GSMA

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Children's use of mobile phones — An international comparison 2011

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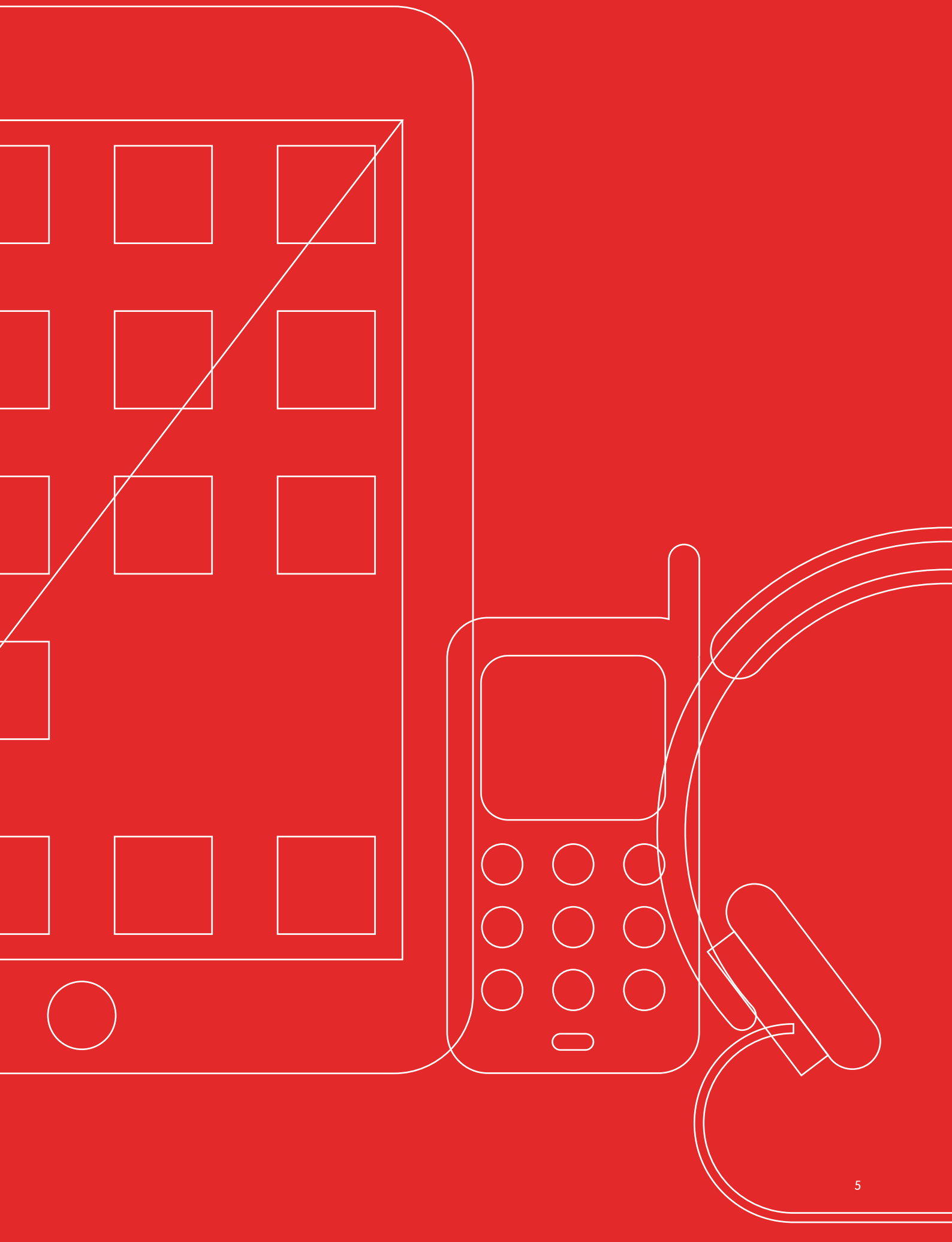
Chapter — 1
Introduction

Children around the globe are increasingly confident and passionate users of mobile technology. They are embracing the opportunities provided by mobile phones in ways that could not have been predicted a decade ago — and beyond that of their parents.



The GSMA and NTT DOCOMO'S Mobile Society Research Institute have partnered to investigate the growing use of mobile phones by children across the globe. The *Children's use of mobile phones — An international comparison 2011* report provides a detailed picture of mobile phone use by children from the age of eight to 18, comparing use across geographically widespread markets at differing levels of development. This is to provide a greater understanding of how children use mobile phones, the role mobile technology plays in parent and child relationships,[1] and how children's social attitudes may be influenced by its use.

New research has been conducted with more than 3,500 pairs of children and parents in Japan, India, Paraguay and Egypt. Now in its third year, the research builds on the previous two studies conducted in Japan, India, Mexico, Cyprus, China and Korea.

The research is sponsored by mobile phone operators in each country and to date has covered more than 15,500 pairs of children and their parents.

1.1 Research focus

To enable year-on-year comparisons, standard questions were posed to children and their parents, including:

- Age of first mobile ownership.
- Reasons for getting a mobile phone.
- How they feel about their mobile phone.
- Parents' concerns over their children's use of mobile phones.

Additionally, topics for the 2011 survey included:

- **Social networking:** How many children use social networking services on mobile phones, how often do they access these services, how many contacts do they have and how does this compare to their parents?
- **Privacy:** Are children and parents aware of what information they are making public via their mobile phones and do they set passwords or restrict access?
- **Services and mobile application use:** What type of services and apps are used by children and how often? Are they downloading apps, playing games, or using GPS, e-money or other services?
- **Smartphone and tablet usage:** What is the take-up of the latest device technology by children and their parents and how are they using it?

Key findings

Chapter 2: Children's use of mobile phones

- Nearly 70% of all children surveyed use a mobile phone.
- More than 80% of eight-year-old Egyptian children use a mobile phone.
- Only one in five children uses a previously-owned mobile phone.
- The use of new phones such as smartphones is already noticeable among children, up to 14% in Egypt.
- Children show higher smartphone use than their parents.
- There is no definitive correlation between age or income level and ownership and usage of smartphones.
- Use of tablet devices by children is still relatively low, with 18% in Egypt, 6% in India and 2-3% in Japan and Paraguay.

Chapter 3: Mobile phone usage

- Children send more messages[2] as they get older, peaking at 15-years-old.
- Children message more than their parents.
- Children use more mobile phone functions than their parents, and more than half will use a function if it is pre-installed on their device.
- Call frequency is highest in India and lowest in Japan.
- Since using mobile messaging, 88% of children say that existing close friendships have been reinforced and 76% say less close friendships have improved.

Chapter 4: Mobile internet

- 40% of children access the internet from mobile phones and the rate of usage increases as children get older.
- Frequency of use of mobile internet is extremely high in Japan, with 18% using it at least 11 times a day and over a third accessing it at least six times a day.
- 70% of children in Japan and Paraguay who use the mobile internet do so for more than 30 minutes a day.
- Overall, 7% of children use their mobile as the main device to access the internet. However, a higher proportion children with smartphones use them as their primary access to the internet, with 56% in Japan, 42% in India and 41% in Paraguay.
- Only 3% of children with smartphones in Egypt use it as their primary device for the internet — instead 30% use a games console as their primary device to access the internet.

