the child's internet use.

Children themselves were asked questions about how their parents engage with them around their use of technology, whether in a supportive or restrictive manner, and if their parents use technological tools or other means to monitor their internet use. The Global Kids Online questionnaire was designed not to put adult ideas or assumptions into children's minds. While there is both considerable public and political anxiety about the risks children can encounter on the internet, the possibility remains that children may, for example, be exposed to sexual images online without this being experienced as problematic by the child. The questions have been designed to represent children's experiences.

7 Members of the Global Kids Online network as of September 2019: Albania, Argentina, Brazil, Bulgaria, Canada, Chile, China, Costa Rica, Ghana, India, Montenegro, New Zealand, Peru, the Philippines, Serbia, South Africa and Uruguay.

2.1 Country samples

This report brings together child and parent data collected by 11 Global Kids Online country partners (*see Table 1*), the exception being Argentina where parent data were not collected. Data were collected via a representative household survey using the Global Kids Online questionnaire from 2016 to 2018. All children were interviewed face to face at home. Sampling was representative of the internet-using population of children in each country (except South Africa, which used a regional sample). Note that the population of internet-using children may differ from the population of all children in a country. Sample design varied by country (*see section 2.3*).

Summary of the research methodology[8]

- Survey development and pilot testing in four countries from 2015 to 2016.[9]
- A detailed questionnaire aimed at children themselves, to gain a direct account of their online experiences.
- A series of equivalent core questions asked in all countries, to enable cross-country comparisons.
- Matched questions to compare online and offline risks, to put into proportion the severity of online risks.
- Follow-up questions to understand not only whether a child has engaged in a

Table 1. Details of each country sample

	Sample size	Age group (years)	Language	Fieldwork period	Institution(s)
Albania	1,000 children 1,000 parents	9–17	Albanian	2018	UNICEF Albania
Argentina	1,106 children	13–17	Spanish	2015	UNICEF Argentina
Brazil	3,102 children 3,102 parents	9–17	Portuguese	2017–2018	Cetic.br, NIC.br
Bulgaria	1,000 children 1,000 parents	9–17	Bulgarian	2016	ARC Fund, Bulgarian Safer Internet Centre
Chile	1,000 children 1,000 parents	9–17	Spanish	2016	Pontificia Universidad Católica de Valparaíso
Ghana	2,060 children 1,000 parents	9–17	Twi, Ewe, Dagbani, Hausa, etc.	2017	UNICEF Ghana
Italy	1,000 children 1,000 parents	9–17	Italian	2018	Università Cattolica del Sacro Cuore
Montenegro	1,002 children 1,002 parents	9–17	Montenegrin	2016	UNICEF Montenegro
Philippines	1,873 children 1,873 parents	9–17	Tagalog	2017–2018	UNICEF Philippines
South Africa	642 children 532 parents	9–17	English	2016	Centre for Justice and Crime Prevention
Uruguay	948 children 948 parents	9–17	Spanish	2017	AGESIC, Plan Ceibal, UNESCO, UNICEF Uruguay, Universidad Católica del Uruguay

8 For more about the Global Kids Online research methods, see: Global Kids Online, 'Tools for researchers', <www.globalkidsonline.net/tools>, accessed 12 September 2019.

9 In Argentina, the Philippines, Serbia and South Africa. For details, see: Global Kids Online, 'Global Kids Online: Research synthesis', <www.globalkidsonline.net/synthesis-report>, accessed 12 September 2019.

risky experience, but also how the child felt afterwards and if she/he spoke to someone about it.

- Matched comparison questions to the parent most involved in a child's internet use, to ascertain how well the child's experience is understood by the parent.
- Survey administration at the household level, face to face with an interviewer, most often using computer-assisted personal interviewing (CAPI) tools, with a self-completion section for sensitive questions.
- The inclusion of young children aged 9–10 years, who are often excluded from surveys.

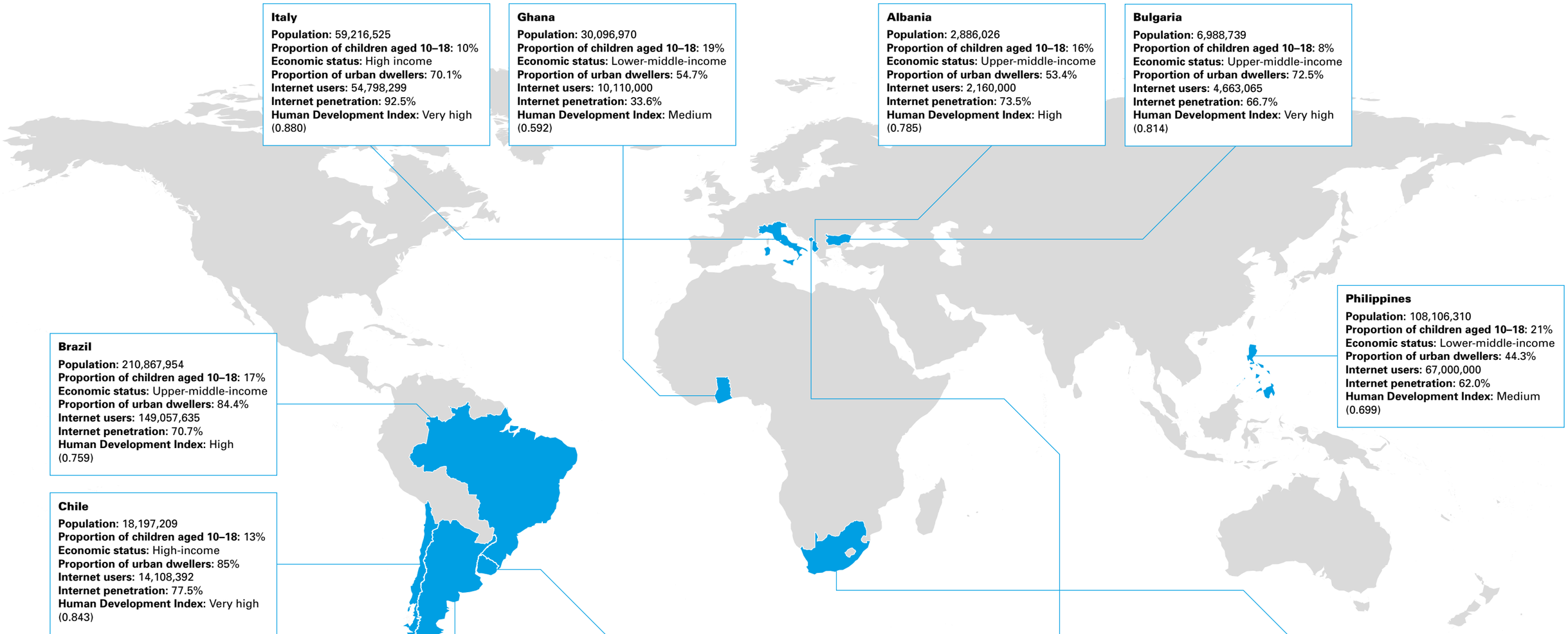
Country reports

In this report, we focus on cross-country comparisons. Information about national context and specificity is available in the individual country reports.

Country reports can be found at:

- Albania: <http://globalkidsonline.net/albania>
- Argentina: <http://globalkidsonline.net/argentina>
- Brazil: <http://globalkidsonline.net/brazilian-findings-2017>
- Bulgaria: <http://globalkidsonline.net/bulgaria>
- Chile: <http://globalkidsonline.net/chile>
- Ghana: <http://globalkidsonline.net/findings-ghana>
- Italy:<http://globalkidsonline.net/wp-content/uploads/2017/10/EU-Kids-Online-Italy-report-06-2018.pdf>
- Montenegro: <http://globalkidsonline.net/montenegro-report>
- Philippines: <http://globalkidsonline.net/pilot-philippines>
- Serbia: <http://globalkidsonline.net/serbia-report/>
- South Africa: <http://globalkidsonline.net/southafrica>
- Uruguay: <http://globalkidsonline.net/findingsuruguay>

Figure 3. Country context



Italy
Population: 59,216,525
Proportion of children aged 10–18: 10%
Economic status: High income
Proportion of urban dwellers: 70.1%
Internet users: 54,798,299
Internet penetration: 92.5%
Human Development Index: Very high (0.880)

Ghana
Population: 30,096,970
Proportion of children aged 10–18: 19%
Economic status: Lower-middle-income
Proportion of urban dwellers: 54.7%
Internet users: 10,110,000
Internet penetration: 33.6%
Human Development Index: Medium (0.592)

Albania
Population: 2,886,026
Proportion of children aged 10–18: 16%
Economic status: Upper-middle-income
Proportion of urban dwellers: 53.4%
Internet users: 2,160,000
Internet penetration: 73.5%
Human Development Index: High (0.785)

Bulgaria
Population: 6,988,739
Proportion of children aged 10–18: 8%
Economic status: Upper-middle-income
Proportion of urban dwellers: 72.5%
Internet users: 4,663,065
Internet penetration: 66.7%
Human Development Index: Very high (0.814)

Philippines
Population: 108,106,310
Proportion of children aged 10–18: 21%
Economic status: Lower-middle-income
Proportion of urban dwellers: 44.3%
Internet users: 67,000,000
Internet penetration: 62.0%
Human Development Index: Medium (0.699)

Brazil
Population: 210,867,954
Proportion of children aged 10–18: 17%
Economic status: Upper-middle-income
Proportion of urban dwellers: 84.4%
Internet users: 149,057,635
Internet penetration: 70.7%
Human Development Index: High (0.759)

Chile
Population: 18,197,209
Proportion of children aged 10–18: 13%
Economic status: High-income
Proportion of urban dwellers: 85%
Internet users: 14,108,392
Internet penetration: 77.5%
Human Development Index: Very high (0.843)

Argentina
Population: 44,688,864
Proportion of children aged 10–18: 15%
Economic status: High-income
Proportion of urban dwellers: 91.9%
Internet users: 41,586,960
Internet penetration: 93.1%
Human Development Index: Very high (0.825)

Uruguay
Population: 3,469,551
Proportion of children aged 10–18: 15%
Economic status: High-income
Proportion of urban dwellers: 95.5%
Internet users: 3,059,727
Internet penetration: 88.2%
Human Development Index: Very high (0.804)

Montenegro
Population: 620,145
Proportion of children aged 10–18: 9%
Economic status: Upper-middle-income
Proportion of urban dwellers: 64.2%
Internet users: 434,102
Internet penetration: 69.8%
Human Development Index: Very high (0.816)

South Africa
Population: 58,065,097
Proportion of children aged 10–18: 17%
Economic status: Upper-middle-income
Proportion of urban dwellers: 65.3%
Internet users: 31,185,634
Internet penetration: 53.7%
Human Development Index: Medium (0.699)

Source: Population of children aged 10–18: IndexMundi, 'Country facts', < https://www.indexmundi.com/ >, accessed 7 September 2019.

Economic status (based on World Bank classifications, based on gross national income per capita, for fiscal year 2018/19): World Bank, 'Data: World Bank Country and Lending Groups', <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>, accessed 7 September 2019.

Urban-dwelling population: World Bank Open Data, <https://data.worldbank.org>, accessed 7 September 2019.

Internet users and internet penetration: Internet World Stats, 'Internet Usage Statistics: The Internet Big Picture – World Internet Users and 2019 Population Stats', < https://www.internetworldstats.com/stats.htm >, accessed 7 September 2019.

Human Development Index: United Nations Development Programme, 'Human Development Reports: Table 1. Human Development Index and its components', < http://hdr.undp.org/en/composite/HDI >, accessed 7 September 2019.

This map does not reflect a position by UNICEF on the legal status of any country or territory or the delimitation of any frontiers.

2.2 Analysis

In this report, descriptive statistics are based on sample means derived from children's responses, most often disaggregated by age and gender. We discuss in the report only broad patterns among the descriptive findings. Given the margin for error in the survey data, we report only statistically significant differences (with the significance level set at five per cent).

Inferential statistics are based on binary logistic regression models that were theorized according to the Global Kids Online research framework (*see section 1.2*). An assumption of the research framework that was expressed in the statistical modelling is that children's experiences of the internet and the consequences of their internet use depend not only on their digital use, but also on their broader life circumstances.

2.3 Limitations

While the best possible efforts were made both when designing and administering the survey at the country level, and when analysing and comparing the data, the report inevitably has limitations. These should be considered when interpreting the results.

Limits on sampling: Each national survey was implemented by an individual team of researchers, often using its own resources, with the methodology, guidance and support provided by the Global Kids Online network. The 11 countries differed in terms of each national team's capacity and approach to conducting representative household surveys with children, resulting in some differences in the random sampling methods used. Sample quality thus varies, affecting the comparability of findings. Importantly, the population sampled in each country was internet-using children: in many countries, most children have access to the internet; in others, this is not the case. One therefore cannot make inferences about the child population in general, although it is feasible to do so for some countries. Finally, it must be acknowledged that the survey recruitment process may not have reached the most vulnerable or marginalized internet-using children due to the challenges of gaining access to their households, or because some of these children live not in households but on the street.

Questionnaire limits: While every effort was made to keep to a manageable survey length, the questionnaire took from 45 minutes to more than one hour to complete. As it can be difficult to hold children's attention for so long, it is possible that the quality of responses deteriorated towards the end of the survey.

Survey context: The questionnaire was administered in the child's home. While every effort was made to ensure privacy, reassuring children that no one would read their answers, it is both possible and understandable that children may have given socially desirable answers, especially as a parent was sometimes present.

National data: Because only age and gender breakdowns are included in this report, the findings may mask regional, socio-economic or other differences among children in a country. While we did explore socio-economic differences when preparing the report, we found that in most countries this variable did not predict many of the outcomes of interest. Note too, when comparing overall and age-specific findings, that in Argentina only adolescents aged 13–17 years were surveyed. Those interested in within-country differences should read the relevant country report, available on the Global Kids Online website.

Inferential statistics: Because data were collected at the national level within different country contexts by different country teams, each facing a particular set of challenges, not all questionnaires contained exactly the same items. This means that the statistical modelling in the following sections on activities, skills and risks has some limitations because identical models could not always be fitted in each country. We expect this did not, however, change the overall results substantially.

3. Children's Internet Access

Key findings

- Home is the most common place for children of all age groups to access the internet, especially the youngest.
- In most countries, fewer than 30 per cent of children aged 9–11 years use the internet at school at least once a week.
- A mobile phone is the device children most commonly use to access the internet.
- Children spend more time online on weekends than on weekdays.
- In some countries, children's access to the internet is fairly equal; in others, boys and older children have better access.

Internet access occupies a key position in the Global Kids Online model. It is hypothesized that access depends on a child's gender and age, and we examine in this section the importance of each of these individual factors. Access is also likely to vary by country, another variable that we examine.[10] Several dimensions of children's internet access may be significant:

- Knowing where children access the internet tells us something about who else is likely to be present (parents, teachers, peers) and how or why children may use the internet (for leisure, schoolwork, etc.).
- Knowing which devices children use matters in so far as personal devices enable more private use, while computers are more easily shared and supervised. Similarly, use of devices without a keyboard may impede children's opportunities to engage in some forms of learning and participation.
- Knowing how often children access the internet is indicative of the breadth and richness of children's internet use and has been shown to be positively associated with digital skills acquisition.

Internet access is the necessary condition for the other variables in the model, most notably activities and skills, and also the risk of harm. In later sections, we examine whether the nature or extent of children's internet access may have consequences for their well-being.

3.1 Where do children access the internet?

Children were asked in the survey questionnaire how often they use the internet at home and in school. Results are presented for the proportion of (internet-using) children in each country who said that they use the internet at home or in school at least weekly.

Using the internet from home is the most common way to go online in all 11 countries included in this report. In most of the countries, more than 90 per cent of children use the internet from home at least weekly. In Ghana and the Philippines, home access is considerably lower, with only about 50–60 per cent of children using the internet at home at least every week. In Uruguay, just over three quarters of children access the internet at home on at least a weekly basis.

Gender differences in all countries are small, though it is noteworthy that girls in the Philippines report greater access at home than boys (*see Figure 4a*). One possible explanation may relate to prevailing gender norms in the Philippines such as the expectation that girls will help with household chores and abide by strict curfews, which may restrict girls – and their internet use – to the home. It should be recalled, however, that the survey population was children who use the internet: It may be that this population definition itself includes

10 Argentina, Brazil, South Africa and Uruguay omitted in some parts of this section due to missing data. In some cases, the youngest age group in Montenegro is omitted due to missing data.

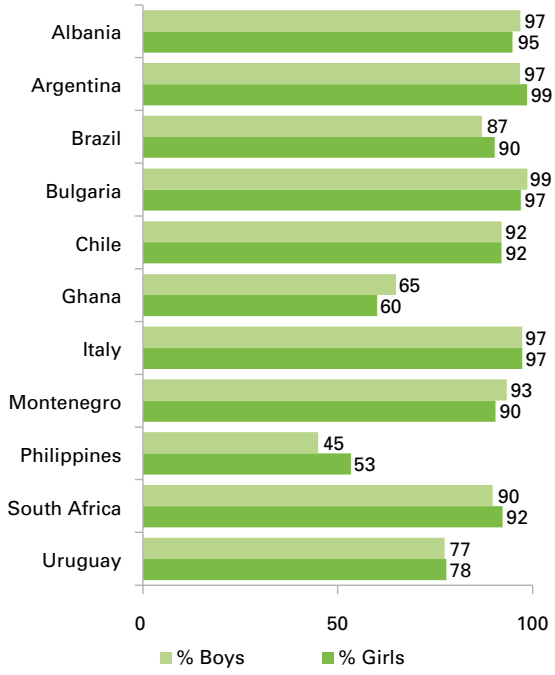
more boys than girls. In other words, it is possible that boys in a country are more likely to have internet access than girls, but among all those children in the country who have access, girls have greater access.[11]

Differences among age groups in terms of the proportion using the internet at home at least weekly are minimal in Albania, Argentina, Brazil, Bulgaria, Italy and Montenegro, even when comparing the youngest and oldest children (*see Figure 4b*).

Age differences in home use are greatest in Ghana and the Philippines. In Uruguay too, fewer children aged 9–11 years use the internet compared with those aged 12 or older. These differences may reflect parental norms or concerns regarding internet access for young children. Or it may be that parents cannot afford to provide internet access for younger children but strive to do so to support older children's learning needs. This may especially be the case in Ghana and the Philippines, the least affluent countries in our study (*see Figure 3*).

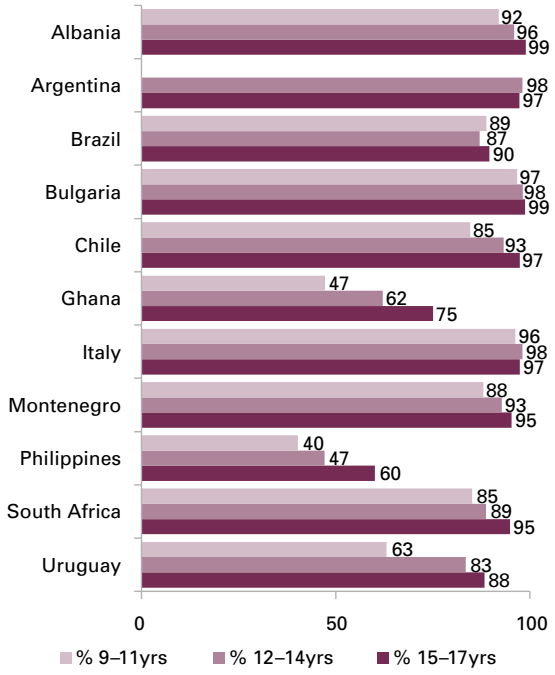
In most countries, less than half of children aged 9–17 years use the internet at school or college at least weekly. Children are least likely to use the internet at school in Albania, Brazil, Ghana and the Philippines: less than one third of children use the internet at school at least weekly in these countries.

Figure 4a. Children (%) who use the internet at home at least weekly, by gender



Question B6b: Use of internet at home at least weekly.
Base: All children who use the internet.

Figure 4b. Children (%) who use the internet at home at least weekly, by age



Question B6b: Use of internet at home at least weekly.
Base: All children who use the internet.

11 Male internet users outnumber female internet users (typically measured as those aged 14+ or 16+) in every world region except the Americas. The gender gap is closing in developed countries but increasing in developing countries, notably among those in Africa. Overall, there are 250 million fewer women than men online. See: Sey, Araba, and Nancy Hafkin (Eds.), *Taking Stock: Data and evidence on gender equality in digital access, skills and leadership*, United Nations University Institute on Computing and Society/International Telecommunication Union, Macau, 2019, p. 28. Available at: <www.equals.org/research>, accessed 12 September 2019.

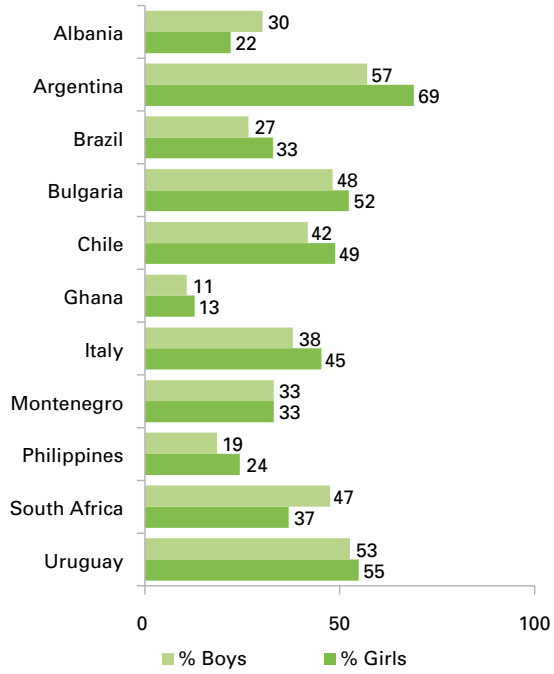
The pattern regarding gender differences is complex. Generally, gender differences in internet use at school are small and, if anything, girls report more use (*see Figure 5a*). The countries that demonstrate greater gender differences – Albania, Argentina and South Africa – tend to be those in which a larger proportion of boys use the internet at school or college at least weekly compared with girls. This suggests a bifurcation between countries: those where gender equality in children's internet access is good, and countries in which boys benefit from greater access.

There is a clear pattern as regards age: Older children are more likely than younger children to use the internet at school or college (*see Figure 5b*). This is the case for all 11 countries except Ghana, perhaps because internet access at schools in Ghana is generally quite low, with the exception of private schools.

Age differences in internet access at school are considerable in some countries, in particular Albania and Bulgaria. Such large differences in access by age may reflect distinctions between primary and secondary school and/or between public and private education systems.

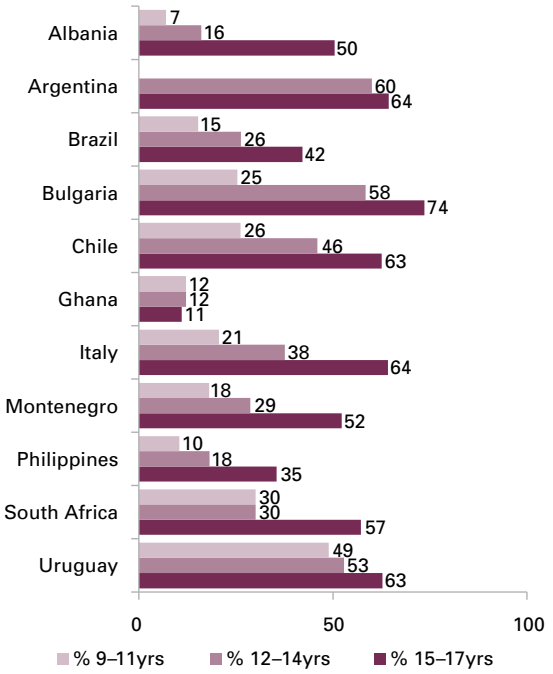
The age differences in internet use at school are greater than those seen in home use, suggesting that, for younger children especially, the home is a particularly important place to access the internet. For example, in Bulgaria, only 25 per cent of children aged 9–11 years use the internet at school, while 97 per cent of this age group use it at home. This difference is smaller for the oldest age group: among adolescents aged 15–17 years, 74 per cent use the internet at school and 99 per cent use it at home. But even for these teenagers, any 'digital divide' is less apparent at home than at school.

Figure 5a. Children (%) who use the internet at school or college at least weekly, by gender



Question B6a: Use of internet at school or college at least weekly.
Note: In Argentina and Brazil, this was asked as a yes/no question.
Base: All children who use the internet.

Figure 5b. Children (%) who use the internet at school or college at least weekly, by age



Question B6a: Use of internet at school or college at least weekly.
Note: In Argentina and Brazil, this was asked as a yes/no question.
Base: All children who use the internet.

3.2 Which digital devices do children use to access the internet?

The survey questionnaire asked about a range of devices that can be used to access the internet. In interpreting these findings, it should be recognized that technological and market innovations mean internet-enabled devices continually change in nature and in popularity. The devices used in the 11 countries are presented below – in all countries, the mobile phone is used by far the most to go online (*see Table 2*). Whether it is the desktop or laptop computer in second place varies by country; other devices are less commonly used, especially in less wealthy countries.

Table 2. Children (%) who use each type of device to access the internet at least weekly

	AL	AR	BG	BR	CL	GH	IT*	ME	PH	UY	ZA
Mobile phone	89	88	83	93	87	64	90	83	45	69	88
Desktop computer	37	60	48	32	42	14	(65)	48	30	24	30
Laptop computer	30	61	51	28	49	4	(65)	37	15	45	19
Tablet computer	26	27	41	19	23	2	35	19	16	15	38
Games console	10	20	9	16	28	0	22	7	9	8	22
Television	22	12	10	25	40	n/a	23	10	n/a	n/a	5

Question B7a–g: Devices used by children to access the internet at least weekly.
Note: * In Italy, children were asked if they used a desktop or a laptop, as a single question. Country abbreviations: AL: Albania; AR: Argentina; BG: Bulgaria; BR: Brazil; CL: Chile; GH: Ghana; IT: Italy; ME: Montenegro; PH: Philippines; UY: Uruguay; ZA: South Africa. Not all countries asked about accessing the internet via a television. Base: All children who use the internet, except in Argentina, where only internet users aged 13–17 years were asked.

In all countries but the Philippines, the majority of children use a mobile phone to access the internet at least weekly. In the Philippines, less than half of children do so, and in Ghana and Uruguay, the proportion is about two thirds. Internet users in Ghana rely heavily on mobile phones: three quarters of all web traffic from Ghana is served by mobile phone, compared with the worldwide average of 52 per cent.[12]

Qualitative findings also show that children in Ghana prefer mobile phones because of their portability and convenience, and due to the ease with which a child can access a parent or caregiver's phone.[13] In the Philippines, the relatively low cost of mobile phones compared with laptop and desktop computers may help to explain their popularity among children.

Gender differences in internet access through a mobile phone are generally small and, if anything, tipped in favour of girls (especially in Argentina), though boys have somewhat greater access to the internet via mobile phone than girls in Albania (*see Figure 6a*).

It should, however, be reiterated – here and elsewhere – that the population studied was children who use the internet, and there are greater gender differences in who acquires internet access in the first place.

In terms of age differences, it is noticeable that fewer younger children access the internet using a mobile phone compared with older children, though in most countries they are not far behind (*see Figure 6b*). This stepped pattern – greater access via mobile phone as children get older – is

12 We Are Social and Hootsuite, *Digital in 2018: Ghana*, 2018.

13 Ministry of Communications, Government of Ghana; Global Kids Online; and United Nations Children's Fund, *Risks and Opportunities Related to Children's Online Practices: Ghana Country Report – December 2017*, 2017. Available at: <https://uni.cf/2Z89Gjx>, accessed 12 September 2019.

consistent across countries. The gaps between age groups vary by country, but the largest age difference is seen in Uruguay, where less than half of children aged 9–11 years go online using a mobile phone compared with three quarters of children aged 12–14 years and almost all those aged 15–17 years. In the Philippines too, internet access via mobile phone is greater among adolescents aged 15–17 years.

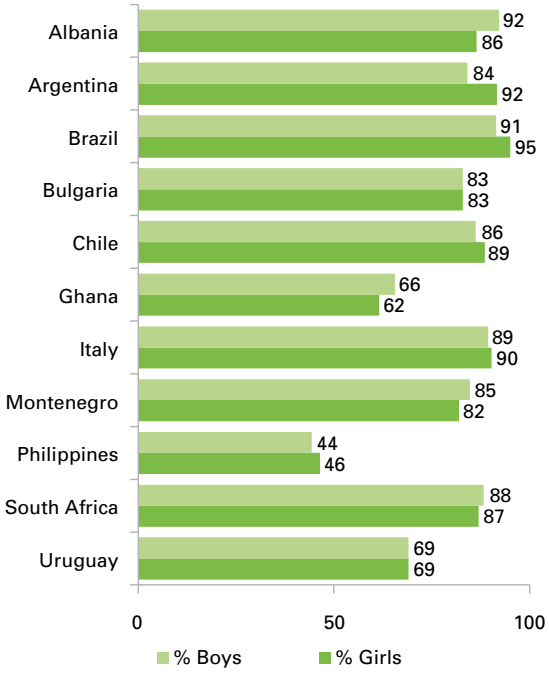
Mobile phone-enabled internet access is already greater than internet access via desktop computer in all countries. This represents a notable change in internet use over the past decade. As commentators have observed, while the first generation of internet users in the global North gained access via desktop computer, the pattern in the global South has been 'mobile first'. It is not yet clear from research whether this shift in primary device has implications for either children's online opportunities or the risks they face.

There is a more marked gender difference in children's access to the internet via desktop computer as opposed to mobile phone, with more boys than girls gaining access in this way in all countries. The greatest gender differences are seen in the Philippines and South Africa. The popularity in the Philippines of internet cafés and 'pisonets' – often male-dominated spaces – could offer one possible explanation for the observed gender gap in internet access via desktop computer.

Overall, it is unclear why boys report using desktop computers more often than girls, although their greater involvement in gaming is a possibility. Additional questions should be asked in future surveys to understand the nature and conditions of internet use through desktop computers.

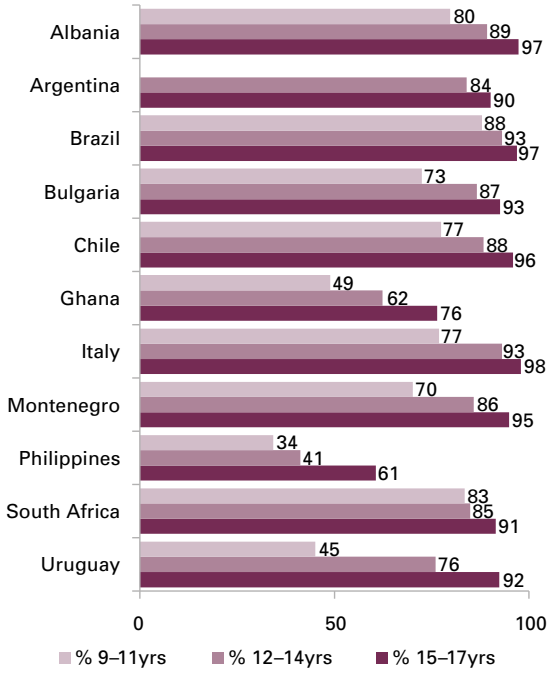
In most countries, children of different age groups seem to have fairly equal access to the internet via desktop computer (except in South Africa, where younger children have notably less access than older adolescents). This suggests that if parents or schools invest in desktop computers,

Figure 6a. Children (%) who use a mobile phone to access the internet at least weekly, by gender



Question B7a–b: Use of mobile phone to access internet.
Base: All children who use the internet.

Figure 6b. Children (%) who use a mobile phone to access the internet at least weekly, by age



Question B7a–b: Use of mobile phone to access internet.
Base: All children who use the internet.

they give children of all ages access to this resource.

The third device we asked about was the laptop computer. Internet access via laptop is also less common than via mobile phone, and the country pattern of internet use on laptops is similar to that of the desktop computer.

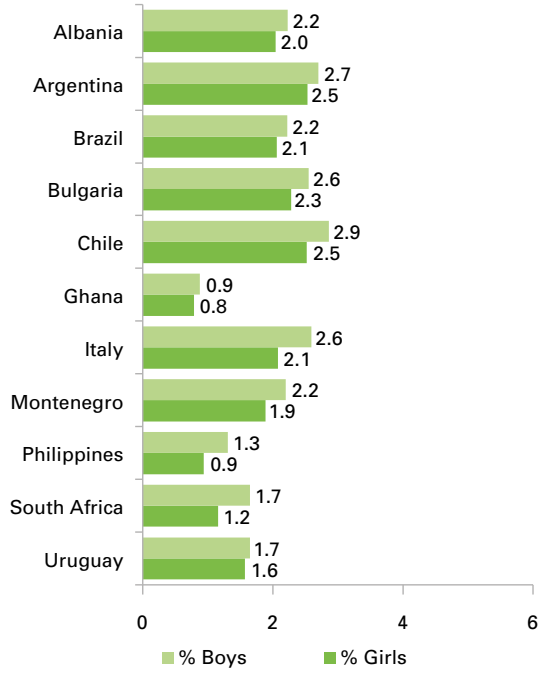
Gender differences are small, but in most countries, it is more common for boys to access the internet using a laptop. The exceptions to this are Brazil and Uruguay.

As with desktop computers, no clear age pattern is seen in the use of laptops to access the internet. In Uruguay, however, there is a clear and unusual trend in that it is the youngest children who are most likely to use a laptop to access the internet. This is likely due to Plan Ceibal, the one laptop per child policy implemented by the government.

Also informative is the average number of devices used by children to access the internet (*see Figures 7a and 7b*). Among children who use the internet at least weekly, the average number of devices used across the 11 countries ranges from just under one to almost three. It appears that the range of devices used varies by gross national income per capita (*see Figure 3*). Having access to more than one device could signal how embedded online activities are in the home, and the likely variety of social contexts of internet use, or it may reflect social norms and values regarding children's internet use.

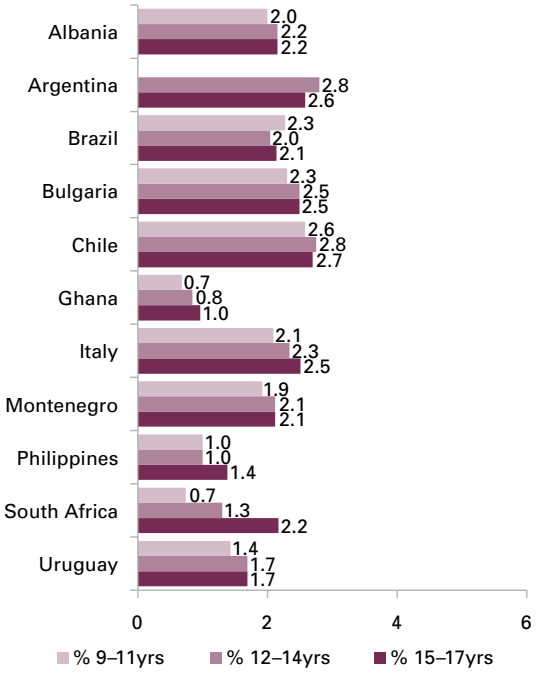
Boys have access to slightly more devices on average in most countries, with the largest gender gap seen in Italy, followed by Chile (*see Figure 7a*). Given the history of gender inequalities in digital access, it is perhaps more striking that such inequalities are relatively small, with Ghana and Uruguay the most equitable countries in this regard. Again, these claims are only valid for internet-using children.

Figure 7a. Average number of devices used by children to access the internet at least weekly, by gender



Question B7a–g: Devices used by children to access the internet at least weekly. Note: In Italy, children were asked about five devices, not six. Base: All children who use the internet.

Figure 7b. Average number of devices used by children to access the internet at least weekly, by age



Question B7a–g: Devices used by children to access the internet at least weekly. Note: In Italy, children were asked about five devices, not six. Base: All children who use the internet.

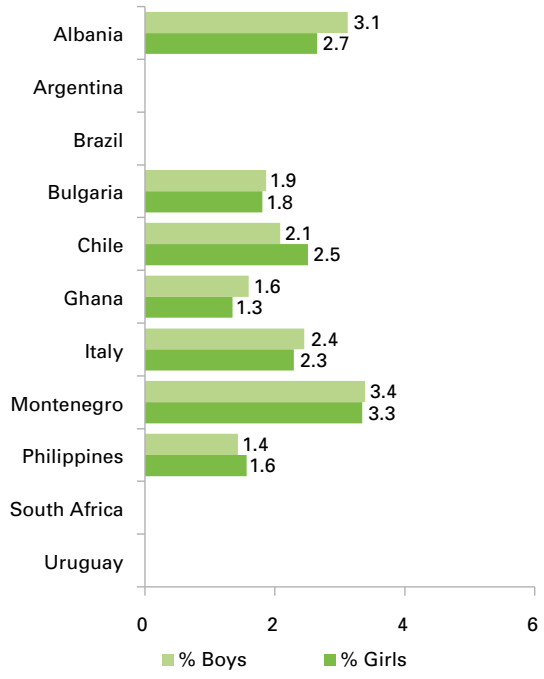
Age differences in number of devices used for internet access are also modest, except in South Africa, where it seems that older adolescents are much more likely to use multiple devices (*see Figure 7b*). Since children are more likely to access the internet at home than at school, it may be inferred that, in many countries, in families where children already use the internet, the home is a relatively egalitarian space: If a home contains multiple devices (for reasons of choice, availability or affordability), children appear almost equally likely to use those devices, whatever their age or gender. This may differ across other countries and cultures not considered here, or even within-country level – including among the 11 countries in focus.

