Children and Internet use: A comparative analysis of Brazil and seven European countries
Maria Eugenia Sozio, Cristina Ponte, Inês Vitorino Sampaio, Fabio Senne, Kjartan Ólafsson, Suzana Jaíze Alves and Camila Garroux

Contributors: Alexandre Barbosa and Giovanna Mascheroni

Summary
The present cross-country report focuses on the Internet access and use reported by 9- to 16-year-olds in the ICT Kids Online Brazil survey and in seven European countries (Belgium, Denmark, Ireland, Italy, Portugal, Romania and the UK) as part of the project Net Children Go Mobile. Conducted between 2013 and 2014, the surveys adopted questions that were quite similar, allowing for comparison of the results. The Brazilian dataset was also compared with the results achieved in the first wave of the ICT Kids Online Brazil survey (2012). The comparison showed rapid shifts in Internet access towards going online via mobile devices and at home and the persistence of socioeconomic gaps in access to the Internet.

The child’s home was the most common location for Internet use across all countries. The trend towards more private access to the web in the home, in the child’s bedroom, or other private rooms was mentioned by more than half of the young Brazilian Internet users. Accessing the Internet from relatives’ or friends’ households was also reported by half of the Brazilian users. Around one-third of the Brazilian children reported accessing the Internet at school, the second lowest value among the eight countries after Italy.

The growing trend toward mobility was particularly clear in Brazil: one out of three children accessed the Internet on the move. This is more than twice what was reported in Romania, Ireland, Portugal and Belgium. In 2013, Internet access in LAN houses was lower than in 2012, whereas access from public libraries and telecenters continued to be minimal. In Brazil, desktop computers were found to be the most common devices for going online, followed by mobile phones – reported by more than half of the users. Laptops, the leading devices in Denmark, Portugal, Italy, Ireland and Belgium, ranked third in Brazil.

The most reported form of Internet connection in Brazil was mobile web packages, similar to the Romanian results. The combination of these packages and free Wi-Fi was reported by about one out of three young Brazilian Internet users, ranking third among the eight countries.

The top five activities reported across countries pointed to the dominance of activities such as visiting social networking sites and watching video clips across groups of 11- to 16-year-olds. The Brazilian results revealed the highest percentage of 9- and 10-year-olds with social networking site (SNS) profiles and one of the highest positions among children 11 and 12 years old among the eight countries. More than half of the young Brazilian Internet users claimed to have more than 100 contacts in their main SNS profiles (Facebook, in 2014); a quarter said that they had over 300 contacts. In this regard, both figures were led by Romania. Most Brazilian children with SNS profiles reported that they were set to public, ranking second after Romania.
INTRODUCTION

Brazil has a population of over 200 million. Any discussion of children and their relationship with mobile media and devices must consider the country’s vast regional, socioeconomic, and cultural diversity. While there are still huge challenges in facing the digital divide, Brazilian children conform to the global trend toward growing up in a media-saturated environment that is notable for the ever-growing presence of mobile devices (CGI.br, 2014b). This trend has already been highlighted in recent national studies undertaken in Europe, such as the Net Children Go Mobile project, (Mascheroni and Cuman, 2014), and in the United States, such as the Teens and Technology 2013 report (Madden et al., 2013). This section briefly presents key issues in the Brazilian digital context in the light of children’s digital rights to protection, provision and participation.

The data from the present report show increased use of mobile devices, such as laptops, tablets and mobile phones, by young Brazilian Internet users. Other studies have also demonstrated that mobile devices have transformed social structures, socialization, connectivity, leisure, learning and discovery for certain age groups: Aside from having relatively easy access to areas that were previously adult-only (Meyrowitz, 2003), children also experience new dynamics of inclusion or exclusion among peer groups, with all the concurrent risks and opportunities (Bond, 2010; Vincent, 2014).

The growth in mobile device use in Brazil has also become an unequaled business opportunity for industry sectors and for advertising companies, especially within the children’s sector, given that those under 18 years old make up around a third of the total population, as shown by official statistics.¹

For parents, teachers and professionals who interact with children, the speed and intensity with which mobile devices have invaded children's routines have contributed to, and at the same time presented challenges to, young people's development and security. For organized child social movements, this process has introduced new requirements for establishing inclusive, protective and regulatory policies.

Additionally, just as Brazilian society continues to be challenged by the need to promote digital inclusion, a new agenda has emerged in the face of rising Internet penetration, particularly through mobile devices. It is important to formulate information and communications policies that are in line with the complexity of such interests that also prioritize children, as set out in the Brazilian Constitution.

Inequalities in Internet access and use in Brazil

The ICT Households 2013 survey, conducted since 2005 by the Regional Center for Studies on the Development of the Information Society (Cetic.br), pointed to an increase in the proportion of Internet users, which exceeded half the population for the first time. However, a remarkable difference was found in user age profiles: among 10- to 15-year-olds, the proportion of Internet users reached 75%; among 16- to 24-year-olds, it was 77%. Nonetheless, although the percentage of Internet users between 10 and 15 years old was above the average for the general population, it is worth emphasizing that one out of four people in this age group was still excluded from the online world: the ICT Households 2013 survey estimated that around 5.1 million children between 10 and 15 years old were not Internet users (CGI.br, 2014b). In this regard, among the children who had never accessed the web, 48% reported never having done so due to difficulties in acquiring and affording Internet access (CGI.br, 2014b).

Compared to the proportion of Internet users in selected Latin American countries, Brazil is at an intermediate level. Whereas in Chile and Argentina over 60% of the population are Internet users, in

¹ Further information can be found at: http://www.ibge.gov.br/home/estatistica/populacao/censo2010/tabelas_pdf/Brasil_tab_1_12.pdf
Uruguay, Venezuela, Brazil, Colombia, Mexico, Ecuador and Bolivia this proportion reaches between 40% and 60% (ITU, 2014). In Brazil, inequalities in household Internet access based on social class and region persist. The proportion of households with access to the Internet was 81% for high SES and 8% for low SES. In urban areas, the proportion of households with Internet access was 48%, while it was 15% in rural areas (CGI.br, 2014b).