Chapter 5: Social networking use on mobile phones

- Children who use the mobile internet have high social networking use at 73% and this is even higher with smartphone users at 85%.
- Egypt has the highest proportion of social networking users on mobile phones with 87%, followed by Paraguay with 77%, India 76% and Japan 42% of those who use the mobile internet.

1 In the report, "parents" stand for parents of sampled children or guardians of the same children.
2 In the report "message" stands for SMS/MMS/IM/e-mail functions.

- Children use social networking on mobile phones more than parents, with just 43% of parents who access the mobile internet using these services.
- 72% of 12-year-olds who use the mobile internet access social networking services on their mobile.

Chapter 6: Mobile communication between parents and children

- The main reason parents give their children a mobile phone is to keep in regular day-to-day contact.
- 52% of parents whose children use mobile phones feel safer in an emergency.
- Children call their parents more than send them messages.

Chapter 7: Parental concerns and mobile safety

- Parents have a high level of concern over their children's use of mobile phones, regardless of age, with 70% to 80% concerned about most issues, particularly overuse, costs and privacy.
- There is significant concern about disclosure of their children's personal information among parents, with nearly 70% of parents saying they are "very concerned" or "somewhat concerned" about their children's privacy when using mobile phones.
- While 80% of children protect their profiles on social networking sites, almost one in five children have open profiles, including nearly a third of children in Paraguay.
- As children get older they seek advice less from their parents and more from friends on mobile issues. Very few, regardless of age, look to their school teachers for advice.
- More than 60% of families have agreements or rules about mobile phone use, including 70% of families in Japan and Egypt, 45% in India and 50% in Paraguay.

Figure 1-1-1: Mobile phone penetration among children surveyed, by age

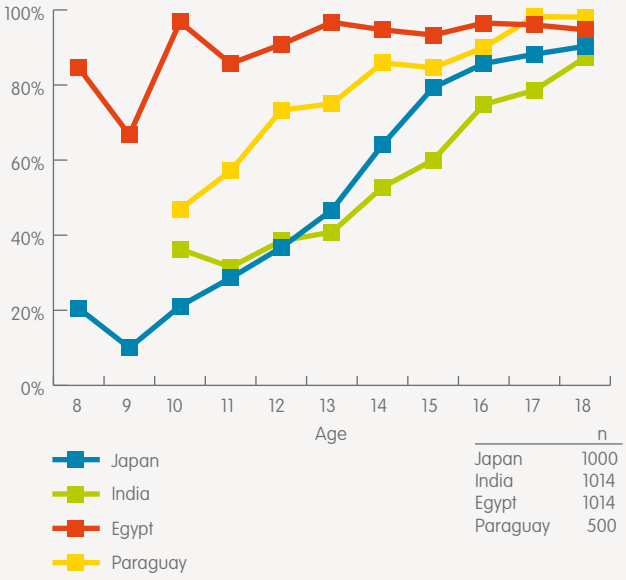


Table 1-1-1: Data sampling

	Date	Number of respondents	Children's age range	Survey mode
Japan	July 2011	1,000 pairs Boy 513, Girl 487	8 to 18 years-old	Web survey
India	June 2011	1,014 pairs Boy 608, Girl 406	10 to 18 years-old	Personal in-home survey
Egypt	June 2011	1,014 pairs Boy 581, Girl 433	8 to 18 years-old	Personal in-home survey and drop-off survey
Paraguay	June 2011	500 pairs Boy 255, Girl 245	10 to 18 years-old	Personal in-home survey

1-2 Country summaries

Japan

Children's use of mobile phones

- Children's mobile phone ownership rate is 52%.
- First acquisition of a mobile phone peaks at age 15 and the trend is that 80% of children acquire a mobile phone by the time they enter senior high school.

Use of mobile phones

- 90% of mobile phones are used for calls and messaging.
- Many functions and services have been installed in mobile phones but generally their usage rate among this group is not particularly high.
- Smartphone use in Japan is low, with iPhones and Android phones relatively recent arrivals. Instead, about 80% of mobile phones in Japan are feature-phones. Many smartphone functions, such as GPS, barcode readers and apps, have been available on feature-phones in Japan for years.
- Japan is unique in that children communicate with their parents more through messaging than calling. About 3% of children talk on the phone with their fathers "almost every day", whereas twice as many send messages to their fathers. For mothers, 11% of children call "almost every day" and 18% send messages.

Mobile internet

- The internet usage rate by mobile phone is 50%.
- 83% of children access the internet by mobile phone at least once every day and 34% access the internet six times or more every day.

Social networking on mobile phones and privacy

- 21% of children use social networking on their mobile phones, which is slightly lower than the overall average of 29%.
- The average number of contacts children communicate with on social networking services is 15, which is significantly less than the overall average of 95.
- About 19% of children's profiles are open to the public.

Parental concerns and mobile safety

- 50 to 80% of parents have concerns about how their children use mobile phones.
- Parents are not only concerned about long hours of use and cost but also about privacy and personal information disclosure.
- A high proportion (70%) of families put restrictions or rules on mobile phone use.

India

Children's use of mobile phones

- The mobile phone ownership rate is 57%.
- The age when mobile phones are first acquired peaks at 15 and increases again when children reach 16 or 17.

Use of mobile phones

- 59% of Indian children do not use their mobile phones for messaging.
- 40% of Indian children make more than 11 calls a day and 80% make more than six calls a day.

Mobile internet

- The internet mobile phone usage rate is 18%.

Social networking on mobile phones and privacy

- 14% of children use social networking and "mini blogs" from their mobile phones — the lowest among the four countries. However, among children who use mobile internet, the rate goes up 76%. The number of social networking contacts and "mini blogs" is 70 on average.
- Indian children are the most careful in their privacy settings for social networking services, with only 10% of children having public profiles.

Parental concerns and mobile safety

- 60 to 80% of parents have concerns about their children's use of mobile phones.
- They are especially concerned about the length of time children spend on their phones.
- Less than 50% of families put restrictions or rules on mobile phone use — less than those indicating concern.

Egypt

Children's use of mobile phones

- The ownership rate is very high at 94%. This number matches the mobile phone penetration rate in all of Egypt (as of March 2011).
- Significantly, children acquire mobile phones from an early age. More than 80% of children already have mobile phones at age eight.

Use of mobile phones

- 68% of children use both calling and messaging functions, while 26% of children only make calls.

Mobile internet

- The internet usage rate by mobile phones is 54% — the highest of the four countries.

Use of social networking on mobile phones and privacy

- Children who use social networking on their mobile phones are the highest at 47% among the four countries.
- The number of contacts on social networking services is 103 on average — second highest among the four countries.
- About 18% of children's profiles are open.

Parental concerns and mobile safety

- 70 to 80% of parents, generally more than in other countries, have concerns about their children's use of mobile phones. In particular, close to 90% are concerned about inappropriate images, sites and high usage fees.
- Around 70% of families put restrictions or rules on their children's use of mobile phones.

Paraguay

Children's use of mobile phones

- Mobile phone ownership rate is 78%. The trend is towards younger children acquiring mobile phones, with first acquisition peaking at age 15, however acquisition rates are also high at 13 and 14.