The length of time that children spend online has long been a concern for parents and policymakers alike, although methodologists point out that it is difficult for people to estimate time use, especially for the internet (given that internet use is not always salient and may seem more or less continual). The survey questionnaire includes an optional question about time spent online. In those countries that did ask children the question, internet use hovers around two hours on a weekday – more in Albania and Montenegro, less in Ghana and the Philippines (*see Figure 8a*). Gender differences in time spent online vary across the countries – boys spend longer online in Albania and Ghana, whereas girls take the lead in Chile and the Philippines.

Age differences in time spent online are more marked, with children in every country spending progressively longer online as they grow older (*see Figure 8b*). It is interesting to consider whether this represents a reasonable pattern that aligns with children's needs at different ages, or whether younger children are currently underserved and would likely benefit if they had greater access to the internet.

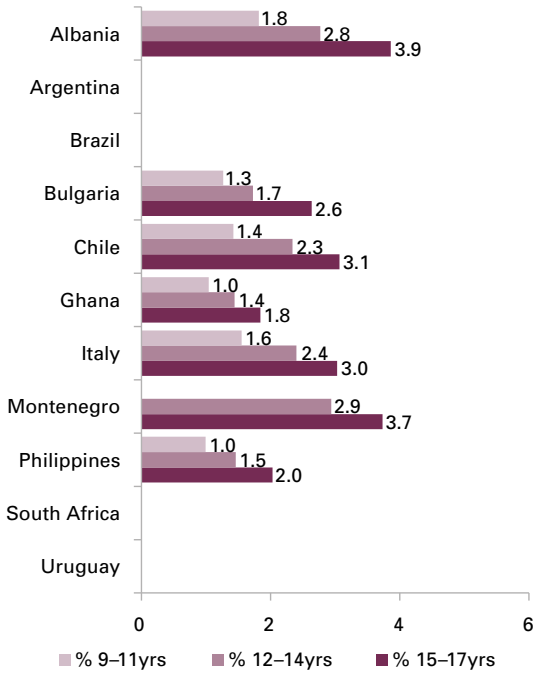
As shown in the following two figures, the patterns for time spent online at the weekend are

Figure 8a. Average number of hours spent by children on the internet on a weekday, by gender



Question B11: About how long do you spend on the internet on an ordinary weekday? Base: All children who use the internet.

Figure 8b. Average number of hours spent by children on the internet on a weekday, by age

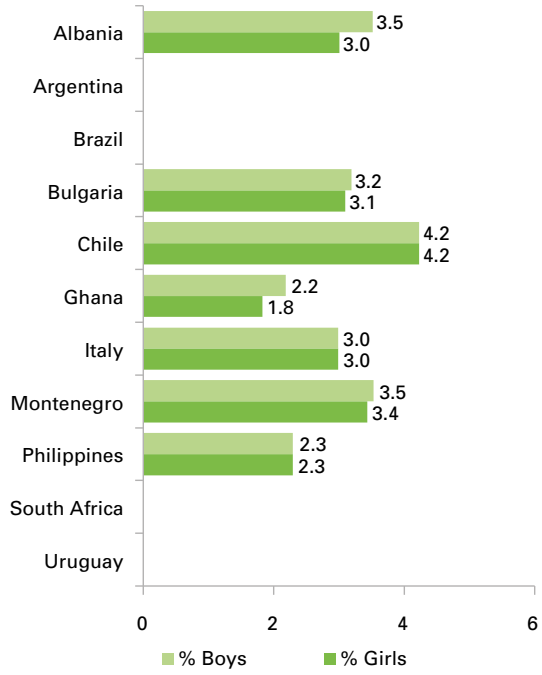


Question B11: About how long do you spend on the internet on an ordinary weekday? Base: All children who use the internet.

similar to those for weekday use as regards the country variation (*see Figures 9a and 9b*). But the overall amount of time spent online rises at the weekend in all countries except Montenegro. The biggest rise is in Chile, where the gender difference also disappears – indeed, boys in Chile report doubling their time online at the weekend (*see Figures 8a and 9a*). Children in Bulgaria also use the internet to a much greater extent on weekends than on weekdays.

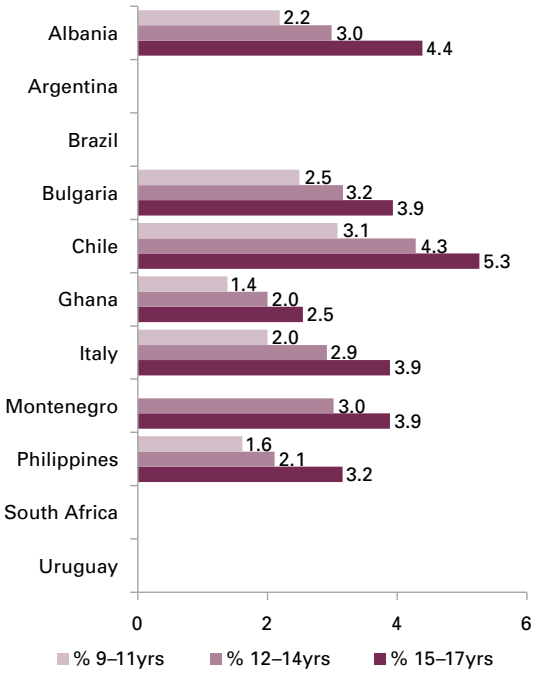
Although children in most countries spend longer online at the weekend than on a weekday, the previously observed age differences are maintained, with adolescents aged 15–17 years spending the longest online, at between 2.5 and 5.3 hours on average, depending on the country (*see Figure 9b*).

Figure 9a. Average number of hours spent by children on the internet at the weekend, by gender



Question B12: About how long do you spend on the internet on a day at the weekend? Base: All children who use the internet.

Figure 9b. Figure 9b. Average number of hours spent by children on the internet at the weekend, by age



Question B12: About how long do you spend on the internet on a day at the weekend? Base: All children who use the internet.

4. Parental Mediation and Support

Key findings

- Younger children are more likely than older children to either receive support from parents or have restrictions placed on their internet use by parents. In the Philippines, however, children receive more support as they get older, while in Ghana the degree of support is very low for children of all ages.
- Parents in middle-income countries (Ghana, the Philippines, South Africa) support children's internet use significantly less than parents in high-income countries.
- In countries where parents are more restrictive, the diversity of children's online activities is reduced.

Generally, children receive support from a wide range of people in their networks: Peers, siblings, parents and other relatives are all important sources of support.

Parents play a central role in ensuring their children's safety and development, both offline and online. The Convention on the Rights of the Child highlights parents as guardians of many child rights, trusting them to provide direction and guidance so that these rights may be realized, while at the same time respecting the child's evolving capacities (e.g., articles 5 and 14). Raising children who are increasingly connected online poses new challenges for parents (and caregivers) to find ways to keep their children safe while allowing them to take advantage of the opportunities available in the digital environment.

Specifically, in relation to the internet, many parents feel uncertain as to how to manage children's internet use – or lack the confidence or competence to do so – faced with complex and fast-evolving technologies in the hands of their seemingly digital-savvy children. Traditionally, parents have pursued restrictive strategies – aiming to limit or ban particular online activities so as to minimize online risks. Findings from this report and from other research suggest, however, that enabling strategies can be more effective in maximizing children's online opportunities, including the chance to develop resilience to risks, while also reducing conflict between parent and child.[14]

This section looks at the types of mediation that parents practise with regard to their children's internet use.

4.1 How do parents support children when they use the internet?

Enabling parental mediation

To measure enabling parental mediation, children were asked if, while they use the internet, their parent/caregiver does at least one of the following often or very often:

- Encourages me to explore and learn things on the internet.
- Suggests ways to use the internet safely.

The proportion of parents who engage in enabling mediation on this basis varies across the 10 countries, from less than one fifth of parents to almost three quarters of them, according to their children.[15] Enabling mediation is most common in the three Latin American countries included in the survey – Brazil, Chile and Uruguay (*see Figures 10a and 10b*). Enabling mediation is least common in Ghana, the Philippines and South Africa.

14 Livingstone, Sonia, and Jasmina Byrne, 'Parenting in the Digital Age: The challenges of parental responsibility in comparative perspective', in *Digital Parenting: The Challenges for Families in the Digital Age*, edited by Giovanna Mascheroni, Cristina Ponte and Ana Jorge, Nordicom, Gothenburg, 2018, pp. 19–30.

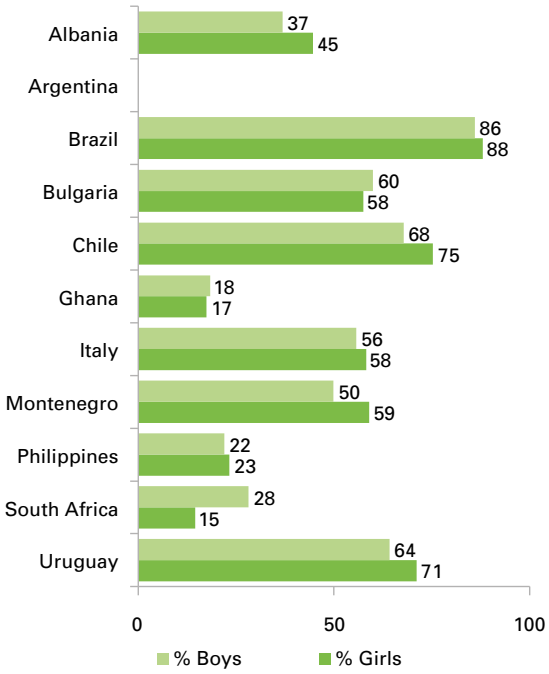
15 Argentina omitted in this section due to missing data. In some cases, Brazil is omitted due to missing data for some variables.

Prior research has suggested that parents are most inclined to restrict the internet use of their daughters, for the sake of their safety.[16] The present study found, however, that in most countries, girls are somewhat more likely to report that their parents engage in enabling mediation (*see Figure 10a*). The exceptions are Bulgaria, Ghana and South Africa, where boys are equally or more likely to report parental enabling mediation.

In most countries, more younger children than older children report a higher degree of parental enabling mediation (*see Figure 10b*). This may be because parents see a need to support younger children, or because younger children rely more on their parents for support, while older children may rely more on their peers.

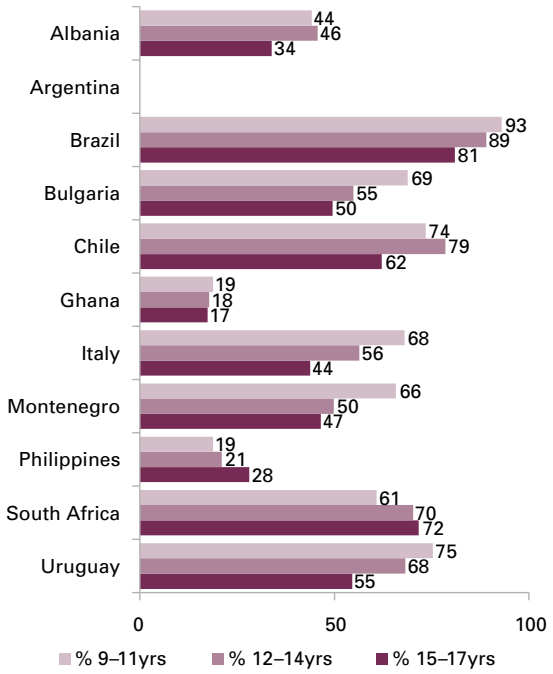
Ghana and the Philippines, the countries with the lowest rates of parental enabling mediation overall, do not follow this pattern, however. In Ghana, enabling mediation is consistently low across all age groups; in the Philippines, more older children receive enabling mediation from their parents or caregivers. The low levels of parental mediation overall may be reflective of parents' limited digital skills: Parents may rely on their children to help them navigate the internet rather than the other way around. In the Philippines, for example, as well as Bulgaria and Montenegro, parents' digital skills are roughly equivalent to those of children aged 12–14 years.

Figure 10a. Parental enabling mediation (%), by gender of child



Question I4 a–b: When you use the internet, how often does your parent/caregiver do any of these things? Parent does enabling mediation often or very often. Base: All children who use the internet.

Figure 10b. Parental enabling mediation (%), by age of child



Question I4 a–b: When you use the internet, how often does your parent/caregiver do any of these things? Parent does enabling mediation often or very often. Base: All children who use the internet.

16 Livingstone, Sonia, et al., 'Young adolescents and digital media: Uses, risks and opportunities in low- and middle-income countries – A rapid evidence review', Gender and Adolescence: Global Evidence (GAGE), Overseas Development Institute, London, 2017.

Restrictive parental mediation

To measure parental restrictive mediation, we asked children whether or not their parent/caregiver allows them to do the following online activities:

- Use a web or phone camera (e.g., for Skype or video chat).
- Download music or films.
- Visit a social networking site (e.g., Facebook).

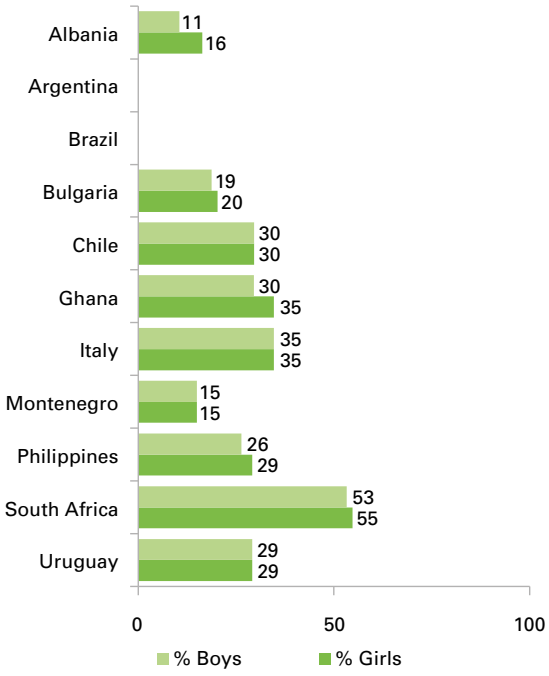
If a child was not allowed to do at least one of these activities, we considered her/his parent as engaging in restrictive mediation. Note that restrictive and enabling mediation are not mutually exclusive approaches.

The number of children who receive parental restrictive mediation is fairly consistent across the countries. In most countries, around one third of parents reportedly practise restrictive mediation, with South Africa home to the largest proportion of parents who employ restrictive mediation (close to 55 per cent). Comparatively fewer children in Albania, Bulgaria and Montenegro report restrictions. This may be due to a lack of parental awareness about online risks and opportunities. In Bulgaria's case, another possibility is that a high proportion of parents work abroad and therefore cannot monitor or mediate their children's internet use directly.

As with enabling mediation, there are few gender differences in terms of restrictive mediation (*see Figure 11a*). In fact, excluding Albania and Ghana, the findings appear to contradict assumptions that girls' internet use is monitored and restricted more than boys' use – at least in the other seven countries included here.

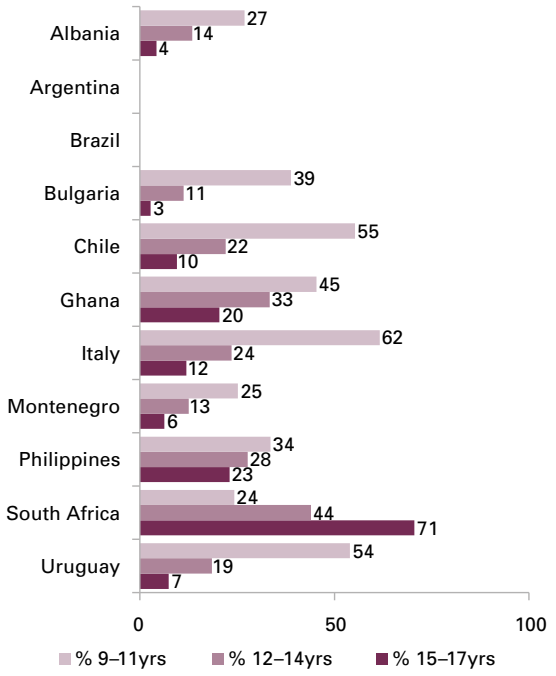
In terms of age differences, younger children are more likely than older children to have

Figure 11a. Parental restrictive mediation (%), by gender of child



Question I6 a–c: Does your parent/caregiver allow you to do the following things on the internet and, if so, do you need their permission to do them? Parent not allowing child to do one or more activities. Base: All children who use the internet.

Figure 11b. Parental restrictive mediation (%), by age of child



Question I6 a–c: Does your parent/caregiver allow you to do the following things on the internet and, if so, do you need their permission to do them? Parent not allowing child to do one or more activities. Base: All children who use the internet.

restrictions placed on their internet use in all countries, except South Africa (*see Figure 11b*). This is not surprising; as with other aspects of younger children's lives, parents assert more control over what these children can and cannot do online and this tends to decrease with age.

There is not necessarily a relationship between enabling and restrictive mediation: How much parents do of one type of mediation may not affect how much they do of the other, and some parents may do neither. The resulting strategies – more of both, less of both, or more of one than the other – makes for four types of parenting style. This can be examined among parents within a country and also across countries.

4.2 The role of parental mediation

The countries are mapped by the proportion of children who receive enabling mediation against the proportion who receive restrictive mediation – recognizing that many children may receive both (*see Figure 12*). From this, it can be seen that in all of the countries included below, parents in the country collectively do some degree of parental mediation of both kinds.

In several countries, however, restrictive mediation is favoured more than enabling mediation (countries in the top left quadrant – Ghana, the Philippines, South Africa). Recall that children in Ghana and the Philippines have less internet access than children in the other countries. This might suggest that when internet use among children is not widespread, the discourse around children's internet use remains focused on the potential harms of the internet rather than its benefits, similar to the discourse in Europe in the late 1990s. Parents in these three countries possibly see the internet as a dangerous space for children and hence tend to restrict their children's internet use rather than encourage it.

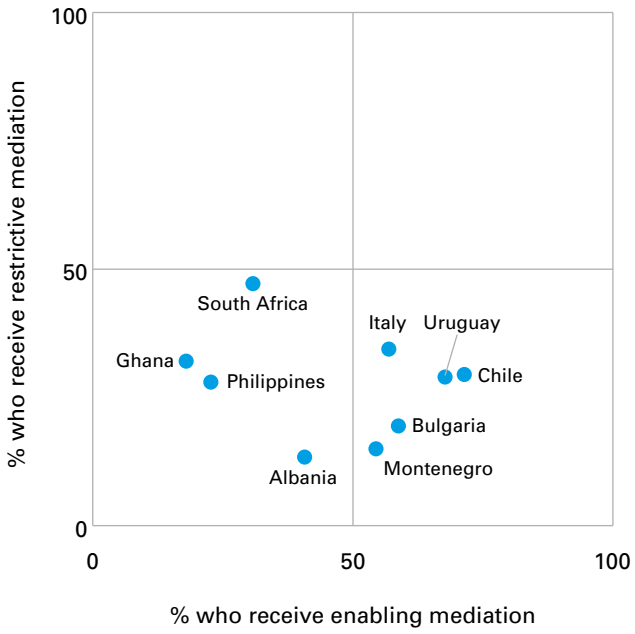
Another cluster of countries illustrates the opposite pattern – parents do more enabling than restrictive mediation (countries in the bottom right quadrant –Bulgaria and Montenegro).

Chile, Italy and Uruguay are other countries in which parents also do more enabling than restrictive mediation – but they stand out as countries with parents who do more of both It would be interesting to know if the public and policy discourses in these countries are more focused on the benefits of internet use for children.

No doubt there are cultural reasons why different strategies of parental mediation are favoured in different parts of the world, although national policy and other similar factors may also play a role.

We can also ask whether one mediation strategy is preferable to the other as regards its outcomes. Note that the survey data permit only correlational (not causal) inferences. Still, it is interesting to plot countries in terms of how much children engage in online activities as well as the mediation strategy (or strategies) used by their parents.

Figure 12. Enabling mediation (%) by restrictive mediation (%), by country



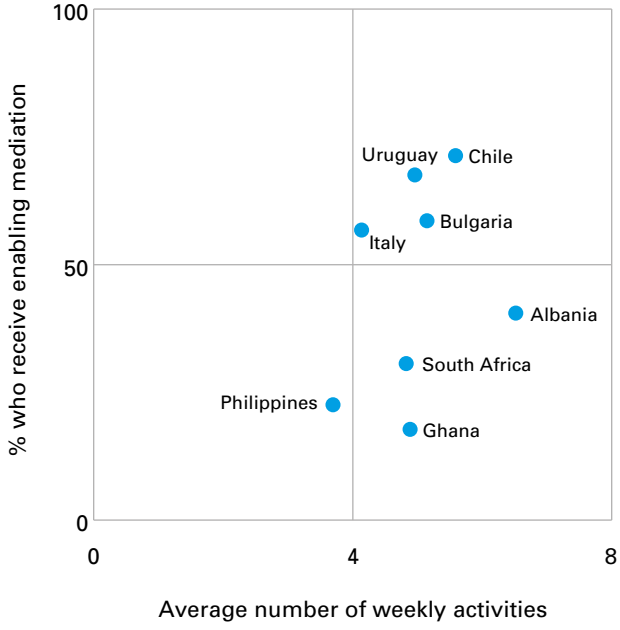
Note: For details on how restrictive and enabling mediation were measured in this analysis, refer to annex 2.

There is some association between parental enabling mediation and children's average number of online activities per week (*see Figure 13*). In other words, countries that are higher (or lower) on enabling mediation tend to also be higher (or lower) on the number of online activities. This would suggest that the more a parent uses enabling mediation, the more her/his child benefits from online opportunities.

The relationship is fairly weak, however, and several clusters of countries may be discerned, raising a series of questions for further research.

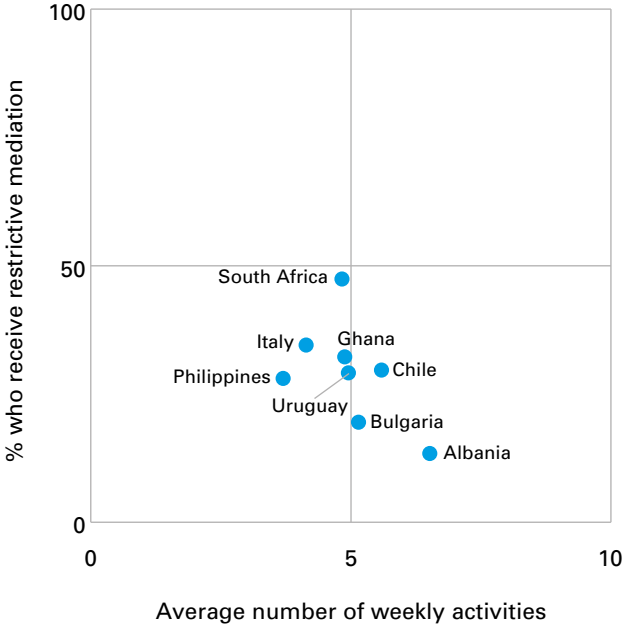
The relationship between children's online activities and parental restrictive mediation is explored below (*see Figure 14*). Here we see the opposite relationship – where parents are more restrictive, children do fewer activities online. For example, more parents use restrictive mediation in South Africa than in Albania, and we see that children in Albania do more online. It is instructive to see that, as has been found elsewhere in this report and in other research, restrictive parenting brings some costs.

Figure 13. Children's average number of activities by parental enabling mediation (%), by country



Note: For details on the online activities included in this analysis, refer to annex 1. For details on how enabling mediation was measured in this analysis, refer to annex 2.

Figure 14. Children's average number of activities by parental restrictive mediation (%), by country



Note: For details on the online activities included in this analysis, refer to annex 1. For details on how restrictive mediation was measured in this analysis, refer to annex 2.

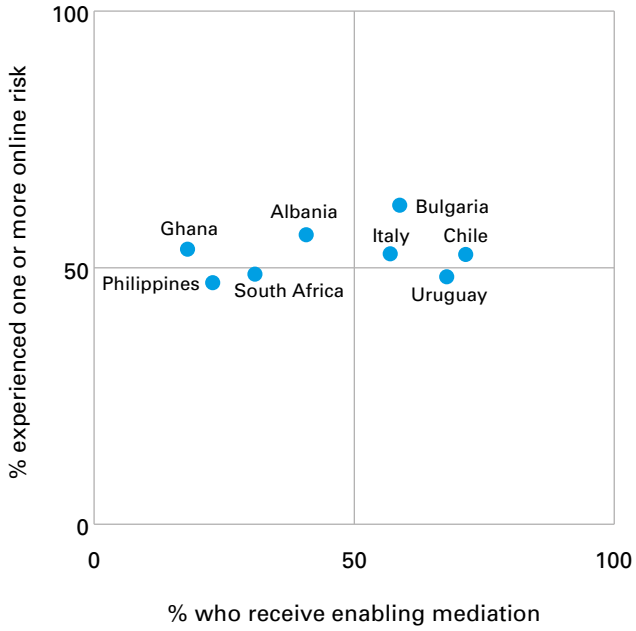
Following the Global Kids Online research framework, which recognizes the importance of both online opportunities and online risks, we also map the countries by the proportion of children who receive enabling and/or restrictive mediation against the proportion who experienced one or more online risks in the past year (*see Figures 15 and 16*).

In the first of these two figures, we see that there is no clear relationship between enabling mediation and children's experience of online risks (*see Figure 15*). For example, children in Chile and Ghana have similar risk exposure, even though many more children in Chile receive enabling mediation.

The second of the two figures shows that there is a weak association between restrictive mediation and online risks (see Figure 16).

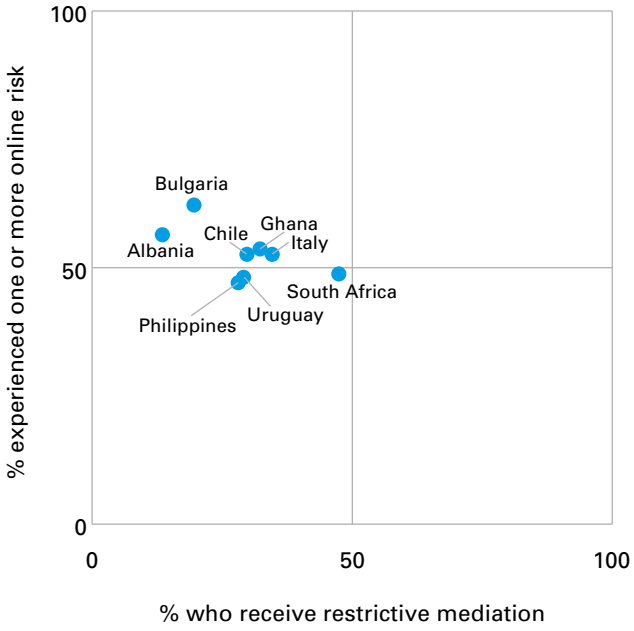
Fewer children in Albania and Bulgaria receive restrictive mediation and children in these two countries have higher exposure to online risk, while relatively more children in South Africa receive restrictive mediation and children here have lower exposure to risk. Most countries are clustered between these two extremes, however, suggesting that the impact of restrictive mediation is not very strong.

Figure 15. Children (%) who receive enabling mediation by children (%) who have experienced online risks, by country



Note: For details on the online risks included in this analysis, refer to annex 1. For details on how enabling mediation was measured in this analysis, refer to annex 2.

Figure 16. Children (%) who receive restrictive mediation by children (%) who have experienced online risks, by country



Note: For details on the online risks included in this analysis, refer to annex 1. For details on how restrictive mediation was measured in this analysis, refer to annex 2.

5. Online Activities

Key findings

- More is more when it comes to online activities: The more access to and experience of the online environment that children have, the more likely they are to engage in new and diverse activities.
- Children in less affluent countries are much less likely to watch videos and play games online than children in more affluent countries.
- Children who receive less restrictive mediation from their parents are more likely to do diverse activities online – not only entertainment activities, but also informational and creative activities.
- Restricting some online activities may have the unintended consequence of also reducing engagement in other activities.

5.1 What activities do children do online?

Children go online for many reasons, depending on necessity, personal choice and barriers or constraints. This section asks which are the more and less common activities that children engage in online. And it examines the similarities and differences seen across countries, and by gender and age. [17]

In the Global Kids Online model, children's online activities lie at the heart – they are both to be explained, for they are of interest in and of themselves, and they may have consequences for children's overall well-being, whether by enabling opportunities or by mitigating harm. In this section, we first describe children's online activities, then try to predict children's engagement with them based on other factors in the model (for example, the role of their parents). In later sections, we also examine the hypothesized consequences of children's online activities. Note that because different activities have been grouped, it is not possible to compare the findings across categories of activity, for example, it is not possible to say that children do more social activities than creative ones.

Information-seeking activities

Children were asked how often in the past month (from never to daily or more often) they had undertaken each of five kinds of information-seeking:

- I learned something new by searching online.
- I looked for information about work or study opportunities.
- I looked for resources or events about my local neighbourhood.
- I looked for the news online.
- I looked for health information for myself or someone I know.

The proportions of children who report doing at least three of the five activities above weekly or more often are presented (*see Figures 17a and 17b*). Between one fifth and two fifths of children can, according to this definition, be considered 'information-seekers', with considerable variation seen across the 11 countries and some variation also by gender (*see Figure 17a*).

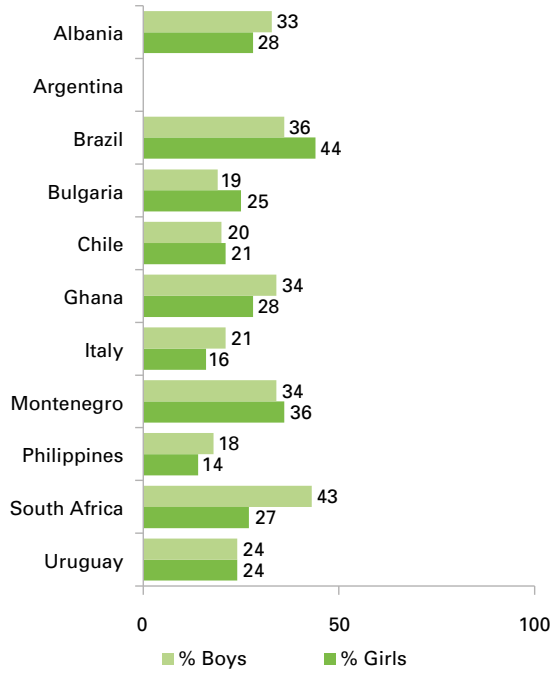
Children are more likely to be information-seekers in Brazil, Montenegro and South Africa, with lower rates in Albania, Bulgaria, Chile, Italy, the Philippines and Uruguay. In Ghana and South Africa, boys do more information-seeking activities; in Brazil, girls do more of these activities than boys.

17 Argentina omitted in this section due to missing data. In some cases, the youngest age group in Montenegro is omitted due to missing data for some activities.

In contrast, age differences in information-seeking are marked in all countries (*see Figure 17b*). Adolescents seek far more information online than younger children, raising interesting questions about whether the younger children lack interest, skills or opportunities in this area.

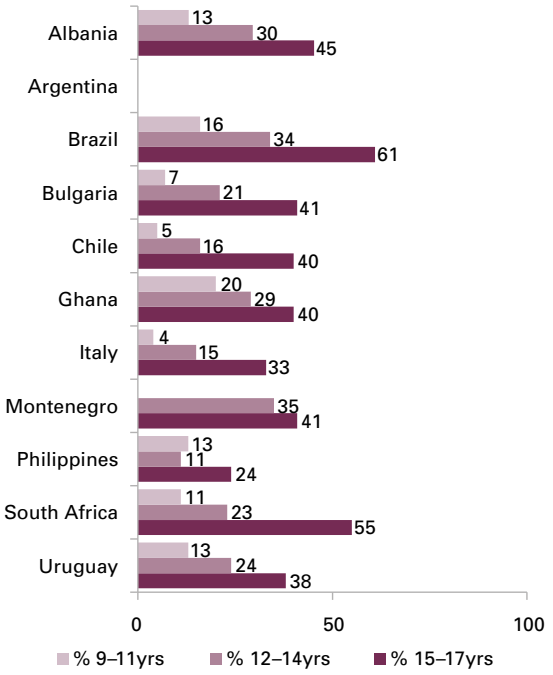
Information-seeking behaviour among children with internet access is likely to result both from children's interest and motivation and the specific information-seeking opportunities available to them. Such opportunities may depend on the ease and convenience of children's internet access and on the variety of information available to them. On the one hand, this variety is likely to be greater in larger linguistic communities with access to large amounts of information online in their languages; on the other, it may be reduced by regulation or other measures designed for child protection or other purposes.

Figure 17a. Children (%) who do three or more information-seeking activities at least weekly, by gender



Question C4: How often have you done information-seeking activities online in the past month? Base: All children who use the internet.

Figure 17b. Children (%) who do three or more information-seeking activities at least weekly, by age



Question C4: How often have you done information-seeking activities online in the past month? Base: All children who use the internet.

Creative activities

Children enjoy the creative dimension of the internet, especially in so far as it invites them to create and share content with others.

In the survey, we asked children how often in the past month they had undertaken two creative activities online:

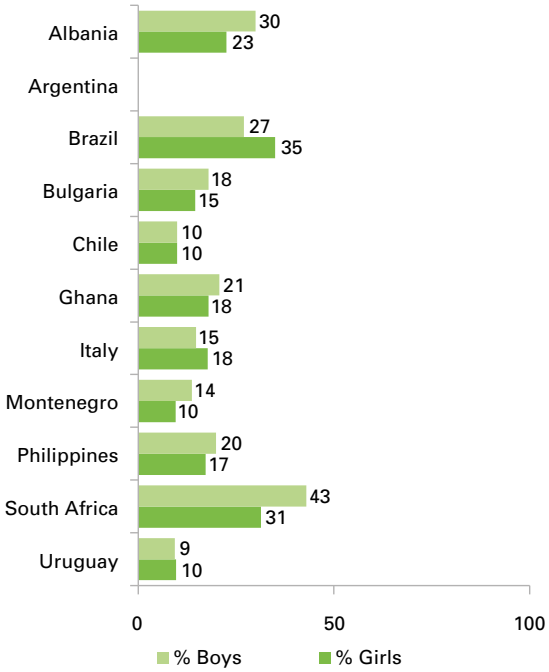
- I created my own video or music and uploaded it to share.
- I created a blog or story or website online.

The proportions of children who report doing at least one of these activities weekly or more often are shown below (*see Figures 18a and 18b*). Note that children in Uruguay were only asked about the first creative activity.

There are some notable country differences, with children in South Africa and Brazil most often undertaking creative activities online, and children in Uruguay (see limitation above) and Chile participating least often in such activities. Gender differences also vary by country, although boys are generally more likely to undertake creative activities than girls – especially in Albania, Brazil and South Africa (*see Figure 18a*).

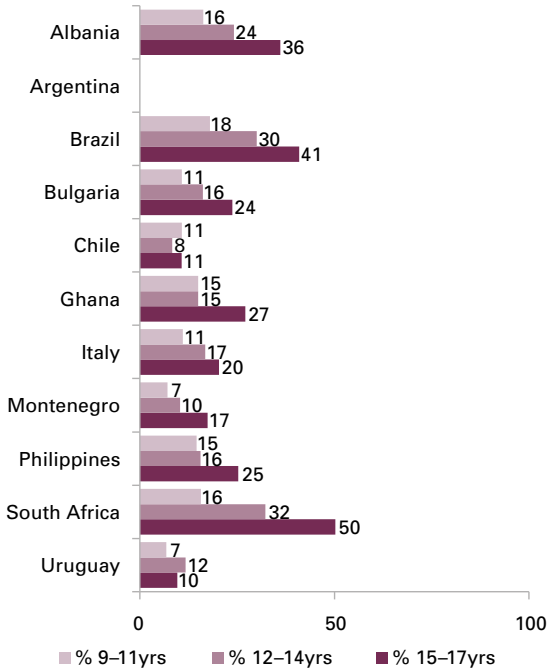
Age differences in the likelihood of undertaking creative activities online are considerable – in most countries, adolescents aged 15–17 years are engaging more often in creative activities online than younger children (*see Figure 18b*). This is not the case in Chile and Uruguay (again, note limitation with respect to Uruguay), which have the lowest levels of participation in creative activities. This raises questions about the optimum level of participation in online creativity, although it may be that children in Chile and Uruguay engage in other creative activities not considered in the survey questionnaire.

Figure 18a. Children (%) who do at least one creative activity at least weekly, by gender



Question C4m–n: How often have you done creative activities online in the past month? Note: In Uruguay, children were not asked about creating blogs online. Base: All children who use the internet.

Figure 18b. Children (%) who do at least one creative activity at least weekly, by age



Question C4m–n: How often have you done creative activities online in the past month? Note: In Uruguay, children were not asked about creating blogs online. Base: All children who use the internet.

It is worth noting that the easiest way for children to share online content is via social networking websites – also known as social media – although the minimum age for creating an account on such websites varies across countries.

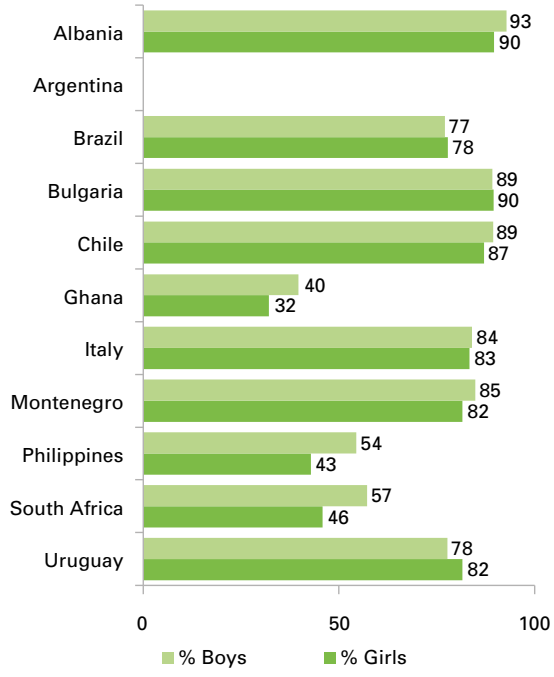
Entertainment activities

Many resources available online can potentially provide entertaining opportunities for children. As is well known, two of the most popular activities among children are watching video clips on a video-sharing platform; and playing online games, whether alone or with others, perhaps as part of a gaming community.[18]

The overwhelming popularity of watching video clips online is confirmed by the survey data (*see Figures 19a and 19b*). In almost all countries, more than three quarters of children say they engage in this activity at least weekly. The few exceptions are the relatively less wealthy Ghana, the Philippines and South Africa, where, as has already been noted, children have less internet access. Watching video clips in such countries may be less prevalent because video-streaming can be a data-intensive and thus costly activity. Interestingly, it is only these relatively less wealthy countries that display sizeable gender differences (*see Figure 19a*). This suggests that, with sufficient internet access, gender inequalities in internet use and online activities may be overcome, at least for straightforward activities that require few digital skills (*for more on digital skills, see section 6*).