Research has also pointed out that Internet use on mobile phones is rapidly increasing. The ICT Households 2013 survey estimated that 52.5 million Brazilians used the Internet on mobile phones, which amounted to 31% of the total population. This proportion more than doubled the figure for 2011 (15%). The survey also found that 30% of mobile phone users accessed social media on those devices; 26% shared photos, videos or text; 25% accessed e-mail; and 23% downloaded apps (CGI.br, 2014b).

Overall, marked differences between socioeconomic classes in Brazil have an important influence on access to and use of mobile devices, and, consequently, on the development of children’s digital skills. Lower incidence of laptops and tablets among Brazilian children from less privileged backgrounds compared with those from wealthier families, and use of mobile web packages rather than Wi-Fi Internet connections, are both clear indications of how economic factors might impact Internet use by children, as demonstrated in earlier studies by Hasebrink et al. (2009).

Media and childhood: opportunities and risks

Beyond the issue of inequalities in access to the digital world lies the debate on opportunities and risks associated with Internet use by children and young people. Several studies have shown that increased access to mobile devices tends to lead to greater demand for uninterrupted connectivity (Katz and Aakhus, 2002; Licoppe, 2004). In Brazil, the ICT Kids Online survey indicated that being connected to the Internet enables a variety of activities, involving communication, entertainment and knowledge acquisition.

In a context of media convergence, children interact not only with family and the wider community through these devices, but also with other media, which plays an important role in redefining the sense of public and private, freedom and sociability (Mascheroni and Ólafsson, 2014). Parents from a variety of backgrounds express ambivalent positions. On the one hand, they indicated their motivation to provide children with mobile devices as tools to enable parental control and opportunities for digital inclusion. On the other hand, they expressed concern about the new dynamics arising from access to mobile devices, including much easier access for young people to content considered inappropriate, such as cyberbullying, exposure to advertising, and contact with strangers (Haddon and Vincent, 2014).

Life in this new communication landscape also challenges notions of authority, trust, friendship, and living with others (Meyrowitz, 2003). As already demonstrated by the EU Kids Online surveys, children’s use of the Internet brings about both opportunities and risks. Exploring wider opportunities entails increased likelihood of running risks, and conversely, not taking those risks may mean missing opportunities (Livingstone and Helsper, 2010). More recent studies comparing data from 2010 and 2014 have extended this perception of risk, pointing out that children from countries such as Belgium, Portugal and the UK had increasingly benefited from online activities without necessarily increasing risk levels (Livingstone et al., 2014a).

The data from the present report indicated that children’s privacy settings, number of contacts and disclosure of personal information (names, addresses, photos, etc.) on social networking sites can be assumed to be indicators of risky behavior. However, it is worth mentioning that these practices might also be part of the pursuit of online opportunities (Livingstone et al., 2014a; Hasebrink et al., 2011). In Brazil, data have shown that parental concern does not always translate into effective guidance for safe practices, and this reinforces the importance of state, family and social action (CGI.br, 2014a).

Regulatory agendas and children’s rights

From the perspective of online protection, certain issues have been much discussed in Brazil. While it is worthwhile stressing that exposure to advertising is not unique to Brazilian children, increased use of the Internet by children suggests that they have become targets for promotional and online merchandising strategies. Yet, there is a lack of specific regulatory and self-regulatory practices as regards children’s advertising in the country, and this has led several institutions to action, such as the Alana Institute, ANDI – Communication and Rights, and the National Council for the Rights of Children and Adolescents (CONANDA).
Another key point in promoting children's rights in Brazil is the topic of access to inappropriate content, an issue that has grown along with increased ease of access to information for children. Labelling and classification policies for audiovisual content – which aim to increase public awareness of the need for appropriate television, movies, games and RPGs for children – have been challenged by new ways to access information, mainly through mobile devices.

Social demands for regulatory action aimed at online protection have been strongly contested by the private sector, particularly broadcasting companies that associate regulatory initiatives with threats to freedom of speech; this has become a particularly sensitive issue since the post-dictatorship democratic transition. While the challenge of regulating content is shared by many other countries (Livingstone et al., 2011), it is also important to recognize the specifics of this debate for Brazil and Latin America.

The issue of online protection has also been raised by reports monitoring cybercrime – one area of concern for the SaferNet Brasil organization. In this context, the Brazilian National Reporting Center of Cybercrimes against Human Rights is the Brazilian response to an international effort that currently unites 22 countries that are dedicated to preventing inappropriate use of the Internet for crimes against human rights.2

Challenges to promoting digital opportunities
On the 25th anniversary of the Convention on the Rights of the Child (CRC), UNICEF has been actively engaged in defining a research strategy for a global agenda on children's rights in the digital age, with initiatives such as the report by Livingstone and Bulger (2013) and the international symposium Researching Children's Rights Globally in the Digital Age.3

Besides the right to protection, the emergence of digital media represents an opportunity to promote children's rights to provision and participation, as set out in the UN Convention on the Rights of the Child. In particular, Articles 13 and 17 establish children's right to access information from a range of sources, including the Internet. Article 12 reinforces children's right to freely express their views and opinions.

In terms of social policies, the adoption of information and communication technologies (ICTs) in education in Latin America has been consolidated significantly since the early 1990s. According to the Economic Commission for Latin America and the Caribbean (ECLAC), in 2014 more than half of the countries in the region had formal ICT policies for education, and most had units that were responsible for overseeing their implementation (Sunkel et al., 2014). In Brazil, however, expansion of policies in this area is hindered by a range of challenges that must be overcome; for example, advances in connectivity have not been able to keep pace with increasing ease of access to equipment in some regions (CGI.br, 2014c).