Use of mobile phones

- 81% use both calling and messaging and 70% send 11 or more messages a day.

Mobile internet

- The internet usage rate by mobile phone is 22%. Interestingly, at age 10 the rate is about 10%, while at ages 13 through to 18 usage remains in the 20% bracket with no rising trend.

Use of social networking on mobile phones and privacy

- 17% of children communicate on social networking services and "mini blogs".
- The average number of social networking contacts is 216— significantly high.
- The privacy setting for Paraguayan children on social networking services is the lowest among the four countries, with about 32% of children's profiles open.

Parental concerns and mobile safety

- About 40% to 80% of parents have concerns about their children's usage of mobile phones. They are particularly concerned about inappropriate sites and images.
- Less than 45% of families put restrictions or rules on mobile phone use — comparatively low.

Table 1-2-1: General country indicators, by country

	Japan	India	Egypt	Paraguay
Population (in 000s) (2010)	128,056	1,170,938	84,474	6,459
Per capita GDP (USD) (2010)	43,160	1,477	2,591	2,860
Mobile phone penetration (2Q, 2011)	99.8%	68.6%	94.6%	94.5%
Penetration of PC internet (%) -2008	78.4%	8.4%	24.5%	17.1%

Source: Ministry of Internal affairs and communications
http://www.stat.go.jp/data/kokusei/2010/index.htm
World Bank http://data.worldbank.org/country
Wireless Intelligence
www.wirelessintelligence.com
ITU www.itu.int/ITU-D/ict/statistics/

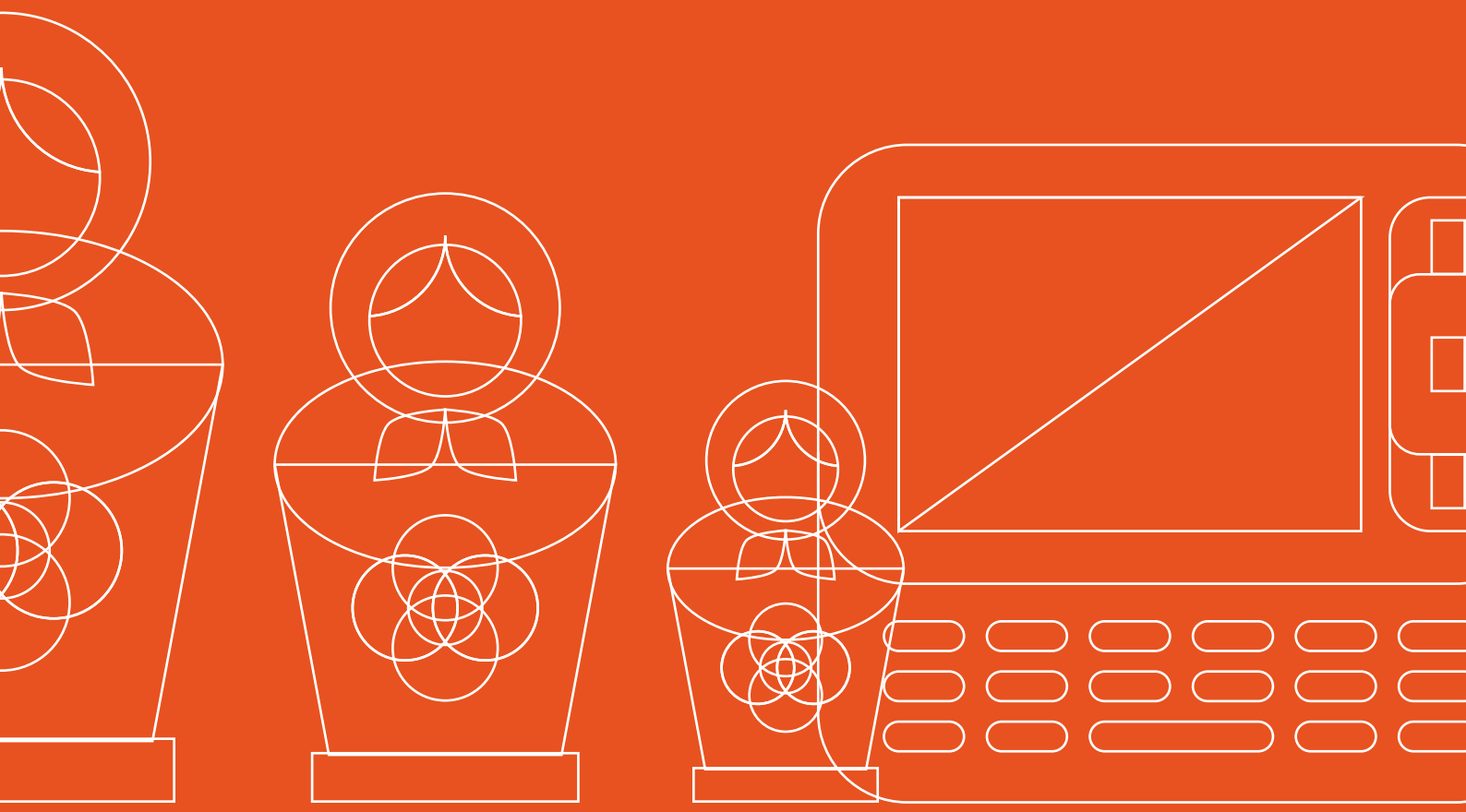
Table 1-2-2. Key figures of children's mobile phone use, by country