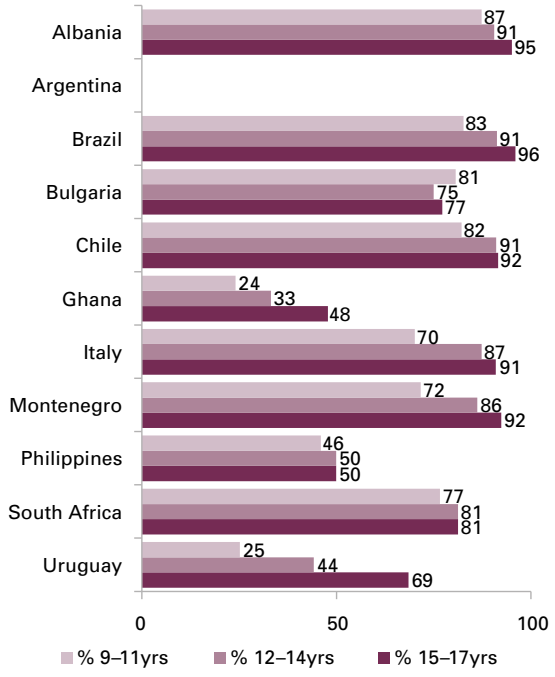
A similar finding holds for age differences (*see Figure 19b*). In Ghana and South Africa (though not the Philippines), older children are much more likely

Figure 19a. Children (%) who watch video clips at least weekly, by gender



Question C4x: How often have you watched video clips online in the past month? Base: All children who use the internet.

Figure 19b. Children (%) who watch video clips at least weekly, by age



Question C4x: How often have you watched video clips online in the past month? Base: All children who use the internet.

18 We note that watching video clips and playing games can also be educational; this is further unpacked in the following chapters.

to watch video clips online. But few age differences are seen in most other countries, where children have sufficient access to the internet.

It appears that watching video clips is a source of entertainment across the age groups; perhaps this is also an activity that can be enjoyed with other family members, whether between parent and child or among siblings. We do not, however, know from the survey what kinds of content children are engaging with, nor whether they have access to the content that they wish to see or which can benefit them. This is an area that future research should unpack further.

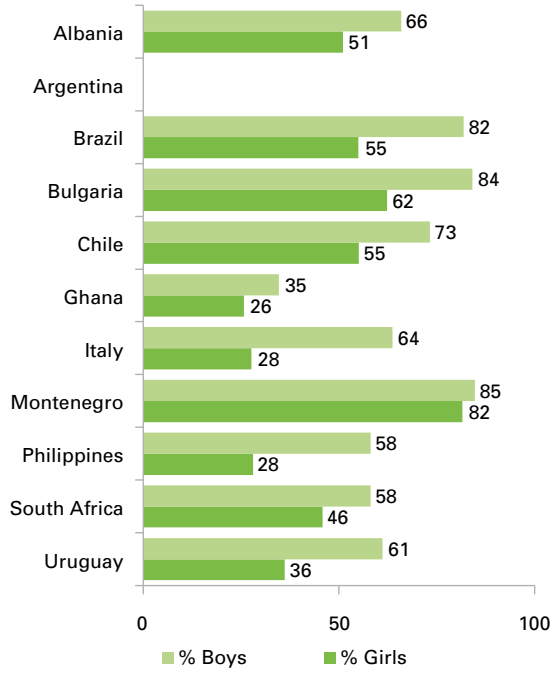
The equivalent findings for playing online games are shown below (*see Figures 20a and 20b*). For the first time, a really striking gender difference is evident: Boys are much more likely to play online games in every country with available data (*see Figure 20a*). Still, one cannot summarize this finding as 'boys play games, girls chat,' as is sometimes concluded, since between one quarter (Ghana, Italy, the Philippines) and half of all girls play online games at least weekly – rising to 62 per cent in Bulgaria and 82 per cent in Montenegro. This means that, in most countries, girls make up a significant proportion of the children who play online games. One exception is Italy, where there is a large difference in favour of boys (64 per cent of boys; 28 per cent of girls).

An additional finding is that, as for watching videos, the overall level of participation in online gaming varies by country roughly in line with children's availability of access to the internet.

Compared with previous age-related figures in this report, the figure for online gaming presents a more complex picture in terms of age differences (*see Figure 20b*). Three country patterns are discernible:

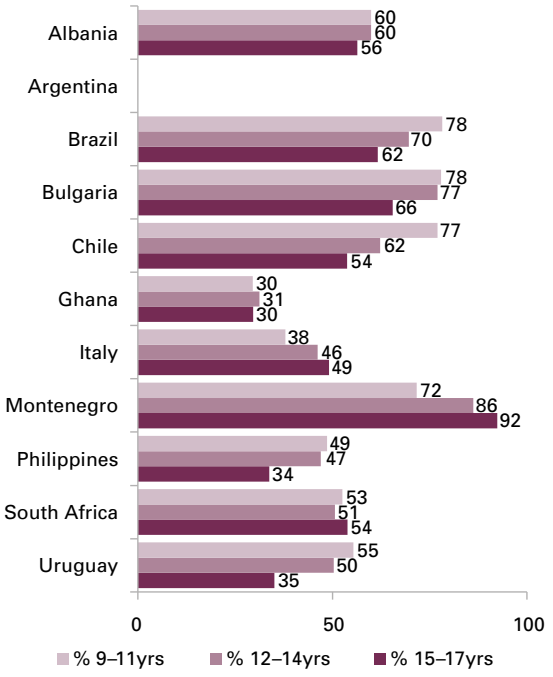
- Children of all ages play online games to a similar extent (Albania, Ghana, South Africa).

Figure 20a. Children (%) who play online games at least weekly, by gender



Question C4z–aa: How often have you played online games alone or with other people in the past month? Base: All children who use the internet.

Figure 20b. Children (%) who play online games at least weekly, by age



Question C4z–aa: How often have you played online games alone or with other people in the past month? Base: All children who use the internet.

- Older children are more likely to play online games (Italy, Montenegro).
- Younger children are more likely to play online games (Brazil, Bulgaria, Chile, the Philippines, Uruguay).

The explanation for these different patterns may lie in the 'digital parenting' culture in these countries, in the market for online games accessible by children and/or in the availability of devices on which children can play games.

Social interaction activities

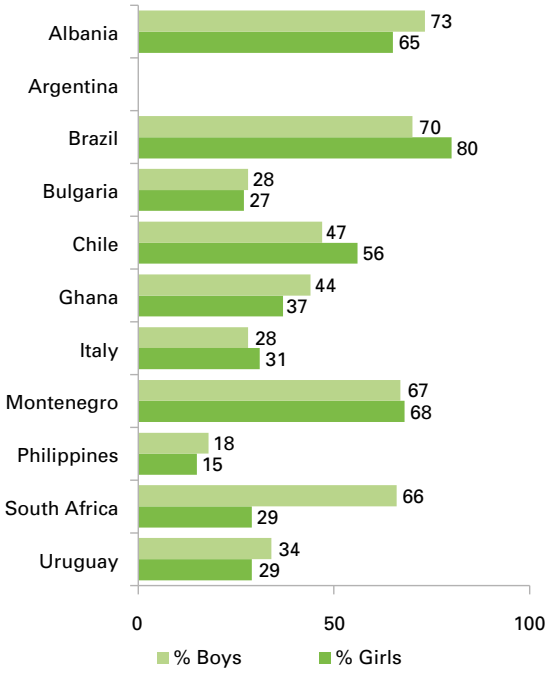
Socializing online has long been recognized as one of the most highly valued opportunities of a digitally networked society. While it certainly cannot be assumed that all social interaction online is friendly or positive in nature, often it is (*for more on online risks, see section 7*).

The survey questionnaire asked children how often in the past month they had engaged in five aspects of social interaction, namely:

- I used the internet to talk to people from places or backgrounds different to mine.
- I visited a social networking site.
- I talked to family or friends who live further away.
- I used instant messaging.
- I participated in a site where people share my interests or hobbies.

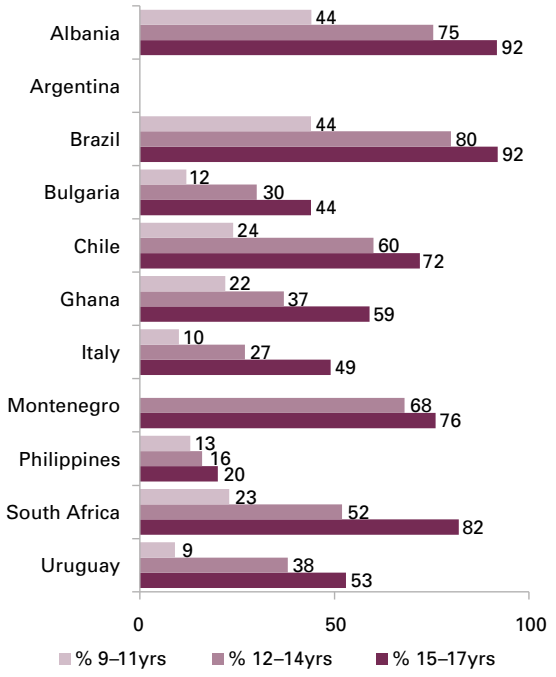
We then calculated the proportion of children who do three or more of these activities at least weekly (*see Figures 21a and 21b*). This sets a fairly high bar, as some children engage in just one or two forms of social interaction online, albeit on a potentially frequent basis.

Figure 21a. Children (%) who do three or more social activities online at least weekly, by gender



Question C4: How often have you done these social activities online in the past month? Base: All children who use the internet.

Figure 21b. Children (%) who do three or more social activities online at least weekly, by age



Question C4: How often have you done these social activities online in the past month? Base: All children who use the internet.

The findings show considerable variation by country in the proportion of children who engage in a wide range of social activities online – ranging from less than 20 per cent of children in the Philippines to around 70-75 per cent of children in Albania and Brazil.

Gender differences exist in some but not all countries, with more girls interacting socially online in Brazil and Chile, and more boys engaging in this activity in Albania and South Africa (*see Figure 21a*).

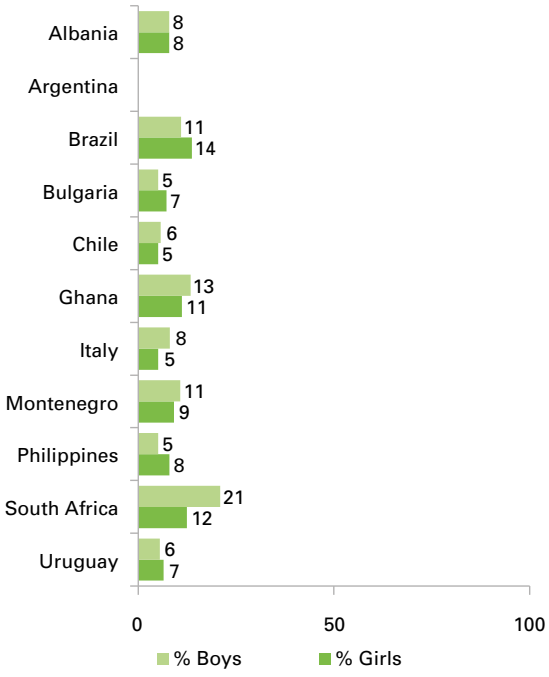
Age differences are substantial for online social interaction, with very few children aged 9–11 years engaging in three or more activities at least weekly in any country other than Albania and Brazil (*see Figure 21b*). By 15–17 years of age, the majority of adolescents are interacting socially online, however, with marked increases in engagement seen at 12–14 years of age and again at 15–17 years of age. The minimum age limits set by social media websites may explain part of this age trend, but this is unlikely to be the full explanation.

Civic engagement activities

Finally, the survey questionnaire asked children about their engagement in civic activities online. Specifically, it asked how often they had discussed political or social problems online with others in the past month. The findings show that few children do engage civically in this way, with only about 1 in 10 children in a country – or sometimes even fewer – discussing political or social problems online. Boys in South Africa represent an interesting exception to this prevailing pattern (*see Figure 22a*).

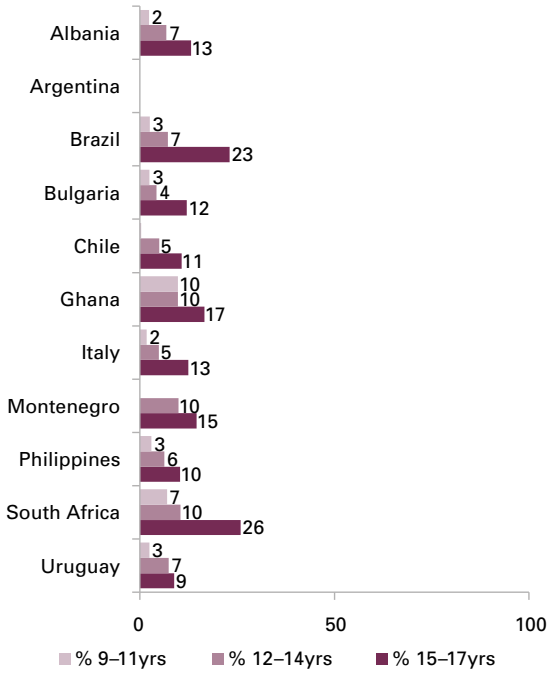
Regarding age differences, as might be expected, discussions of political or social problems appear largely concentrated among adolescents aged 15–17 years (*see Figure 22b*). The question remains as to whether greater efforts should be

Figure 22a. Children (%) who discuss political or social problems with other people online at least weekly, by gender



Question C4i: How often have you discussed political or social problems with other people online in the past month? Base: All children who use the internet.

Figure 22b. Children (%) who discuss political or social problems with other people online at least weekly, by age



Question C4i: How often have you discussed political or social problems with other people online in the past month? Base: All children who use the internet.

made to increase children's level of knowledge of or interest in civic engagement activities online across all age groups.

5.2 The ladder of online participation

How shall we interpret the variation – by age and gender, and by country – in children's online activities across the different categories of information-seeking, creative endeavour, entertainment, social interaction and civic engagement? The findings thus far demonstrate that while many children enjoy some of the opportunities afforded by internet access, fewer children typically undertake the civic engagement, information-seeking and creative activities that are often held out to be key opportunities of the digital age.

Cross-country comparisons further suggest that children's digital experiences differ, presumably due to various cultural, socio-economic, educational and market factors that shape their online opportunities. These factors are further explored in the separate country reports available on the Global Kids Online website.

While acknowledging these cross-cultural differences, recent analysis conducted by Global Kids Online in Bulgaria, Chile and South Africa also suggests that children follow a more-or-less common socio-developmental pathway, which can be conceived of as a 'ladder of online participation'.[19]

Our approach to constructing the ladders of participation is descriptive in the first instance. For each country, we had first ranked the various individual activities measured in the survey by the proportion of children engaging in each activity at least weekly, conducting the ranking exercise separately within each age group. When tabulating these rankings, the activities practised by about one third of children in each age group were then highlighted (by colouring in the relevant cells).[20] This resulted in a visual pattern approximating a ladder, in which similar groups of activities constitute the steps. At the bottom of the ladder are the relatively simple and/or popular activities undertaken by the largest proportion of children in each age group, including the youngest age group. Higher up the ladder are the more complex and/or less popular activities that are undertaken by fewer, and generally older, children.

Presenting this analysis for all 11 countries included in this report would take up too much space. Instead, we present the ladders for the Philippines and Ghana only (*see Tables 3 and 4*). We interpret these ladders by referring to the ladders we had previously published for Bulgaria, Chile and South Africa (but which are not shown here); as is required by comparative methodology, it was necessary to compare the maximally different countries in pursuit of a common pattern.[21]

In the Philippines, the analysis shows roughly three steps to the ladder, the first of which includes information-seeking and educational activities as well as watching video clips and social networking (*see Table 3*). These are the most popular activities in all three age groups and appear to be the entry-level activities for the youngest children. The second step – encompassing activities more popular among older children – includes listening to music, online gaming and posting comments. The third step, most often reached by adolescents aged 15–17 years, includes looking for news and work or study opportunities online. It is clear from the ladder that the digital experiences of most children in the Philippines do not extend to encompass many of the creative, civic engagement or even social opportunities that are available online.

19 Livingstone, Sonia, et al., 'Is there a ladder of children's online participation? Findings from three Global Kids Online countries', Innocenti Research Briefs 2019-02, United Nations Children's Fund, Office of Research - Innocenti, Florence, 2019. Note: Although this ladder in part draws on Hart's ladder of (offline) participation, we are cautious about making normative assumptions about what children 'should' do online, recognizing that, in principle, children may enjoy multiple pathways to online participation. See: Hart, Roger A. 'Children's Participation: From tokenism to citizenship', Innocenti Essay No. 4, United Nations Children's Fund, Office of Research - Innocenti, Florence, 1992.

20 In the earlier published ladders, coloured cells represented those activities where up to half of the children practised them weekly or more often. Due to the relatively lower internet use in Ghana and the Philippines, however, this analysis colours cells where about one third of children in each age group practise an activity.

21 Livingstone, Sonia, 'On the challenges of cross-national comparative media research', *European Journal of Communication,* vol. 18, no. 4, 2003, pp. 477–500. Available at: <http://eprints.lse.ac.uk/403>, accessed 12 September 2019.

Table 3. The ladder of online participation in the Philippines

Online activities practised weekly or more often	Age group (N=1,873)			All
	9–11yrs (%)	12–14yrs (%)	15–17yrs (%)	(%)
Involved in campaign or protest	11	7	8	9
Discussed politics with others	3	6	10	6
Resources about neighbourhood	5	6	11	7
Created blog, story or website	10	7	12	10
Talked to people from different backgrounds	9	11	17	12
Created video or music	9	12	20	13
Used website for interests or hobbies	14	16	16	15
Used instant messaging	12	15	20	16
Looked for health information	17	15	22	18
Work or study opportunities	11	16	29	19
Talked to distant family or friends	17	21	26	21
Looked for news online	18	21	**37**	26
Played online games	29	**31**	23	28
Posted photos or comments online	22	**30**	**40**	31
Listened to music	28	**34**	**39**	34
Learned by searching online	**40**	**45**	**52**	46
Watched video clips	**43**	**47**	**49**	46
Used social networking site	**39**	**53**	**62**	52
Used internet for schoolwork	**45**	**53**	**58**	52

Question C4: How often have you done these things online in the past month? Base: All children who use the internet.

In Ghana, the ladder looks different, since children do more activities overall, suggesting a wider repertoire of online participation (*see Table 4*). Nonetheless, the entry-level activities – practised by all children, but especially the youngest – again include information-seeking and educational activities and social networking, though watching video clips is relatively less common (this was also the case in South Africa, perhaps because of the prohibitive cost of data required to stream video). Listening to music and online game playing are again included in the second step, which this time also encompasses looking for news and work or study opportunities. The third step in Ghana is more specialist, involving looking for health information or support for interests or hobbies.

As in the Philippines, most children in Ghana do not engage in the most creative or civic activities, raising questions about whether there could – and should – be a fourth step and what might be needed to support this.

Compared with children in Bulgaria, Chile and South Africa, children in the Philippines and Ghana engage less overall with the activities asked about, doubtless reflecting their more limited access to devices and internet connectivity. But the activities that characterize each step of the ladder in all five countries are broadly similar. As our earlier report noted about entry-level activities, "it is worth considering what children gain from these, and whether they provide encouragement to progress and advance

Table 4. The ladder of online participation in Ghana

Online activities practised weekly or more often	Age group (N=2,060)			All
	9–11yrs (%)	12–14yrs (%)	15–17yrs (%)	(%)
Involved in campaign or protest	6	7	10	8
Created blog, story or website	8	7	10	8
Discussed politics with others	10	10	17	12
Created video or music	12	13	24	17
Resources about neighbourhood	13	16	22	17
Looked for health information	15	19	29	21
Used website for interests or hobbies	16	20	31	23
Talked to distant family or friends	15	23	32	24
Played online games	30	31	30	30
Watched video clips	24	33	48	36
Looked for news online	23	34	49	36
Work or study opportunities	28	34	46	36
Listened to music	28	38	49	39
Talked to people from different backgrounds	27	36	53	40
Posted photos or comments online	35	50	68	52
Used instant messaging	32	50	70	52
Used internet for schoolwork	52	61	65	60
Used social networking site	47	66	80	66
Learned by searching online	58	69	81	70

Question C4: How often have you done these things online in the past month? Base: All children who use the internet.

in online experience and expertise. One possible benefit of these entry-level activities is that they may build the initial skills of children so that they can climb further up the ladder."[22]

There are some cross-country differences too. For instance, in Bulgaria and Chile, online gaming is among the entry-level activities, which can be considered the activities on the bottom third of the table. This suggests that gaming may be an entertaining way for younger children to gain basic digital skills, which they later build upon as they move up the ladder. On the other hand, gaming is relatively less common in Ghana, the Philippines and South Africa. Also, a very low proportion of all children in the Philippines use instant messaging (16 per cent) – even when only the oldest children are considered (20 per cent). This is surprising given that instant messaging is one of the most popular activities among children in the four other countries. It is possible that text messaging provides a viable alternative to sending instant messages in the Philippines, as all mobile service providers offer plans with unlimited text messaging. The higher costs associated with going online may further discourage children from relying on instant messaging.

22 Livingstone, Sonia, et al., 'Is there a ladder of children's online participation? Findings from three Global Kids Online countries', Innocenti Research Briefs 2019-02, United Nations Children's Fund, Office of Research - Innocenti, Florence, 2019.

5.3 Why do children engage in certain activities online?

The findings presented thus far have been differentiated by gender and age, and we have noted possible interpretations of cross-country differences on occasion. The survey questionnaire also asked about a number of other factors likely to explain why, in any particular country, some children engage in online activities more than others. In this section, to help answer our first research question about when and how internet use contributes positively to children's lives, we take a closer look at within-country differences in digital experiences among children.

To do so, we refer to the results of statistical analyses not included in detail in this report (for regression models – see Annex 3). These sought to explain – through binary logistic regressions of the cross-sectional survey data – why some children do more or less information-seeking, creative, entertainment (watching video clips and online game playing) and social interaction activities online. Civic engagement activities were not analysed as too few children engage in these.

For the four categories of activities in focus, we examined whether the likelihood of a child engaging in each category of online activities on a weekly basis could be explained by the child's:

- age
- gender
- socio-economic status
- number of digital devices
- mobile-only access
- time spent online (weekday and weekend)
- breadth of online activities
- parent's daily use of the internet
- peer support
- sense of community safety
- enabling parental mediation
- restrictive parental mediation
- parental monitoring

As can be seen, these variables are drawn from across the Global Kids Online model. Analysis was conducted separately for each of the nine countries for which data on these variables were available.[23] (*For details of the dependent variables used, see Annex 4.*)

Since our present focus is within-country rather than cross-country differences, we summarize here only those findings that were statistically significant ($p < 0.05$) in more than half (at least five) of the nine countries. In other words, the summarized findings below appear to apply across most countries included in this report, thereby offering a fair test of the model across a range of fairly different countries. Conversely, factors not mentioned below are not significantly related to the category of activities in question in most countries.

Information-seeking activities

Why do some children seek information online more often than others? The analysis shows that children who more frequently seek information online:

- tend to be older
- have access to more digital devices
- receive more enabling mediation from their parent(s)
- engage with a wider range of online activities.

Creative activities

Why do some children engage in creative activities more often than others? The analysis shows that children who more frequently engage in creative activities:

- have access to more digital devices
- receive less restrictive mediation from their parent(s)
- engage with a wider range of online activities.

23 Argentina and Brazil omitted due to missing data.

Entertainment activities

Why do some children watch video clips more often than others? The analysis shows that children who more frequently watch video clips:

- have access to more digital devices
- receive less restrictive mediation from their parent(s)
- engage with a wider range of online activities.

As for online gaming, the children who more frequently play games:

- tend to be younger
- tend to be boys
- engage with a wider range of online activities.

Social interaction activities

Finally, why do some children engage more often than others in the five forms of social interaction examined above? The analysis shows that children who engage more often in such activities:

- tend to be older
- have access to more digital devices
- receive less restrictive mediation from their parent(s)
- engage with a wider range of online activities.

What does this pattern of findings suggest? Recalling that this section is concerned with why some children in a country engage in certain activities more often than other children (rather than with the overall proportion of children who undertake such activities), we can tentatively conclude the following.

- A child's age (but less so their gender, according to these analyses) makes a difference to their online activities – with older children more likely to undertake information-seeking and social activities, and younger children more likely to play games online. In terms of creative activities and watching videos, a lack of parental restrictions appears to be more influential than any effect of age.
- In most countries, children who have access to more digital devices are more likely to engage in all categories of activities except online game playing. It seems likely that access to more digital devices indicates children whose circumstances are relatively more affluent (a factor that we found difficult to measure directly in a reliable way). In other words, it may be that better-off children in a country engage more widely and deeply with the internet, gaining more benefits compared with less well-off children. It is equally plausible that the children who have access to more devices live in a family where internet use is more widespread and accepted, enabling them to participate in a broader range of online activities.
- There is also a 'virtuous circle' of digital activities: Children who engage more in one category of activities tend to also engage more in the other categories. Conversely, this can also be described as a 'vicious circle', as those who engage in fewer activities overall are less likely to engage in, and so benefit from, any particular category of activities in question. This finding is supported by the ladders of online participation presented here and elsewhere and may be considered relatively robust. Those with an interest in increasing children's chances to benefit from, say, information–seeking or creative activities should be conscious that the children they are trying to reach are probably less experienced online more generally.
- Finally, these analyses point to the importance of parenting in relation to children's digital experiences. Restrictive mediation by a parent (or caregiver) – for example, banning particular activities – tends to reduce children's creative, entertainment and social activities online. On the other hand, enabling mediation by a parent – for example, that which guides the child or involves participating in the activity together – positively aids their information-seeking activities. Due to the virtuous circle just described, restricting some online activities may have the unintended consequence of also reducing engagement in other online activities.

6. Digital Skills

Key findings

- Children's engagement in 'entertainment' activities online is associated with positive digital skills development.
- When parents restrict children's internet use, this has a negative effect on children's information-seeking and privacy skills.
- Supportive, non-restrictive approaches by parents to children's online activities are likely to be most effective for positive digital skills development.

With access to the internet growing worldwide, the environment in which children are growing up is fundamentally changing. While their basic needs may be the same as those of previous generations, children today are exposed to new and unique opportunities and risks – whether they go online to create and express their identities, to socialize and build relationships, or to learn and improve themselves. Specific to the digital age, these opportunities and risks relate to content and to contact and conduct with other people online – all routes by which children's rights can be realized or infringed.

It was initially thought that children born in the digital age would grow up as 'digital natives' and be successful users of digital technology solely due to their pioneering status. Research has since suggested that, while children are certainly developing digital skills and literacies, systematic support and guidance from institutions, families and significant others is nonetheless vital to support children as they learn to navigate the digital world.

6.1 What digital skills do children have?

As ever-younger internet users set off into the digital world, it is imperative that societies learn more about how to best support children's digital skills development. Children are, by and large, exposed to similar online opportunities and risks to those facing adults, and while often more sheltered during their early years of exploration, would benefit from greater opportunities to gain the skills that will enable them to make the most of the digital environment.

In this section, we report the findings from 10 Global Kids Online countries that asked questions about digital skills in their surveys of children.[24] These questions concern three key areas of competence that children need to make the most out of the digital environment while staying safe: information-seeking skills, critical evaluation skills and privacy skills. We set out below the descriptive results by country and by gender and age. The Global Kids Online model positions children's digital skills as: (1) explicable by children's gender and age, their internet access and online activities, and potentially by social and country factors also; and (2) part of the explanation, in turn, for online risks of harm (discussed in later sections).

We acknowledge that assessing children's digital skills via a survey has its limitations. The focus here is on concrete skills that children claim to have. Some assertions have been checked against children's observed skills, and attention was paid to the phrasing of the questionnaire items so as to reduce social desirability bias.[25]

Below, for 10 of the 11 countries (i.e., all those for which sufficient data are available), we examine whether engaging more with particular online activities contributes to children developing digital skills. In the Global Kids Online model, a virtuous circle is proposed in which engaging more in information-seeking activities, for example, is hypothesized to build information-

24 Argentina omitted in this section due to missing data. In some cases, the youngest age group in Montenegro and the oldest age group in South Africa are omitted due to missing data for some digital skills.

25 London School of Economics and Political Science, 'Digital Skills to Tangible Outcomes', <www.lse.ac.uk/media-and-communications/research/research-projects/disto>, accessed 12 September 2019.

seeking skills; at the same time, these improved skills are expected to support the related activities and thereby children's progression up the ladder of online participation. It should be remembered that the survey data are cross-sectional in nature, so causal and developmental pathways can be hypothesized but not directly tested.

Information-seeking skills

To measure children's information-seeking skills online, we asked them to assess how true the following statement was for them:

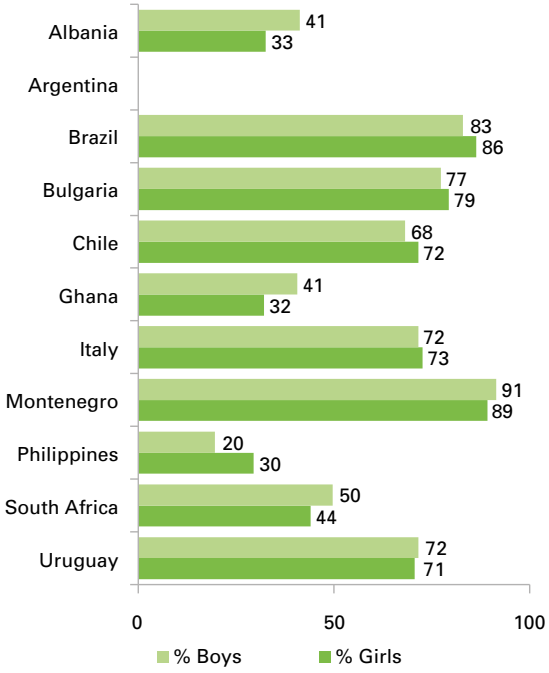
- I find it easy to choose the best keywords for online searches.

The proportions of children who found the statement above to be 'fairly true' or 'very true' for them, thus reporting strong information-seeking skills, are shown below (*see Figures 23a and 23b*). Children vary considerably across countries in their self-reported ability to search effectively for information online. Children report having higher information-seeking skills most often in Montenegro and Bulgaria (over three quarters of children) and least often in Ghana and, especially, the Philippines (where one third or less say they have this skill to any degree).

There are minor gender differences in terms of children's self-reported information-seeking skills, with boys more often reporting strong information-seeking skills than girls in all countries except the Philippines (*see Figure 23a*).

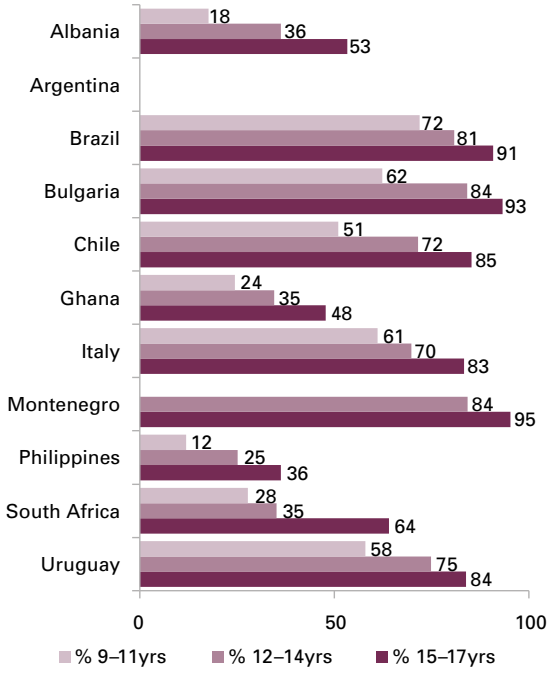
Younger children report weaker information-seeking skills than older children in all countries (*see Figure 23b*). There are considerable gaps between children aged 9–11 years and those aged 15–17 years. While children in the 12–14 age group are closer to the oldest children in terms of reported information-seeking skills, they too are behind. Bulgaria, Brazil and Italy stand out for

Figure 23a. Children (%) who report high information-seeking skills, by gender



Question E1h: I find it easy to choose the best keywords for online searches. Base: All children who use the internet.

Figure 23b. Children (%) who report high information-seeking skills, by age



Question E1h: I find it easy to choose the best keywords for online searches. Base: All children who use the internet.

having the most skilled children in the youngest age group, with some two thirds of the children aged 9–11 years in each of these countries claiming to be good at searching for information online.

Critical evaluation skills

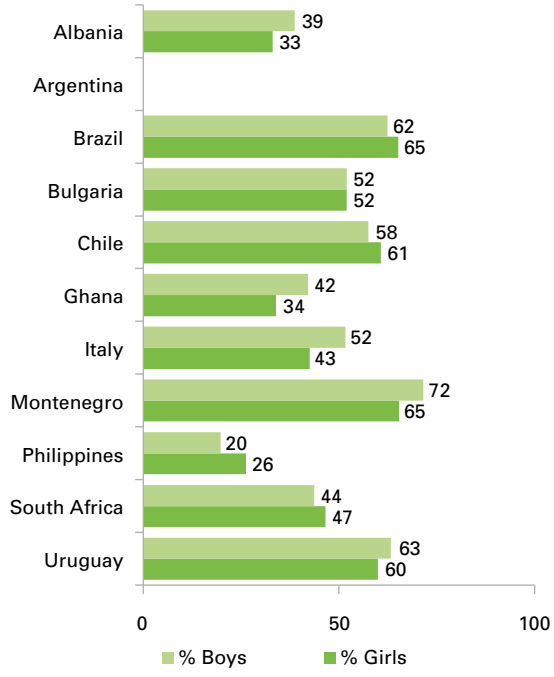
Critical thinking has probably never been as important as it is in the digital age, owing to the constant flow of information to which both children and adults are subjected. On the one hand, misinformation and disinformation are growing concerns, together with worries about the effects of discriminatory algorithms and so-called 'echo chambers'. On the other hand, protective efforts, adopted partly because children may lack critical evaluation skills and resilience, risk discouraging children from taking advantage of online opportunities that can help them acquire the skills they need.

To measure children's critical evaluation skills in the digital realm, we asked them to assess how true the following statement was for them:

- I find it easy to check if the information I find online is true.

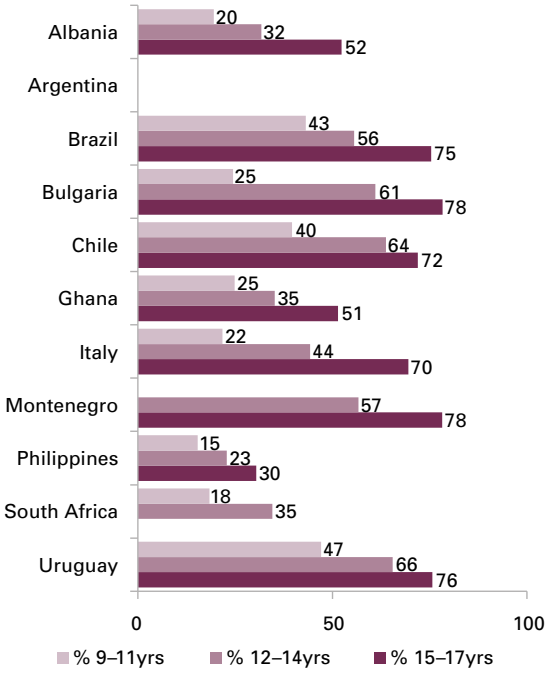
The proportions of children who found the statement above to be 'fairly true' or 'very true' for them, thus reporting having high critical evaluation skills are presented below (*see Figures 24a and 24b*). In all countries, children claim stronger information-seeking skills than critical evaluation skills. This is interesting since a failed information search evidently produces results that the user does not want, while there may be no visible feedback in the case of a mistaken judgement about the accuracy of online information. Nonetheless, between one quarter and three quarters of children are aware that they may be unable to evaluate the truthfulness of information they

Figure 24a. Children (%) who have high critical evaluation skills, by gender



Question E1g: I find it easy to check if the information find online is true. Base: All children who use the internet.

Figure 24b. Children (%) who have high critical evaluation skills, by age



Question E1g: I find it easy to check if the information find online is true. Base: All children who use the internet.

find online, depending on the country. Children report relatively weaker critical evaluation skills in the Philippines and Ghana, and the largest proportions of children claiming such skills are in Montenegro and Bulgaria – demonstrating a similar country pattern to that for information-seeking skills. Although the relationship between reported and actual (observable) skills is difficult to determine, the phrasing of the exact measures used by children attempts to reduce any discrepancy between the two.[26]

As for information-seeking skills, critical evaluation skills vary by gender only to a small extent, and the direction of the difference varies by country (*see Figure 24a*). We find small differences in Albania, Ghana, Italy and Montenegro, where boys report higher skills; and in the Philippines, where, again, girls report higher skills.