Another important aspect of the recent debate regarding the future of Internet in Brazil is the enactment of the Brazilian Civil Rights Framework for the Internet4. As far as digital inclusion of children is concerned, this document guides the definition of principles, guarantees, rights and duties for users of the web, and establishes guidelines for state action. Aside from defining principles for Internet governance – such as guaranteeing Internet neutrality – the framework also represents a collaboration between government and society to ensure education about and promotion of digital inclusion.5

Overall, in light of this increasingly dynamic scenario, the production of systematic and internationally comparative data on young people's use of the Internet should contribute to further promotion and protection of children's rights. This has already made it possible to make comparative analyses between the ICT Kids Online Brazil surveys, the European network EU Kids Online and the Net Children Go Mobile project, offering

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2 For further information see: http://www.inhope.org/.

3 This symposium was organized at the London School of Economics, in February 2015. The full report Researching children's rights globally in the digital age is available at: http://www.lse.ac.uk/media@lse/research/Research-Projects/Researching-Childrens-Rights/pdf/Researching-childrens-rights-globally-in-the-digital-age-260515-withphotos.pdf


5 "Sole paragraph. The government, together with providers of connection services and Internet applications, as well as with civil society, shall promote educational initiatives and provide information about the use of the software referred to in this article, as well as establish good practices for digital inclusion of children and teenagers."
valuable perspectives on our understanding of children’s day-to-day communication practices.

**METHODOLOGICAL NOTES**

Social and regional inequalities within Brazilian territories raise significant challenges for data comparability across regions. Cross-country comparability must take into account even more acute difficulties in data comparison. The countries considered in this report differ not only in technological and economic communication infrastructures, penetration of the Internet, diffusion of mobile and smartphones, and digital cultures. They also differ in terms of childhood and parenting cultures.

Despite significant differences in the Brazilian and European scenarios and known limitations on the comparability of studies, comparing Brazil and the countries involved in the Net Children Go Mobile project provides relevant data for public policies in countries with similar patterns of Internet access and use by children. Also, country-specific data may shed light on various cultural factors that further contextualize the experience.

**Net Children Go Mobile**

Adapting the EU Kids Online questionnaire, the Net Children Go Mobile project aimed to investigate through quantitative and qualitative methods the changing conditions in children’s online safety brought about by mobile Internet use. The quantitative research was based on a survey carried out in seven European countries: Belgium, Denmark, Italy, Portugal, Romania and the UK.

The target population of the survey was Internet users aged 9 to 16 years old; the study involved 3,500 children and their parents. Random stratified sampling of some 500 children was carried out in each country. The fieldwork was conducted between May and July 2013 in Denmark, Italy, Romania and the UK; between November and December 2013 in Ireland; and between February and March 2014 in Belgium and Portugal.

Cognitive testing was conducted with eight children from different age groups and genders in each country to explore children’s understanding of and reactions to the questions. The wording of the questionnaires was refined on the basis of this cognitive testing, in order to ensure children’s comprehension and to avoid adult terminology.

Aiming to maximize the quality of children’s answers and ensure their privacy, the survey questionnaire was administered face-to-face in households; sensitive questions were self-completed by the children. Parents were asked questions about household demographics and socioeconomic status, as well as their own use of the Internet, smartphones and tablets.

**ICT Kids Online Brazil**

Drawing on the framework designed for EU Kids Online, the ICT Kids Online Brazil survey – conducted annually since 2012 – seeks to understand how children access to use the Internet and deal with online opportunities and risks. Furthermore, the survey aims to outline the experiences, concerns and practices of parents and legal guardians regarding children’s use of the Internet.

The target population for ICT Kids Online Brazil 2013 was Internet users 9 to 17 years old; it was conducted with 4,522 respondents: 2,261 children and 2,261 parents or legal guardians. The fieldwork took place between September 2013 and January 2014. The source used to collect information on the target population for the sample design was the 2010 census, which was also the basis of random selection of municipalities and census enumeration areas.

In order to test the understanding of the questions and concepts under study, twenty cognitive interviews were carried out with children from different age groups and socioeconomic backgrounds. The results of the interviews served as a basis for reviewing the survey questions, especially in terms of adequacy, clarity, and comprehensibility.

Data were collected through structured questionnaires; children answered both interviewer-administered (face-to-face) and self-completion questionnaires. Self-completion questionnaires covered sensitive topics and were designed to provide a more comfortable environment for the respondents. In the 2013 survey edition, all questionnaires were administered on paper (paper and pencil interviewing – PAPI).

**Notes on comparability: Brazil and Europe**

In Brazil, based on the definition adopted by the International Telecommunications Union (ITU), Internet

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Further information on the sample plan and data processing can be found in the methodological section of the full report at: <http://www.cetic.br/media/docs/publicacoes/2/tic-kids-online-2013.pdf>.
users were considered those individuals who had used the web at least once in the three months preceding the survey (ITU, 2014). Information on children’s use of the Internet was provided by their parents or legal guardians. For the Net Children Go Mobile (NCGM) project, the sampling criteria were based on children’s use of the Internet according to a broader definition: children who use the Internet.

Regarding the definition of socioeconomic status, it is worth pointing out that there are concrete issues in comparing social stratification variables across countries, especially given significant national differences in measuring educational and occupational variables (Ólafsson, 2014).

For the Brazilian dataset, SES was based on the criteria of the Brazilian Association of Research Institutes (ABEP). The Brazilian Criteria for Economic Classification (CCEB) is an instrument for economic segmentation, based on a survey of household characteristics used to classify the population, such as ownership of durable goods for household consumption and the level of education of heads of households. The criteria attribute scores to each characteristic, which are then totaled. The range of scores is then matched to one of five economic strata classifications: classes A, B, C, D, and E. For data analysis and cross-country comparability, these categories were combined into high SES (A and B), middle SES (C), and low SES (D and E).

Regarding the age group of the target population, an important difference is worth pointing out. The target population for the ICT Kids Online Brazil 2012 survey comprised individuals 9 to 16 years old. In order to include the adolescent population in its entirety, as defined by the Brazilian Child and Adolescent Statute (ECA), the survey’s target population was broadened in 2013 to include 17-year-olds. For comparison purposes, data processing was carried out so as to confine this report’s analysis to Internet users within the age range of 9 to 16 years old.