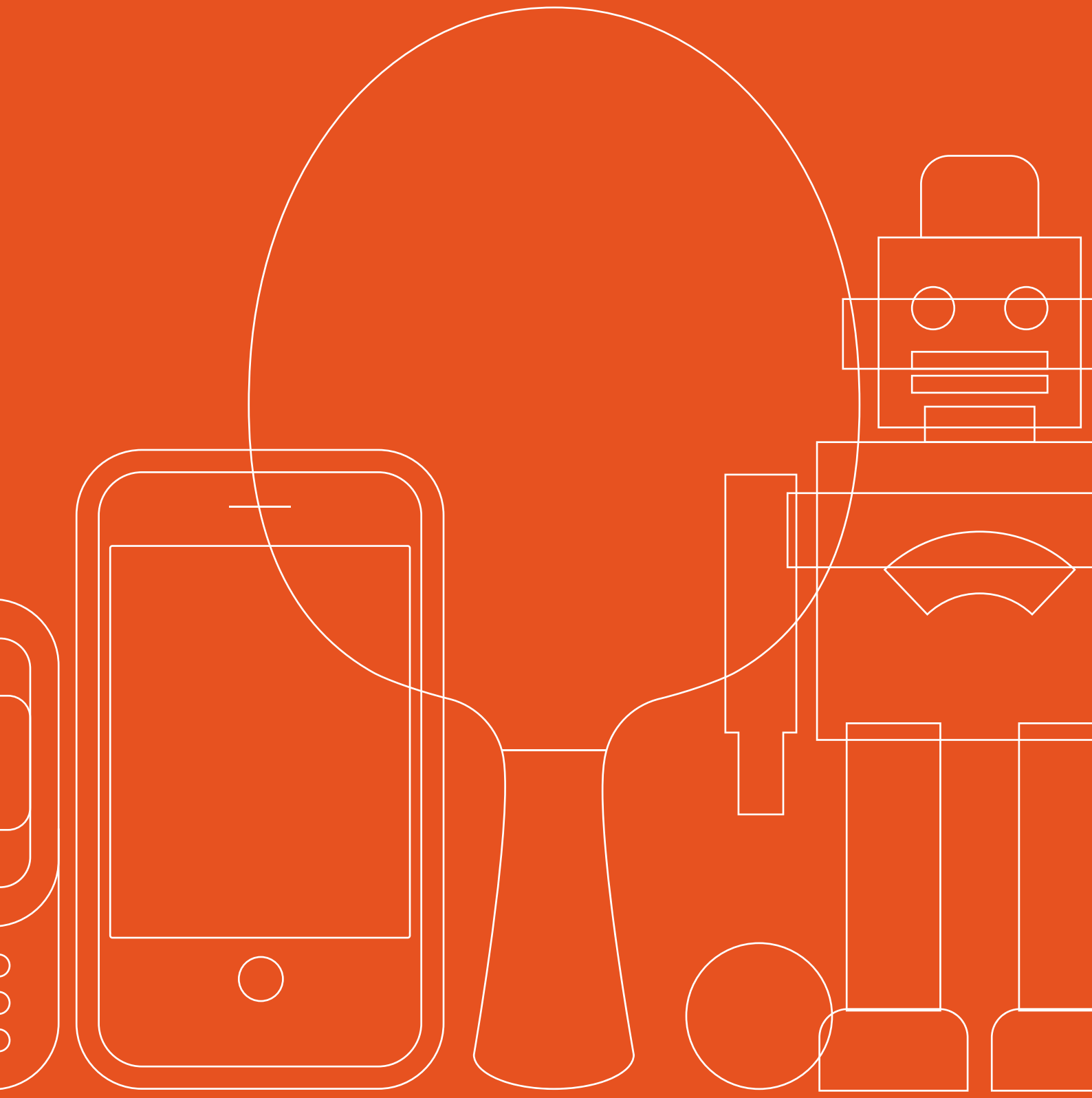
	Japan	India	Egypt	Paraguay
Rate of mobile phone use	52.3%	56.6%	94.0%	78.4%
Rate of internet use*	49.5%	18.1%	54.2%	22.4%
Rate of social networking use*	20.8%	13.8%	47.1%	17.3%
(mobile internet users only)	(42.1%)	(76.0%)	(86.8%)	(77.3%)

*The base is the children who have mobile phones.

Chapter — 2
Children's use of mobile phones

How often and in what way are children communicating by mobile phone? Analysis of the use of mobile phones by children in the four countries surveyed in 2011 has focused on how differences across countries relate to current mobile phone ownership rates, age of first acquisition, type of mobile phone owned, and costs.





Key findings

Nearly 70% of all children surveyed use a mobile phone.

More than 80% of eight-year-old Egyptian children use a mobile phone.

Only one in five children uses a previously-owned mobile phone.

Children show greater smartphone use than their parents.

The use of new phones such as smartphones is already noticeable among children, up to 14% in Egypt.

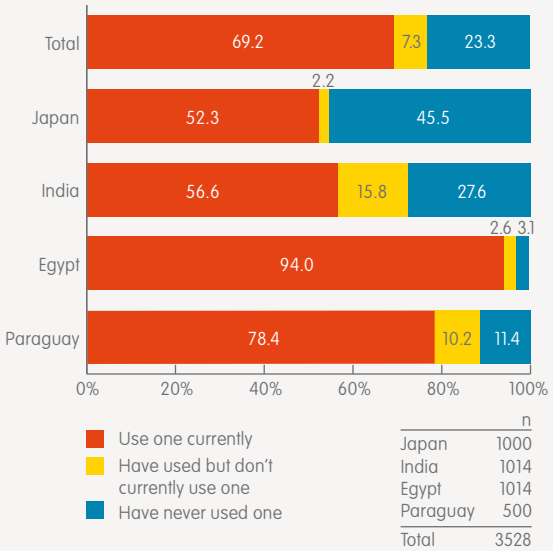
There is no definitive correlation between age or income level and ownership and usage of smartphones.

Use of tablet devices by children is still relatively low, with 18% in Egypt, 6% in India and 2-3% in Japan and Paraguay.

2-1 Mobile phone usage pattern

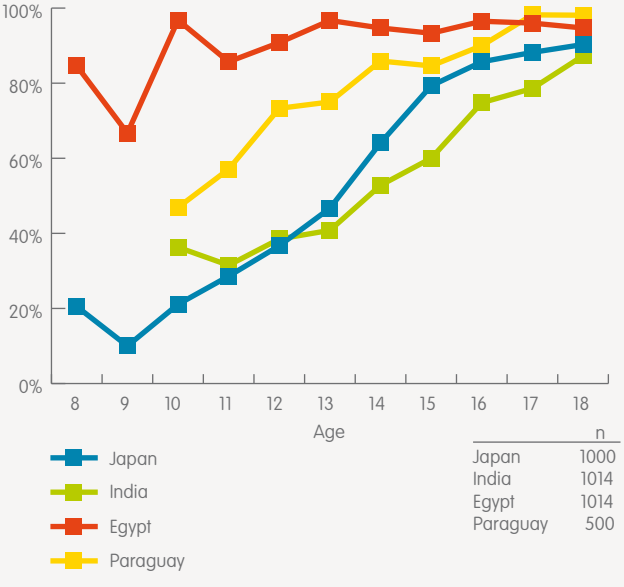
Looking at the mobile phone usage by children in the four countries surveyed (Figure 2-1-1), Egypt stands out with a rate of 94%, followed by Paraguay with 78%, India 57% and Japan 52%. The usage rate by children in Egypt is consistent with the overall mobile phone penetration rate in that country (94% as of March 2011).

Figure 2-1-1: Mobile phone usage



Looking at trends in mobile phone usage rates by children of different ages (Figure 2-1-2), Egypt shows a high rate of usage from an early age: more than 80% of Egyptian eight-year-olds use a mobile phone. India, Japan and Paraguay show usage rates increasing from around age 10.

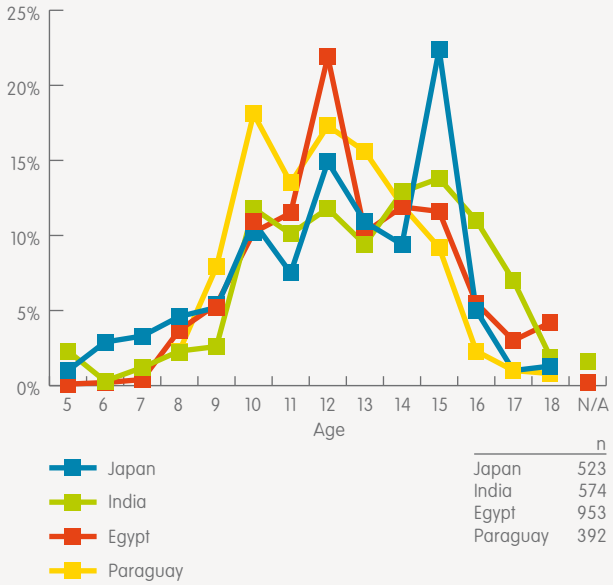
Figure 2-1-2: Penetration by age



2-2 Age of first ownership

How old are children when they get their first mobile phone? Egypt stands out with its high ownership rates with a peak at age 12. In Japan, a peak is seen at age 15. The ages at which children get their first mobile phone in Paraguay and India are higher at 10 and 15-years-old, respectively.