The findings by age are similar to those for information-seeking skills (*see Figure 24b*). As children grow older, they report marked increases in their critical evaluation skills. It would be interesting for future research to discover whether such skills are acquired simply because children use the internet more as they get older, or whether this age trend reflects a country's education system, in which digital literacy education is often reserved for older adolescents. As our report has shown, there are considerably fewer opportunities for the youngest children to access the internet at school, compared with other age groups, in all countries except Ghana (*see Figure 5b*).

Privacy skills

Children's online activities are becoming a means through which they communicate and collaborate with other people, pursue their interests and hobbies, and broaden their horizons – but such activities also leave a traceable digital footprint. Personal information (or personal data) is increasingly being used by organizations (schools, banks, social media companies and many others) for myriad public and commercial purposes. For individuals, being able to manage one's digital identity and protect personal data while engaging in digital pursuits and communicating with others is a skill that is increasingly important to maintaining privacy, keeping safe and avoiding exploitation.

To measure children's online privacy skills, we asked them to assess the following skills:

- I know how to change my privacy settings (e.g., on a social networking site).
- I know which information I should and shouldn't share online.
- I know how to remove people from my contact lists.

Children who found at least two of the above statements to be 'fairly true' or 'very true' for them, were considered to have high privacy skills. The proportions of children deemed to have high privacy skills are shown below (*see Figures 25a and 25b*).

It may be reassuring to see that children in all countries are more likely to report strong privacy skills compared to either information-seeking or critical evaluation skills. The country with the largest proportion of children with high privacy skills is Montenegro, while more than three quarters of children with high privacy skills in Brazil, Bulgaria, Italy, South Africa and Uruguay.

This may suggest that early efforts to promote internet safety among children – which often focused on information-sharing, how to set privacy settings and how to manage contact lists – were rather successful. Efforts to improve children's privacy skills may be needed in Ghana, Albania, the Philippines and, to a lesser extent, Chile.

There are some gender differences in children's self-reported privacy skills in the 10 countries analysed here, but there is no consistent pattern to these (*see Figure 25a*). In Albania and Ghana, boys report higher privacy skills than girls, while the opposite is true in Brazil,

26 Livingstone, Sonia, et al., 'Media and information literacy among children on three continents: Insights into the measurement and mediation of well-being', in *MILID Yearbook 2017*, United Nations Educational, Scientific and Cultural Organization, Paris, 2017.

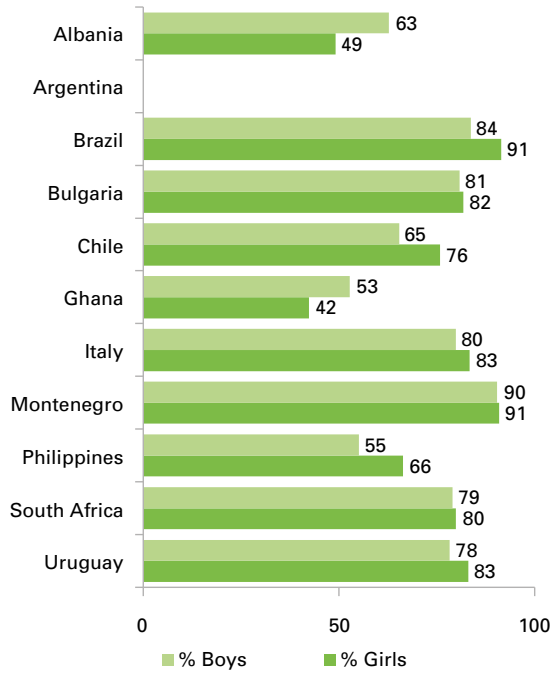
Chile, the Philippines and Uruguay. In Bulgaria, Italy, Montenegro and South Africa, gender differences are negligible.

In terms of age differences, there is a clear pattern in all countries: Younger children report lower privacy skills than older children (*see Figure 25b*). The biggest difference is seen between children aged 9–11 years and those aged 12–14 years. Although there remains a gap between the middle age group and adolescents aged 15–17 years, this is smaller, suggesting that children gain privacy skills especially as they enter early adolescence.

6.2 Why do some children report higher digital skills than others?

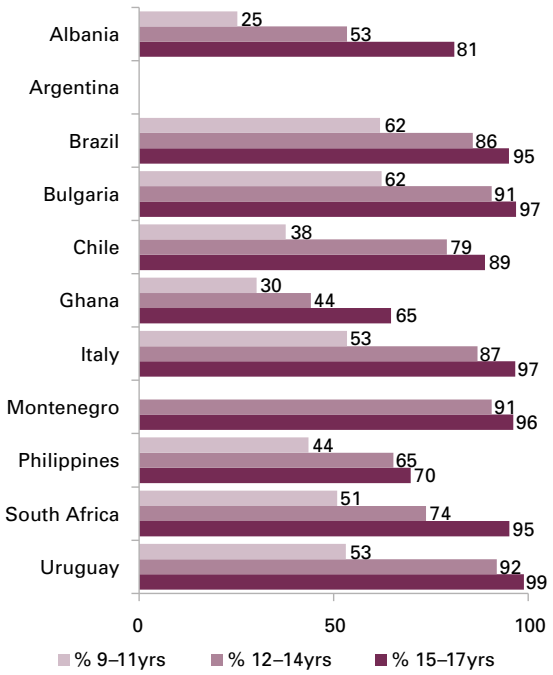
Thus far, we have examined differences across countries, and within countries, by gender and by age, in the proportions of children who report particular digital skills. Now we examine *why* some children report higher levels of digital skills than do other children. Does it have anything to do with the activities in which they engage? As with the earlier analysis of online activities, we used binary logistic regression analysis. We looked to see if any of the following factors are linked to children's self-reported digital skills,

Figure 25a. Children (%) who have high privacy skills, by gender



Question E1: How confident are you in your privacy skills? Base: All children who use the internet.

Figure 25b. Children (%) who have high privacy skills, by age



Question E1: How confident are you in your privacy skills? Base: All children who use the internet.

building on the earlier regression models by adding in four key online activities as possible predictors of children's skills. We included the following variables:

- age
- gender
- mobile phone and computer access
- time use (weekday and weekend)
- socio-economic status
- parent's daily use of the internet
- peer support
- sense of community safety
- enabling parental mediation
- restrictive parental mediation
- parental monitoring
- information-seeking activities
- watching videos
- online game playing
- social interaction activities
- creative activities
- doing group work with other students outside school
- privacy skills
- critical evaluation skills.

As with the analysis of online activities, these variables all draw on the Global Kids Online model, and our hypothesis is that children's digital skills are affected by their access to the internet and the activities in which they engage, as well as a range of personal and social factors, including parenting style. Analysis was conducted separately for each of the nine countries for which data on these variables were available.[27] We report below the findings that hold true across the majority (at least five, often more) of the countries. Again, factors not mentioned are not significantly related to the digital skills in question.

Information-seeking skills

Why do some children report better information-seeking skills than others? The analysis shows that children who report better information-seeking skills:

- tend to be older
- receive more enabling mediation from their parent(s)
- receive *less* restrictive mediation from their parent(s)
- tend to watch videos online more often.

Critical evaluation skills

Why do some children report better critical evaluation skills than others? The analysis shows that these children:

- tend to be older
- tend to engage more in creative activities online
- have higher privacy skills.

Privacy skills

Why do some children report better privacy skills than others? The analysis shows that these children:

- tend to be older
- receive *less* restrictive mediation from their parent(s)
- tend to engage more in social interaction activities online
- watch more videos online
- tend to also have higher critical evaluation skills.

What does this pattern of findings suggest? While recalling that all data are cross-sectional, and so any causal statements are hypothetical only, based on statistical analysis

27 Argentina and Brazil omitted due to missing data.

of correlations among the variables, we can tentatively suggest the following:

- Children's engagement in activities commonly seen as 'entertainment' is linked to, and likely contributes to, the development of their digital skills. Social interaction activities and watching videos online each predict higher privacy skills, while creative activities predict higher critical evaluation skills.
- If a parent restricts a child's internet use, even though this is doubtless motivated by safety considerations, there may be adverse consequences for the child's information-seeking and privacy skills. It seems plausible that the development of these skills is enhanced when children feel relatively free to explore the online environment, even if this means potentially encountering risks or problems that they must learn to deal with (as we discuss in the following section). As already reported in the section on online activities, restrictive mediation by parents limits children's engagement in creative activities, in watching videos and in social activities – each of which is associated with privacy skills and information-seeking skills. Parental restrictive mediation may thus have a cumulative negative effect.
- Parental enabling mediation, on the other hand, is linked to better information-seeking skills, which suggests that it may be more constructive for parents to guide, support and share their child's online exploration than to limit it.
- Taken together, these findings suggest that a supportive, non-restrictive approach to children's engagement with online opportunities in a safe and responsible manner is most effective for the development of their digital skills. But questions remain as to whether such an approach may also increase the likelihood of children experiencing harm due to their increased exposure to online risks.

7. Children's Reporting of Online Risks

Key findings

- In all countries except Chile, fewer than one third of children had been exposed to something online in the past year that had upset them.
- Children were more likely to report being upset in the past year if they had encountered hate speech or sexual content online, been treated in a hurtful way online or offline, or met someone face to face that they had first got to know online.
- There is no direct relationship between watching videos, playing games or interacting socially online and the likelihood of children being upset. But if the activity results in exposure to certain content or conduct (e.g., sexual content in a video or being harassed on a social networking site), then it may lead to a child being upset.
- The number of online activities in which children engage, the digital skills they develop and the online risks they encounter all increase as children get older. The increases in these variables are all likely to be related.
- An enabling approach to children's online activities on the part of parents slightly improves children's development of digital skills and slightly reduces their exposure to online risks in all countries except Ghana and the Philippines.

Children today have an unlimited amount of information and content at their fingertips. While the internet presents unique opportunities for children to gain knowledge and develop new skills, the digital world is also filled with unique risks not encountered by previous generations of children. To inform preventative action, child protection policies and the allocation of resources where they are most needed, it is particularly important to generate evidence on which children in particular experience harm linked to either their own internet use and/or that of others.

Online risks are presented in the Global Kids Online model as hypothetically linked to digital activities and digital skills. Before exploring these links, we first seek to account for which children report encountering which online risks.

When interpreting the findings in this section, it is important to consider the distinction between risk and harm. In our study, we have measured children's exposure to risky content such as violent images or information on ways to commit suicide. But while the term 'risk' contains negative connotations, it is not always assumed to cause harm. For example, children may find themselves in risky situations like talking to strangers online, but just as this may lead to bullying or to grooming attempts, it may also result in the positive outcome of a child gaining a friend. Furthermore, learning to deal with uncertainty and manage online risks can build a child's resilience.

In the Global Kids Online model, harm is treated as a key outcome – it forms part of the conceptualization of well-being. This distinction between risk and harm is especially relevant later in this section, as we explore children's feelings in relation to their risky online experiences.

7.1 What risks do children experience online?

The survey questionnaire asked children about their exposure to a variety of online risks:

- In the past year, have you seen websites or online discussions where people talk about or show any of these things? Ways of physically harming or hurting themselves; Ways of committing suicide; Hate messages that attack certain groups or individuals (e.g., people of different colour or religion or nationality);[28] Gory or

28 In Albania, children were asked: How often do you feel upset because of hateful or degrading messages or comments online that are directed to you?

violent images.[29]

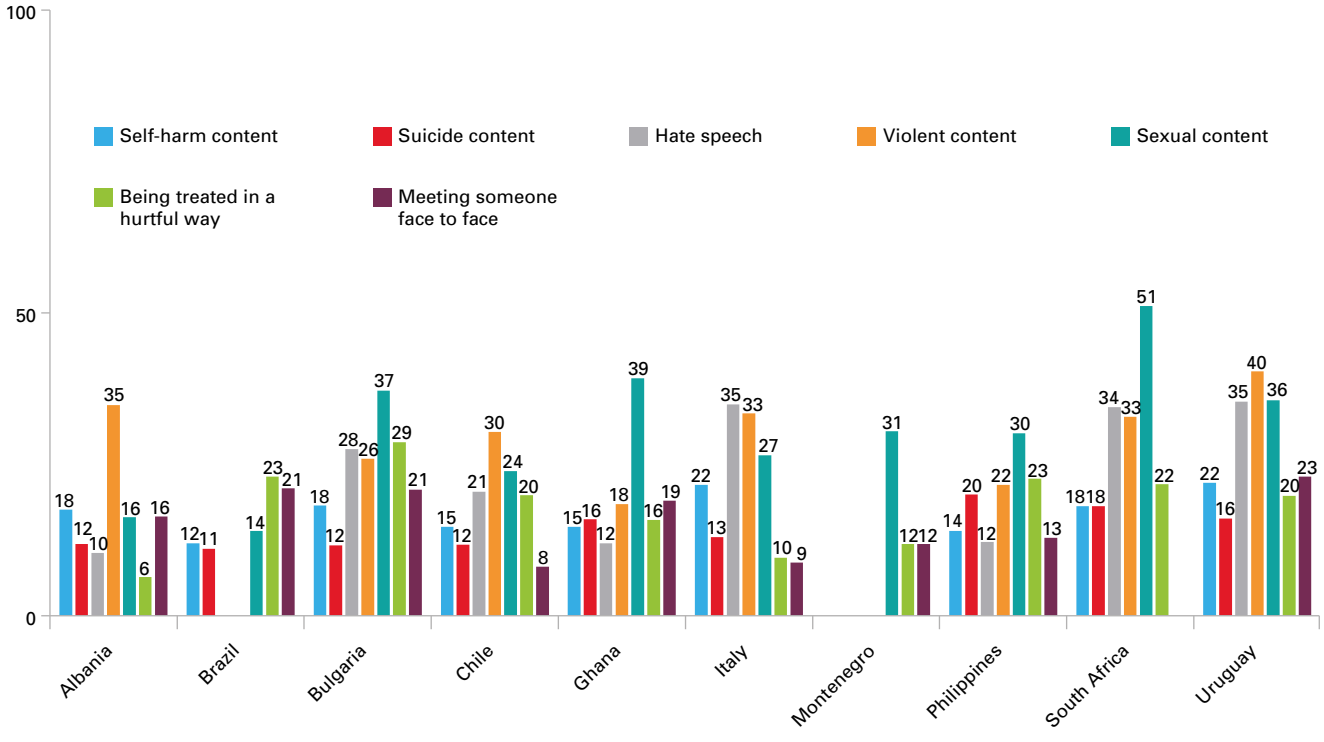
- In the past year, have you ever seen any sexual images?
- In the past year, has anyone ever treated you in a hurtful or nasty way?
- In the past year, have you ever met anyone face-to-face that you first got to know on the internet?.

While the questionnaire also includes optional questions about how and where children encountered such risks, these were omitted in most countries. The survey does not explore *why* children encounter such content, for example, whether they sought out the content or encounter or came across it by chance, although this may be an interesting addition for future research.

Note that in this section of the survey questionnaire, children are asked about whether they have encountered a risk in the *past year*, not in the past week or month.

Comparable data on exposure to online risks were available for 10 of the 11 countries examined in this report *(see Figure 26)*.[30] The following subsections on children's exposure to specific online risks will first highlight differences by country, and by gender and age. We will then examine whether – considering other relevant factors – the risk in question contributes to children being upset (as reported by the child).

Figure 26. Children (%) who have been exposed to online risks, by country



Questions: Refer to the questions listed at the beginning of subsection 7.1. Base: All children who use the internet (children aged 9–10 years in Chile and aged 9–12 years in Uruguay were not asked if they had seen content relating to self-harm, suicide, hate speech, violence or sexual images; children aged 9–11 years in South Africa were not asked if they had seen content relating to self-harm, suicide, hate speech or violence).

29 In Albania, children were asked: in the past year, have you ever seen images or videos of real violence online? this could for example be of people hurting someone else, punching, kicking or beating them, or people being killed).

30 Argentina omitted in this section due to missing data. Some countries are omitted due to missing data on some risks.

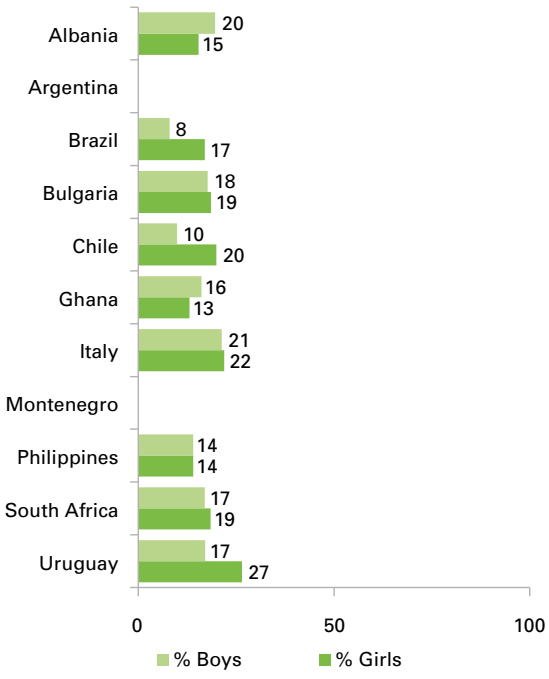
Self-harm

Children were asked if they had encountered online content relating to ways of physically harming oneself. In all nine countries in which this was asked, less than one quarter of children said they had seen such content online in the past year.

Gender differences are not particularly pronounced in the nine countries except in Chile and Uruguay, where girls are more likely to have seen self-harm content (*see Figure 27a*). Indeed, girls in Uruguay (27 per cent) are most likely overall to have seen self-harm content online in the past year. Only 1 in 10 boys in Chile report having seen such content – the lowest proportion among the nine countries.

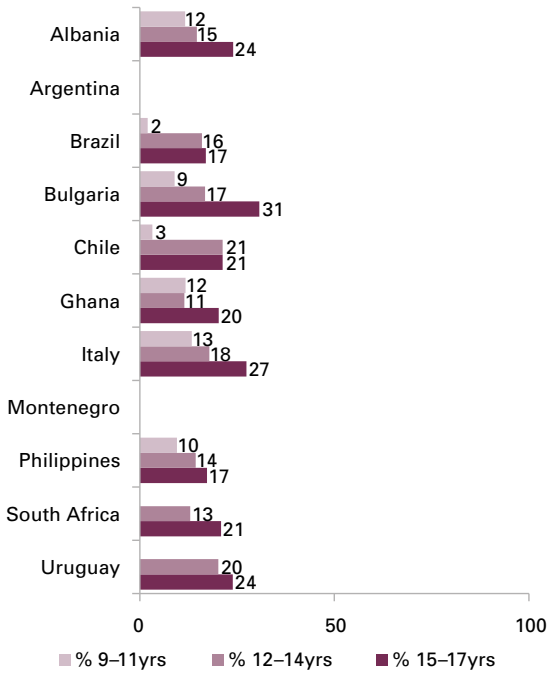
Older children are more likely to report seeing self-harm content online (*see Figure 27b*). Age differences are particularly evident in Bulgaria, where only 9 per cent of children aged 9–11 years say they have encountered self-harm content, compared with 31 per cent of those aged 15–17 years. This may be because younger children typically spend less time online and engage in fewer online activities than older children, and thus are somewhat less exposed to such content. In addition, parents tend to place fewer restrictions on internet use as children get older, which may further increase exposure to self-harm content with age.

Figure 27a. Children (%) who have seen self-harm content online in the past year, by gender



Question F41a: In the past year, have you seen websites or online discussions where people talk about or show ways of physically harming or hurting themselves? Base: All children who use the internet (except children aged 9–10 years in Chile, children aged 9–11 years in South Africa and children aged 9–12 years in Uruguay).

Figure 27b. Children (%) who have seen self-harm content online in the past year, by age



Question F41a: In the past year, have you seen websites or online discussions where people talk about or show ways of physically harming or hurting themselves? Base: All children who use the internet (except children aged 9–10 years in Chile, children aged 9–11 years in South Africa and children aged 9–12 years in Uruguay).

Suicide content

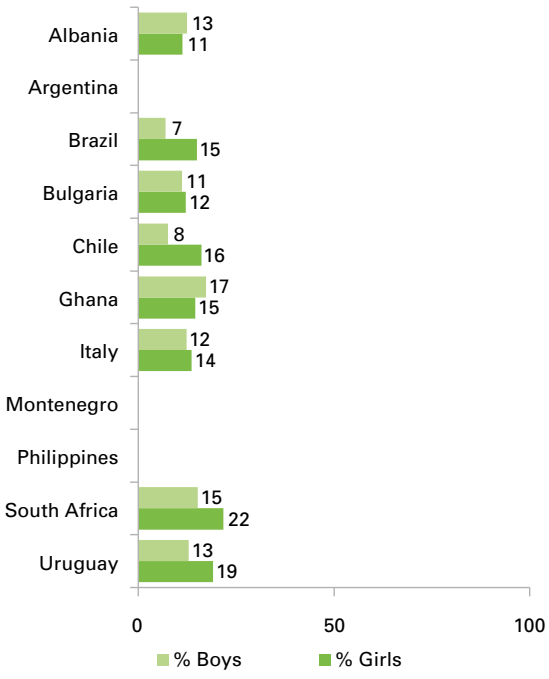
Children are slightly less likely to see online content relating to suicide than self-harm content; in all countries analysed, fewer than 20 per cent of children report encountering online content on committing suicide. Gender differences are minor in most countries except Chile, where girls are twice as likely as boys to see this content online (16 per cent and 8 per cent respectively) (*see Figure 28a*).

Differences among age groups are typically small, with the most noticeable differences seen between children aged 12–14 years and those aged 15–17 years, suggesting that children are increasingly likely to experience suicide-related content as they enter middle adolescence (*see Figure 28b*). This could be attributed to changes in children's internet use and online behaviours as they get older. Some of these changes have been highlighted in previous sections of this report, including older children being less likely to receive restrictive parental mediation, spending more time online per week and/or expanding their range of online activities.

Hate speech[31]

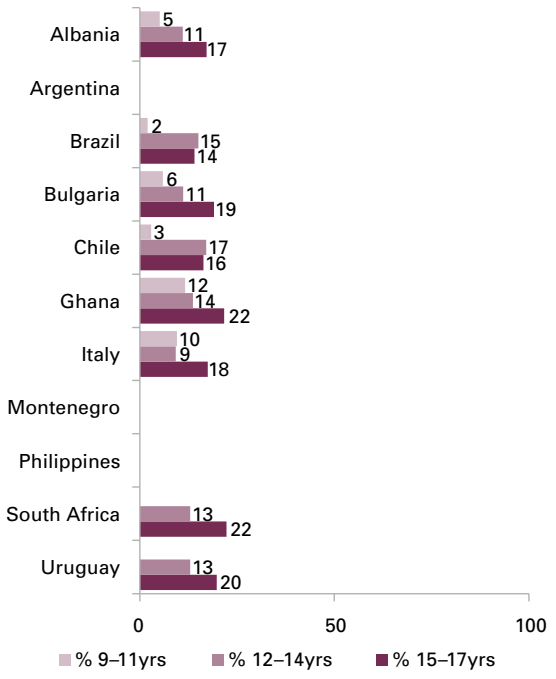
Restricting hate speech online is a key challenge that has absorbed social media platforms in particular in the last few years. The profusion of hate messages on the internet is also reflected in children's online experiences. Our findings show that children's exposure to hate content is

Figure 28a. Children (%) who have seen suicide-related content online, by gender



Question F41b: In the past year, have you seen websites or online discussions where people talk about or show ways of committing suicide? Base: All children who use the internet (except children aged 9–10 years in Chile, children aged 9–11 years in South Africa and children aged 9–12 years in Uruguay).

Figure 28b. Children (%) who have seen suicide-related content online, by age



Question F41b: In the past year, have you seen websites or online discussions where people talk about or show ways of committing suicide? Base: All children who use the internet (except children aged 9–10 years in Chile, children aged 9–11 years in South Africa and children aged 9–12 years in Uruguay).

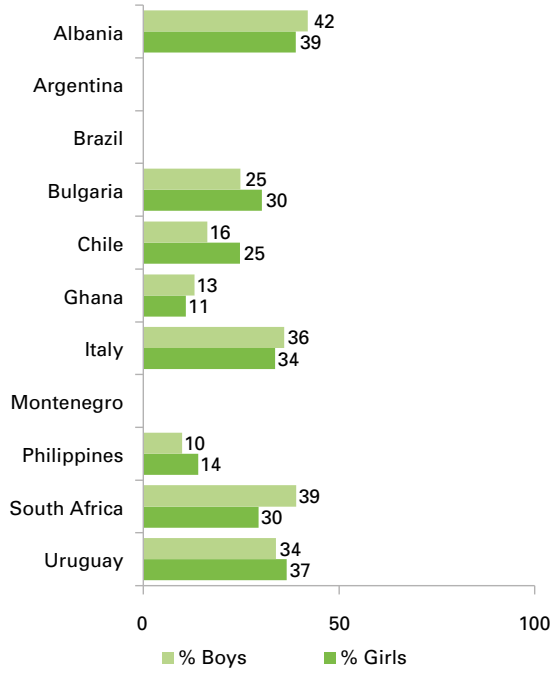
31 For this variable, children were asked if in the past year they encountered online hate messages that attack certain groups or individuals (e.g., people of different colour or religion or nationality).

more common than their exposure to self-harm or suicide content. There is also considerable country variation across the seven countries, with children in Albania, Italy and Uruguay reporting the greatest exposure to hate messages (between 35 and 40 per cent). In contrast, only about 10 per cent of children in Ghana and the Philippines have had this experience, perhaps because they have less internet access and engage in fewer online activities overall, and so are less exposed to the full range of online experiences – both positive and negative. In particular, far fewer children use instant messaging in these two countries, especially in the Philippines.

Gender differences are generally small, with girls more exposed to online hate content in Bulgaria, Chile and South Africa (*see Figure 29a)*.

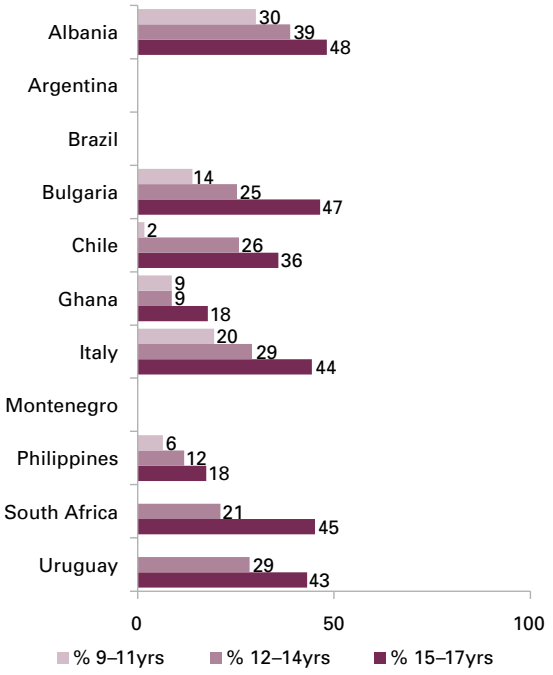
Consistent with other types of potentially harmful content, older children are more likely to encounter hate speech (*see Figure 29b*). In four of the eight countries (Albania, Bulgaria, Italy and Uruguay), more than 25 per cent of the oldest children report seeing hate speech online. The youngest children in the Philippines are least likely overall to see this type of content online. As children move up the ladder of online participation and begin to participate in activities like information-seeking, reading the news and engaging in political debate online, the likelihood of seeing hate content may also increase.

Figure 29a. Children (%) who have seen hate messages online, by gender



Question F41d: In the past year, have you seen websites or online discussions where people talk about or show hate messages that attack certain groups or individuals (e.g., people of a different colour or religion or nationality)? Base: All children who use the internet (except children aged 9–10 years in Chile, children aged 9–11 years in South Africa and children aged 9–12 years in Uruguay).

Figure 29b. Children (%) who have seen hate messages online, by age



Question F41d: In the past year, have you seen websites or online discussions where people talk about or show hate messages that attack certain groups or individuals (e.g., people of a different colour or religion or nationality)? Base: All children who use the internet (except children aged 9–10 years in Chile, children aged 9–11 years in South Africa and children aged 9–12 years in Uruguay).

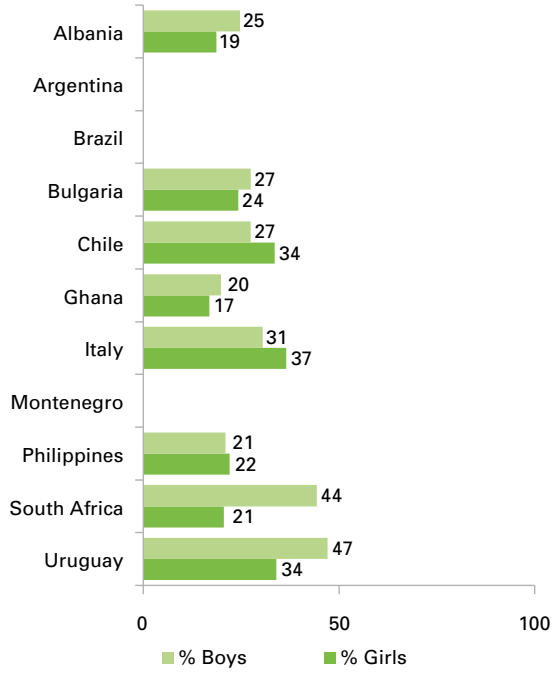
Violent content

One concern often emphasized in relation to children's internet use is their potential exposure to violent or sexual content. Our findings show, however, that fewer than 40 per cent of children have in the past year come across websites where people talk about or show gory or violent images.

Boys are more likely to see violent content online in Albania, Bulgaria, Ghana and Uruguay, while girls are more likely to see such content in Chile and Italy (*see Figure 30a*). The gender difference is most pronounced in Uruguay, where almost half of the boys (47 per cent) said they had seen violent images online in the past year, compared with 34 per cent of girls.

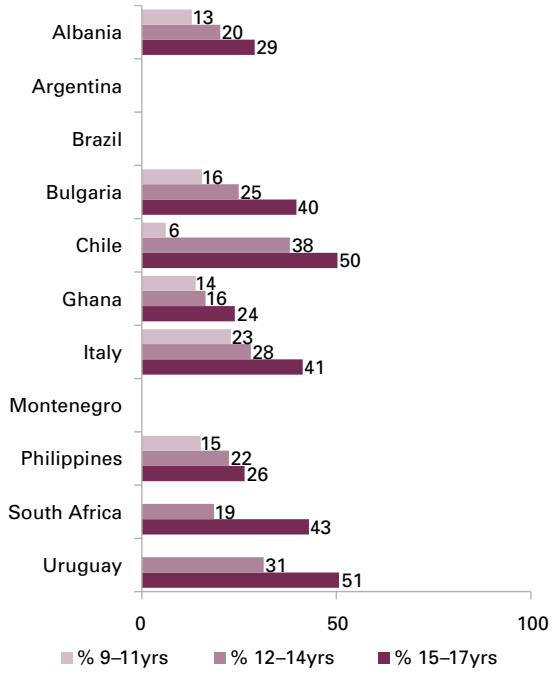
In general, exposure to violent content seems to increase as children grow older in all countries. Among 9-11-year olds, respondents from Chile reported the lowest degree of exposure to violent content (6 per cent) (*see Figure 30b*) – this finding is consistent with the other types of content examined above, with 9-11-year olds in Chile consistently the least exposed. Perhaps this is due to stricter parental mediation among the youngest children in Chile, or greater knowledge of how to avoid unwanted content. However, older children in Chile encounter violent content much more frequently, there is a sharp increase where 38% of 12-14-year olds and 50% of 15-17-year olds have seen violent images online in the last year.

Figure 30a. Children (%) who have seen violent content online the past year, by gender



Question F41f: In the past year, have you seen websites or online discussions where people talk about or show gory or violent images? Base: All children who use the internet (except children aged 9–10 years in Chile, children aged 9–11 years in South Africa and children aged 9–12 years in Uruguay).

Figure 30b. Children (%) who have seen violent content online the past year, by age



Question F41f: In the past year, have you seen websites or online discussions where people talk about or show gory or violent images? Base: All children who use the internet (except children aged 9–10 years in Chile, children aged 9–11 years in South Africa and children aged 9–12 years in Uruguay).

Sexual content

In all 10 countries examined in this section, less than 40 per cent of children report seeing images of a sexual nature in the past year. Importantly, the survey questionnaire did not ask only about children's encounters with online sexual content but included exposure to sexual images across all media – for instance, in magazines or on television.

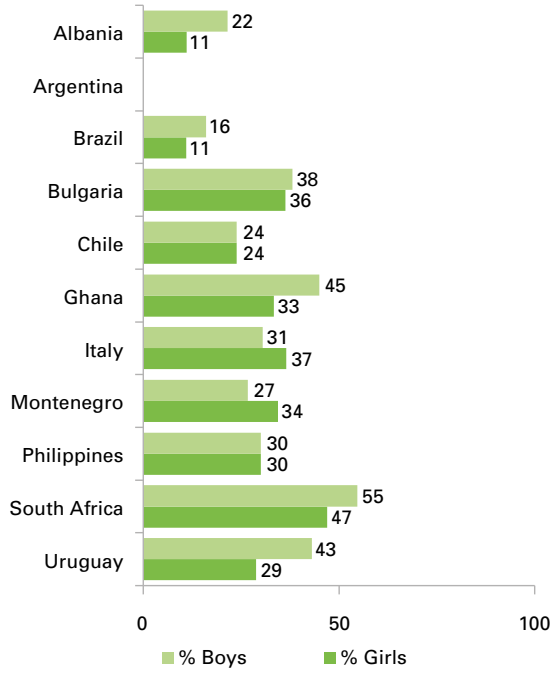
In every country except Italy and Montenegro, boys are as likely as or more likely than girls to be exposed to images of a sexual nature (*see Figure 31a*). Boys in South Africa (55 per cent) are most likely overall to report seeing these images in the past year, while boys in Albania and Brazil (11 per cent) are the least exposed to this risk overall.

As with the other risks, there is a clear age trend in which younger children report lower exposure to sexual images than older children (*see Figure 31b*). Adolescents aged 15–17 years in South Africa are most likely overall to report seeing sexual images in the media, with 72 per cent exposed to this type of content in the past year. While the survey questionnaire contains optional questions about whether children seek out sexual images or come across them by accident – for example, in pop-ups or ads – most countries omitted these items.

The qualitative research shows a mixture of reactions from children upon their exposure to these images, including some children asking for sexual images from others. Children sometimes come across sexual content by accident, but on other occasions they are recommended it by friends or are sent such content directly, including by strangers.

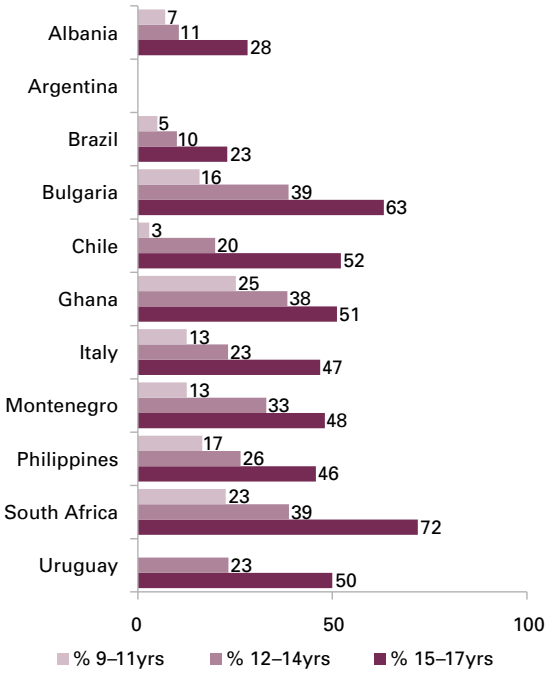
We asked children who had seen sexual images in the past year where they had encountered this content, recognizing that television, magazines

Figure 31a. Children (%) who have seen sexual images in the past year, by gender



Question F28: In the past year, have you ever seen any sexual images? Base: All children who use the internet (except children aged 9–10 years in Chile and children aged 9–12 years in Uruguay).

Figure 31b. Children (%) who have seen sexual images in the past year, by age



Question F28: In the past year, have you ever seen any sexual images? Base: All children who use the internet (except children aged 9–10 years in Chile and children aged 9–12 years in Uruguay).

and books can also contain sexual imagery. The proportions of children who had seen sexual images online are presented below, by gender and age (*see Figures 32a and 32b*).

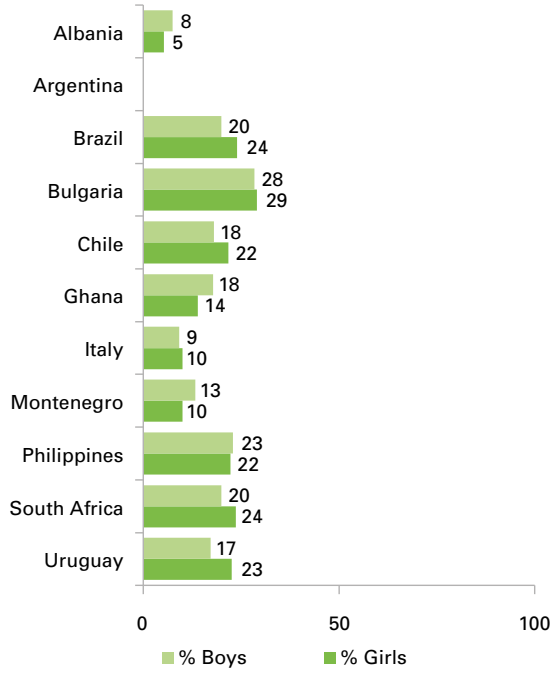
Of those children who had seen sexual images in the past year, the majority had seen such images online. This does not mean that the children had seen images of a sexual nature *only* online, but this finding nonetheless shows that it is common for children to encounter sexual images while using the internet.