Finally, it is worthwhile to mention other differences in questionnaire design that pose an important challenge to comparability:

- Brazil does not collect frequency of online activities among 9- and 10-year-olds. Thus, cross-country comparability in this context is only possible for age groups within the frame of 11 to 16 years old;
- Comparability of data on social networking sites is limited owing to a conceptual difference regarding media sharing platforms. In Brazil, information on social networking sites and media sharing platforms was not collected separately.

### COMPARING BRAZILIAN AND EUROPEAN RESULTS

The findings of the present section provide significant insights into children’s Internet access and use across eight countries – Brazil, Belgium, Denmark, Ireland, Italy, Portugal, Romania and the UK. The findings are presented in the following subsections: Where children use the Internet; Devices: From desktops to mobile devices; Types of connections; Online activities; and Social networking profiles.

### Where children use the Internet

#### At home

Overall, data analysis has shown that in the eight countries surveyed, the home was the most common location for Internet use among young people. Brazilian children, like children in Belgium, Ireland, Portugal and the UK, much more frequently mentioned accessing the Internet from other spaces at home than from their own bedrooms. Danish and Italian children presented similar values in both spaces of the household, while in Romania the private space led (Chart 1).

The results of the ICT Kids Online Brazil 2013 survey also pointed to increased Internet use within the home when compared with the results of the previous year (2012). Access in shared places at home rose from 40% to 68%; access in the bedroom or another private room at home rose even more, from 26% to 56%. Brazilian children who accessed the Internet seemed to follow a trend toward more private use in their households.

7 Complete results and the final report to be found at: [http://www.cetic.br/pesquisa/kids-online/](http://www.cetic.br/pesquisa/kids-online/).
In Brazil, as in most of the European countries, there was no significant gender difference in accessing the Internet from the bedroom, though girls slightly more frequently reported accessing the web from shared spaces at home. Similarly, there were almost no age differences in accessing the Internet in shared places at home, while access in the children’s own bedrooms increased with age.

Accessing the Internet from their own bedroom or another private room at home was positively correlated with social status in Brazil, Romania and Portugal (Chart 2): 41% of Brazilian children of low socioeconomic status accessed the web in this more private space, whereas 49% of medium SES and 73% of high SES did so. In Belgium, Ireland and the UK, children of low SES also reported less frequently accessing the Internet from their bedroom. Interestingly, both Italian and Danish children displayed different patterns of Internet use. While for Danish respondents there was no evident correlation with SES, Italian children showed a relationship opposite to that observed in Brazil.

Differences in locations of Internet use may be related not only to different conditions for accessing the web, but also to different styles of parenting. As Helsper et al. (2013) indicate, “Parental mediation has always been considered an important factor in relation to children’s media use, and there is a well-developed field of thinking about the different types of parenting and how they might be related to different types of use.” Thus, parental control might be more or less restrictive in different countries, and this might influence different aspects of children’s Internet use, including location and privacy of use.

At school
Schools were found to be a relevant location for Internet use among children. While the highest values were reported in the UK (88%) and Denmark (80%), about half of the Romanian (53%), Portuguese (49%) and Irish (47%) children said they had accessed the web from school. Brazilian children ranked second lowest (36%), followed only by Italian children (26%).
It is worth noting that in Brazil the proportion of users accessing the Internet at school was considerably lower than in most of the other countries. Some factors stand out among the various contextual factors that may contribute to understanding this phenomenon, such as the predominance of low Internet connection speeds in public schools and especially restrictions on Internet use in these locations. In Brazil, policies prohibiting the use of mobile devices in schools have been put in place by both state and municipal laws. In this context, the ICT Education 2013 survey found that 40% of Brazilian schools restricted the number of hours students could use computers. Some studies have led to recommendations underscoring the need to promote more creative and imaginative Internet use to boost the opportunities allowed by online access. In contrast to this, most Brazilian schools take the opposite approach and prohibit its use for anything other than teaching purposes in classrooms.

Similar to the European results, Brazilian figures for Internet access at school were not shown to be correlated with gender or SES. Differences by age were relatively small.

On the move
In Brazil, the trend towards mobility was one of the main findings of the 2013 survey. One out of three Brazilian children claimed to access the Internet on the move, a significant increase when compared with the European countries. These values were more than twice those reported in Romania (15%), Ireland (13%), Portugal (13%) and Belgium (11%). The leading position on Internet access on the move belonged to the UK, reported by almost half of children (47%).

Going online on the move was reported equally by Brazilian girls and boys, but was higher among 13- and 14-year-olds and was again positively correlated with SES: while 28% of children of low SES accessed the web on the move, 31% of medium SES and 38% of high SES did so.

Compared with the existing socioeconomic gap in accessing the Internet at home, the gap in the percentage of children who accessed the Internet via mobile devices was narrower. Yet, it is worth noting that the narrower gap in mobile access does not necessarily imply more equitable access to the web, especially when taking into account important differences in the quality and speed of connection, the range and performance of personal devices, and coverage issues, which affect the low-income population more strongly.

Overall, the significant increase in mobile access and the transformation in patterns of use mean heightened exposure to opportunities and risks on the web, which represents a greater challenge for parents and legal guardians in terms of mediation of Internet use.

Other places
The second most reported location by young Brazilian Internet users was other places outside the home, which included households of relatives or friends, cybercafés, libraries and telecenters. Accessing the Internet at the homes of relatives or friends was reported by about half of the Brazilian children, more than in 2012, when it was reported by about one-third. Access in LAN houses or cybercafés declined in relation to 2012, while accessing the web from public libraries or telecenters continues minimal. It is worth mentioning that with the increase in Internet use at home, use of paid access centers such as LAN houses and cybercafés has shown a significant decrease in the last years. However, these locations are still of great relevance for individuals living in rural areas in Brazil, as well as among those of low SES backgrounds.