Figure 2-2-1: Starting age of having a mobile phone

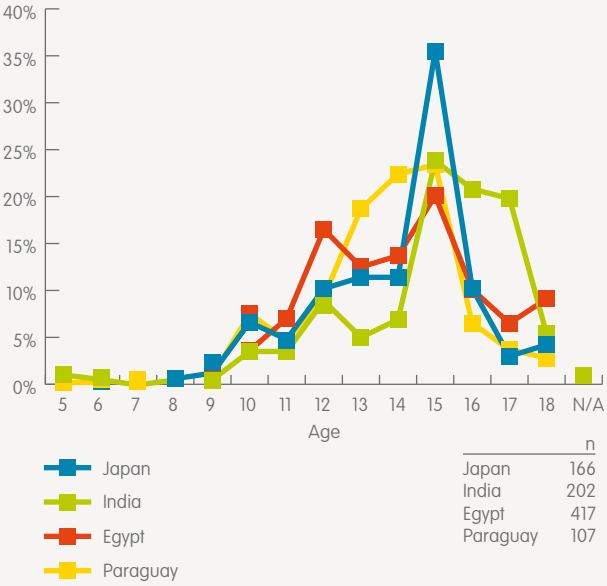


	n
Japan	523
India	574
Egypt	953
Paraguay	392

The results at Figure 2-2-1 are, however, dependent on the age distribution of the sample, and tend to be biased towards a younger age of first ownership. For example, if a 12-year-old is asked when he or she first got a mobile phone, the reply could not be 12-years-old or older. The more subjects aged 12 or younger there are, the lower the age of ownership will be.

In an attempt to mitigate this bias, older children (aged 17 or 18) were asked the age at which they first had a mobile phone. The results are shown in Figure 2-2-2. The peak in each of the four countries is 15-years-old.

Figure 2-2-2: Starting age for mobile phone ownership of 17 to 18-year-olds



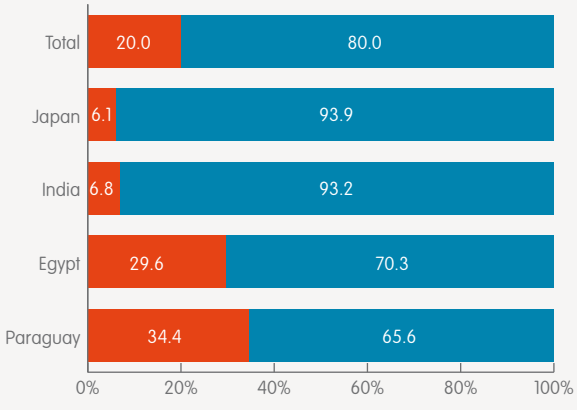
	n
Japan	166
India	202
Egypt	417
Paraguay	107

Japan's sharp spike at age 15 shows that many pupils get a mobile phone when they enter high school. India shows a similar tendency, but after the peak at age 15 there is a gradual growth in penetration between the ages of 15 and 17.

2-3 Mobile phones — new or used

Do children have a brand new handset or an old one handed down from someone else? Overall, the ratio of new mobiles phones to used ones is 4:1. The results (Figure 2-3-1) show that most children (80%) own a new mobile phone, with more than 90% of Japanese and Indian children using new handsets compared with about 70% of Egyptian and Paraguayan children.

Figure 2-3-1: Ratio of new mobile phones to pre-owned/used mobile phones



	n
Japan	523
India	574
Egypt	953
Paraguay	392
Total	2442

Figure 2-3-2 shows the use of secondhand mobile phones by country and age. The rate of ownership of used mobile phones declines as the children's age increases. Additionally, where parents own a new mobile phone, 84% of their children also have a new model (Figure 2-3-3). Where parents own a used mobile phone, 47% of their children also have a used model.

Figure 2-3-2: Use of pre-owned/used mobile phones

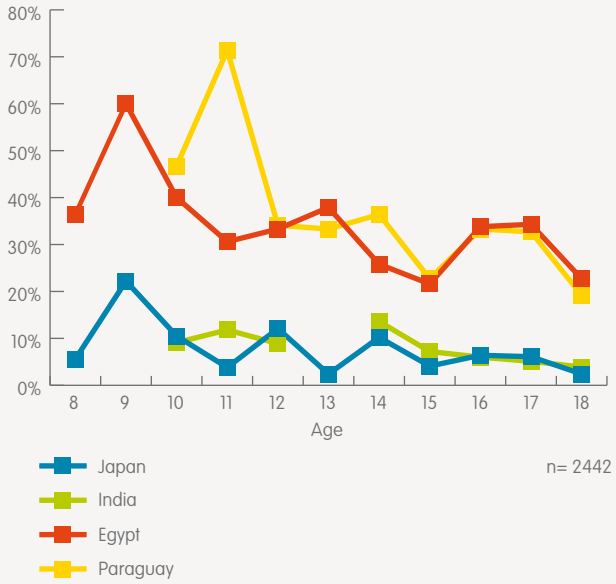
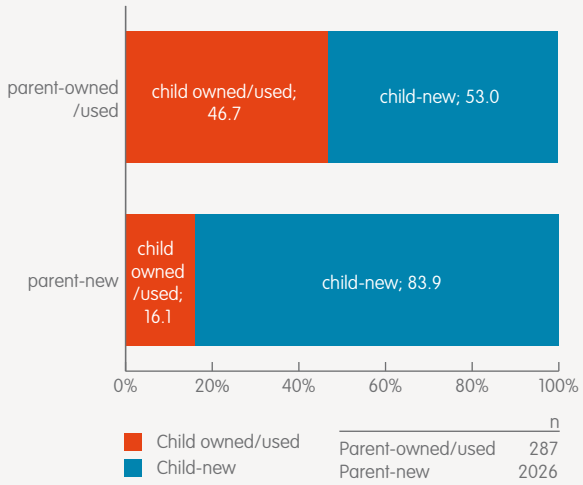


Figure 2-3-3: Comparison of parent ownership of new or used mobile phone with their child



2-4 Mobile phone cost

Parents were asked about the purchase price of their children's mobile phones.[1]

Half of Japanese parents said they had paid more than USD143 for a handset, with 24% in the most common price range of USD390 or more. Mobile phones costing USD6.50 or less were bought by 23%. It is notable that the least expensive range and most expensive range are equally split. It was assumed that the lower priced mobile phones, or those costing USD6.50 or less, were previous generation models being sold cheaply.

India showed a strong preference for low priced handsets, with nearly 60% of purchases costing under USD88. In Paraguay, over 60% of purchases were under USD120, the largest proportion being 31% in the USD30–60 range followed by 22% in the USD60–120 range. Results from Egypt showed that mobile phones costing USD168 or less made up half of mobile phone purchases.