Being treated in a hurtful way

Moving beyond the issue of exposure to risky and potentially harmful content online, children were also asked about their experiences of being treated in a hurtful way, both online and offline.[32] Depending on the country in question, between around 10 and 30 per cent of children report being treated in this way in the past year. There are no noteworthy differences between girls and boys except in Uruguay (*see Figure 33a*). Children in Bulgaria and the Philippines are somewhat more likely to experience this behaviour, while children in Albania are much less likely to experience it.

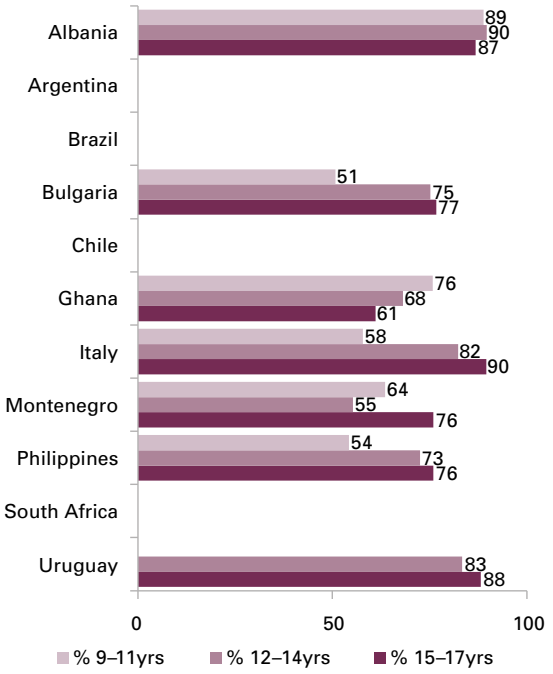
The age pattern evident in the previous findings in this section is less apparent for children's

Figure 32a. Children (%) who have seen sexual images online, by gender



Question F31c: The last time you saw images of this kind, did you see them via a mobile phone, computer, tablet or any other online device? Base: Children who reported seeing sexual images in the past year (except children aged 9–10 years in Chile and children aged 9–12 years in Uruguay).

Figure 32b. Children (%) who have seen sexual images online, by age



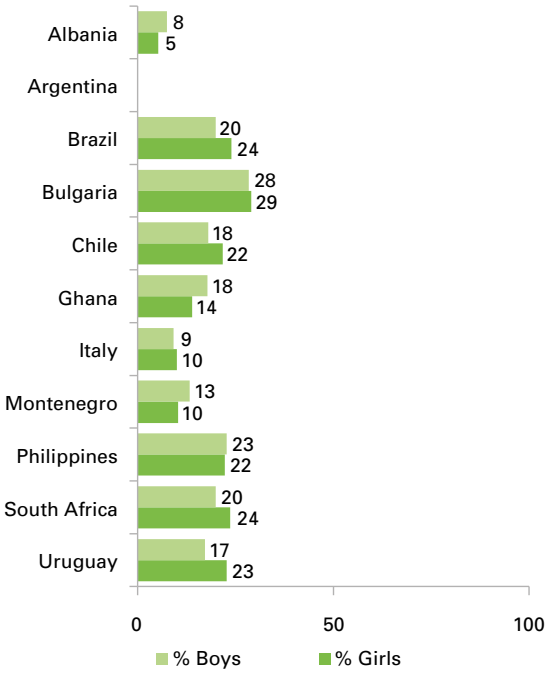
Question F31c: The last time you saw images of this kind, did you see them via a mobile phone, computer, tablet or any other online device? Base: Children who reported seeing sexual images in the past year (except children aged 9–10 years in Chile and children aged 9–12 years in South Africa and Uruguay).

32 Given that the definition of cyberbullying is contested, and that its scope varies as a result, Global Kids Online examines various forms of online hurtful peer behaviour. Here, we examine answers to one key question relevant to such behaviour. See: Livingstone, Sonia, Mariya Stoilova and Ssu-Han Yu, 'Recognising online hurtful behaviour among peers: A Global Kids Online research paper', Global Kids Online, London School of Economics and Political Science, London, 2017. <http://globalkidsonline.net/wp-content/uploads/2017/11/Hurtful-behaviour-final.pdf>, accessed 12 September 2019.

experience of being treated in a hurtful way. In five of the countries analysed, the oldest children are most likely to experience being treated in a hurtful or nasty way, but the difference to children in younger are groups is small (*see Figure 33b*). Overall, adolescents aged 15–17 years in Bulgaria are most likely to report such mistreatment (34 per cent). It seems that exposure to hurtful behaviour is almost equally common for children of all age groups as well as for girls and boys.

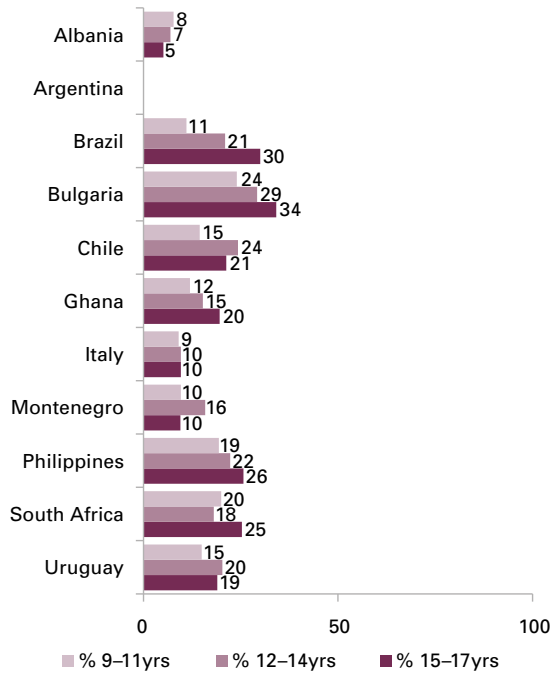
To put these findings in context, we also asked children how often this mistreatment had happened online and offline (in person, face to face). As illustrated below, being treated in a hurtful or nasty way is more common offline than online in five of the seven countries (*see Figure 33c*). Children in Chile are least likely to report hurtful treatment either online or offline. Conversely, almost all children in Italy who report being treated in a hurtful or nasty way in the past year claim that this had happened in person most of the time (95 per cent).

Figure 33a. Children (%) who say they have been treated in a hurtful way in the past year, by gender



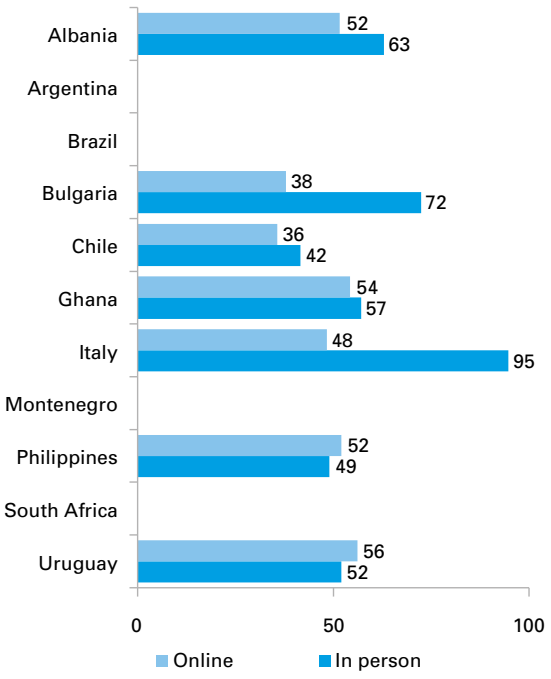
Question F18: In the past year, has anyone ever treated you in a hurtful or nasty way? Base: All children who use the internet.

Figure 33b. Children (%) who say they have been treated in a hurtful way in the past year, by age



Question F18: In the past year, has anyone ever treated you in a hurtful or nasty way? Base: All children who use the internet.

Figure 33c. Children (%) who have been treated in a hurtful way, whether online or in person



Question F20a–b: In the past year, has anyone ever treated you in a hurtful or nasty way? If yes, where did it happen? Base: All children who use the internet.

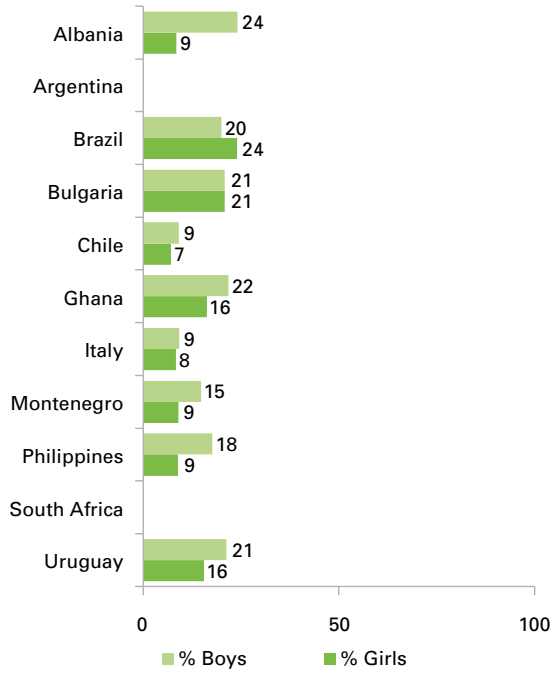
Meeting someone face to face who you got to know online

In addition to enabling greater access to information and content for children, the internet extends children's networks further than their immediate circle of friends and family. With more children going online, this presents opportunities to make new friendships, but it can also pose certain risks. To understand the nature and extent of children's contact with new people online and offline, we asked the children surveyed if they had ever met anyone face to face whom they had first got to know on the internet.

Fewer than 25 per cent of children across all countries have met someone offline whom they had first got to know online. The biggest gender difference is in Albania, where just 9 per cent of girls report meeting offline someone whom they had first met online, compared with 24 per cent of boys (*see Figure 34a*). Children in Chile and Italy are least likely to meet face to face someone whom they first get to know online; children in Bulgaria, Ghana and Uruguay are the most likely to do so (together with boys in Albania).

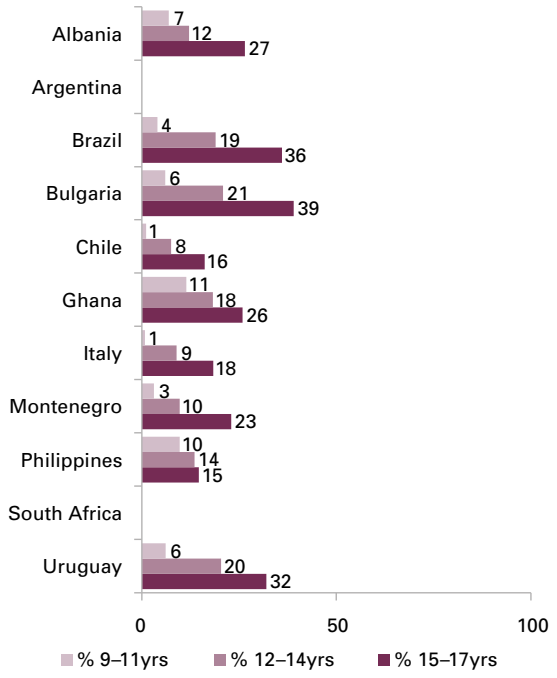
As shown in the earlier discussion of the ladder of online participation, as children get older and gain more experience online, their range of online skills and experiences increases, and they may find themselves interacting with new people online. In line with this, our findings show that older children are considerably more likely to meet face to face people whom they first get to know online, although the extent of this trend varies by country (*see Figure 34b*). This age difference is most apparent in Brazil, Bulgaria and Uruguay. Overall, adolescents aged 15–17 years in Bulgaria are most likely to report meeting face to face someone whom they had first met online (39 per cent).

Figure 34a. Children (%) who met someone face to face whom they had first got to know online, by gender



Question F3: In the past year, have you ever met anyone face to face that you first got to know on the internet? Base: All children who use the internet.

Figure 34b. Children (%) who met someone face to face whom they had first got to know online, by age



Question F3: In the past year, have you ever met anyone face to face that you first got to know on the internet? Base: All children who use the internet.

7.2 Children's reactions to meeting someone new online

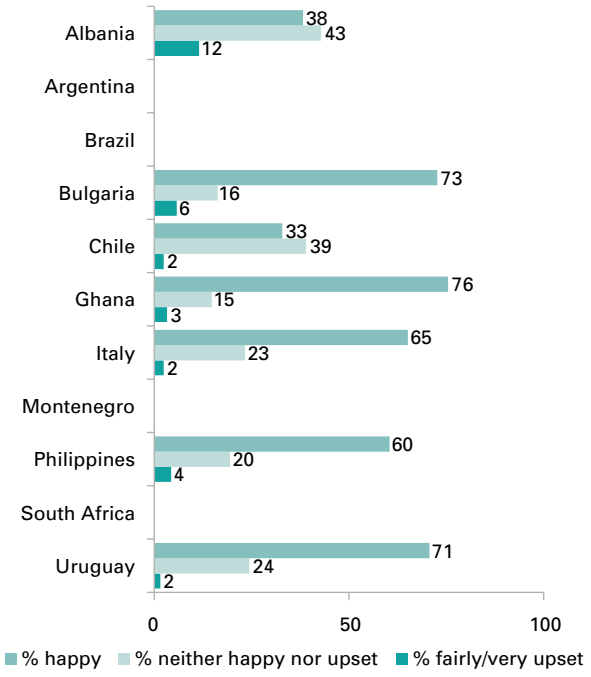
It is easy to assume that getting to know someone new online and then meeting them face to face is guaranteed to expose children to harm. While going to meet face to face someone whom a child had first met online is indeed a risky behaviour, it is important to listen to children's accounts of such experiences to determine whether there is cause for concern. In the survey questionnaire, a follow-up item asked about children's reactions to meeting offline someone whom they had first made contact with online:

- If you met anyone face to face that you first got to know on the internet, how did you feel about it?

Perhaps surprisingly, children were far more likely to react positively to these face-to-face encounters than say that the experience had made them feel upset (see Figure 34c). Children were also more likely to feel neutral (neither happy nor upset) about these encounters than they were to feel upset. In all countries except Albania, less than 10 per cent of children report being upset by meeting face to face someone whom they had first got to know online.

This indicates that online encounters and behaviours that may be deemed risky do not always result in a negative emotional impact for the child. Indeed, children often enjoy such meetings, suggesting that they are widening their friendship circle in a way that is beneficial. On the other hand, in a small number of cases, there is clearly cause for concern – both in terms of preventative actions and support or redress after an incident.

Figure 34c. Children's (%) reaction to meeting face to face people whom they had first met online



Question F4: If you met anyone face to face that you first got to know on the internet, how did you feel about it? Base: Children who had met face to face someone whom they had first got to know online.

7.3 Children's self-reported upset from encountering online risk

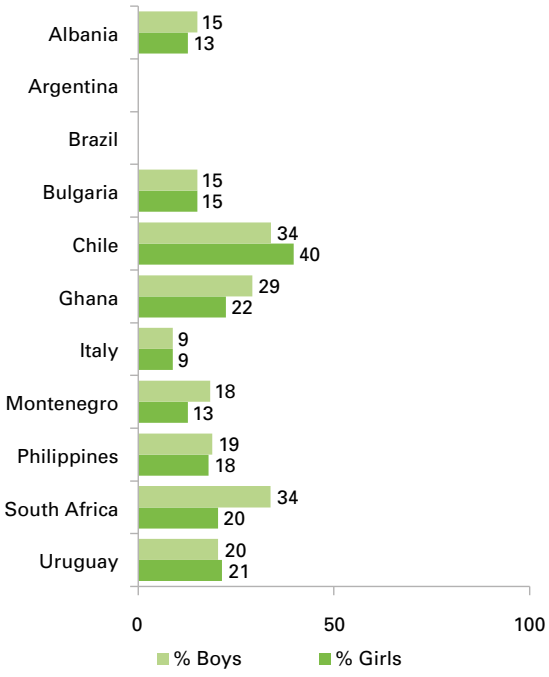
To understand whether children's online experiences are sometimes negative, we asked them a general question about whether they had encountered something online in the past year that had bothered or upset them. Note that, for methodological reasons, this question was asked prior to the questions about the various online risks (discussed above), to avoid directing children towards the particular risks of harm in which we were interested. The specific question we asked was:

- In the past year, has anything ever happened online that bothered or upset you in some way (e.g., made you feel uncomfortable, scared or that you shouldn't have seen it)?

In all countries except Chile, less than a third of children report being exposed to something online that had made them feel uncomfortable or scared. Children in Chile report the highest incidence of online harm, while children in Italy are least likely to report being harmed online (9 per cent). In Chile, gender differences are also notable, with more girls reporting such an experience, and we have seen that girls in Chile report a relatively high exposure to risks overall. In Ghana, more boys report being bothered or upset by something online. In other countries, however, there are few, if any, gender differences (*see Figure 35a*). It is possible that boys are less willing to report being upset for reasons of social desirability, but we cannot know this.

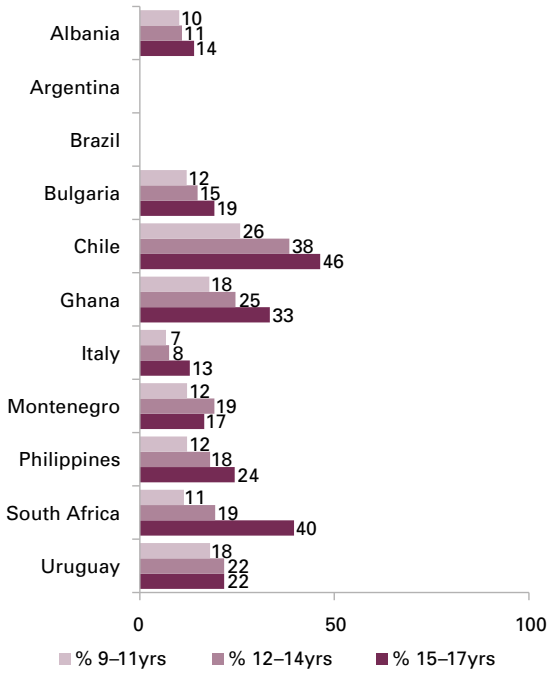
Similar to the findings for risk exposure, a larger proportion of older children report being upset by an online experience in the past year, compared with younger children (*see Figure 35b*).

Figure 35a. Children (%) who have experienced harm online, by gender



Question F11: In the past year, has anything ever happened online that bothered or upset you in some way (e.g., made you feel uncomfortable, scared or that you shouldn't have seen it)?
Base: All children who use the internet.

Figure 35b. Children (%) who have experienced harm online, by age



Question F11: In the past year, has anything ever happened online that bothered or upset you in some way (e.g., made you feel uncomfortable, scared or that you shouldn't have seen it)?
Base: All children who use the internet.

In Chile, almost 50 per cent of adolescents aged 15–17 years report something happening online in the past year that had bothered or upset them. But while children in Chile aged 9–11 years are consistently among the least likely to be exposed to the various online risks discussed above, they are the most likely respondents in this age group to report being bothered by something they had seen online (26 per cent). This indicates that, for at least some children, the experience of being upset by something online is not primarily driven by exposure to online risks.

In some countries like Albania and Uruguay, there is little difference in self-reported upset by age, even though children generally encounter more risks online as they grow older. This might suggest that older children in these countries are also more resilient in terms of coping with exposure to online risks.

Some children were also asked about their reactions to seeing potentially harmful content online, such as sexual images. Children's reported reactions vary considerably across the five countries that asked children how they had felt after seeing sexual images. In Chile, Bulgaria and the Philippines, children are more likely to report being a bit, fairly or very upset after such an experience than to report being happy. In Albania and Italy, most children asked the question reported feeling neither happy nor upset about their exposure to content of a sexual nature.

7.4 Which children are more likely to be upset by online risks?

The findings presented thus far show that as children get older, they engage in a wider range of online activities and, with this, their breadth of digital skills increases. While this is positive, the question remains as to whether engaging in more online activities also leads to greater risk exposure and thus more harm (one crucial outcome factor in the Global Kids Online model).

In this section of the report, as previously, we used binary logistic regressions, this time to predict which children are more likely to be upset by something online. Based on our research framework, we tested the following variables as predictors of children being upset or bothered by something on the internet:

- age
- gender
- time use (weekday and weekend)
- peer support
- family relationships
- sense of community safety
- enabling parental mediation
- restrictive parental mediation
- parental monitoring
- watching videos
- online game playing
- social interaction
- encountering hate speech
- seeing self-harm content
- seeing suicide-related content
- seeing violent content
- seeing sexual messages
- being treated in a hurtful way
- meeting someone face to face whom they had first got to know online.
- privacy skills
- critical thinking skills
- information-seeking skills

The regression analysis was conducted separately for each of the seven countries in which questions had been asked about online risks. The analysis presented here therefore explores within-country differences only. Highlighted below are those findings and trends that are statistically significant ($p < 0.05$) and that appeared in at least four of the seven countries included in the analysis.

Note that while a regression analysis helps to predict why some children are more

likely to report being upset, it cannot test a causal relationship. The data can only reveal correlations among variables, including between predictor variables and the measure of harm.

Our analysis shows that children who encounter forms of online risk are more likely to report being bothered or upset by something online in the past year. Specifically, children who report being upset are more likely to have:

- encountered hate speech online
- seen sexual content (online or via other media; this was the strongest predictor in five out of seven countries)
- been treated in a hurtful or nasty way either online or offline
- met face to face someone whom they had first got to know online.

Based on these findings, we can tentatively conclude the following:

- Children who encounter sexual content or hate speech online are more likely to report being upset by something online in the past year. While avoiding such content entirely may be difficult, children could benefit from guidance and support on how to avoid, and how to cope with, exposure to such content, especially when it is unwanted or when the content is extreme in nature.
- Children who have been treated in a hurtful way online or offline are more likely to report being bothered or upset. This suggests that events occurring offline affect children's online lives, and that children feel hurt by offensive behaviours irrespective of where they happen.
- Meeting an online contact face to face can also increase the likelihood of a child reporting being upset. This may seem to contradict the earlier findings that most children feel happy about such experiences, but it is important to remember that some children do not.
- Although the online risk findings reported earlier consistently show that older children report more exposure to online risks, no clear link was found between age and the reporting of being upset by something online. This suggests that risk exposure alone may not be the deciding factor – for younger children, risk can result in children being bothered by something online because they are vulnerable or unprepared. For older children, risk can result in being upset because they explore and experiment more widely online and so encounter more, and more severe, risks.
- Interestingly, how much children watch videos or engage in social interaction or play games online is unrelated to their likelihood of being upset. It seems that what makes the difference is not children's online activities but their encounters with risky content online (which may be more common on some platforms than others). As noted above, the analysis specifically linked children's experience of being upset to their exposure to hateful or sexual content or hurtful conduct. Efforts should therefore be focused on minimizing these risks, rather than on seeking to reduce children's online activities overall. Ensuring that participation is not sacrificed for protection will also help to realize children's rights in the digital environment.
- Other factors explored were also found to be unrelated to children reporting being upset or bothered by something online. Most notable of these is the child's parent or caregiver's approach to mediation, as well as other factors such as peer or community support. More research is needed to determine whether and under what circumstances forms of social support can help to mitigate children's experiences of harm from online risk.

7.5 Testing the Global Kids Online research framework

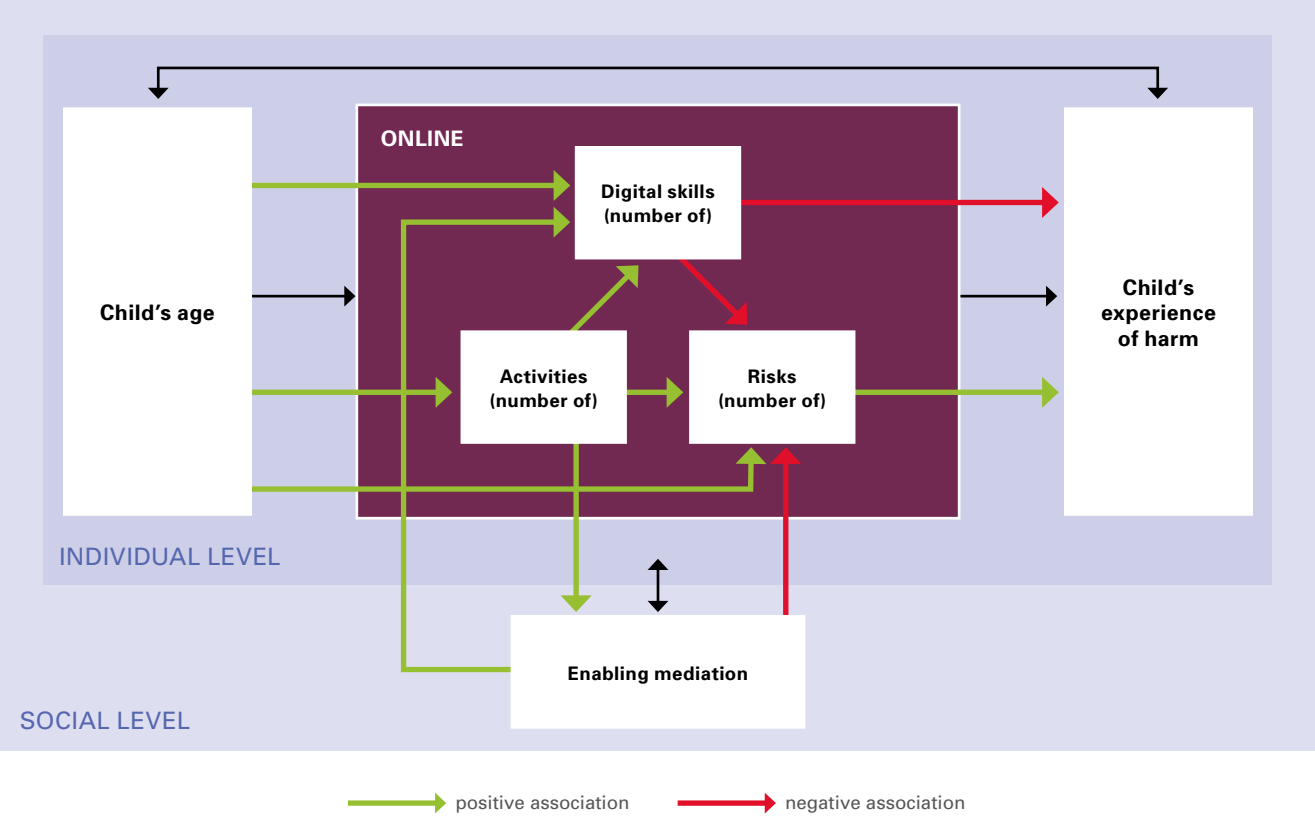
How can we bring all the findings of this report together? The Global Kids Online model presented at the outset offers a way of interrelating the variables examined in the preceding sections. The findings also indicate a series of possible relationships among the variables. For instance, in the section on online activities, we saw that older children, and those who have more support from parents and better internet access opportunities, are more likely to participate in a wider range of online activities (*see section 5*). In the skills section, we found that many of these activities, including entertainment activities, appear to contribute significantly to the development of digital skills (*see section 6*). In the present section on risk, however, we found that while the activities in and of themselves may not be harmful, they can expose children to harmful content or conduct as an unintended consequence of children's online participation.

The final step in our present analysis was to build a statistical model to test whether these relationships fit with the data from the different countries. Using cross-sectional data from 7 of the 11 countries, and considering the findings from earlier sections, we fitted equal path models for each country using the following variables:

- child's age
- number of different online activities the child engages in weekly
- number of different digital skills that the child reports
- number of different risks the child encountered in the past year
- enabling mediation by the child's parent or caregiver
- whether a child reported being hurt or upset by something online.

The hypothesized pathways are shown in the path diagram below (*see Figure 36*).

Figure 36. Hypothesized equal path model



The model fitted well in five of the seven countries, and moderately well in the other two. This suggests that, overall, the proposed model provides a plausible account of the data. Importantly, the direction and statistical significance of the variables were found to be the same in all seven countries, which provides an indication that the model is robust.

Contrary to our hypothesis, however, in some countries there was no relationship between digital skills and online risks, and in others there was a very small positive association with online risks. This could be because the analysis focused on the aggregate number of skills a child is competent in, as a proxy indicator for the level of digital skills overall; in reality, specific safety skills may be needed to shield children from exposure to risk.

The following implications (and hypotheses for further testing) can be stated on the basis of the results of the path analysis of the seven countries:

- The number of online activities that children engage in, the number of digital skills they possess and their exposure to online risks all increase as children get older. This seems to be mostly driven by the number of activities a child engages in – the more activities, the greater the skills, but this also results in somewhat greater exposure to online risks.
- Enabling mediation by parents slightly improves children's digital skills in all seven countries, and it slightly reduces their exposure to online risks in every country except Ghana and the Philippines.
- Exposure to more online risks makes children more likely to be upset or bothered by something online, and the digital skills measured in this report do not seem to reduce children's exposure to online risks.

8. Conclusion

What have we learned from surveying children aged 9–17 years, living in 11 countries around the world, about their digital experiences? Do the findings help us to answer the research questions set out at the start of this report? Our research questions concern online opportunities and risks, which we will discuss momentarily. But first we must address the challenge of internet access.

8.1 Internet access remains a challenge for some

Access has been found to vary considerably by the child's age and by country. This report includes findings from 11 countries, which can be classified in terms of income.[33] Among children in the middle-income countries, home internet access is notably lower than for those children living in upper-middle-income and high-income countries (even among internet-using populations). The consequences of this – in constraining children's opportunities to access information, to interact socially and to develop digital skills and more – have been evident throughout the various sections of this report.

In addition to making cross-national comparisons, we examined two potential sources of inequality among children. First, gender: Readers may be surprised that, with exceptions here and there, gender differences are modest and, at times, boys would appear to be more disadvantaged than girls. It should be remembered that this report concerns internet-using children only, however, and it is possible – even likely – that girls have less access to the internet, especially in the global South. Once children gain internet access, however, observable gender differences are generally few. There is even some indication that, as countries gain greater internet access and it becomes more familiar, gender differences diminish still further. This might be different in some countries compared to others, however.

Second, age: Here, differences have been striking in all sections of the report, with older adolescents generally gaining both more opportunities and skills and encountering more risks in the digital world, compared with younger children. There are likely to be many explanations for this, concerning parenting; educational policy; government provision of access and resources; children's development, maturity and curiosity; and more. There's no doubt that children of different ages are differently positioned by those responsible for them, and that their experiences of the internet are different. It remains contestable, however, whether a more limited experience of the internet is in the best interests of young children, or whether this contravenes their best interests by introducing inequalities. It is also thought-provoking that while older children encounter more online risks, their experience of being upset is not much different from that of younger children, pointing to the importance of developing children's resilience to cope with the digital environment.

It has been harder to examine the effects of socio-economic advantage/disadvantage, since this is difficult to measure for children and because our measures proved incomparable across countries. Nonetheless, there are indications that the socio-economic status of the household matters – for instance, children with access to more digital devices engage in more online activities. We also found evidence of a virtuous (or vicious) circle of online activities, according to which children who do more (or less) of one activity tend to do more (or less) of the others also.

To understand these patterns in context, the country reports should be consulted.[34] For example, children use the internet least frequently in Ghana and the Philippines. In Ghana, children's internet access at school is quite limited as the country's information and communications technology infrastructure is underdeveloped and few schools have computer labs with an internet connection. The Ghana Education Service has also introduced

33 These classifications are based on the World Bank's country classifications for the 2018/19 fiscal year.

34 See: Global Kids Online, 'Research results', <www.globalkidsonline.net/results>, accessed 12 September 2019.

a policy prohibiting children's use of mobile phones at school, meaning that mobile internet use is not an accessible alternative for children at school. Many children in Ghana do not have their own mobile phone and rely on using a friend's or a parent's phone,[35] which may limit the amount of time they can spend online. In both Ghana and the Philippines, cost is also a deterrent to spending long hours on the internet. In the Philippines, for example, children often rely on the free Wi-Fi service available in shopping malls, which often has a two-hour limit.

In all countries, the home provides more internet access to more children than does the school (or other places). But many children, often in poorer countries, lack internet access at home, and some children we spoke to face substantial barriers to access. The qualitative research demonstrates their frustrations and struggles with trying to get online:

- "At school, they don't let you [use your phone] ... but nobody ever obeys those rules." (Boy, 13–14 years, Argentina)
- "I go to [an internet] café because we don't have a computer in the house.... We don't have access to internet at school." (Boy, 15–17 years, South Africa)
- "If your network is low [poor].... When the lights [power] are out ... sometimes we don't have money to bundle or go to café." (Boy, 12–14 years, Ghana)
- "I do not spend my daily allowance, so I can play at the pisonet shop." (Boy, 9–11 years, the Philippines)
- "I wish that some of the programmes, like the learning programmes on the internet were free. 'Cos some of us need it then don't have data to download it." (Girl, 14–17 years, South Africa)

Research question 1: Online opportunities

The first research question was: When and how does use of the internet (and associated online, digital and networked technologies) contribute positively to children's lives, providing opportunities for them to benefit in diverse ways that contribute to their well-being?

As this report has shown, once children gain internet access, they enjoy a wide range of online opportunities – especially if they are teenagers, and if they have more or better-quality access and less restrictive parents. We can learn more about the kinds of opportunities they enjoy from the qualitative research. For instance, while it is not always appreciated that children really value the internet as an information resource, the focus group interviews reveal the range of ways in which children seek information online to support their formal learning activities and their natural curiosity to learn something new:

- "They asked us to look for names of ministers in Ghana, to search about countries and their currencies. You can get news about other countries." (Girl, 12–14 years, Ghana)
- "I failed maths, so I watched a couple of vids [videos] where they explained what I had to study." (Boy, 15–17 years, Argentina)
- "One time we had a video that needed to be liked and shared and was used as a basis for our grade in school." (Girl, 15–17 years, the Philippines)
- "We get information that can help me in school.... Poems and songs ... health tips.... I learned a lot, especially current affairs, and this helps me in my academic work." (Girl, 12–14 years, Ghana)
- "I can learn about South African history." (Girl, 12–14 years, South Africa)

Online activities have been examined as opportunities in relation to a hypothesized ladder of online participation. This posits the idea of entry-level activities – which turn out to be the, often mass-produced, content and straightforward activities that children engage

35 *Risks and Opportunities Related to Children's Online Practices: Ghana Country Report.*

with when young and first venturing online. Some such activities are the focus of adult anxiety for their supposed time-wasting capacity or excessive screen-time (watching videos, using social media, playing games), and yet we suggest that these mainstream entertainment activities enable children to develop the interest and digital skills to progress further – towards information-seeking, creative, social interaction and civic engagement activities.

Notably, children report high levels of video-viewing and online game playing, and children's pleasure in these – even from a young age – is evident from the qualitative research:

- "You can share videos and games. You can share music. You can also share pictures, ideas, games". (Girl, 9–11 years, Ghana)
- "The five of us will play at the same time, I will invite them…. we play as an ally." (Boy, 9–11 years, the Philippines)

In short, the findings suggest that for younger children, entertainment and social activities are appealing first steps when first venturing online. Whether this leads to the development of digital skills and beneficial online activities – rather than, as many fear, to a narrow or problematic absorption in game playing alone – may depend less on the individual child than on the family and digital culture that surrounds her or him.

Social interaction activities are also highly appealing to children, as shown by the survey findings in all countries. Children appreciate the opportunities to socialize with their friends and, while many avoid talking online to people they don't know, some children told us that they enjoy making new friends on social media:

- "[I like] being in contact with the others all the time, knowing what the others are doing." (Boy, 15–17 years, Argentina)
- "I feel happy when I chat with my friends … I learn new things since we share ideas". (Girl, 12–14 years, Ghana)
- "On Facebook, you can get a friend you've never met before." (Girl, 15–17 years, Ghana)
- "You can contact somebody who is far away over Skype or a video call." (Girl, 13–14 years, Argentina)
- "If we don't go to school, you can talk to your friend and find out what you missed and stuff. So it's important to, like, have your friend's WhatsApp." (Girl, 16–17 years, South Africa)

Problematically, creative and civic engagement activities tend to be limited to a minority of children: most children undertake neither, even though these very opportunities have been much heralded as the promise of the digital age.

It is, we suggest, a challenge to policymakers and children's organizations to find ways to better enable children to enjoy these opportunities, thereby developing their digital skills – as the present findings show – and, importantly, participating online in civic engagement, in social interaction and in being creative.

Research question 2: Online risks

The second research question was: When and how is use of the internet (and associated online, digital and networked technologies) problematic in children's lives, amplifying the risks of harm that may undermine their well-being? This is a growing concern, posing serious challenges for states and parents in their efforts to protect children.

The range of potential harms linked to the internet is considerable and growing. For the present report, we asked about seven risks relating to content, conduct and contact, none of which is easy to ask children about. Again, the qualitative findings are helpful in illustrating the kinds of risks that concern children. Some may seem relatively mild, though children can find them very upsetting:

- "Everyone started teasing and playing jokes on a boy. He ended up leaving the group." (Boy, 13-14 years, Argentina)
- "There are ugly comments about other people." (Girl, 13-14 years, South Africa)
- "Most people type sexual things that are not meant for the eyes." (Girl, 12–14 years, South Africa)

- "It also happened to me.... An anonymous profile with a fake name that uploads pictures and insults you just to piss you off." (Boy, 13–14 years, Argentina)
- "Someone posts a status and starts insulting people. As we all share friends, they all get involved and make things worse in their comments … they will insult you, dare you to fight them." (Girl, 13–14 years, Montenegro)

Other risks are more obviously concerning:

- "I was very scared ... I saw a picture of a boy who was shot dead." (Boy, 12–14 years, Ghana)
- "I felt worried.... A man beat his wife.... Rape cases – it was about a man who raped a three-year-old girl." (Girl, 12–14 years, Ghana)
- "I was really upset when the guy sent me pornographic pictures." (Girl, 12–14 years, Ghana)
- "I once experienced a stranger asking for 'my price' – meaning how much would it cost to perform a sexual activity." (Boy, 16 years, the Philippines)
- "A friend said he saw a nice video – after downloading, it was a pornographic video." (Girl, 9–11 years, Ghana)

In summary, the survey findings show that in relation to online risk and harm:

1. Online self-harm content has been seen only by between one in five and one in seven children, depending on the country in which they live, with older adolescents even more likely to report such exposure.