Devices: from desktops to mobile devices

Desktop computers
Desktop computers were the most reported device used by Brazilian children to go online (72%) by a large margin, as in Romania (89%) and the UK (94%) (Chart 3).

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8 According to the ICT Education 2013 survey, 57% of all Brazilian public schools had connection speeds of up to 2 Mbps, while speeds higher than 3 Mbps were found in only 19% (CGI.br, 2014c).

9 The use of mobile phones for anything other than teaching purposes in classrooms is prohibited in public schools in various states in Brazil, as evidenced by São Paulo’s State Law No. 12.730/2007 and Rio de Janeiro’s Municipal Law No. 4.734/2008.

10 In Brazil, the response options “Relatives’ home”, “Friends’ home”, “LAN house or cybercafé” and “Public library, telecenter or other public space” were collected separately.
In terms of the influence of socioeconomic status, Brazilian children of high SES reported greater use of desktop computers (76%), and so did boys when compared to girls (74% and 71%, respectively); PCs were also the most used devices for all ages, except for 15- and 16-year-olds, who reported more use of mobile phones/smartphones to go online.

**Mobile phones and smartphones**

Internet access via mobile devices, when compared to access using equipment with restricted mobility, constitutes a more personal, private and flexible use of media, especially in terms of location and frequency of use. This gives rise to new dynamics of freedom, privacy, socialization and mediation by parents, legal guardians and teachers (Mascheroni and Ólafsson, 2014).

In Brazil, even though desktop computers continued to be the most used equipment among young people, a significant increase was noted in Internet access via mobile devices. Mobile phones and smartphones were

the second most reported device by children: 52%, an increase of 31 percentage points in relation to 2012. Mobile phones were also the second most reported device for accessing the Internet in Denmark (79%), Ireland (58%), Italy (61%) and Portugal (61%), coming after laptops. In Belgium and Romania less than half of the children reported using these devices (Chart 3).

Brazilian girls reported greater use of mobile phones than boys (54% and 50%, respectively), a trend also found in the European countries. This use also rose with age in Brazil, starting from 27% among 9- and 10-year-olds and reaching 71% among 15- and 16-year-olds.

Among the eight countries, the use of mobile phones or smartphones to access the Internet varied according to SES (Chart 4). There are still significant differences in terms of access to these devices in some countries, while in others the gap between social classes is quite narrow. This is the case in Brazil: children of high SES (55%) reported it only slightly more than those of low SES (52%) and medium SES (51%).

**Base: All children aged 9-16 who are Internet users.**

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**Chart 3: Devices used to access the Internet, by country (%)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Desktop Computer</th>
<th>Laptop Computer</th>
<th>Mobile Phone / Smartphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>52%</td>
<td>43%</td>
<td>44%</td>
</tr>
<tr>
<td>Belgium</td>
<td>59%</td>
<td>63%</td>
<td>43%</td>
</tr>
<tr>
<td>Denmark</td>
<td>61%</td>
<td>69%</td>
<td>56%</td>
</tr>
<tr>
<td>Ireland</td>
<td>64%</td>
<td>58%</td>
<td>52%</td>
</tr>
<tr>
<td>Italy</td>
<td>61%</td>
<td>69%</td>
<td>59%</td>
</tr>
<tr>
<td>Portugal</td>
<td>61%</td>
<td>61%</td>
<td>44%</td>
</tr>
<tr>
<td>Romania</td>
<td>61%</td>
<td>59%</td>
<td>43%</td>
</tr>
<tr>
<td>UK</td>
<td>71%</td>
<td>79%</td>
<td>89%</td>
</tr>
</tbody>
</table>

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**Chart 4: Children who use a mobile phone or smartphone to access the Internet, by country and SES (%)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Low SES</th>
<th>Medium SES</th>
<th>High SES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>52%</td>
<td>51%</td>
<td>56%</td>
</tr>
<tr>
<td>Belgium</td>
<td>35%</td>
<td>48%</td>
<td>48%</td>
</tr>
<tr>
<td>Denmark</td>
<td>83%</td>
<td>81%</td>
<td>73%</td>
</tr>
<tr>
<td>Ireland</td>
<td>55%</td>
<td>70%</td>
<td>73%</td>
</tr>
<tr>
<td>Italy</td>
<td>59%</td>
<td>73%</td>
<td>57%</td>
</tr>
<tr>
<td>Portugal</td>
<td>60%</td>
<td>85%</td>
<td>85%</td>
</tr>
<tr>
<td>Romania</td>
<td>39%</td>
<td>42%</td>
<td>57%</td>
</tr>
<tr>
<td>UK</td>
<td>52%</td>
<td>73%</td>
<td>86%</td>
</tr>
</tbody>
</table>

**Base: All children aged 9-16 who are Internet users.**
Laptops
For accessing the Internet, laptops led in Denmark (91%), Portugal (79%), Italy (69%), Ireland (64%) and Belgium (63%). They ranked third in Brazil, being reported by about one-third (36%) of the children. While there were neither gender nor age differences for these devices, the gap related to social class was notable: 56% of children of higher SES accessed the web through laptops, as compared to 33% of medium SES and 14% of low SES.

Tablets and game consoles
The use of tablets to access the Internet was reported by 12% of children in Brazil, not far from the values for Romania (15%). Going online through these devices was more frequently reported in Denmark (54%), Belgium, Ireland and the UK (44%).

Similar to the pattern observed in the use of desktops and laptops, Brazilian figures for the use of tablets were positively correlated with SES: 22% of children of high SES, 10% of medium SES and 5% of low SES. On the other hand, gender and age differences were rather small.

Finally, accessing the web through game consoles was again a less common activity among both Brazilian (8%) and Romanian children (5%). Comparatively, the highest figures came from the UK (55%), Ireland (36%) and Denmark (37%). Similar to the European countries, in Brazil, this device was more commonly used by boys than girls (13% and 5%, respectively); greater use was also reported by the youngest children (12% among 9- and 10-year-olds), and it was also positively correlated with SES: 3% among children of low SES, 7% for medium SES and 16% for high SES.