2-5 Monthly usage charges

What are the monthly charges incurred by children using their mobile phones? In Japan, 25% of child users were in the monthly charge bracket of USD78–104, 40% in the next lowest bracket between USD26 and USD78, and 24%, in the USD26 or less bracket. India's largest group was 33% in the USD4.4 to 6.6 range followed by 30% in the USD2.2–4.4 range. In Egypt, the largest group (25%) paid between USD3.4 and USD5.0 monthly, with approximately 10% in each of the higher ranges up to the range of USD33.6 or more. The distribution of Paraguayan child users showed two spikes, 23% in the USD6–9 charge bracket and 21% in the USD15-18 bracket.[2]

2-6 Smartphone usage

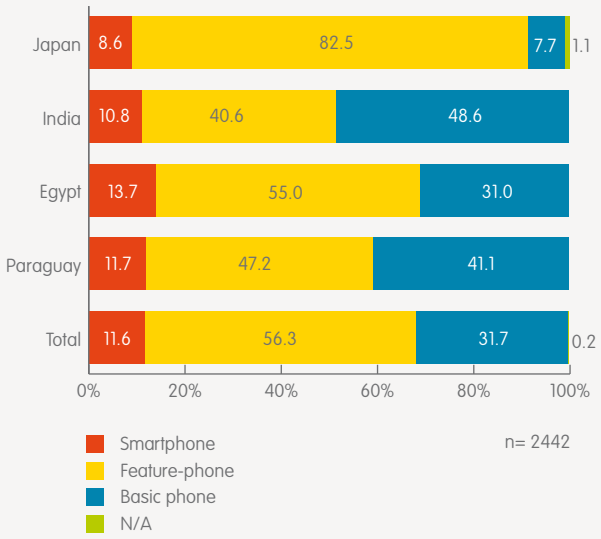
Mobile phone handsets can be categorised into three types:

- **Basic phones:** Used to make calls and send messages such as SMS but cannot access the internet and have limited other functions.
- **Feature-phones:** Have multiple functions in addition to calling and messaging, such as a camera and possibly internet access; however the user cannot easily download apps.
- **Smartphones:** Highly sophisticated phones with easy access to the internet and Wi-Fi, and where the user can easily download and run apps. Examples of smartphones include iPhone and phones that use Android OS.

1 For the data, see Appendix 2, *Figure A-3*.
2 For the data, see Appendix 2, *Figure A-4*.

As Figure 2-6-1 shows, the overall usage of smartphones is around 12% but there are small differences from country to country.

Figure 2-6-1: Type of mobile phone used

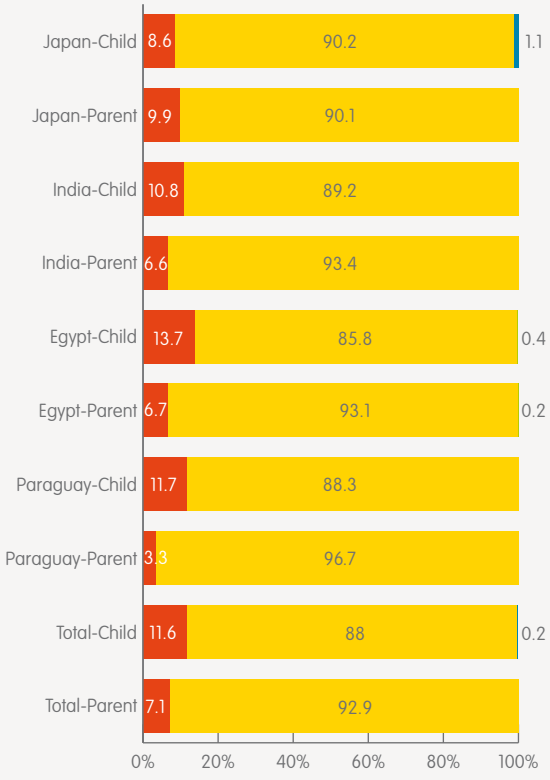


It is important to note that in Japan about 80% of mobile phones are feature-phones. iPhones and Android phones are relatively recent arrivals on the Japanese market. Many smartphone functions, such as GPS, barcode readers and apps, have been available on feature-phones in Japan for a number of years, which goes some way towards explaining the lower proportion of smartphones in Japan.

In India and Paraguay, mobile phones other than smartphones can be divided more evenly into basic phones and feature-phones. In Egypt, about half of mobile phones are feature-phones, but basic phones still exert a reasonable presence at roughly 30%.

Focusing on the rate of use of smartphones (Figure 2-6-2), the ownership rate in Japan is slightly higher among parents than children. In India, Egypt and Paraguay ownership among children has overtaken the rate of smartphone ownership among parents.

Figure 2-6-2: Smartphone ownership amongst children and parents



	n
Japan-Child	523
Japan-Parent	964
India-Child	574
India-Parent	991
Egypt-Child	953
Egypt-Parent	921
Paraguay-Child	392
Paraguay-Parent	481
Total-Child	2442
Total-Parent	3357

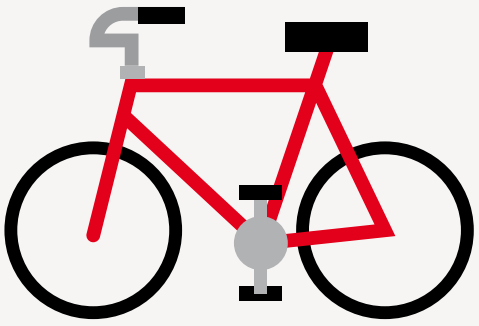


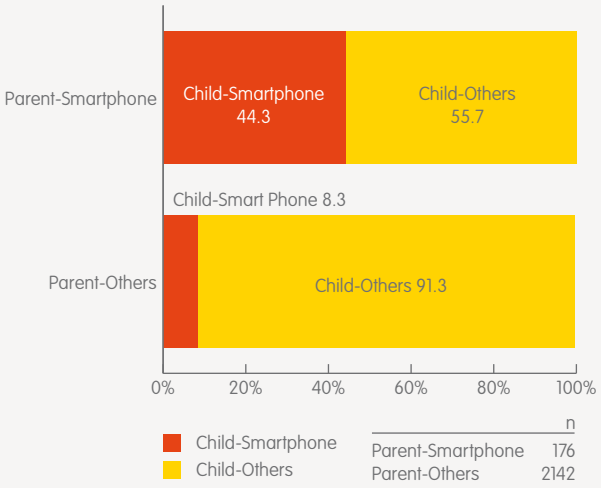
Table 2-6-1 shows there are higher ownership rates of smartphones among those aged 16 to 18, although the rates do not necessarily rise with age. The smartphone market has grown significantly[1] for the last year and the penetration rate has not yet stabilised and, as a result, trends are not yet clear.