2. Children's exposure to online suicide-related content is less common but follows a similar pattern.

3. Children's exposure to online hate speech varies more widely across countries – from fewer than one in seven children in lower-middle-income countries, rising to one in three children (and almost half of older adolescents) in wealthier countries.

4. There are also big country differences regarding children's exposure to sexual images (online or offline), and both age and gender differences are marked.

5. The picture for exposure to violent content online is more consistent, with between a fifth and a third of children affected, depending on country and age, and with a mixed pattern of gender differences across countries.

6. Evidence for conduct risks suggests these are rarer. Between 1 and 3 in 10 children report being treated in a hurtful or nasty way online, with few gender or age differences.

7. Contact risks are also fairly rare. Between 1 and 2 in 10 children say they have met face to face someone whom they had first got to know online; since this can be the most severe risk, we followed up on this question, finding that most children report positive experiences of such meetings.

While it may be tempting to add up these findings and conclude that surely all children have encountered online risks, our further analysis shows that some children encounter multiple risks while others remain risk-free. This makes it an urgent priority to identify and support children whose offline and online experiences are relatively riskier. It is also vital to understand why children's digital experiences are so diverse. The Global Kids Online model hypothesizes explanations at the individual, social and country level, and further analysis of the present data may reveal the vulnerability and resilience factors that operate at each level.

8.2 Balancing opportunities and risks

Parents are generally considered responsible for balancing children's online opportunities and risks, and the qualitative research suggests that children are often positive about such parenting, although they also turn to friends for support:

- "Sometimes I go online when my siblings are around. I go with my friends, my mother, my aunty.... They assist me." (Girl, 12–14 years, Ghana)
- "My uncle taught me how to block someone." (Girl, 12–14 years, Ghana)
- "A friend of mine taught me how to use Instagram." (Girl, 15–17 years, Argentina)

In distinguishing parental enabling mediation from parental restrictive mediation, the report has shown that restrictive parenting (limiting or banning online activities) tends to reduce children's online opportunities and digital skills, while enabling mediation – which guides and supports the child's online activities – is beneficial in supporting opportunities as well as slightly reducing risk exposure in most countries. No wonder children do not always sound so positive when their parents practise restrictive mediation:

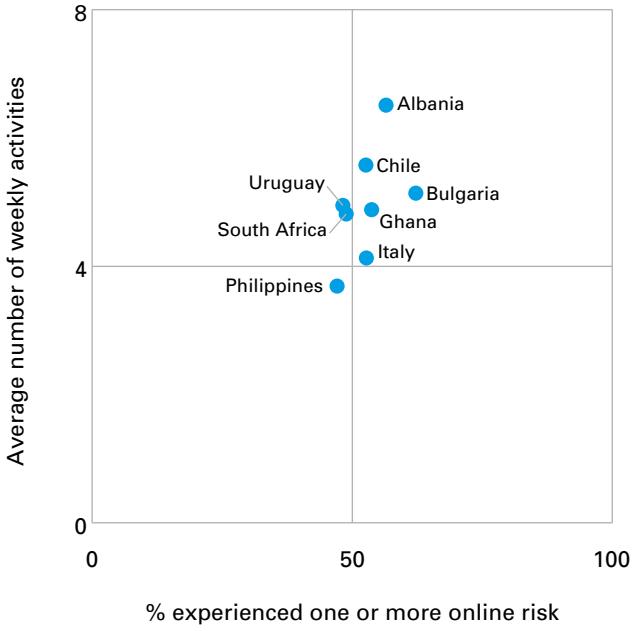
- "[My mum] says 'leave these social networks!'" (Girl, 14-15 years, South Africa)
- "My mum would kindly tell you to give her your phone because she wants to make a call. And when she gets the phone, she would make sure she is done with whatever she wants, after that she will make her phone call." (Girl, 15–17 years, Ghana)
- "[My mum] takes away my phone when we have exams." (Girl, 9–11 years, South Africa)

In so far as parents cannot be solely burdened with the responsibility for children's online opportunities and risks, the findings of this report (as captured in the path analysis used to test the Global Kids Online model) introduce a dilemma for policymakers. For while the findings suggest that the more children participate in online activities, the better their digital skills development (and, potentially, the more online benefits they will enjoy), children are at the same time more exposed to risky – and potentially harmful – content, contact and conduct.

However, whether for reasons of economy, culture, or policy regarding technology or childhood, children's risks and opportunities in the digital age vary considerably across the countries included in this report. Below, we bring together the findings for online activities and risks, to show how they correlate by country (*see Figure 37*).

Overall, there is a positive diagonal line from bottom left to top right. This tells us that, broadly speaking, as children do more online, they encounter more risks. As children gain more and faster internet access in the coming years, both

Figure 37. Average number of activities by children (%) who have experienced online risks, by country



Note: For details on the online activities and online risks included in this analysis, refer to annex 1.

more opportunities and more risks may be expected.

The cross-national comparisons are also informative. The above figure reveals that children in the Philippines benefit from the fewest online activities but also report the lowest incidence of exposure to online risks. By contrast, children in Albania benefit from the greatest number of online activities, but a high proportion of children also report exposure to online risks – though Bulgaria is the location of the highest proportion of children encountering online risks, although they engage in an average number of online activities.

Some of the country comparisons raise questions about possible good practice to be shared across countries. For instance, children in Chile and Italy report similar exposure to online risks, but children in Chile benefit from more online opportunities. This suggests that there can be ways to increase children's online opportunities without increasing the risks they face, as in Chile; the reasons for this, however, await further investigation. Similarly, children in Ghana and South Africa do about the same number of online activities but those in Ghana face more online risks; uncovering the reason for this merits further investigation.

8.3 Implications for children's rights in the digital environment

The findings of this report support the claim that internet use both contributes to and undermines children's well-being in multiple ways. The findings therefore have implications for how access to and use of the internet may help to realize a wide range of children's rights, as set out in the Convention on the Rights of the Child and important also to the Sustainable Development Goals.

Although internet access is not a right in itself, there is growing recognition of its importance in mediating children's rights in the digital age. In this context, it matters that the present findings show the crucial importance of internet access for children, who still face multiple barriers to getting online in many countries.

The factors differentiating children's online lives examined in this report (age, gender and country, for the most part) not only shape their online access but also their online activities, digital skills and encounters with online risks. This, we suggest, has a range of implications for the realization of children's rights. For instance, according to the Convention, children have the right to information (articles 13 and 17) and to education (articles 28 and 29); hence our present purpose in documenting the extent to which children in different countries and contexts exercise these rights through the digital space.

As the findings show, considerably less than half of internet-using children in each country report doing at least three of the following online activities at least weekly: learning something new; searching for information; looking for resources; looking for news; or looking for health information. While the indicator used could be varied, this is not a high level of information-seeking overall, and so points to the need for more support – whether from school, parents or digital providers – to encourage children to benefit fully from the digital world.

Although it is sometimes thought that such matters are best left to adults, the Convention is clear that children have civic rights, including the rights to be heard, to express themselves and to meet others. Creative online activities can be a way for children to exercise their rights to be heard, to express themselves and to meet and exchange ideas with others (in accordance with articles 12, 13 and 15 of the Convention). In this regard, the findings suggested worryingly low levels of creative and civic participation by children. Children's social and communicative rights in comparison, are better fulfilled by their online participation.

According to the Convention, children have the right to play (article 31) as well as the right to mass media content of social and cultural benefit to them (article 17). The survey data showed notably higher levels of video-viewing and online game playing among all children, raising interesting questions about the conditions under which children's rights may best be fulfilled – perhaps by enabling their enjoyment and self-motivated exploration of the online world through play.

The right of the child to be protected from harm, and the obligations of the state to ensure such protections are effective, is clearly set out in the Convention (especially articles 17, 19, 34–37; see also articles detailing the child's right to redress). This report has argued that, with children facing unprecedented online risks and opportunities, it is crucial that we better understand the nature of these risks and the likelihood that children feel upset as a result of their exposure to such risks. As the report has shown, restrictive measures for protecting children from online risks of harm have clear drawbacks, as they reduce online opportunities and limit digital skills and may also miss the mark completely. Our findings suggest that it is content or contact with others, rather than the activities per se, that increase the likelihood of a child having an upsetting experience online. As such, interventions should be more specifically targeted at problematic content, rather than at aiming to reduce children's screen-time overall.

In framing the survey questions, we also had in mind children's rights to family life, to identity and to practise their own culture, language and religion (articles 7–8 and 30 of the Convention) as well as a host of other rights. Further research is needed to trace how internet access and use are reshaping the wider conditions for children's rights and well-being in the digital age.

The findings presented in this report provide plenty of indications of where children would benefit from further support to ensure their rights in the digital environment. Such support may come from parents, but this is challenging in itself. First, the complexity and pace of change in technological innovations places an arguably impossible burden on parents to maximize their children's opportunities and minimize their risks of being upset, especially given the many other pressures faced by parents and caregivers.[36]

As for the role of schools in supporting children's digital experiences, there is clearly considerable scope for further improvement. For instance, across the countries, more children claim fewer critical evaluation skills than information-seeking skills. Teaching digital skills and literacies in schools is increasingly recognized as important for realizing children's right to education (articles 28–29 of the Convention) as well as providing a means by which to realize their other rights (notably, the rights to information, to expression, to privacy and to participation). Additionally, many children report low levels of internet access in school, which reduces the opportunities to teach children the digital skills they need to be able to use the internet for their benefit.

Worldwide, we are witnessing huge investment in ICT infrastructure and internet services by governments, industry and civil society. The result is a rapid increase in access to online networks and services by individuals and households in many countries. This report recognizes that, while the specific steps needed to advance children's best interests may vary across countries, policy makers should take a balanced and integrated approach that aims to reduce children's online exposure to harm without infringing their opportunities to benefit. The new and robust evidence and analysis generated in this report aims to illuminate the urgent and important tasks now facing states, schools, parents and children's organizations around the world – namely, to fulfil children's rights in a digital world.

36 Livingstone and Byrne, 'Parenting in the Digital Age'.

Annex 1: Survey questions used in analysis

Figures 4a–5b

Question B6. How often do you go online or use the internet at the following places?

Answer for each option:

1. Never
2. Hardly ever
3. At least every month
4. At least every week
5. Daily or almost daily
6. Several times each day
7. Almost all the time

a. At school or college

b. At home

Table 2, Figures 6a–7b

Question B7. How often do you go online or use the internet using the following devices?

Answer for each option:

1. Never
2. Hardly ever
3. At least every month
4. At least every week
5. Daily or almost daily
6. Several times each day
7. Almost all the time

a. A mobile phone that is not a smartphone [add local examples to explain]

b. A smartphone [insert local examples]

c. A desktop computer

d. A laptop or notebook computer

e. A tablet computer [insert local examples]

f. A games console [insert local examples]

g. A television

Figures 8a–8b

Question B11. About how long do you spend on the internet on an ordinary weekday (school day or working day)?

Choose one answer:

1. Little or no time
2. About half an hour
3. About 1 hour
4. About 2 hours
5. About 3 hours
6. About 4 hours
7. About 5 hours
8. About 6 hours
9. About 7 hours or more

Figures 9a–9b

Question B12. About how long do you spend on the internet on a day at the weekend?

Choose one answer:

1. Little or no time
2. About half an hour
3. About 1 hour
4. About 2 hours
5. About 3 hours
6. About 4 hours
7. About 5 hours
8. About 6 hours
9. About 7 hours or more

Figures 10a–10b, 12–13, 15

Question I4. When you use the internet, how often does your parent/caregiver do any of these things?

Answer for each option:

1. Never
2. Hardly ever
3. Sometimes
4. Often
5. Very often

a. Encourages me to explore and learn things on the internet

b. Suggests ways to use the internet safely

Figures 11a–11b, 12, 14, 16

Question I6. Does your parent/caregiver allow you to do the following things on the internet and, if so, do you need their permission to do them?

Answer for each option:

1. I am allowed to do this anytime
2. I am allowed to do this with permission or supervision
3. I am not allowed do this

a. Use a web or phone camera (e.g., for Skype or video chat)

b. Download music or films

c. Visit a social networking site (e.g., Facebook [insert local terms])

Figures 13–14, 17a–22b, Tables 3–4, Figure 37

Question C4. How often have you done these things online in the past month?

Answer for each option:

1. Never
2. Hardly ever
3. At least every week
4. Daily or almost daily
5. Several times each day
6. Almost all the time

Information-seeking activities

a. I learned something new by searching online

b. I looked for information about work or study opportunities

d. I looked for resources or events about my local neighbourhood.

h. I looked for news online

ee. I looked for health information for myself or someone I know

Creative activities

m. I created my own video or music and uploaded it to share

n. I created a blog or story or website online

Entertainment activities

x. I watched video clips (e.g., on YouTube)

y. I played online games

Social interaction activities

e. I used the internet to talk to people from places or backgrounds different from mine

p. I visited a social networking site (e.g., Facebook)

q. I talked to family or friends who live further away (e.g., by Skype)

r. I used instant messaging (IM)

ff. I participated in a site where people share my interests or hobbies

Civic engagement activities

i. I discussed political or social problems with other people online

Figures 23a–25b

Question E1. Think about how you use the internet. How true are these things for you?

Choose one answer:

1. Not true for me
2. A bit true for me
3. Fairly true for me
4. Very true for me

Information-seeking skills

h. I find it easy to choose the best keywords for online searches

Critical evaluation skills

g. I find it easy to check if the information I find online is true

Privacy skills

b. I know how to change my privacy settings (e.g., on a social networking site)

l. I know which information I should and shouldn't share online

m. I know how to remove people from my contact lists

Figures 15–16, 26–30b, 37

Question F41. In the past year, have you seen websites or online discussions where people talk about or show any of these things?

Answer for each option:

1. No
2. Yes
3. Prefer not to say

a. Ways of physically harming or hurting themselves

b. Ways of committing suicide

d. Hate messages that attack certain groups or individuals (e.g., people of different colour or religion or nationality)

f. Gory or violent images[37]

Figures 15–16, 26, 31a–31b, 37

Question F28. In the past year, have you ever seen any sexual images?[38]

Choose one answer:

1. No
2. Yes
3. Prefer not to say

37 In Albania, children were asked: in the past year, have you ever seen images or videos of real violence online? this could for example be of people hurting someone else, punching, kicking or beating them, or people being killed).

38 In Albania, children were asked: How often do you feel upset because of hateful or degrading messages or comments online that are directed to you?

Figures 32a–32b

Question F31. The last time you saw images of this kind [sexual images], where did you see them?

Answer for each option:

1. No
2. Yes
3. Prefer not to say

c. Via a mobile phone, computer, tablet or any other online device

Figures 15–16, 26, 33a–33b, 37

Question F18. In the past year, has anyone ever treated you in a hurtful or nasty way?

Choose one answer:

1. No
2. Yes
3. Prefer not to say

Figure 33c

Question F20. If someone has treated you in this way, how has it happened?

Answer for each option:

1. No
2. Yes
3. Prefer not to say

a. In person face-to-face (by someone with you in the same place)

b. Via a mobile phone or online device (computer, tablet, etc.)

Figures 15–16, 26, 34a–34b, 37

Question F3. In the past year, have you ever met anyone face to face that you first got to know on the internet?

Choose one answer:

1. No
2. Yes
3. Prefer not to say

Figures 34c

Question F4. If you met anyone face-to-face that you first got to know on the internet, how did you feel about it?

Choose one answer:

1. I was happy
2. I was not happy or upset
3. I was a little upset
4. I was fairly upset
5. I was very upset
6. Prefer not to say

Figures 35a–35b

Question F11. In the past year, has anything ever happened online that bothered or upset you in some way (e.g., made you feel uncomfortable, scared or that you shouldn't have seen it)?

Choose one answer:

1. No
2. Yes
3. Prefer not to say

Annex 2: Derived variables and scales used in analysis

The sections on parental mediation and support, online activities, digital skills and online risks present data that have been aggregated from a range of responses. To create the aggregated categories, we grouped questions of a similar nature using predefined cut-off points.

Activities

For the analysis of online activities, we were interested in whether children accessed the internet or engaged in an activity on a weekly basis or more often. While we would not expect all children to engage in all activities daily or even weekly, we assume that for an activity to affect a child's life substantially, it needs to be conducted with some frequency. Weekly use was therefore the chosen cut-off point when aggregating the online activities categories.

The following categories were created and used throughout the report:

Information-seeking activities

- I learned something new by searching online
- I looked for information about work or study opportunities
- I looked for resources or events about my local neighbourhood.
- I looked for the news online
- I posted photos or comments online (e.g., on Facebook or a blog)

Creative activities

- I created my own video or music and uploaded it to share
- I created a blog or story or website online *[not asked in Uruguay]*

Social interaction activities

- I used the internet to talk to people from places or backgrounds different to mine
- I visited a social networking site (e.g., Facebook, [explain and add local examples])
- I talked to family or friends who live further away (e.g., by Skype, [explain and add local examples])
- I used instant messaging (IM) [e.g., Viber, WhatsApp]
- I participated in a site where people share my interests or hobbies

Civic engagement activities

- I discussed political or social problems with other people online

While these activities are not the only ones in each category in the Global Kids Online questionnaire, they were asked in most or all of the 11 countries surveyed, allowing for cross-national comparisons. We recognize that these categories are not mutually exclusive – it is possible that watching videos or gaming can be a learning and information-seeking activity as well as a social interaction activity. But understanding *why* a child engages in a particular activity would require an additional layer of enquiry that the questionnaire does not currently accommodate, though we recognize that this does limit our analysis.

Parental mediation and support

For the analysis of parental mediation and support, we asked children about how their parents or carers mediated their internet use.

To measure enabling mediation, we asked children how often their parents or carers supported and guided their internet use. Those who said their parents or carers did the following things often or very often were considered to experience enabling mediation.

Enabling mediation

- Encourages me to explore and learn things on the internet
- Suggests ways to use the internet safely

To measure restrictive mediation, we asked children if they were restricted from doing the following online activities or needed permission beforehand.

Restrictive mediation

- Use a web or phone camera (e.g., for Skype or video chat)
- Download music or films
- Visit a social networking site (e.g., Facebook

Digital skills

For the analysis of digital skills, we assessed children's self-reported digital skills by providing them with a list of statements grouped around operational skills, information-seeking/browsing skills, social skills, creative skills and mobile skills, asking how true each statement was for them. Self-reporting of digital skills is the most common way to measure digital skills – it particularly suits abstract skills that are difficult to measure objectively. Relying on self-reported skills is not ideal, however, and may be said to represent children's confidence in their abilities rather than their actual abilities. This is a limitation of survey research on digital literacy more broadly, as objective assessments are more complicated to carry out. Nevertheless, studies that compare children's self-reported skills with objectively verified skills report a high degree of concordance.[39]

In this report, children were considered proficient in a skill if they found the skill statement to be 'fairly true' or 'very true' for themselves.

In addition to measuring information-seeking skills and critical evaluation skills, we measured privacy skills by grouping the following questions:

Privacy skills

- I know how to change my privacy settings (e.g., on a social networking site)
- I know which information I should and shouldn't share online
- I know how to remove people from my contact lists

As with the online activities section, the variables analysed do not cover all of the digital skills included in the Global Kids Online questionnaire, but they were the skills asked in most or all of the 11 countries, allowing for cross-national comparisons.

39 Logar, Svetlana, et al., *Global Kids Online Montenegro: Opportunities, risks and safety*, United Nations Children's Fund, Podgorica, November 2016.

Annex 3: Details of binary logistic regressions

This annex provides the full results of the binary logistic regressions presented in sections five to seven of this report. To learn more about how each of these variables were defined throughout the report, see annex 4.

Online Activities

Information-seeking activities

Albania

Base: All children who use the internet N = 812	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.457	.148	9.503	1	.002	1.580
Gender	.421	.197	4.556	1	.033	1.524
Socio-economic status						
Number of digital devices	.229	.095	5.784	1	.016	1.257
Mobile-only access	.323	.281	1.319	1	.251	1.381
Time spent online (weekday)	-.002	.073	.001	1	.978	0.998
Time spent online (weekend)	.183	.071	6.539	1	.011	1.201
Breadth of online activities	0.835	.108	60.270	1	.000	2.304
Parent's daily use of the internet						
Peer support	.048	.042	1.315	1	.251	1.049
Sense of community safety	-.083	.043	3.708	1	.054	.920
Enabling parental mediation	-.010	.037	0.065	1	.799	0.991
Restrictive parental mediation	.035	.055	0.421	1	.517	1.036
Parental monitoring	-.009	.036	0.068	1	.795	.991
Constant	-6.277	.716	76.812	1	.000	.002

Bulgaria

Base: All children who use the internet N = 892	B	S.E.	Wald	df	Sig.	Exp(B)
Age	1.001	.146	47.351	1	.000	2.722
Gender	.508	.193	6.942	1	.008	1.662
Socio-economic status	-.113	.064	3.138	1	.077	0.893
Number of digital devices	.287	.099	8.363	1	.004	1.333
Mobile-only access	.111	.407	0.074	1	.786	1.117
Time spent online (weekday)	.055	.085	.418	1	.518	1.057
Time spent online (weekend)	-.126	.072	3.076	1	.079	0.881
Breadth of online activities	-.262	.210	1.556	1	.212	.769
Parent's daily use of the internet	-.262	.210	1.556	1	.212	0.769
Peer support	.101	.045	5.125	1	.024	1.106
Sense of community safety	-.094	.043	4.732	1	.030	.911
Enabling parental mediation	.083	.038	4.806	1	.028	1.086
Restrictive parental mediation	-.062	.052	1.396	1	.237	.940
Parental monitoring						
Constant	0.792	.102	60.351	1	.000	2.208

Chile

Base: All children who use the internet N = 599	B	S.E.	Wald	df	Sig.	Exp(B)
Age	1.021	.190	28.799	1	.000	2.776
Gender	.124	.240	0.267	1	.605	1.132
Socio-economic status	-.057	.164	0.119	1	.730	0.945
Number of digital devices	.064	.110	0.337	1	.561	1.066
Mobile-only access	-.540	.419	1.658	1	.198	0.583
Time spent online (weekday)	-.007	.064	.011	1	.915	0.993
Time spent online (weekend)	.006	.063	.010	1	.922	1.006
Breadth of online activities	0.584	.126	21.536	1	.000	1.794
Parent's daily use of the internet						
Peer support						
Sense of community safety						
Enabling parental mediation	.097	.040	5.800	1	.016	1.102
Restrictive parental mediation	-.194	.072	7.320	1	.007	.823
Parental monitoring						
Constant	-5.449	.832	42.852	1	.000	.004

Ghana

Base: All children who use the internet N = 2,043	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.223	.079	7.884	1	.005	1.250
Gender	-.111	.118	0.887	1	.346	.895
Socio-economic status	.346	.113	9.444	1	.002	1.413
Number of digital devices	.315	.110	8.157	1	.004	1.371
Mobile-only access	-.111	.126	0.779	1	.377	0.895
Time spent online (weekday)	-.031	.055	.321	1	.571	0.969
Time spent online (weekend)	.074	.044	2.837	1	.092	1.076
Breadth of online activities	0.750	.049	236.242	1	.000	2.117
Parent's daily use of the internet						
Peer support	.009	.021	0.207	1	.649	1.010
Sense of community safety	-.041	.023	3.096	1	.079	.960
Enabling parental mediation	.070	.023	9.055	1	.003	1.073
Restrictive parental mediation	-.050	.019	6.786	1	.009	.951
Parental monitoring	.105	.027	15.230	1	.000	1.110
Constant	-3.137	.369	72.119	1	.000	.043

Italy

Base: All children who use the internet N = 763	B	S.E.	Wald	df	Sig.	Exp(B)
Age	1.057	.178	35.297	1	.000	2.879
Gender	.151	.230	0.432	1	.511	1.163
Socio-economic status						
Number of digital devices	.133	.124	1.160	1	.282	1.143
Mobile-only access	.029	.408	0.005	1	.943	1.029
Time spent online (weekday)	-.053	.079	.455	1	.500	0.948
Time spent online (weekend)	.012	.074	.028	1	.867	1.012
Breadth of online activities	0.630	.107	34.572	1	.000	1.878
Parent's daily use of the internet	-.065	.356	0.033	1	.856	0.937
Peer support	.006	.046	0.016	1	.898	1.006
Sense of community safety						
Enabling parental mediation	.151	.045	11.117	1	.001	1.163
Restrictive parental mediation	-.052	.050	1.087	1	.297	.949
Parental monitoring						
Constant	-6.294	.942	44.681	1	.000	.002

Montenegro (9-11-year-olds excluded)

Base: All children who use the internet N = 541	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.180	.212	0.720	1	.396	1.197
Gender	.211	.207	1.036	1	.309	1.235
Socio-economic status						
Number of digital devices	.099	.117	0.721	1	.396	1.104
Mobile-only access	.194	.310	0.394	1	.530	1.215
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	1.134	.143	63.040	1	.000	3.107
Parent's daily use of the internet						
Peer support	.058	.050	1.368	1	.242	1.060
Sense of community safety	-.112	.052	4.667	1	.031	.894
Enabling parental mediation	.112	.044	6.652	1	.010	1.119
Restrictive parental mediation						
Parental monitoring						
Constant	-3.978	.875	20.671	1	.000	.019

The Philippines

Base: All children who use the internet N = 994	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.582	.140	17.265	1	.000	1.790
Gender	.138	.209	0.433	1	.510	1.147
Socio-economic status						
Number of digital devices	.395	.093	17.953	1	.000	1.484
Mobile-only access	.638	.216	8.717	1	.003	1.892
Time spent online (weekday)	-.075	.055	1.877	1	.171	0.928
Time spent online (weekend)	.025	.067	.136	1	.712	1.025
Breadth of online activities	0.937	.094	99.055	1	.000	2.553
Parent's daily use of the internet						
Peer support	.125	.047	7.149	1	.008	1.133
Sense of community safety	.006	.047	0.014	1	.905	1.006
Enabling parental mediation	.183	.042	19.123	1	.000	1.200
Restrictive parental mediation	.038	.039	0.958	1	.328	1.039
Parental monitoring						
Constant	-6.739	.669	101.617	1	.000	.001

South Africa

Base: All children who use the internet N = 634	B	S.E.	Wald	df	Sig.	Exp(B)
Age	1.077	.194	30.722	1	.000	2.937
Gender	-.259	.232	1.253	1	.263	.771
Socio-economic status						
Number of digital devices	.619	.151	16.774	1	.000	1.857
Mobile-only access	-.083	.329	0.063	1	.801	0.921
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	0.653	.096	46.196	1	.000	1.921
Parent's daily use of the internet						
Peer support	.055	.042	1.710	1	.191	1.056
Sense of community safety	-.051	.042	1.485	1	.223	.951
Enabling parental mediation	.152	.052	8.404	1	.004	1.164
Restrictive parental mediation	-.025	.047	0.295	1	.587	.975
Parental monitoring	.014	.054	0.071	1	.790	1.014
Constant	-6.017	.916	43.151	1	.000	.002

Uruguay

Base: All children who use the internet N = 862	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.768	.144	28.511	1	.000	2.156
Gender	.286	.180	2.542	1	.111	1.332
Socio-economic status	-.458	.145	9.934	1	.002	0.632
Number of digital devices	.320	.131	5.936	1	.015	1.377
Mobile-only access	.164	.266	0.381	1	.537	1.178
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	0.460	.087	27.971	1	.000	1.583
Parent's daily use of the internet						
Peer support	.021	.038	0.318	1	.573	1.022
Sense of community safety	.025	.041	0.384	1	.535	1.026
Enabling parental mediation	.096	.034	8.163	1	.004	1.101
Restrictive parental mediation	-.076	.042	3.284	1	.070	.927
Parental monitoring						
Constant	-4.522	.781	33.510	1	.000	.011

Creative activities

Albania

Base: All children who use the internet N = 867	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.066	.126	0.277	1	.599	1.069
Gender	-.308	.175	3.084	1	.079	.735
Socio-economic status						
Number of digital devices	.060	.084	0.513	1	.474	1.062
Mobile-only access	-.059	.243	0.058	1	.809	0.943
Time spent online (weekday)	.002	.064	.001	1	.971	1.002
Time spent online (weekend)	.084	.063	1.749	1	.186	1.087
Breadth of online activities	0.671	.092	52.734	1	.000	1.955
Parent's daily use of the internet						
Peer support	-.006	.037	0.025	1	.874	0.994
Sense of community safety	-.067	.037	3.208	1	.073	.935
Enabling parental mediation	.049	.033	2.245	1	.134	1.051
Restrictive parental mediation	-.150	.052	8.437	1	.004	.861
Parental monitoring	.054	.031	3.032	1	.082	1.056
Constant	-2.534	.554	20.946	1	.000	.079

Bulgaria

Base: All children who use the internet N = 897	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.180	.142	1.606	1	.205	0.835
Gender	-.163	.199	0.673	1	.412	.849
Socio-economic status	.127	.067	3.621	1	.057	1.135
Number of digital devices	.216	.097	4.975	1	.026	1.241
Mobile-only access	.158	.442	0.127	1	.721	1.171
Time spent online (weekday)	.077	.084	.857	1	.355	1.080
Time spent online (weekend)	.113	.071	2.575	1	.109	1.120
Breadth of online activities	0.729	.101	52.233	1	.000	2.073
Parent's daily use of the internet	-.093	.221	0.178	1	.673	0.911
Peer support	.030	.045	0.452	1	.501	1.031
Sense of community safety	-.026	.044	0.334	1	.563	.975
Enabling parental mediation	-.004	.039	0.010	1	.920	0.996
Restrictive parental mediation	-.168	.056	9.115	1	.003	.846
Parental monitoring						
Constant	-4.095	.725	31.876	1	.000	.017

Chile

Base: All children who use the internet N = 883	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.251	.179	1.966	1	.161	0.778
Gender	.063	.232	0.074	1	.785	1.065
Socio-economic status	-.075	.164	0.208	1	.648	0.928
Number of digital devices	.232	.102	5.171	1	.023	1.262
Mobile-only access	-.182	.435	0.174	1	.677	0.834
Time spent online (weekday)	-.063	.065	.915	1	.339	0.939
Time spent online (weekend)	.009	.057	.025	1	.876	1.009
Breadth of online activities	0.447	.122	13.423	1	.000	1.564
Parent's daily use of the internet						
Peer support						
Sense of community safety						
Enabling parental mediation	.011	.039	0.082	1	.775	1.011
Restrictive parental mediation	-.088	.058	2.301	1	.129	.916
Parental monitoring						
Constant	-3.111	.739	17.734	1	.000	.045

Ghana

Base: All children who use the internet N = 2,055	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.153	.093	2.705	1	.100	1.166
Gender	.035	.139	0.062	1	.803	1.035
Socio-economic status	.028	.130	0.046	1	.830	1.028
Number of digital devices	-.194	.134	2.079	1	.149	0.824
Mobile-only access	.496	.148	11.188	1	.001	1.643
Time spent online (weekday)	-.140	.066	4.517	1	.034	0.869
Time spent online (weekend)	-.007	.052	.017	1	.895	0.993
Breadth of online activities	0.883	.055	258.779	1	.000	2.417
Parent's daily use of the internet						
Peer support	.081	.025	10.578	1	.001	1.084
Sense of community safety	-.121	.028	18.657	1	.000	.886
Enabling parental mediation	-.013	.028	0.207	1	.649	0.987
Restrictive parental mediation	-.048	.024	3.852	1	.050	.953
Parental monitoring	.165	.029	31.993	1	.000	1.179
Constant	-3.311	.432	58.847	1	.000	.036

Italy

Base: All children who use the internet N = 771	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.022	.174	0.016	1	.900	1.022
Gender	.269	.237	1.292	1	.256	1.309
Socio-economic status						
Number of digital devices	.239	.126	3.612	1	.057	1.271
Mobile-only access	1.392	.375	13.739	1	.000	4.022
Time spent online (weekday)	.233	.080	8.451	1	.004	1.263
Time spent online (weekend)	-.011	.075	.021	1	.886	0.989
Breadth of online activities	0.760	.112	45.950	1	.000	2.138
Parent's daily use of the internet	-.809	.352	5.293	1	.021	0.445
Peer support	.003	.045	0.005	1	.941	1.003
Sense of community safety						
Enabling parental mediation	.095	.046	4.231	1	.040	1.100
Restrictive parental mediation	-.058	.051	1.311	1	.252	.944
Parental monitoring						
Constant	-4.706	.887	28.152	1	.000	.009

Montenegro

Base: All children who use the internet N = 846	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.178	.185	0.926	1	.336	0.837
Gender	-.294	.246	1.428	1	.232	.745
Socio-economic status						
Number of digital devices	.319	.116	7.559	1	.006	1.376
Mobile-only access	.122	.384	0.100	1	.751	1.129
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	1.071	.149	51.904	1	.000	2.920
Parent's daily use of the internet						
Peer support	-.064	.054	1.414	1	.234	0.938
Sense of community safety	-.022	.060	0.143	1	.706	.978
Enabling parental mediation	-.052	.051	1.036	1	.309	0.949
Restrictive parental mediation						
Parental monitoring						
Constant	-3.309	.848	15.224	1	.000	.037

The Philippines

Base: All children who use the internet N = 1,018	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.150	.138	1.176	1	.278	1.162
Gender	.020	.208	0.009	1	.923	1.020
Socio-economic status						
Number of digital devices	.196	.088	5.017	1	.025	1.217
Mobile-only access	-.059	.221	0.070	1	.791	0.943
Time spent online (weekday)	-.028	.056	.254	1	.615	0.972
Time spent online (weekend)	.103	.065	2.460	1	.117	1.108
Breadth of online activities	0.536	.082	43.041	1	.000	1.709
Parent's daily use of the internet						
Peer support	.047	.047	1.014	1	.314	1.048
Sense of community safety	-.113	.047	5.721	1	.017	.893
Enabling parental mediation	.103	.042	5.862	1	.015	1.108
Restrictive parental mediation	.041	.038	1.129	1	.288	1.042
Parental monitoring						
Constant	-3.757	.559	45.190	1	.000	.023

South Africa

Base: All children who use the internet N = 635	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.121	.178	0.464	1	.496	0.886
Gender	-.012	.217	0.003	1	.955	.988
Socio-economic status						
Number of digital devices	.205	.133	2.388	1	.122	1.228
Mobile-only access	.248	.299	0.688	1	.407	1.281
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	0.856	.102	70.433	1	.000	2.353
Parent's daily use of the internet						
Peer support	.055	.039	1.946	1	.163	1.056
Sense of community safety	-.007	.039	0.029	1	.866	.993
Enabling parental mediation	.106	.049	4.726	1	.030	1.112
Restrictive parental mediation	-.084	.043	3.911	1	.048	.919
Parental monitoring	-.196	.055	12.893	1	.000	.822
Constant	-2.753	.763	13.029	1	.000	.064

Uruguay

Base: All children who use the internet N = 868	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.121	.178	0.464	1	.496	0.886
Gender	-.012	.217	0.003	1	.955	.988
Socio-economic status						
Number of digital devices	.205	.133	2.388	1	.122	1.228
Mobile-only access	.248	.299	0.688	1	.407	1.281
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	0.856	.102	70.433	1	.000	2.353
Parent's daily use of the internet						
Peer support	.055	.039	1.946	1	.163	1.056
Sense of community safety	-.007	.039	0.029	1	.866	.993
Enabling parental mediation	.106	.049	4.726	1	.030	1.112
Restrictive parental mediation	-.084	.043	3.911	1	.048	.919
Parental monitoring	-.196	.055	12.893	1	.000	.822
Constant	-2.753	.763	13.029	1	.000	.064

Entertainment activities: Watching video clips online

Albania

Base: All children who use the internet N = 872	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.199	.197	1.025	1	.311	0.819
Gender	-.223	.284	0.617	1	.432	.800
Socio-economic status						
Number of digital devices	-.020	.149	0.018	1	.894	0.980
Mobile-only access	.025	.345	0.005	1	.941	1.026
Time spent online (weekday)	.197	.131	2.271	1	.132	1.218
Time spent online (weekend)	.060	.120	.249	1	.618	1.062
Breadth of online activities	0.365	.145	6.286	1	.012	1.440
Parent's daily use of the internet						
Peer support	.047	.057	0.689	1	.406	1.049
Sense of community safety	.031	.058	0.293	1	.588	1.032
Enabling parental mediation	-.006	.054	0.011	1	.916	0.994
Restrictive parental mediation	-.144	.058	6.250	1	.012	.865
Parental monitoring	.052	.050	1.066	1	.302	1.053
Constant	1.808	.860	4.422	1	.035	6.101

Bulgaria

Base: All children who use the internet N = 897	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.401	.208	3.725	1	.054	1.494
Gender	.393	.259	2.315	1	.128	1.482
Socio-economic status	-.117	.081	2.070	1	.150	0.890
Number of digital devices	.413	.147	7.924	1	.005	1.511
Mobile-only access	.025	.454	0.003	1	.956	1.025
Time spent online (weekday)	-.109	.140	.605	1	.437	0.897
Time spent online (weekend)	.200	.108	3.425	1	.064	1.222
Breadth of online activities	0.687	.186	13.691	1	.000	1.989
Parent's daily use of the internet	.895	.271	10.940	1	.001	2.447
Peer support	.117	.049	5.782	1	.016	1.124
Sense of community safety	-.034	.059	0.345	1	.557	.966
Enabling parental mediation	-.020	.048	0.170	1	.680	0.981
Restrictive parental mediation	-.100	.045	5.028	1	.025	.904
Parental monitoring						
Constant	-1.297	.884	2.152	1	.142	.273