Overall, Brazilian data pointed to substantial social differences in the use of devices to go online. This was especially true for the use of laptops, tablets and game consoles: The exception was the use of desktops and mobile phones, which had high penetration among young Internet users from all socioeconomic backgrounds owing to their low acquisition prices in the country.

Types of connection
Despite the significant increase in Internet access via mobile devices, their use is based on different conditions of connection, being limited by technical and economic constraints, such as the cost of web packages and the availability of Wi-Fi networks.

In Brazil, for those children accessing the Internet through mobile phones or smartphones, the most reported connection was the exclusive use of mobile web packages (40%). This high figure is similar to that found in Romania, where 41% of children relied exclusively on mobile packages. In Italy, one out of three children (33%) reported this type of connection; the other countries presented lower values (Chart 5). Interestingly, this access was led by Brazilian children of low SES (66%), followed by medium SES (46%) and high SES (24%).

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11 Brazilian data have already pointed to a high degree of dissemination of mobile phones within the population: 82% of households reported ownership of a mobile phone. This figure reached only 49% when it comes to the penetration of computers – whether desktops, laptops or tablets – in households (CGI.br, 2014a).

On the other hand, access to the web through free Wi-Fi networks was higher in Ireland (87%), Portugal (69%) and Belgium (64%). Brazilian results (26%) were
among the lowest, coming after the UK (23%) and Italy (25%). In contrast to Internet access through mobile packages, going online through Wi-Fi networks was positively correlated with social class: 40% among children of high SES, followed by 20% for medium SES and 7% for low SES (Chart 6). As shown in the Brazilian data, lack of Internet access at home can be associated with lower use of Wi-Fi access, as a significant proportion of Internet users took advantage of fixed connections to create Wi-Fi networks through routers and went online that way (CGI.br, 2014b).

Chart 6: Children who access the Internet through Wi-Fi only, by country and SES (%)

![](chart.png)

The percentage of children that could rely on both mobile Internet plans and Wi-Fi networks, consequently benefiting from more autonomy of use, varied between the eight countries. More than half of children reported the combination of mobile web packages and free Wi-Fi connections in Denmark (55%) and the UK (54%). Italy ranked third (43%), followed by Brazil (31%), Belgium (26%) and Romania (25%); Portugal (15%) and Ireland (5%) were at the bottom, as shown in Chart 5 above.

In Brazil, combined access to the web was also directly correlated with social class: 30% of children of medium SES relied on both mobile Internet plans and Wi-Fi networks, followed by 35% for high SES and 24% for low SES.

Online activities

For the purpose of cross-country comparison, a set of online activities was selected: using the Internet for schoolwork, visiting social networking sites, checking information to satisfy curiosity, watching video clips, playing games against the computer, downloading music or films, using instant messaging, watching broadcast television or movies online and playing games with other people on the Internet.

Brazil

The results of the ICT Kids Online Brazil 2013 survey indicated that young Internet users engaged in a range of activities online – especially those related to communication, entertainment practices and searching for content and information. When considering activities carried out by children on a daily basis, visiting social networking sites was the most commonly mentioned: 52% of children 11 to 16 years old reported having used the Internet for this purpose. A significant percentage (30%) also stated that they went online to use instant messaging.

Daily activities related to the search for information and content – which may involve rather critical use of digital tools – were much more related to personal interests than to schoolwork. Whereas 35% of young Internet users stated that they checked information to satisfy their curiosity, only 15% used the Internet for schoolwork. As far as other daily activities are concerned, Brazilian children also mentioned activities that involved entertainment: watching video clips (28%), and playing games against the computer (28%) or with other people on the web (14%), followed by 11% who went online to download music and films. Finally, watching broadcast television or movies online was reported less frequently (7%).

Data analysis showed significant divergences in Internet use according to social class, especially when considering young Internet users: while 77% of children of high SES used the Internet on a daily basis, this
figure was 62% for medium SES and 32% for low SES. These data underscore the great influence of social inequalities on access to the digital world and its opportunities.

Overall, children of high SES engaged in a more diversified set of activities than those of lower SES. Whereas 53% of high SES children went online to search for information on a daily basis, this percentage was 31% for medium SES and 12% for low SES. This pattern was similar for other online activities: 52% of children of high SES said they used instant messaging to communicate with friends; this percentage was only 8% for young Internet users of low SES.

Schoolwork was carried out more evenly among children from different socioeconomic backgrounds: 19% of children of high SES reported using the Internet for school assignments on a daily basis, whereas this percentage was 13% for medium SES and 16% for low SES.

Comparing activities across countries

In Brazil, the ICT Kids Online survey did not collect frequency of online activities among 9- and 10-year-olds. Thus, cross-country comparability in this area is only possible for age groups within the frame of 11 to 16 years of age.

Table 1 presents the most reported activities taking place on a daily basis in the eight countries surveyed. The countries coincided in the top five activities, in spite of the differences in their relative positions. Overall, visiting SNS was one of the two main activities in all countries\(^{12}\). This similarity illustrates a highly common digital culture involving new ways of social self-presentation shared by youngsters living in different parts of the world (boyd and Marwick, 2011; Kupiainen et al., 2013; Takahashi, 2014).

An aspect worth pointing out is the impact of age on online activities. Overall, when comparing the Brazilian and European figures, data analysis revealed that the range of activities performed on the web tended to intensify as respondents grow older. Among Internet users aged 11 and 12 years old, the most frequently mentioned activities concerned communication and entertainment related to video clips. Belgian, Danish, Irish, Portuguese and Romanian children in this age group mentioned that they most commonly watched video clips on a daily basis. British 11- and 12-year-olds, however, most commonly played games against the computer. Brazilian and Italian 11- and 12-year-olds reported more commonly visiting social networking sites on a daily basis.