Table 2-6-1: Smartphone ownership rates, by age

Age	Japan	India	Egypt	Paraguay
8			18.2	
9			10.0	
10	5.3	3.0		3.3
11	3.8			14.3
12	6.1	2.2	5.8	2.3
13	2.4	4.8	5.2	12.8
14	5.1	6.1	10.1	9.1
15	6.8	4.3	10.3	18.2
16	9.0	20.5	18.4	11.1
17	13.4	17.2	12.0	16.4
18	16.7	16.5	22.7	15.4
Total	**8.6**	**10.8**	**13.7**	**11.7**

Children whose parents have a smartphone are more likely to have one too (Figure 2-6-3). Male parents have a higher rate of smartphone ownership than female parents (56% as opposed to 44%), but this difference is not seen in children in countries other than Egypt, where more girls than boys have smartphones (17% compared to 11%).[2]

Figure 2-6-3: Tendency of child to have similar mobile phone to parent



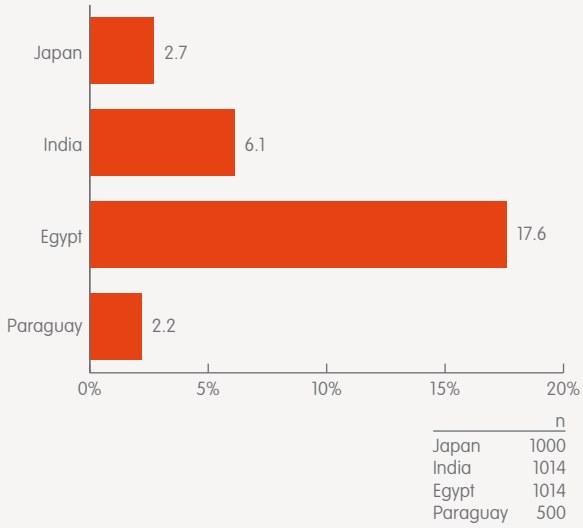
No significant correlation was found between either household yearly income or the academic background of parents and the smartphones penetration rate for children.[3]

2-7. Tablet device usage

Tablet devices, like smartphones, are increasingly popular among adults. How much are these tablets used by children?

Figure 2-7-1 shows tablet use is not high. By far the biggest percentage of children using tablets is in Egypt, at 18%, followed by 6% in India, and no more than 2 to 3% in Japan and Paraguay. The use of tablets by children may be influenced by relatively high purchase price, and it will be interesting to see the impact of the low price tablets being released, for example in India in October 2011.