Chile

Base: All children who use the internet N = 882	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.040	.184	0.046	1	.830	0.961
Gender	-.137	.236	0.340	1	.560	.872
Socio-economic status	.205	.172	1.423	1	.233	1.228
Number of digital devices	.088	.112	0.625	1	.429	1.092
Mobile-only access	-.778	.299	6.767	1	.009	0.459
Time spent online (weekday)	.120	.079	2.305	1	.129	1.127
Time spent online (weekend)	.106	.058	3.279	1	.070	1.111
Breadth of online activities	0.649	.153	18.039	1	.000	1.914
Parent's daily use of the internet						
Peer support						
Sense of community safety						
Enabling parental mediation	.047	.039	1.472	1	.225	1.048
Restrictive parental mediation	-.109	.050	4.736	1	.030	.897
Parental monitoring						
Constant	0.701	.743	0.889	1	.346	2.015

Ghana

Base: All children who use the internet N = 2,057	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.171	.074	5.385	1	.020	1.187
Gender	-.101	.111	0.823	1	.364	.904
Socio-economic status	.091	.109	0.709	1	.400	1.096
Number of digital devices	.499	.107	21.766	1	.000	1.646
Mobile-only access	-.068	.119	0.322	1	.571	0.934
Time spent online (weekday)	.217	.053	16.611	1	.000	1.242
Time spent online (weekend)	-.009	.041	.052	1	.820	0.991
Breadth of online activities	0.685	.047	210.757	1	.000	1.984
Parent's daily use of the internet						
Peer support	.035	.020	3.257	1	.071	1.036
Sense of community safety	-.056	.022	6.795	1	.009	.945
Enabling parental mediation	.056	.022	6.331	1	.012	1.058
Restrictive parental mediation	-.071	.018	16.503	1	.000	.931
Parental monitoring	-.045	.027	2.837	1	.092	.956
Constant	-2.318	.339	46.783	1	.000	.099

Italy

Base: All children who use the internet N = 769	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.394	.181	4.733	1	.030	0.674
Gender	.157	.233	0.456	1	.499	1.170
Socio-economic status						
Number of digital devices	.332	.143	5.404	1	.020	1.394
Mobile-only access	-.348	.354	0.971	1	.324	0.706
Time spent online (weekday)	.128	.115	1.252	1	.263	1.137
Time spent online (weekend)	.028	.095	.083	1	.773	1.028
Breadth of online activities	0.783	.181	18.646	1	.000	2.188
Parent's daily use of the internet	.937	.316	8.825	1	.003	2.554
Peer support	.061	.045	1.827	1	.176	1.063
Sense of community safety						
Enabling parental mediation	-.058	.048	1.494	1	.222	0.944
Restrictive parental mediation	-.227	.046	24.771	1	.000	.797
Parental monitoring						
Constant	0.600	.827	0.526	1	.468	1.822

Montenegro

Base: All children who use the internet N = 846	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.375	.145	6.705	1	.010	1.455
Gender	-.203	.204	0.989	1	.320	.816
Socio-economic status						
Number of digital devices	.333	.116	8.309	1	.004	1.395
Mobile-only access	-.166	.267	0.388	1	.533	0.847
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	1.330	.211	39.693	1	.000	3.779
Parent's daily use of the internet						
Peer support	.045	.045	1.001	1	.317	1.046
Sense of community safety	.037	.051	0.526	1	.468	1.038
Enabling parental mediation	.054	.041	1.730	1	.188	1.056
Restrictive parental mediation						
Parental monitoring						
Constant	-0.944	.684	1.905	1	.167	.389

The Philippines

Base: All children who use the internet N = 1,032	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.113	.098	1.339	1	.247	0.893
Gender	.110	.150	0.541	1	.462	1.116
Socio-economic status						
Number of digital devices	.296	.071	17.503	1	.000	1.344
Mobile-only access	.538	.148	13.298	1	.000	1.713
Time spent online (weekday)	.074	.042	3.114	1	.078	1.077
Time spent online (weekend)	.016	.052	.096	1	.756	1.016
Breadth of online activities	0.795	.085	87.385	1	.000	2.214
Parent's daily use of the internet						
Peer support	.028	.032	0.770	1	.380	1.029
Sense of community safety	.000	.032	0.000	1	.990	1.000
Enabling parental mediation	.036	.030	1.475	1	.225	1.037
Restrictive parental mediation	-.050	.026	3.608	1	.057	.951
Parental monitoring						
Constant	-1.615	.378	18.250	1	.000	.199

South Africa

Base: All children who use the internet N = 633	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.234	.163	2.079	1	.149	1.264
Gender	-.270	.208	1.677	1	.195	.764
Socio-economic status						
Number of digital devices	.375	.131	8.123	1	.004	1.455
Mobile-only access	-.344	.282	1.482	1	.224	0.709
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	0.558	.088	40.022	1	.000	1.748
Parent's daily use of the internet						
Peer support	.090	.038	5.641	1	.018	1.094
Sense of community safety	-.025	.038	0.431	1	.511	.975
Enabling parental mediation	-.056	.047	1.405	1	.236	0.946
Restrictive parental mediation	-.198	.040	24.840	1	.000	.820
Parental monitoring	-.004	.045	0.009	1	.925	.996
Constant	-1.159	.732	2.506	1	.113	.314

Uruguay

Base: All children who use the internet N = 869	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.269	.148	3.304	1	.069	0.764
Gender	.490	.184	7.059	1	.008	1.632
Socio-economic status	.315	.152	4.317	1	.038	1.371
Number of digital devices	.368	.148	6.215	1	.013	1.445
Mobile-only access	-.403	.284	2.008	1	.156	0.668
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	0.421	.102	17.036	1	.000	1.524
Parent's daily use of the internet						
Peer support	-.027	.036	0.594	1	.441	0.973
Sense of community safety	.008	.040	0.035	1	.852	1.008
Enabling parental mediation	.014	.032	0.179	1	.672	1.014
Restrictive parental mediation	-.119	.036	10.699	1	.001	.888
Parental monitoring						
Constant	0.237	.725	0.107	1	.744	1.268

Entertainment activities: Playing online games

Albania

Base: All children who use the internet N = 874	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.357	.114	9.815	1	.002	0.700
Gender	-.554	.152	13.366	1	.000	.575
Socio-economic status						
Number of digital devices	.193	.083	5.393	1	.020	1.213
Mobile-only access	-.250	.202	1.525	1	.217	0.779
Time spent online (weekday)	.058	.059	.968	1	.325	1.060
Time spent online (weekend)	.059	.058	1.033	1	.309	1.061
Breadth of online activities	0.305	.079	14.799	1	.000	1.356
Parent's daily use of the internet						
Peer support	-.014	.032	0.193	1	.661	0.986
Sense of community safety	-.056	.033	2.836	1	.092	.946
Enabling parental mediation	.055	.029	3.520	1	.061	1.056
Restrictive parental mediation	.022	.038	0.325	1	.569	1.022
Parental monitoring	-.027	.027	0.968	1	.325	.974
Constant	0.924	.486	3.612	1	.057	2.520

Bulgaria

Base: All children who use the internet N = 894	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.483	.127	14.537	1	.000	0.617
Gender	-1.125	.170	43.748	1	.000	.325
Socio-economic status	-.041	.054	0.579	1	.447	0.959
Number of digital devices	.116	.092	1.592	1	.207	1.123
Mobile-only access	-.564	.305	3.427	1	.064	0.569
Time spent online (weekday)	-.023	.079	.089	1	.765	0.977
Time spent online (weekend)	.104	.064	2.643	1	.104	1.110
Breadth of online activities	0.298	.089	11.277	1	.001	1.347
Parent's daily use of the internet	.155	.184	0.709	1	.400	1.167
Peer support	-.111	.037	8.907	1	.003	0.895
Sense of community safety	.078	.038	4.288	1	.038	1.081
Enabling parental mediation	.001	.032	0.002	1	.965	1.001
Restrictive parental mediation	.014	.036	0.148	1	.700	1.014
Parental monitoring						
Constant	3.007	.605	24.692	1	.000	20.222

Chile

Base: All children who use the internet N = 884	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.814	.130	39.090	1	.000	0.443
Gender	-.725	.160	20.491	1	.000	.484
Socio-economic status	-.021	.113	0.034	1	.853	0.979
Number of digital devices	.294	.078	14.097	1	.000	1.342
Mobile-only access	-.420	.227	3.425	1	.064	0.657
Time spent online (weekday)	.031	.046	.457	1	.499	1.032
Time spent online (weekend)	.080	.041	3.921	1	.048	1.084
Breadth of online activities	0.475	.099	23.171	1	.000	1.607
Parent's daily use of the internet						
Peer support						
Sense of community safety						
Enabling parental mediation	.016	.027	0.379	1	.538	1.017
Restrictive parental mediation	.042	.038	1.182	1	.277	1.043
Parental monitoring						
Constant	1.410	.498	8.029	1	.005	4.095

Ghana

Base: All children who use the internet N = 2,058	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.228	.072	9.883	1	.002	0.796
Gender	-.369	.108	11.733	1	.001	.692
Socio-economic status	-.275	.108	6.438	1	.011	0.760
Number of digital devices	.499	.099	25.674	1	.000	1.647
Mobile-only access	-.446	.116	14.886	1	.000	0.640
Time spent online (weekday)	-.221	.056	15.410	1	.000	0.802
Time spent online (weekend)	.069	.042	2.638	1	.104	1.071
Breadth of online activities	0.489	.043	132.387	1	.000	1.631
Parent's daily use of the internet						
Peer support	-.002	.019	0.011	1	.915	0.998
Sense of community safety	.052	.021	6.022	1	.014	1.054
Enabling parental mediation	.024	.022	1.267	1	.260	1.025
Restrictive parental mediation	.010	.016	0.411	1	.521	1.011
Parental monitoring	.144	.025	34.209	1	.000	1.155
Constant	-0.929	.324	8.195	1	.004	.395

Italy

Base: All children who use the internet N = 769	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.303	.137	4.883	1	.027	0.739
Gender	-1.176	.175	44.922	1	.000	.309
Socio-economic status						
Number of digital devices	.577	.105	30.035	1	.000	1.781
Mobile-only access	-.296	.320	0.859	1	.354	0.744
Time spent online (weekday)	-.114	.071	2.539	1	.111	0.892
Time spent online (weekend)	.058	.064	.826	1	.364	1.060
Breadth of online activities	0.313	.092	11.620	1	.001	1.368
Parent's daily use of the internet	.015	.293	0.002	1	.960	1.015
Peer support	.017	.035	0.232	1	.630	1.017
Sense of community safety						
Enabling parental mediation	.014	.036	0.158	1	.691	1.014
Restrictive parental mediation	-.153	.036	18.088	1	.000	.858
Parental monitoring						
Constant	0.802	.656	1.496	1	.221	2.230

Montenegro

Base: All children who use the internet N = 846	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.141	.102	1.904	1	.168	0.868
Gender	.127	.149	0.728	1	.393	1.135
Socio-economic status						
Number of digital devices	.003	.077	0.002	1	.968	1.003
Mobile-only access	-.197	.209	0.895	1	.344	0.821
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	0.093	.074	1.583	1	.208	1.098
Parent's daily use of the internet						
Peer support	.019	.034	0.337	1	.562	1.020
Sense of community safety	.044	.037	1.352	1	.245	1.044
Enabling parental mediation	-.056	.031	3.349	1	.067	0.946
Restrictive parental mediation						
Parental monitoring						
Constant	0.417	.499	0.696	1	.404	1.517

The Philippines

Base: All children who use the internet N = 1,025	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.606	.105	33.444	1	.000	0.546
Gender	-1.609	.161	100.368	1	.000	.200
Socio-economic status						
Number of digital devices	.320	.071	20.032	1	.000	1.377
Mobile-only access	-.169	.159	1.133	1	.287	0.845
Time spent online (weekday)	.126	.045	8.026	1	.005	1.135
Time spent online (weekend)	-.008	.055	.020	1	.889	0.992
Breadth of online activities	0.618	.077	64.517	1	.000	1.855
Parent's daily use of the internet						
Peer support	-.015	.034	0.194	1	.660	0.985
Sense of community safety	.072	.033	4.853	1	.028	1.075
Enabling parental mediation	-.029	.032	0.831	1	.362	0.971
Restrictive parental mediation	.045	.027	2.724	1	.099	1.046
Parental monitoring						
Constant	1.543	.374	16.984	1	.000	4.679

South Africa

Base: All children who use the internet N = 633	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.173	.144	1.429	1	.232	0.841
Gender	-.078	.180	0.191	1	.662	.925
Socio-economic status						
Number of digital devices	.172	.100	2.953	1	.086	1.188
Mobile-only access	-.229	.227	1.019	1	.313	0.795
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	0.392	.078	25.394	1	.000	1.480
Parent's daily use of the internet						
Peer support	-.010	.032	0.089	1	.765	0.990
Sense of community safety	.049	.032	2.287	1	.130	1.050
Enabling parental mediation	.116	.038	9.281	1	.002	1.123
Restrictive parental mediation	.073	.035	4.343	1	.037	1.076
Parental monitoring	-.066	.038	2.929	1	.087	.936
Constant	-1.145	.619	3.423	1	.064	.318

Uruguay

Base: All children who use the internet N = 869	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.696	.127	29.975	1	.000	0.498
Gender	-1.161	.153	57.944	1	.000	.313
Socio-economic status	-.184	.124	2.208	1	.137	0.832
Number of digital devices	.121	.112	1.178	1	.278	1.129
Mobile-only access	-.250	.226	1.228	1	.268	0.779
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	0.382	.080	23.016	1	.000	1.465
Parent's daily use of the internet						
Peer support	.004	.030	0.019	1	.890	1.004
Sense of community safety	.038	.034	1.270	1	.260	1.039
Enabling parental mediation	.042	.027	2.346	1	.126	1.043
Restrictive parental mediation	-.004	.032	0.020	1	.888	.996
Parental monitoring						
Constant	2.161	.604	12.788	1	.000	8.677

Social interaction activities

Albania

Base: All children who use the internet N = 843	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.868	.159	29.923	1.000	.000	2.382
Gender	-.448	.219	4.178	1.000	.041	.639
Socio-economic status						
Number of digital devices	.314	.133	5.629	1.000	.018	1.370
Mobile-only access	.363	.287	1.606	1.000	.205	1.438
Time spent online (weekday)	.073	.093	.615	1.000	.433	1.075
Time spent online (weekend)	.104	.093	1.257	1.000	.262	1.109
Breadth of online activities	.422	.121	12.118	1.000	.000	1.526
Parent's daily use of the internet						
Peer support	-.041	.047	.762	1.000	.383	.960
Sense of community safety	-.143	.050	8.216	1.000	.004	.867
Enabling parental mediation	.031	.043	.543	1.000	.461	1.032
Restrictive parental mediation	-.335	.050	45.533	1.000	.000	.715
Parental monitoring	.157	.040	15.294	1.000	.000	1.170
Constant	-.304	.701	.188	1.000	.664	.738

Bulgaria

Base: All children who use the internet N = 892	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.395	.125	9.982	1	.002	1.484
Gender	.032	.177	0.032	1	.859	1.032
Socio-economic status	-.040	.059	0.464	1	.496	0.961
Number of digital devices	.055	.093	0.355	1	.551	1.057
Mobile-only access	-.010	.362	0.001	1	.979	0.990
Time spent online (weekday)	.181	.079	5.235	1	.022	1.199
Time spent online (weekend)	.040	.065	.382	1	.536	1.041
Breadth of online activities	0.898	.104	74.843	1	.000	2.455
Parent's daily use of the internet	-.046	.197	0.054	1	.816	0.955
Peer support	.098	.041	5.815	1	.016	1.103
Sense of community safety	.003	.041	0.004	1	.951	1.003
Enabling parental mediation	.025	.034	0.547	1	.460	1.026
Restrictive parental mediation	-.158	.049	10.568	1	.001	.854
Parental monitoring						
Constant	-4.935	.685	51.926	1	.000	.007

Chile

Base: All children who use the internet N = 777	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.746	.134	31.104	1	.000	2.109
Gender	.429	.180	5.682	1	.017	1.535
Socio-economic status	-.036	.128	0.080	1	.777	0.964
Number of digital devices	.097	.084	1.339	1	.247	1.102
Mobile-only access	.793	.276	8.277	1	.004	2.211
Time spent online (weekday)	-.048	.051	.901	1	.343	0.953
Time spent online (weekend)	.057	.043	1.768	1	.184	1.059
Breadth of online activities	0.812	.123	43.440	1	.000	2.253
Parent's daily use of the internet						
Peer support						
Sense of community safety						
Enabling parental mediation	.122	.031	15.252	1	.000	1.130
Restrictive parental mediation	-.235	.043	29.365	1	.000	.791
Parental monitoring						
Constant	-4.105	.626	43.071	1	.000	.016

Ghana

Base: All children who use the internet N = 2,053	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.510	.077	43.287	1	.000	1.665
Gender	-.100	.117	0.736	1	.391	.904
Socio-economic status	.439	.116	14.312	1	.000	1.551
Number of digital devices	.522	.115	20.652	1	.000	1.685
Mobile-only access	.797	.127	39.186	1	.000	2.218
Time spent online (weekday)	.107	.056	3.596	1	.058	1.112
Time spent online (weekend)	.127	.043	8.491	1	.004	1.135
Breadth of online activities	0.646	.049	174.235	1	.000	1.907
Parent's daily use of the internet						
Peer support	.056	.021	7.314	1	.007	1.058
Sense of community safety	-.097	.023	17.694	1	.000	.907
Enabling parental mediation	.075	.024	10.009	1	.002	1.078
Restrictive parental mediation	-.145	.019	57.595	1	.000	.865
Parental monitoring	-.005	.028	0.034	1	.853	.995
Constant	-3.602	.372	93.960	1	.000	.027

Italy

Base: All children who use the internet N = 767	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.427	.152	7.892	1	.005	1.532
Gender	.414	.209	3.919	1	.048	1.513
Socio-economic status						
Number of digital devices	.291	.111	6.815	1	.009	1.337
Mobile-only access	-.748	.388	3.717	1	.054	0.473
Time spent online (weekday)	-.004	.071	.004	1	.953	0.996
Time spent online (weekend)	-.045	.066	.460	1	.498	0.956
Breadth of online activities	0.700	.107	42.424	1	.000	2.013
Parent's daily use of the internet	.021	.347	0.004	1	.951	1.021
Peer support	.109	.042	6.790	1	.009	1.115
Sense of community safety						
Enabling parental mediation	-.010	.040	0.066	1	.797	0.990
Restrictive parental mediation	-.219	.047	22.173	1	.000	.803
Parental monitoring						
Constant	-4.554	.819	30.897	1	.000	.011

Montenegro

Base: All children who use the internet N = 846	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.863	.113	58.679	1	.000	2.371
Gender	.180	.175	1.052	1	.305	1.197
Socio-economic status						
Number of digital devices	.666	.101	43.423	1	.000	1.947
Mobile-only access	1.172	.252	21.675	1	.000	3.228
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	1.283	.154	69.118	1	.000	3.606
Parent's daily use of the internet						
Peer support	.057	.041	1.958	1	.162	1.059
Sense of community safety	.041	.045	0.832	1	.362	1.042
Enabling parental mediation	.042	.035	1.400	1	.237	1.043
Restrictive parental mediation						
Parental monitoring						
Constant	-5.936	.670	78.404	1	.000	.003

The Philippines

Base: All children who use the internet N = 1,000	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.197	.135	2.129	1	.145	1.218
Gender	.282	.206	1.863	1	.172	1.325
Socio-economic status						
Number of digital devices	.429	.089	23.178	1	.000	1.535
Mobile-only access	.245	.213	1.320	1	.251	1.278
Time spent online (weekday)	.175	.050	12.137	1	.000	1.191
Time spent online (weekend)	-.117	.063	3.478	1	.062	0.890
Breadth of online activities	0.777	.088	78.240	1	.000	2.176
Parent's daily use of the internet						
Peer support	.013	.045	0.088	1	.767	1.013
Sense of community safety	-.013	.045	0.084	1	.772	.987
Enabling parental mediation	.084	.040	4.371	1	.037	1.087
Restrictive parental mediation	-.103	.040	6.697	1	.010	.902
Parental monitoring						
Constant	-4.663	.579	64.758	1	.000	.009

South Africa

Base: All children who use the internet N = 634	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.767	.179	18.298	1	.000	2.154
Gender	-.594	.240	6.119	1	.013	.552
Socio-economic status						
Number of digital devices	.361	.159	5.169	1	.023	1.435
Mobile-only access	.218	.327	0.446	1	.504	1.244
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	0.766	.109	49.011	1	.000	2.152
Parent's daily use of the internet						
Peer support	-.056	.044	1.645	1	.200	0.945
Sense of community safety	-.120	.044	7.472	1	.006	.887
Enabling parental mediation	.091	.054	2.874	1	.090	1.095
Restrictive parental mediation	-.320	.044	51.765	1	.000	.727
Parental monitoring	-.035	.050	0.506	1	.477	.965
Constant	-0.250	.833	0.090	1	.764	.779

Uruguay

Base: All children who use the internet N = 857	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.652	.135	23.242	1	.000	1.919
Gender	-.153	.171	0.808	1	.369	.858
Socio-economic status	.010	.139	0.005	1	.942	1.010
Number of digital devices	.206	.128	2.607	1	.106	1.229
Mobile-only access	-.188	.253	0.551	1	.458	0.829
Time spent online (weekday)						
Time spent online (weekend)						
Breadth of online activities	0.508	.088	33.135	1	.000	1.663
Parent's daily use of the internet						
Peer support	.000	.036	0.000	1	.998	1.000
Sense of community safety	-.051	.040	1.606	1	.205	.951
Enabling parental mediation	-.011	.032	0.123	1	.725	0.989
Restrictive parental mediation	-.223	.042	28.164	1	.000	.800
Parental monitoring						
Constant	-2.106	.708	8.846	1	.003	.122

Digital skills

Information-seeking skills

Albania

Base: All children who use the internet N = 802	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.552	.130	18.069	1	.000	1.736
Gender	-.198	.170	1.358	1	.244	.820
Mobile phone and computer access	.518	.168	9.488	1	.002	1.679
Time spent online (weekday)	-.075	.067	1.251	1	.263	0.928
Time spent online (weekend)	.129	.064	4.074	1	.044	1.137
Socio-economic status						
Parent's daily use of the internet						
Peer support	-.026	.038	0.496	1	.481	0.974
Sense of community safety	.032	.038	0.723	1	.395	1.033
Enabling parental mediation	.129	.031	16.876	1	.000	1.138
Restrictive parental mediation	-.019	.046	0.166	1	.683	.981
Parental monitoring						
Information-seeking activities	.246	.200	1.507	1	.220	1.279
Watching videos	0.961	.454	4.487	1	.034	2.613
Online game playing	.334	.175	3.644	1	.056	1.397
Social interaction activities	0.484	.258	3.526	1	.060	1.623
Creative activities	.474	.185	6.526	1	.011	1.606
Doing group work with other students outside school						
Constant	-4.186	.676	38.333	1	.000	.015

Bulgaria

Base: All children who use the internet N = 877	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.679	.162	17.546	1	.000	1.972
Gender	.141	.199	0.500	1	.479	1.151
Mobile phone and computer access	-.059	.212	0.077	1	.782	0.943
Time spent online (weekday)	-.111	.094	1.376	1	.241	0.895
Time spent online (weekend)	.058	.076	.577	1	.448	1.059
Socio-economic status	.154	.063	5.995	1	.014	1.167
Parent's daily use of the internet	.312	.217	2.058	1	.151	1.366
Peer support	.039	.039	0.997	1	.318	1.040

Sense of community safety	.040	.044	0.851	1	.356	1.041
Enabling parental mediation	.011	.037	0.081	1	.776	1.011
Restrictive parental mediation	-.181	.036	24.688	1	.000	.835
Parental monitoring						
Information-seeking activities	-.355	.303	1.373	1	.241	0.701
Watching videos	1.027	.285	12.984	1	.000	2.791
Online game playing	.180	.235	0.585	1	.445	1.197
Social interaction activities	0.082	.283	0.085	1	.771	1.086
Creative activities	.402	.332	1.466	1	.226	1.495
Doing group work with other students outside school	.162	.061	7.136	1	.008	1.176
Constant	-2.364	.709	11.124	1	.001	.094

Chile

Base: All children who use the internet N = 846	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.661	.133	24.566	1	.000	1.937
Gender	.150	.167	0.805	1	.370	1.162
Mobile phone and computer access	.822	.169	23.626	1	.000	2.276
Time spent online (weekday)	.057	.049	1.312	1	.252	1.058
Time spent online (weekend)	.080	.040	3.979	1	.046	1.083
Socio-economic status	.142	.120	1.383	1	.240	1.152
Parent's daily use of the internet						
Peer support						
Sense of community safety						
Enabling parental mediation	.055	.029	3.614	1	.057	1.056
Restrictive parental mediation	-.039	.037	1.089	1	.297	.962
Parental monitoring						
Information-seeking activities						
Watching videos	-0.375	.263	2.032	1	.154	0.688
Online game playing	.075	.188	0.158	1	.691	1.078
Social interaction activities						
Creative activities	-.022	.268	.007	1	.934	0.978
Doing group work with other students outside school	-.024	.027	0.805	1	.370	.976
Constant	-1.650	.547	9.093	1	.003	.192

Ghana

Base: All children who use the internet N = 2,019	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.137	.075	3.351	1	.067	1.146
Gender	-.223	.112	3.977	1	.046	.800
Mobile phone and computer access	-.500	.120	17.449	1	.000	0.606
Time spent online (weekday)	-.065	.053	1.525	1	.217	0.937
Time spent online (weekend)	.104	.042	6.165	1	.013	1.109
Socio-economic status	.250	.110	5.152	1	.023	1.283
Parent's daily use of the internet						
Peer support	.147	.020	53.547	1	.000	1.158
Sense of community safety	.052	.022	5.399	1	.020	1.053
Enabling parental mediation	.053	.023	5.431	1	.020	1.054
Restrictive parental mediation	-.108	.018	34.586	1	.000	.898
Parental monitoring	.115	.027	18.340	1	.000	1.122
Information-seeking activities	.524	.129	16.485	1	.000	1.689
Watching videos	0.284	.128	4.915	1	.027	1.329
Online game playing	.047	.132	0.129	1	.720	1.048
Social interaction activities	0.758	.129	34.448	1	.000	2.135
Creative activities	.302	.152	3.979	1	.046	1.353
Doing group work with other students outside school						
Constant	-2.721	.350	60.376	1	.000	.066

Italy

Base: All children who use the internet N = 813	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.544	.125	19.105	1	.000	1.724
Gender	-.062	.181	0.118	1	.731	.940
Mobile phone and computer access	.242	.180	1.822	1	.177	1.274
Time spent online (weekday)	.167	.080	4.381	1	.036	1.182
Time spent online (weekend)	-.017	.067	.065	1	.799	0.983
Socio-economic status						
Parent's daily use of the internet	-.234	.279	0.703	1	.402	0.791
Peer support	.147	.035	17.324	1	.000	1.158
Sense of community safety						
Enabling parental mediation	-.049	.037	1.745	1	.187	0.952
Restrictive parental mediation						

Parental monitoring						
Information-seeking activities	.067	.285	.056	1	.813	1.070
Watching videos	1.078	.219	24.126	1	.000	2.938
Online game playing	.135	.192	0.494	1	.482	1.144
Social interaction activities	0.108	.244	0.198	1	.656	1.115
Creative activities	.150	.275	.299	1	.585	1.162
Doing group work with other students outside school						
Constant	-2.010	.513	15.344	1	.000	.134

Montenegro

Base: All children who use the internet N = 843	**B**	**S.E.**	**Wald**	**df**	**Sig.**	**Exp(B)**
Age	1.014	.161	39.616	1	.000	2.758
Gender	-.080	.204	0.154	1	.694	.923
Mobile phone and computer access	.020	.229	0.008	1	.931	1.020
Time spent online (weekday)						
Time spent online (weekend)						
Socio-economic status						
Parent's daily use of the internet						
Peer support	.103	.045	5.297	1	.021	1.109
Sense of community safety	.124	.049	6.295	1	.012	1.132
Enabling parental mediation	.084	.043	3.861	1	.049	1.088
Restrictive parental mediation						
Parental monitoring						
Information-seeking activities						
Watching videos	0.670	.236	8.062	1	.005	1.954
Online game playing						
Social interaction activities	0.455	.250	3.310	1	.069	1.577
Creative activities	.265	.457	.337	1	.561	1.304
Doing group work with other students outside school	.157	.051	9.570	1	.002	1.170
Constant	-3.437	.689	24.850	1	.000	.032

The Philippines

Base: All children who use the internet N = 1,080	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.565	.100	32.180	1	.000	1.760
Gender	.515	.157	10.791	1	.001	1.674
Mobile phone and computer access	-.260	.153	2.897	1	.089	0.771
Time spent online (weekday)						
Time spent online (weekend)						
Socio-economic status						
Parent's daily use of the internet						
Peer support						
Sense of community safety						
Enabling parental mediation	.132	.029	20.702	1	.000	1.142
Restrictive parental mediation	-.112	.027	17.474	1	.000	.894
Parental monitoring						
Information-seeking activities	.368	.194	3.583	1	.058	1.444
Watching videos	0.224	.160	1.967	1	.161	1.251
Online game playing	.053	.173	0.094	1	.759	1.055
Social interaction activities	0.304	.195	2.419	1	.120	1.355
Creative activities	.318	.213	2.223	1	.136	1.375
Doing group work with other students outside school						
Constant	-3.097	.432	51.317	1	.000	.045

South Africa

Base: All children who use the internet N = 630	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.419	.166	6.357	1	.012	1.520
Gender	.118	.202	0.340	1	.560	1.125
Mobile phone and computer access	.367	.211	3.025	1	.082	1.444
Time spent online (weekday)						
Time spent online (weekend)						
Socio-economic status						
Parent's daily use of the internet						
Peer support	.014	.037	0.140	1	.708	1.014
Sense of community safety	-.010	.038	0.077	1	.781	.990
Enabling parental mediation	.194	.046	17.867	1	.000	1.214
Restrictive parental mediation	.110	.041	7.190	1	.007	1.116

Parental monitoring	.006	.044	0.017	1	.897	1.006
Information-seeking activities	.862	.242	12.707	1	.000	2.368
Watching videos	0.868	.224	15.004	1	.000	2.383
Online game playing	.232	.212	1.203	1	.273	1.261
Social interaction activities	-0.181	.260	0.486	1	.486	0.834
Creative activities	.884	.239	13.626	1	.000	2.420
Doing group work with other students outside school						
Constant	-3.832	.598	41.047	1	.000	.022

Uruguay

Base: All children who use the internet N = 844	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.357	.146	6.026	1	.014	1.429
Gender	.082	.176	0.217	1	.641	1.085
Mobile phone and computer access	.067	.357	0.035	1	.852	1.069
Time spent online (weekday)						
Time spent online (weekend)						
Socio-economic status	.346	.138	6.266	1	.012	1.413
Parent's daily use of the internet						
Peer support	.092	.033	7.789	1	.005	1.096
Sense of community safety	.039	.038	1.049	1	.306	1.040
Enabling parental mediation	.074	.031	5.774	1	.016	1.077
Restrictive parental mediation	-.103	.035	8.824	1	.003	.902
Parental monitoring						
Information-seeking activities	.444	.226	3.840	1	.050	1.559
Watching videos	0.516	.198	6.765	1	.009	1.676
Online game playing	.044	.178	0.061	1	.805	1.045
Social interaction activities	.011	.209	.003	1	.956	1.012
Creative activities	.193	.312	.380	1	.537	1.212
Doing group work with other students outside school						
Constant	-2.026	.697	8.452	1	.004	.132

Critical evaluation skills

Albania

Base: All children who use the internet N = 740	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.281	.136	4.268	1	.039	1.325
Gender	-.019	.176	0.012	1	.912	.981
Mobile phone and computer access	.566	.176	10.327	1	.001	1.761
Time spent online (weekday)	.137	.068	4.112	1	.043	1.147
Time spent online (weekend)	.005	.065	.005	1	.941	1.005
Socio-economic status						
Parent's daily use of the internet						
Peer support	.031	.039	0.617	1	.432	1.031
Sense of community safety	-.013	.039	0.109	1	.741	.987
Enabling parental mediation	.028	.033	0.718	1	.397	1.028
Restrictive parental mediation	-.075	.050	2.300	1	.129	.928
Parental monitoring						
Information-seeking activities	.036	.207	.031	1	.860	1.037
Watching videos	0.123	.417	0.087	1	.769	1.131
Online game playing	.093	.181	0.265	1	.607	1.098
Social interaction activities	0.616	.281	4.790	1	.029	1.851
Creative activities	.475	.192	6.084	1	.014	1.608
Doing group work with other students outside school						
Privacy skills	.623	.208	8.982	1	.003	1.864
Constant	-3.091	.651	22.569	1	.000	.045

Bulgaria

Base: All children who use the internet N = 880	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.822	.126	42.199	1	.000	2.274
Gender	.000	.172	0.000	1	.999	1.000
Mobile phone and computer access	.002	.192	0.000	1	.992	1.002
Time spent online (weekday)	.007	.079	.007	1	.932	1.007
Time spent online (weekend)	-.029	.064	.208	1	.649	0.971
Socio-economic status	-.001	.056	0.001	1	.980	0.999
Parent's daily use of the internet	-.101	.190	0.281	1	.596	0.904
Peer support	-.013	.035	0.131	1	.718	0.987

Sense of community safety	.001	.039	0.001	1	.971	1.001
Enabling parental mediation	.041	.033	1.490	1	.222	1.042
Restrictive parental mediation	-.134	.040	11.088	1	.001	.875
Parental monitoring						
Information-seeking activities	.745	.234	10.159	1	.001	2.106
Watching videos	0.244	.324	0.564	1	.452	1.276
Online game playing	.387	.209	3.427	1	.064	1.472
Social interaction activities	0.047	.204	0.054	1	.816	1.048
Creative activities	.094	.228	.171	1	.679	1.099
Doing group work with other students outside school	.022	.049	0.198	1	.657	1.022
Privacy skills	1.838	.334	30.243	1	.000	6.285
Constant	-3.580	.682	27.588	1	.000	.028

Chile

Base: All children who use the internet N = 794	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.174	.128	1.842	1	.175	1.190
Gender	-.007	.163	0.002	1	.964	.993
Mobile phone and computer access	.729	.167	18.990	1	.000	2.072
Time spent online (weekday)	.053	.046	1.329	1	.249	1.055
Time spent online (weekend)	-.006	.040	.025	1	.875	0.994
Socio-economic status	-.060	.114	0.279	1	.597	0.941
Parent's daily use of the internet						
Peer support						
Sense of community safety						
Enabling parental mediation	.043	.028	2.426	1	.119	1.044
Restrictive parental mediation	-.036	.039	0.833	1	.361	.965
Parental monitoring						
Information-seeking activities						
Watching videos	-0.244	.274	0.792	1	.374	0.783
Online game playing	-.097	.181	0.286	1	.592	.908
Social interaction activities						
Creative activities	.093	.261	.126	1	.723	1.097
Doing group work with other students outside school	.029	.026	1.219	1	.270	1.029
Privacy skills	1.171	.191	37.693	1	.000	3.225
Constant	-1.206	.529	5.207	1	.023	.299

Ghana

Base: All children who use the internet N = 1,989	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.184	.084	4.826	1	.028	1.202
Gender	-.135	.124	1.188	1	.276	.874
Mobile phone and computer access	-.326	.134	5.910	1	.015	0.722
Time spent online (weekday)	-.141	.058	5.840	1	.016	0.869
Time spent online (weekend)	.133	.046	8.484	1	.004	1.142
Socio-economic status	.248	.120	4.283	1	.038	1.282
Parent's daily use of the internet						
Peer support	.097	.022	19.434	1	.000	1.101
Sense of community safety	-.002	.025	0.006	1	.940	.998
Enabling parental mediation	-.008	.025	0.100	1	.752	0.992
Restrictive parental mediation	-.026	.020	1.667	1	.197	.974
Parental monitoring	.208	.031	45.190	1	.000	1.231
Information-seeking activities	.533	.143	13.940	1	.000	1.705
Watching videos	0.015	.143	0.011	1	.918	1.015
Online game playing	.114	.145	0.617	1	.432	1.121
Social interaction activities	0.464	.144	10.366	1	.001	1.590
Creative activities	.497	.168	8.795	1	.003	1.644
Doing group work with other students outside school						
Privacy skills	2.019	.140	207.169	1	.000	7.527
Constant	-3.385	.394	73.721	1	.000	.034

Italy

Base: All children who use the internet N = 736	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.512	.130	15.547	1	.000	1.668
Gender	-.493	.191	6.675	1	.010	.611
Mobile phone and computer access	.132	.189	0.487	1	.485	1.141
Time spent online (weekday)	.073	.071	1.078	1	.299	1.076
Time spent online (weekend)	.050	.062	.655	1	.418	1.052
Socio-economic status						
Parent's daily use of the internet	.046	.294	0.025	1	.875	1.047
Peer support	.043	.037	1.396	1	.237	1.044
Sense of community safety						
Enabling parental mediation	-.010	.037	0.080	1	.777	0.990