Likewise, for Internet users 13 and 14 years old and 15 and 16 years old, the most common activities carried out on a daily basis concerned communication and entertainment, and both also related to visual culture. Interestingly, both age groups reported visiting social networking sites on a daily basis as the most common activity, with the exception of Portugal and Ireland, where watching video clips was the most reported activity, but was very close to visiting social networking sites (Table 1). These values suggest clear dominance of a networked culture among teens, which combines being in intensive contact with peers and friends and accessing shared content from visual culture as part of socialization processes in digital environments (boyd, 2014).

### Table 1: Top five activities reported on a daily basis, by country and age (%)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage (%)</th>
<th>BR</th>
<th>BE</th>
<th>DK</th>
<th>IE</th>
<th>IT</th>
<th>PT</th>
<th>RO</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visited an SNS profile</td>
<td></td>
<td>11-12</td>
<td>13-14</td>
<td>15-16</td>
<td>11-12</td>
<td>13-14</td>
<td>15-16</td>
<td>11-12</td>
<td>13-14</td>
</tr>
<tr>
<td>Checked information to satisfy curiosity</td>
<td></td>
<td>11-12</td>
<td>13-14</td>
<td>15-16</td>
<td>11-12</td>
<td>13-14</td>
<td>15-16</td>
<td>11-12</td>
<td>13-14</td>
</tr>
<tr>
<td>Used instant messaging</td>
<td></td>
<td>11-12</td>
<td>13-14</td>
<td>15-16</td>
<td>11-12</td>
<td>13-14</td>
<td>15-16</td>
<td>11-12</td>
<td>13-14</td>
</tr>
<tr>
<td>Played games against the computer</td>
<td></td>
<td>11-12</td>
<td>13-14</td>
<td>15-16</td>
<td>11-12</td>
<td>13-14</td>
<td>15-16</td>
<td>11-12</td>
<td>13-14</td>
</tr>
</tbody>
</table>

Base: All children aged 11-16 who are Internet users; Top values by age group are highlighted.

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\(^{12}\) Listening to music was the leading activity in Europe but the item was not collected in Brazil.
Social networking profiles

The ICT Kids Online Brazil 2013 survey confirmed that Brazilian children are active users of social networks and their presence on these sites has been increasing consistently over the years. In fact, more than three out of four Brazilian children (78%) reported having a profile on at least one SNS13, one of the highest figures across the eight countries (Chart 7). Brazilian figures coincided with Romanian and were not far from Denmark (81%) – the country that led – and Portugal (76%).

Chart 7: Children with an SNS profile, by country (%)

In Brazil, there were no gender differences in the presence of children on SNS. Likewise, most of the European countries showed a similar pattern, with the exception of the UK – SNS use has dropped for British girls (from 65% in 2010 to 50% in 2013), but there has been hardly any change for boys (Livingstone et al., 2014b). Also, having profiles on social networking sites has been found to be positively correlated with age in all countries.

In terms of socioeconomic factors, Belgium, Italy, Portugal and the UK followed the same pattern as Brazil: children of high SES were more present on social networking sites (86%) than those of medium SES (77%) and low SES (64%). In contrast, in Denmark, Ireland and Romania children of high SES reported having their own profile on social networking sites less often than children of medium SES and low SES.

The percentage of children with SNS profiles varied significantly according to the age of respondents (Chart 8). Among 9- and 10-year-old Internet users, 52% said they had a social networking profile. This percentage strongly increased among 11- and 12-year-olds, reaching 75%. The age gap was narrower in the next age groups: 83% among 13- and 14-year-olds and 91% for those 15 and 16 years of age.

Compared to the other countries, Brazil displayed the highest percentage of children 9 and 10 years old with social networking profiles and one of the highest positions among 11- and 12-year-olds, after Portugal, Denmark and Romania. This result has important implications for parents and legal guardians in terms of mediation of Internet use by the youngest children.

13 In comparison to 2012 (70%), this figure has undergone an increase of 8 percentage points.
Facebook was the most used site for social networking in Brazil and among the seven European countries in the period under analysis (2013-2014). It was reported by about 90% of European children who had SNS profiles. In Brazil, this figure reached 77%. In contrast, half of the Danish children— who led in the presence in social networking sites, as seen in Chart 8 above—and 40% of the young Irish Internet users reported having no more than 10 contacts on their personal profiles. When considering the average for the seven European countries, half of the children reported having no more than 50 contacts, and one-third said they had more than 100 contacts.

In Brazil, as in Europe, the number of contacts presented in personal social networking profiles is relatively balanced by gender. However, data indicated important differences regarding the age of respondents: overall, older users had more contacts in their lists than younger ones (Chart 10). Brazilian children of high and medium SES claimed to have more than 300 contacts more frequently than children belonging to low SES (31%, 24% and 17%, respectively).

Comparability of this indicator is limited due to differences in questionnaire design. In Brazil, social networking websites and media sharing platforms were not collected separately.
Privacy settings

Data analysis also explored the level of exposure to which children are subjected on social networking sites. As previously identified by Mascheroni and Cuman (2014), differences in privacy settings are not necessarily an indicator of risky behavior on the web. Rather, these factors should be understood within the context of socialization and making friends.

Brazilian children mainly reported that their SNS profiles were public, so that people outside their social circles could access their personal information. This was the answer of 42% respondents, while 33% reported having private profiles, allowing only their friends to fully view their content and activities. 23% claimed that their profile was partially private, so that friends of friends could see their personal information (Chart 11). In this context, it is worth noting that differences in parental mediation strategies may influence the use of the Internet by children. As identified by the ICT Kids Online Brazil 2013 survey, mediation strategies based on technical restriction and monitoring activities – where parents or legal guardians use technical tools to limit, restrict or monitor the online activities of their children or those in their care – were not among the main mediation strategies adopted by Brazilian parents (CGI.br, 2014a).

Among the seven European countries, Romania ranked first (55%) when it came to having public profiles. In contrast, children reported that their SNS profiles were private in Italy (58%), Belgium (55%), the UK (51%) and Portugal (48%).