Restrictive parental mediation						
Parental monitoring						
Information-seeking activities	.575	.251	5.258	1	.022	1.776
Watching videos	0.392	.286	1.881	1	.170	1.480
Online game playing	-.095	.197	0.233	1	.629	.909
Social interaction activities	0.274	.205	1.783	1	.182	1.316
Creative activities	.495	.239	4.278	1	.039	1.640
Doing group work with other students outside school						
Privacy skills	1.669	.287	33.812	1	.000	5.308
Constant	-6.027	.771	61.099	1	.000	.002

Montenegro

Base: All children who use the internet N = 843	**B**	**S.E.**	**Wald**	**df**	**Sig.**	**Exp(B)**
Age	.365	.119	9.383	1	.002	1.440
Gender	-.258	.170	2.295	1	.130	.772
Mobile phone and computer access	.099	.187	0.281	1	.596	1.104
Time spent online (weekday)						
Time spent online (weekend)						
Socio-economic status						
Parent's daily use of the internet						
Peer support	.121	.040	9.246	1	.002	1.128
Sense of community safety	.007	.044	0.027	1	.869	1.007
Enabling parental mediation	-.018	.035	0.247	1	.619	0.983
Restrictive parental mediation						
Parental monitoring						
Information-seeking activities						
Watching videos	0.195	.245	0.635	1	.426	1.216
Online game playing						
Social interaction activities	0.697	.188	13.818	1	.000	2.008
Creative activities	.640	.328	3.802	1	.051	1.896
Doing group work with other students outside school	.170	.040	18.433	1	.000	1.186
Privacy skills	1.773	.233	57.788	1	.000	5.889
Constant	-3.478	.613	32.147	1	.000	.031

The Philippines

Base: All children who use the internet N = 890	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.165	.114	2.085	1	.149	1.180
Gender	.344	.178	3.715	1	.054	1.410
Mobile phone and computer access	-.092	.169	0.297	1	.586	0.912
Time spent online (weekday)						
Time spent online (weekend)						
Socio-economic status						
Parent's daily use of the internet						
Peer support						
Sense of community safety						
Enabling parental mediation	.060	.033	3.420	1	.064	1.062
Restrictive parental mediation	-.090	.032	8.168	1	.004	.914
Parental monitoring						
Information-seeking activities	.367	.208	3.101	1	.078	1.443
Watching videos	-0.030	.178	0.028	1	.868	0.971
Online game playing	.066	.193	0.116	1	.733	1.068
Social interaction activities	0.474	.204	5.398	1	.020	1.606
Creative activities	.533	.232	5.291	1	.021	1.704
Doing group work with other students outside school						
Privacy skills	1.624	.226	51.601	1	.000	5.073
Constant	-3.110	.508	37.425	1	.000	.045

South Africa

Base: All children who use the internet N = 627	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.624	.169	13.621	1	.000	1.866
Gender	.581	.207	7.893	1	.005	1.788
Mobile phone and computer access	.445	.214	4.340	1	.037	1.561
Time spent online (weekday)						
Time spent online (weekend)						
Socio-economic status						
Parent's daily use of the internet						
Peer support	-.049	.037	1.713	1	.191	0.952
Sense of community safety	.055	.038	2.126	1	.145	1.057
Enabling parental mediation	.173	.046	13.935	1	.000	1.188

Restrictive parental mediation	.088	.043	4.204	1	.040	1.092
Parental monitoring	.011	.045	0.062	1	.803	1.011
Information-seeking activities	.647	.244	7.035	1	.008	1.909
Watching videos	0.763	.232	10.854	1	.001	2.145
Online game playing	.045	.219	0.043	1	.836	1.046
Social interaction activities	-0.145	.265	0.302	1	.582	0.865
Creative activities	.664	.244	7.402	1	.007	1.943
Doing group work with other students outside school						
Privacy skills	1.093	.346	9.981	1	.002	2.984
Constant	-5.692	.677	70.646	1	.000	.003

Uruguay

Base: All children who use the internet N = 811	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.130	.138	0.891	1	.345	1.139
Gender	-.179	.170	1.104	1	.293	.836
Mobile phone and computer access	.501	.315	2.525	1	.112	1.651
Time spent online (weekday)						
Time spent online (weekend)						
Socio-economic status	.060	.132	0.205	1	.651	1.061
Parent's daily use of the internet						
Peer support	.063	.033	3.548	1	.060	1.065
Sense of community safety	.079	.037	4.499	1	.034	1.082
Enabling parental mediation	-.025	.031	0.650	1	.420	0.975
Restrictive parental mediation	-.051	.036	1.988	1	.159	.951
Parental monitoring						
Information-seeking activities	.366	.203	3.229	1	.072	1.441
Watching videos	-0.158	.210	0.569	1	.451	0.854
Online game playing	-.142	.172	0.687	1	.407	.867
Social interaction activities	0.295	.191	2.387	1	.122	1.344
Creative activities	-.145	.273	.281	1	.596	0.865
Doing group work with other students outside school						
Privacy skills	1.443	.248	33.895	1	.000	4.231
Constant	-1.836	.679	7.307	1	.007	.159

Privacy skills

Albania

Base: All children who use the internet N = 740	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.807	.144	31.432	1	.000	2.242
Gender	-.614	.197	9.665	1	.002	.541
Mobile phone and computer access	.583	.201	8.400	1	.004	1.791
Time spent online (weekday)	.050	.078	.404	1	.525	1.051
Time spent online (weekend)	.027	.074	.132	1	.716	1.027
Socio-economic status						
Parent's daily use of the internet						
Peer support	.034	.045	0.584	1	.445	1.035
Sense of community safety	-.032	.043	0.558	1	.455	.968
Enabling parental mediation	.140	.037	14.131	1	.000	1.150
Restrictive parental mediation	-.175	.051	11.802	1	.001	.840
Parental monitoring						
Information-seeking activities	.090	.245	.134	1	.714	1.094
Watching videos	1.209	.444	7.432	1	.006	3.352
Online game playing	-.280	.205	1.871	1	.171	.756
Social interaction activities	1.047	.267	15.380	1	.000	2.848
Creative activities	.157	.230	.465	1	.495	1.170
Doing group work with other students outside school						
Critical evaluation skills	.638	.208	9.425	1	.002	1.892
Constant	-3.271	.699	21.881	1	.000	.038

Bulgaria

Base: All children who use the internet N = 880	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.570	.217	6.907	1	.009	1.769
Gender	.234	.241	0.942	1	.332	1.264
Mobile phone and computer access	.304	.248	1.497	1	.221	1.355
Time spent online (weekday)	.122	.139	.762	1	.383	1.129
Time spent online (weekend)	.105	.102	1.045	1	.307	1.110
Socio-economic status	-.059	.077	0.574	1	.449	0.943
Parent's daily use of the internet	-.191	.284	0.452	1	.501	0.826
Peer support	.045	.047	0.905	1	.341	1.046

Sense of community safety	.069	.053	1.699	1	.192	1.072
Enabling parental mediation	.067	.046	2.155	1	.142	1.070
Restrictive parental mediation	-.273	.045	37.701	1	.000	.761
Parental monitoring						
Information-seeking activities	-.616	.442	1.947	1	.163	0.540
Watching videos	0.410	.324	1.605	1	.205	1.507
Online game playing	.539	.288	3.487	1	.062	1.714
Social interaction activities	0.502	.411	1.492	1	.222	1.651
Creative activities	.406	.466	.759	1	.384	1.501
Doing group work with other students outside school	.136	.071	3.661	1	.056	1.146
Critical evaluation skills	1.955	.337	33.637	1	.000	7.063
Constant	-2.026	.865	5.488	1	.019	.132

Chile

Base: All children who use the internet N = 793	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.945	.153	38.179	1	.000	2.574
Gender	.366	.193	3.604	1	.058	1.443
Mobile phone and computer access	-.185	.203	0.829	1	.363	0.831
Time spent online (weekday)	.083	.057	2.071	1	.150	1.086
Time spent online (weekend)	.028	.045	.376	1	.540	1.028
Socio-economic status	.377	.139	7.336	1	.007	1.458
Parent's daily use of the internet						
Peer support						
Sense of community safety						
Enabling parental mediation	.051	.034	2.194	1	.139	1.052
Restrictive parental mediation	-.145	.043	11.110	1	.001	.865
Parental monitoring						
Information-seeking activities						
Watching videos	0.290	.311	0.867	1	.352	1.336
Online game playing	-.252	.225	1.247	1	.264	.778
Social interaction activities						
Creative activities	.174	.314	.307	1	.580	1.190
Doing group work with other students outside school	.024	.032	0.543	1	.461	1.024
Critical evaluation skills	1.184	.192	37.902	1	.000	3.267
Constant	-3.046	.630	23.387	1	.000	.048

Ghana

Base: All children who use the internet N = 1,989	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.273	.082	10.980	1	.001	1.314
Gender	-.264	.125	4.452	1	.035	.768
Mobile phone and computer access	-.764	.131	34.019	1	.000	0.466
Time spent online (weekday)	.083	.062	1.790	1	.181	1.087
Time spent online (weekend)	.030	.048	.392	1	.531	1.031
Socio-economic status	.137	.127	1.159	1	.282	1.147
Parent's daily use of the internet						
Peer support	.066	.022	8.723	1	.003	1.068
Sense of community safety	.111	.025	19.605	1	.000	1.118
Enabling parental mediation	.077	.026	8.748	1	.003	1.080
Restrictive parental mediation	-.118	.019	38.714	1	.000	.889
Parental monitoring	.038	.033	1.340	1	.247	1.039
Information-seeking activities	-.157	.156	1.008	1	.315	0.855
Watching videos	0.632	.146	18.774	1	.000	1.881
Online game playing	-.004	.150	0.001	1	.981	.996
Social interaction activities	0.885	.146	36.675	1	.000	2.423
Creative activities	.179	.187	.915	1	.339	1.196
Doing group work with other students outside school						
Critical evaluation skills	2.019	.141	204.471	1	.000	7.532
Constant	-2.654	.390	46.308	1	.000	.070

Italy

Base: All children who use the internet N = 736	B	S.E.	Wald	df	Sig.	Exp(B)
Age	1.358	.185	54.064	1	.000	3.889
Gender	.203	.244	0.691	1	.406	1.225
Mobile phone and computer access	.220	.242	0.822	1	.365	1.246
Time spent online (weekday)	.375	.123	9.314	1	.002	1.455
Time spent online (weekend)	.166	.098	2.851	1	.091	1.181
Socio-economic status						
Parent's daily use of the internet	.501	.366	1.877	1	.171	1.651
Peer support	.192	.048	15.969	1	.000	1.212
Sense of community safety						
Enabling parental mediation	.002	.051	0.002	1	.967	1.002

Restrictive parental mediation						
Parental monitoring						
Information-seeking activities	-.547	.427	1.648	1	.199	0.578
Watching videos	0.993	.297	11.166	1	.001	2.700
Online game playing	.256	.262	0.954	1	.329	1.292
Social interaction activities	0.724	.372	3.778	1	.052	2.062
Creative activities	-.563	.383	2.165	1	.141	0.570
Doing group work with other students outside school						
Critical evaluation skills	1.590	.295	28.967	1	.000	4.902
Constant	-6.027	.771	61.099	1	.000	.002

Montenegro

Base: All children who use the internet N = 843	**B**	**S.E.**	**Wald**	**df**	**Sig.**	**Exp(B)**
Age	1.465	.174	71.069	1	.000	4.326
Gender	.073	.208	0.125	1	.724	1.076
Mobile phone and computer access	-.385	.240	2.569	1	.109	0.681
Time spent online (weekday)						
Time spent online (weekend)						
Socio-economic status						
Parent's daily use of the internet						
Peer support	.026	.046	0.313	1	.576	1.026
Sense of community safety	.083	.053	2.442	1	.118	1.086
Enabling parental mediation	.029	.044	0.440	1	.507	1.030
Restrictive parental mediation						
Parental monitoring						
Information-seeking activities						
Watching videos	0.802	.247	10.583	1	.001	2.231
Online game playing						
Social interaction activities	0.728	.246	8.757	1	.003	2.071
Creative activities	-.110	.440	.063	1	.802	0.895
Doing group work with other students outside school	-.011	.046	0.053	1	.818	.989
Critical evaluation skills	1.792	.235	58.113	1	.000	6.000
Constant	-3.848	.724	28.230	1	.000	.021

The Philippines

Base: All children who use the internet N = 890	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.559	.111	25.421	1	.000	1.750
Gender	.579	.175	10.874	1	.001	1.783
Mobile phone and computer access	-.321	.182	3.132	1	.077	0.725
Time spent online (weekday)						
Time spent online (weekend)						
Socio-economic status						
Parent's daily use of the internet						
Peer support						
Sense of community safety						
Enabling parental mediation	.132	.034	15.127	1	.000	1.142
Restrictive parental mediation	-.104	.030	11.799	1	.001	.901
Parental monitoring						
Information-seeking activities	.516	.262	3.882	1	.049	1.674
Watching videos	0.065	.180	0.130	1	.719	1.067
Online game playing	.118	.195	0.363	1	.547	1.125
Social interaction activities	0.641	.259	6.114	1	.013	1.899
Creative activities	-.388	.268	2.094	1	.148	0.678
Doing group work with other students outside school						
Critical evaluation skills	1.616	.227	50.508	1	.000	5.032
Constant	-1.905	.477	15.920	1	.000	.149

South Africa

Base: All children who use the internet N = 627	B	S.E.	Wald	df	Sig.	Exp(B)
Age	.602	.210	8.255	1	.004	1.826
Gender	-.004	.266	0.000	1	.987	.996
Mobile phone and computer access	-.082	.278	0.088	1	.767	0.921
Time spent online (weekday)						
Time spent online (weekend)						
Socio-economic status						
Parent's daily use of the internet						
Peer support	-.011	.047	0.053	1	.818	0.989
Sense of community safety	-.052	.049	1.140	1	.286	.949
Enabling parental mediation	.237	.060	15.721	1	.000	1.268

Restrictive parental mediation	.239	.049	23.946	1	.000	1.270
Parental monitoring	-.038	.050	0.571	1	.450	.963
Information-seeking activities	1.292	.492	6.897	1	.009	3.640
Watching videos	0.049	.313	0.024	1	.876	1.050
Online game playing	-.351	.269	1.702	1	.192	.704
Social interaction activities	0.691	.339	4.164	1	.041	1.995
Creative activities	.133	.369	.129	1	.719	1.142
Doing group work with other students outside school						
Critical evaluation skills	1.162	.346	11.266	1	.001	3.196
Constant	-2.064	.702	8.659	1	.003	.127

Uruguay

Base: All children who use the internet N = 811	B	S.E.	Wald	df	Sig.	Exp(B)
Age	1.454	.257	32.095	1	.000	4.282
Gender	.414	.263	2.484	1	.115	1.513
Mobile phone and computer access	-.967	.598	2.614	1	.106	0.380
Time spent online (weekday)						
Time spent online (weekend)						
Socio-economic status	.925	.215	18.601	1	.000	2.523
Parent's daily use of the internet						
Peer support	.147	.048	9.336	1	.002	1.159
Sense of community safety	-.083	.059	1.992	1	.158	.920
Enabling parental mediation	.053	.048	1.228	1	.268	1.055
Restrictive parental mediation	-.217	.050	18.878	1	.000	.805
Parental monitoring						
Information-seeking activities	.764	.426	3.222	1	.073	2.147
Watching videos	0.679	.294	5.327	1	.021	1.973
Online game playing	.184	.268	0.471	1	.492	1.202
Social interaction activities	0.764	.409	3.491	1	.062	2.147
Creative activities	.965	.595	2.629	1	.105	2.624
Doing group work with other students outside school						
Critical evaluation skills	1.700	.269	40.070	1	.000	5.476
Constant	-3.758	1.052	12.765	1	.000	.023

Children's Reporting of Online Risks

Reporting being hurt or upset by something online

Albania

Base: All children who use the internet N = 667	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-0.005	0.226	0.000	1	0.984	0.995
Gender	0.071	0.275	0.067	1	0.795	1.074
Time spent online (weekday)	-0.074	0.110	0.450	1	0.502	0.929
Time spent online (weekend)	-0.032	0.101	0.102	1	0.749	0.968
Peer support	-0.015	0.059	0.062	1	0.803	0.985
Family relationships	0.020	0.069	0.080	1	0.777	1.020
Sense of community safety	-0.103	0.057	3.298	1	0.069	0.902
Enabling parental mediation	0.115	0.054	4.609	1	0.032	1.122
Restrictive parental mediation	0.004	0.085	0.003	1	0.959	1.004
Parental monitoring	0.089	0.075	1.425	1	0.233	1.093
Watching videos	-0.300	0.533	0.317	1	0.573	0.741
Online game playing	-0.292	0.277	1.108	1	0.293	0.747
Social interaction	0.601	0.465	1.669	1	0.196	1.824
Encountering hate speech	1.145	0.282	16.458	1	0.000	3.144
Seeing self-harm content	0.104	0.381	0.074	1	0.786	1.109
Seeing suicide-related content	-0.516	0.439	1.380	1	0.240	0.597
Seeing violent content	1.113	0.323	11.890	1	0.001	3.043
Seeing sexual messages	1.619	0.337	23.033	1	0.000	5.050
Being treated in a hurtful way	0.922	0.415	4.950	1	0.026	2.515
Meeting someone face to face whom they had first got to know online	0.031	0.014	4.814	1	0.028	1.032
Privacy skills	0.397	0.361	1.206	1	0.272	1.487
Critical thinking skills	0.522	0.287	3.298	1	0.069	1.685
Information-seeking skills	-0.139	0.293	0.226	1	0.635	0.870
Constant	-3.962	1.060	13.960	1	0.000	0.019

Bulgaria

Base: All children who use the internet	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-0.101	0.174	0.337	1	0.562	0.904
Gender	0.067	0.226	0.089	1	0.766	1.070
Time spent online (weekday)	-0.094	0.101	0.876	1	0.349	0.910
Time spent online (weekend)	0.003	0.083	0.001	1	0.975	1.003
Peer support	-0.003	0.048	0.004	1	0.949	0.997
Family relationships	-0.088	0.064	1.878	1	0.171	0.916
Sense of community safety	-0.150	0.050	9.041	1	0.003	0.861
Enabling parental mediation	0.050	0.045	1.249	1	0.264	1.051
Restrictive parental mediation	0.068	0.055	1.517	1	0.218	1.071
Parental monitoring	-0.008	0.068	0.016	1	0.901	0.992
Watching videos	1.032	0.586	3.099	1	0.078	2.807
Online game playing	0.252	0.289	0.761	1	0.383	1.287
Social interaction	0.079	0.254	0.098	1	0.754	1.083
Encountering hate speech	1.008	0.280	12.992	1	0.000	2.740
Seeing self-harm content	0.388	0.319	1.481	1	0.224	1.474
Seeing suicide-related content	-0.448	0.374	1.434	1	0.231	0.639
Seeing violent content	0.137	0.292	0.222	1	0.638	1.147
Seeing sexual messages	1.099	0.264	17.366	1	0.000	3.000
Being treated in a hurtful way	0.472	0.155	9.345	1	0.002	1.604
Meeting someone face to face whom they had first got to know online	0.379	0.160	5.624	1	0.018	1.461
Privacy skills	0.367	0.401	0.838	1	0.360	1.444
Critical thinking skills	-0.483	0.278	3.017	1	0.082	0.617
Information-seeking skills	-0.062	0.330	0.035	1	0.852	0.940
Constant	-2.389	1.002	5.684	1	0.017	0.092

Chile

Base: All children who use the internet N = 556	B	S.E.	Wald	df	Sig.	Exp(B)
Age	0.014	0.180	0.006	1	0.938	1.014
Gender	0.347	0.206	2.848	1	0.092	1.415
Time spent online (weekday)	0.071	0.055	1.661	1	0.197	1.073
Time spent online (weekend)	-0.008	0.050	0.028	1	0.867	0.992
Peer support						
Family relationships						
Sense of community safety						
Enabling parental mediation	0.026	0.034	0.560	1	0.454	1.026
Restrictive parental mediation	0.047	0.050	0.893	1	0.345	1.048
Parental monitoring						
Watching videos	-0.292	0.341	0.732	1	0.392	0.747
Online game playing	0.575	0.222	6.690	1	0.010	1.778
Social interaction	0.067	0.225	0.087	1	0.768	1.069
Encountering hate speech	0.277	0.271	1.046	1	0.306	1.319
Seeing self-harm content	0.647	0.328	3.876	1	0.049	1.909
Seeing suicide-related content	0.267	0.369	0.523	1	0.469	1.306
Seeing violent content	0.517	0.247	4.365	1	0.037	1.677
Seeing sexual messages	0.605	0.258	5.488	1	0.019	1.832
Being treated in a hurtful way	0.011	0.005	4.672	1	0.031	1.011
Meeting someone face to face whom they had first got to know online	0.338	0.372	0.825	1	0.364	1.402
Privacy skills	0.247	0.269	0.843	1	0.359	1.280
Critical thinking skills	-0.069	0.212	0.106	1	0.745	0.934
Information-seeking skills	0.371	0.243	2.330	1	0.127	1.450
Constant	-2.634	0.648	16.513	1	0.000	0.072

Ghana

Base: All children who use the internet N = 1,944	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-0.011	0.092	0.014	1	0.907	0.989
Gender	-0.100	0.135	0.547	1	0.459	0.905
Time spent online (weekday)	-0.031	0.064	0.240	1	0.625	0.969
Time spent online (weekend)	-0.012	0.050	0.054	1	0.817	0.989
Peer support	0.066	0.026	6.706	1	0.010	1.068
Family relationships	0.006	0.034	0.027	1	0.870	1.006
Sense of community safety	-0.100	0.028	13.121	1	0.000	0.905
Enabling parental mediation	0.037	0.027	1.925	1	0.165	1.037
Restrictive parental mediation	-0.010	0.022	0.210	1	0.646	0.990
Parental monitoring	0.076	0.034	4.901	1	0.027	1.079
Watching videos	0.044	0.156	0.080	1	0.778	1.045
Online game playing	-0.278	0.161	2.991	1	0.084	0.758
Social interaction	0.413	0.162	6.474	1	0.011	1.512
Encountering hate speech	0.486	0.214	5.147	1	0.023	1.626
Seeing self-harm content	0.339	0.211	2.587	1	0.108	1.404
Seeing suicide-related content	-0.053	0.205	0.067	1	0.796	0.948
Seeing violent content	1.055	0.181	34.017	1	0.000	2.873
Seeing sexual messages	1.113	0.142	61.522	1	0.000	3.044
Being treated in a hurtful way	1.267	0.163	60.587	1	0.000	3.550
Meeting someone face to face whom they had first got to know online	1.103	0.150	54.160	1	0.000	3.013
Privacy skills	0.186	0.180	1.075	1	0.300	1.205
Critical thinking skills	0.167	0.172	0.934	1	0.334	1.181
Information-seeking skills	0.193	0.173	1.244	1	0.265	1.213
Constant	-2.900	0.414	49.047	1	0.000	0.055

Italy

Base: All children who use the internet N = 510	B	S.E.	Wald	df	Sig.	Exp(B)
Age	0.168	0.267	0.395	1	0.530	1.182
Gender	0.308	0.342	0.807	1	0.369	1.360
Time spent online (weekday)						
Time spent online (weekend)						
Peer support	-0.145	0.066	4.771	1	0.029	0.865
Family relationships	-0.096	0.081	1.381	1	0.240	0.909
Sense of community safety						
Enabling parental mediation	0.030	0.071	0.173	1	0.677	1.030
Restrictive parental mediation						
Parental monitoring	-0.248	0.099	6.309	1	0.012	0.780
Watching videos	0.845	0.648	1.702	1	0.192	2.328
Online game playing	-0.233	0.330	0.500	1	0.479	0.792
Social interaction	0.319	0.334	0.912	1	0.340	1.375
Encountering hate speech						
Seeing self-harm content	1.265	0.391	10.447	1	0.001	3.542
Seeing suicide-related content	0.170	0.439	0.150	1	0.699	1.185
Seeing violent content	-0.042	0.354	0.014	1	0.905	0.959
Seeing sexual messages	1.545	0.338	20.905	1	0.000	4.687
Being treated in a hurtful way	-0.011	0.012	0.833	1	0.361	0.989
Meeting someone face to face whom they had first got to know online	0.783	0.387	4.105	1	0.043	2.189
Privacy skills	1.081	0.858	1.589	1	0.208	2.948
Critical thinking skills	-0.993	0.318	9.737	1	0.002	0.370
Information-seeking skills	0.001	0.380	0.000	1	0.998	1.001
Constant	-1.946	1.295	2.260	1	0.133	0.143

The Philippines

Base: All children who use the internet N = 1,166	B	S.E.	Wald	df	Sig.	Exp(B)
Age	0.181	0.120	2.268	1	0.132	1.199
Gender	-0.099	0.185	0.289	1	0.591	0.905
Time spent online (weekday)	0.103	0.057	3.273	1	0.070	1.108
Time spent online (weekend)	-0.061	0.050	1.488	1	0.223	0.941
Peer support						
Family relationships						
Sense of community safety						
Enabling parental mediation	0.057	0.034	2.712	1	0.100	1.058
Restrictive parental mediation						
Parental monitoring						
Watching videos	-0.196	0.200	0.962	1	0.327	0.822
Online game playing	0.148	0.203	0.532	1	0.466	1.160
Social interaction	0.774	0.223	12.068	1	0.001	2.167
Encountering hate speech	0.389	0.244	2.546	1	0.111	1.475
Seeing self-harm content	0.654	0.229	8.150	1	0.004	1.923
Seeing suicide-related content						
Seeing violent content	0.307	0.203	2.283	1	0.131	1.360
Seeing sexual messages	1.269	0.185	47.212	1	0.000	3.559
Being treated in a hurtful way	0.024	0.016	2.179	1	0.140	1.025
Meeting someone face to face whom they had first got to know online	-0.001	0.019	0.004	1	0.947	0.999
Privacy skills						
Critical thinking skills	0.083	0.212	0.155	1	0.694	1.087
Information-seeking skills	0.154	0.210	0.538	1	0.463	1.166
Constant	-3.043	0.423	51.738	1	0.000	0.048

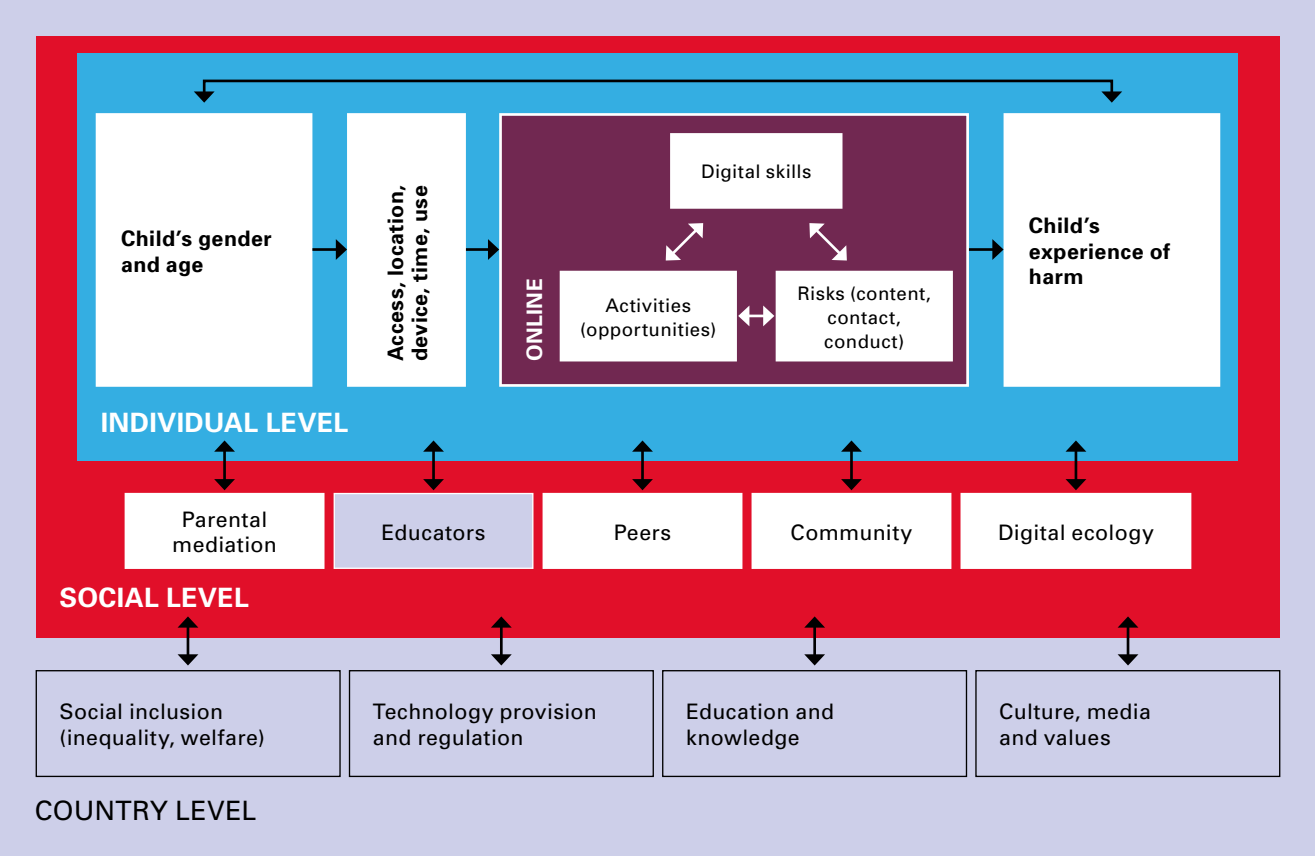
Uruguay

Base: All children who use the internet N = 386	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-0.515	0.324	2.525	1	0.112	0.598
Gender	0.094	0.335	0.079	1	0.778	1.099
Time spent online (weekday)						
Time spent online (weekend)						
Peer support	-0.026	0.064	0.169	1	0.681	0.974
Family relationships	-0.200	0.093	4.616	1	0.032	0.819
Sense of community safety	-0.006	0.071	0.008	1	0.927	0.994
Enabling parental mediation	0.035	0.059	0.350	1	0.554	1.036
Restrictive parental mediation	0.030	0.089	0.117	1	0.732	1.031
Parental monitoring	0.070	0.067	1.087	1	0.297	1.072
Watching videos	0.755	0.446	2.861	1	0.091	2.127
Online game playing	-0.163	0.320	0.261	1	0.610	0.849
Social interaction	0.096	0.308	0.097	1	0.755	1.101
Encountering hate speech	0.738	0.335	4.869	1	0.027	2.092
Seeing self-harm content	0.379	0.423	0.804	1	0.370	1.461
Seeing suicide-related content	-0.478	0.451	1.124	1	0.289	0.620
Seeing violent content	0.556	0.351	2.514	1	0.113	1.743
Seeing sexual messages	0.287	0.339	0.717	1	0.397	1.333
Being treated in a hurtful way	0.650	0.230	8.008	1	0.005	1.915
Meeting someone face to face whom they had first got to know online	1.141	0.330	11.935	1	0.001	3.129
Privacy skills	0.648	1.095	0.350	1	0.554	1.911
Critical thinking skills	0.916	0.387	5.617	1	0.018	2.500
Information-seeking skills	0.239	0.414	0.332	1	0.564	1.270
Constant	-2.403	1.797	1.787	1	0.181	0.090

Annex 4: Definitions of dependent variables used in regression models

This annex provides definitions of the dependent variables used in the binary logistic regression models presented throughout this report. The dependent variables have been categorized according to the Global Kids Online framework below.

Individual and social influences on child rights and well-being in the digital age



Source: Livingstone, Sonia (2016) *A framework for researching Global Kids Online: understanding children's well-being and rights in the digital age.* Global Kids Online. The London School of Economics and Political Science, London, UK.

Individual level

Child's identity and resources

- Age was determined by asking the child: How old are you? [The variable was categorized into age groups 9–11, 12–14 and 15–17 years]

- Gender was determined by asking the child: What is your sex/gender?

- Socio-economic status was determined by asking the following:

  A. How often do you get some new clothes to wear?

  1. Hardly ever
  2. Once or twice a year
  3. Every few months
  4. Every few weeks

  B. How easily can you find a quiet place to study or do homework?

  1. Not at all
  2. Not very easily
  3. Quite easily
  4. Very easily

  C. How often do you go on holiday [for at least one week] away from home?
  1. Hardly ever
  2. Once every few years
  3. Once or twice a year
  4. Every few months

  D. How often do you have fresh fruit and vegetables to eat?

  1. Less than once a month
  2. Once or twice a month
  3. Once or twice a week
  4. Every day or almost every day

  E. Do you have at least two pairs of properly fitting shoes? [include boots, sandals, trainers, etc.]

  1. No
  2. Yes

  F. How often do you get some new games or toys to play with?

  Choose one answer [SHOW CARD]:

  1. Hardly ever
  2. Once or twice a year
  3. Every few months
  4. Every few weeks

- Data on socio-economic status were only available in Bulgaria, Chile, Ghana, and Uruguay.

Access to digital technologies and internet use patterns

- Number of digital devices was measured by asking the child: How often you go online or use the internet using the following devices?

  - 'Mobile-only access' included children who reporting using a mobile phone as their sole internet device

  - 'Mobile and computer access' included children who were not restricted to using a single device

- Time use on the weekend and on weekdays was measured using the following questions:

  - About how long do you spend on the internet on an ordinary weekday (school day or working day)?

  - About how long do you spend on the internet on a day at the weekend?

Online opportunities (activities and digital skills)

- Breadth of activities included a count of the different activities a child engages in online, whether:
  - Information-seeking activities
  - Watching videos
  - Game playing
  - Social interaction activities
- Information-seeking activities: Children were asked how often in the past month (from never to daily or more often) they had undertaken each of five kinds of information-seeking:
  - I learned something new by searching online
  - I looked for information about work or study opportunities
  - I looked for resources or events about my local neighbourhood
  - I looked for the news online
  - I looked for health information for myself or someone I know
- Watching videos was measured by asking the child: How often have you watched video clips online in the past month?
- Online game playing was measured by asking the child how often in the past month she/he:
  - Played online games alone
  - Played online games with other people
- Social interaction activities were measured by asking the child how often in the past month she/he had engaged in five aspects of social interaction, namely:
  - Used the internet to talk to people from places or backgrounds different to mine.
  - Visited a social networking site.
  - Talked to family or friends who live further away.
  - Used instant messaging.
  - Participated in a site where people share my interests or hobbies.
- Creative activities were measured by asking the child how often in the past month she/he had undertaken two creative activities online:
  - Created my own video or music and uploaded it to share
  - Created a blog or story or website online
- Doing group work with other students outside school was measured by asking the child: How often do you use the internet to do group work for school with other students when you are not at school?
- Privacy skills were measured by asking the child how true the following statements were for her/him:
  - I know how to change my privacy settings (e.g., on a social networking site).
  - I know which information I should and shouldn't share online.
  - I know how to remove people from my contact lists.

- Critical evaluation skills were measured by asking the child how true the following statements were for her/him:
  - I find it easy to check if the information I find online is true
- Information-seeking skills were measured by asking the child how true the following statements were for her/him:
  - I find it easy to choose the best keywords for online searches

Online risks

- Encountering hate speech was measured by asking the child: In the past year, have you seen websites or online discussions where people talk about or show hate messages that attack certain groups or individuals (e.g., people of different colour or religion or nationality)?
- Seeing self-harm content was measured by asking the child: in the past year, have you seen websites or online discussions where people talk about or show ways of physically harming or hurting themselves?
- Seeing suicide-related content was measured by asking the child: in the past year, have you seen websites or online discussions where people talk about or show ways of committing suicide?
- Seeing violent content was measured by asking the child: In the past year, have you seen websites or online discussions where people talk about or show gory or violent images?[40]
- Seeing sexual messages was measured by asking the child: In the past year, have you ever seen any sexual images?[41]
- Being treated in a hurtful way was measured by asking the child: In the past year, has anyone ever treated you in a hurtful or nasty way?
- Meeting with someone face to face was measured by asking the child: In the past year, have you ever met anyone face to face that you first got to know on the internet?

Social level

Family relationships

- A child's relationship with her/his family was measured by asking the child: How true are the following things for you? In my family and home…
  - When I speak someone listens to what I say
  - My family really tries to help me
  - I feel safe at home

Parental mediation

- Parents' daily use of the internet was measured by asking the parent: How often do you use the internet?
  - Data on parents' daily use of the internet were only available in Bulgaria and Italy.
- Enabling parental mediation assesses whether children report having parents who enable and support their internet use. This was measured by asking children if their parent or caregiver does the following

40 In Albania, children were asked: in the past year, have you ever seen images or videos of real violence online? this could for example be of people hurting someone else, punching, kicking or beating them, or people being killed).

41 In Albania, children were asked: How often do you feel upset because of hateful or degrading messages or comments online that are directed to you?

when they are using the internet:

- Encourages me to explore and learn things on the internet
- Suggests ways to use the internet safely

- Restrictive parental mediation assesses whether children report having parents who prevent them engaging in the following activities, or who only allow them to do these activities under their supervision:
  - Use a web or phone camera (e.g., for Skype or video chat)
  - Download music or films
  - Visit a social networking site (e.g., Facebook [insert local terms])
- Parental monitoring assesses whether children report their internet use being monitored using specific software. This measured by asking the child: When you use the internet, how often does your parent/caregiver check the following things afterwards?
  - Which friends or contacts I added to my social networking profile/instant messaging service
  - The messages in my email or other app for communicating with people
  - My profile on a social networking site or online community
  - Which websites I visited
  - The apps I downloaded
  - The in-app purchases I made
  - Data on parental monitoring were only available in Albania, Ghana and South Africa.

Peers

- Peer support: Having friends whom you trust and can talk to.

Community

- Sense of community safety: Feeling of living in a safe environment, with people you can trust

for every child, answers

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