Gender had a clear influence on the choice of privacy settings among young Internet users in all countries except the UK (Chart 12). While 43% of Brazilian girls indicated that their profiles were private, 19% of boys did so. In Europe, gender differences in choice of privacy settings were particularly high in Belgium, Italy and Romania.
In regard to age, about half of the Brazilian children (49%) between 11 and 14 years old reported that their profiles were set as public. In terms of social status, survey data showed that 65% of children of low SES had public profiles, compared to 38% for medium SES and 39% for high SES.

Information available
Finally, a relevant aspect related to exposure of users on the web concerns the kind of personal information that children share with other Internet users. A large number of children in the eight countries surveyed disclosed personal data on social networking sites, such as their names, surnames, addresses and pictures clearly showing their faces. Concerning the latter, Brazil led, with 92% of children; the lowest figures came from the UK and Belgium, where one out of four children did not publicly share their own image.

Of the total number of Brazilian children who had social networking profiles, 21% shared their home addresses.

Among the European countries this was reported by less than 8% of children in all but one country. The exception was Romania, where 39% of children reported displaying their addresses on their profile pages.

Compared to boys, Brazilian girls – who more frequently had private profiles, as noted above – overall presented more information about themselves: personal photos, last names, home addresses, phone numbers and schools. Provision of this personal information was directly correlated with age, while there were no clear correlations with SES.

CONCLUSIONS AND RECOMMENDATIONS
The findings of this report point to a clear trend toward shared practices and diversity of digital landscapes across the eight countries surveyed. The home was identified as the most popular location for Internet access. The most frequent activities were found to combine aspects of communication and visual culture, and cross-national comparisons revealed that age and socioeconomic status tended to have a greater influence than gender on Internet use. Interestingly, however, gender seemed to influence the ways of introducing the self in digital networks. National contexts also mattered: the results for the seven European countries revealed clear differences, from institutional conditions of Internet access at school to individual practices of self-presentation and contacts on social networking sites – there is no such thing as a homogeneous European digital landscape.

In Brazil, socioeconomic differences among children emerged as a critical factor, with relevant implications for Internet access. Access to digital devices, such as desktops, laptops and tablets, was shown to be directly correlated with socioeconomic status. Access through a combination of mobile Internet plans and free Wi-Fi networks also followed the same pattern.

In fact, in a national context marked by considerable socioeconomic differences, where individuals 10 to 25 years old lead as Internet users, public institutions such as schools may be the place to ensure democratization of access and acquisition of digital skills – covering information, safety, communication, content creation targeted to different audiences, to name but a few. This educational path does not involve merely the infrastructure of schools, which is a key factor for the
first step. It also involves an in-depth review of the role of teachers and education in the digital era.

In each country, these findings invite researchers, educators and other stakeholders to explore different approaches to the digital environment of children, paying attention to the processes behind the numbers. This involves listening to children’s experience in their own words, identifying motivations, peer and social pressures to be online, informal learning processes and acquisition of skills and digital literacy. As recent European reports based on children’s words and practices have indicated (Livingstone et al, 2013; Smahel and Wright (eds.), 2014; Haddon and Vincent, 2014), adult views of and concerns about digital experiences do not necessarily coincide with those of children and teenagers.

Overall, the findings of this report, involving countries from both the Global North and South provide relevant information for national and international policymakers, including government and media, industry, academics, civil society, NGOs, youth educators and families. Taking into account the European results, the EU Kids Online report (2014) included recommendations for three specific groups: 1) families (children and parents); 2) educators, awareness raisers and the media; and 3) government and industry. Several of these recommendations, guided by the digital practices of European children and young people, are valid for Brazil.

Additionally, it is worthwhile to point out recommendations addressing factors and singularities in the Brazilian context:

1) Families (children and parents)
The findings of this study point to a trend of increasing use of mobile devices and intensification of private online access among children in Brazil. In the light of this trend, children need to be encouraged to observe age limits for online services and warnings from their parents about possible inappropriate content or services. They need to take proactive steps on the network, blocking content and unwanted contacts and denouncing situations and content they consider inappropriate. They should keep personal information accessible only to friends and not post any information or photos without prior consent. And they should ask for help from adults or friends if they or their friends suffer bullying or come across content they consider problematic.

2) Educators, awareness raisers and the media
Rather than continuing the prevailing trend of establishing restrictive Internet access policies in classrooms in Brazil, these spaces should be valued for their capacity as training contexts in which children can become qualified to explore the full potential of the Internet, master digital skills and learn more about safe use. In this regard, the agendas for digital inclusion, rights of children and adolescents in the digital world, ethics and security in the use of the web should be incorporated in school curriculums, as well as other educational spaces such as cultural centers and libraries.

In light of this scenario, the media can play an important role in informing the population, addressing the risks and opportunities associated with Internet use, helping disseminate the rights of children and adolescents in online communication and, finally, sharing positive experiences of and recommendations for coping with cyberbullying and harassment.

3) Government and industry
Given the major impact of socioeconomic factors on the quality and variety of uses of the Internet by children, it is essential that the promotion of digital inclusion policies in Brazil be enhanced by ensuring access to infrastructure and expanding free access to the Internet and Wi-Fi networks. It is also essential to promote the training of educators to deal effectively with the new challenges of the digital world, not just in schools, but also in cultural centers and libraries, whose potential has yet to be explored. Thus, the
inclusion of media literacy as a crosscutting theme in school curricula is a requirement. It is highly recommended that the government promote public service campaigns addressing the opportunities and risks of Internet use by children and discussing their rights in online communication.

Also highlighted in this report is a trend towards privatization of Internet use through mobile devices and public disclosure of personal data on social networking sites in Brazil. In this context, it is essential that industry operates with social responsibility, indicating available resources for establishing private access to personal content and tools to report abuse, constraints or prejudice on the web. In addition, this entails the responsibility for reporting on the possible existence of age-related inappropriate content. Finally, children's right to delete web content they have posted that may be damaging to their reputation and personal integrity should also be ensured.

REFERENCES