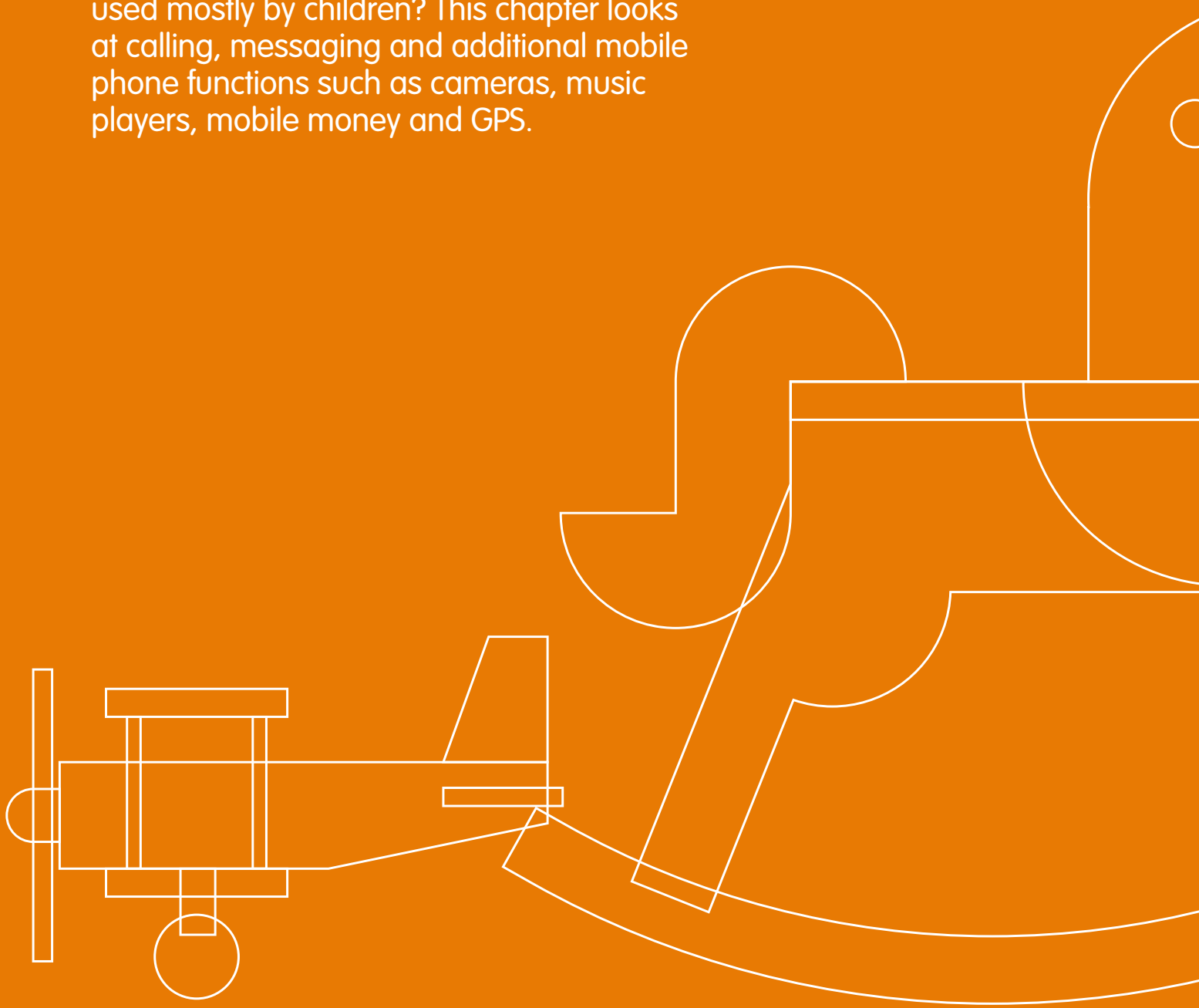
Figure 2-7-1: Tablet device usage

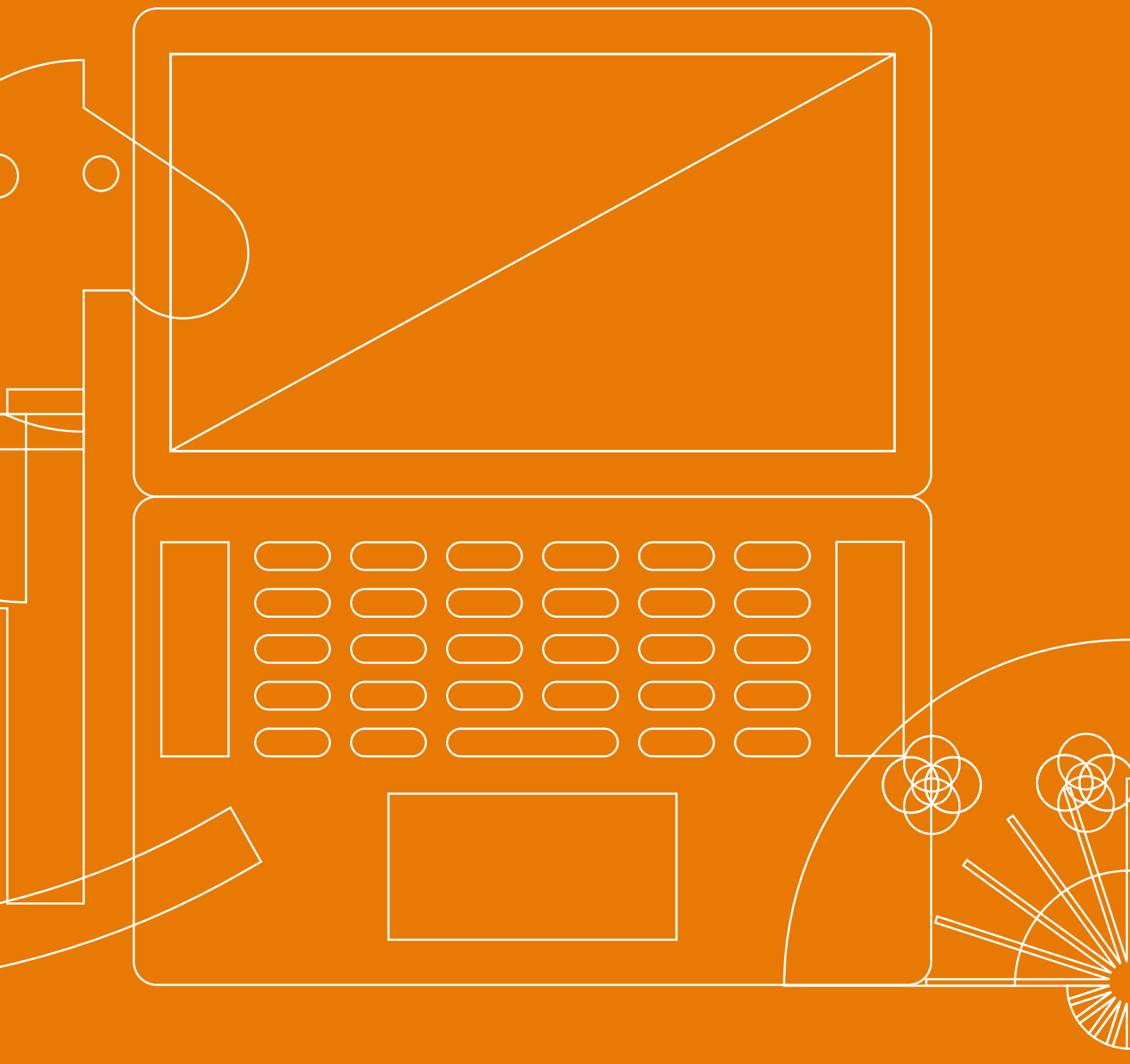


1 The number of smartphone shipped in 2010 was 295,936,000 units, an increase of 156.1% over the previous year. (2009: 189,554,000 units) **www.yanoict.com/yzreport/180** (Yano Research Institute Ltd. 2011.7.27)
2 For the data, see Appendix 2, *Figure A-5*.
3 For the data, see Appendix 2, *Figure A-6*.

Chapter — 3
Mobile phone usage

So what types of mobile phone functions are used mostly by children? This chapter looks at calling, messaging and additional mobile phone functions such as cameras, music players, mobile money and GPS.





Key findings

Children send more messages as they get older, peaking at 15-years-old.

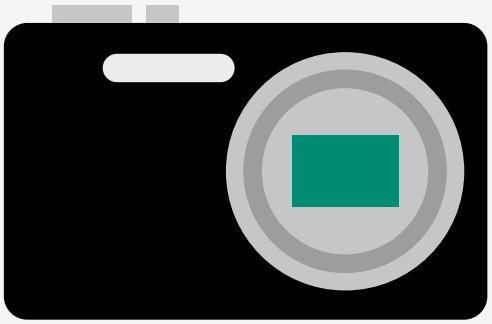
Children send more messages than their parents.

Children use more mobile phone functions than their parents, and more than half will use a function if it is available on their device.

The top three functions used by children are cameras, music players and movie players.

Call frequency is highest in India and lowest in Japan.

Since using mobile messaging, 88% of children say existing close friendships have been reinforced, while 76% say less close friendships have improved.



3-1 Calling and messaging

Looking at the use of mobile phones as a communication tool, children generally start to use their phone's calling function before they start to use messaging functions.[1] As they get older they gradually start to use messaging functions and the use of messaging exceeds that of calling.

Striking differences emerge from country to country. In Japan and Paraguay, a large proportion of children, 90% and 81% respectively, use their mobile phones for both calling and messaging, as do a hefty 68% of Egyptians (Table 3-1-1). But in India, 59% use their mobile phones only for calling, while the percentage of children who use them for both calling and messaging is only 35%. There are far fewer children who use their phones only for messaging, but they do exist: 8% in Paraguay, 7% in India, and 5% in Japan and Egypt.

Table 3-1-1: Use of mobile phones for making calls and sending messages, by country

	Use only the phone call function	Use both phone call and messaging functions	Use only the messaging functions
Total	**26.6%**	**66.9%**	**6.1%**
Japan	4.4%	90.4%	5.2%
India	58.5%	34.5%	7.0%
Egypt	26.2%	67.7%	5.0%
Paraguay	10.5%	81.1%	8.4%

n= 2442

The proportion of children who use their mobile phones for both calling and messaging increases gradually with age (Figure 3-1-1), particularly in India, where a sharp increase is seen from 15% at age 14 to 48% by age 16.

Japanese children's usage patterns are similar to their parents. In the other three countries more children than parents use mobile phones for both calling and messaging (Figure 3-1-2). Mobile phone messaging appears to have a positive effect on children's friendships.

As can be seen in Figure 3-1-3, since using text messaging 88% of children say existing close friendships have been reinforced, while 76% say less close friendships have improved.

1 In Japan, it is commonly observed that younger children, for instance those aged 2 to 3 years, who are given a mobile phone play first with functions other than calling (such as a camera and movie players).

Figure 3-1-1: Proportion of children who use their mobile phones for both calling and messaging

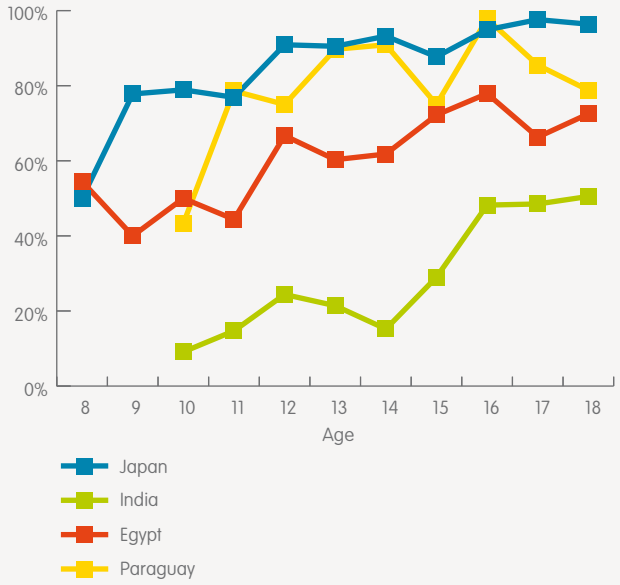
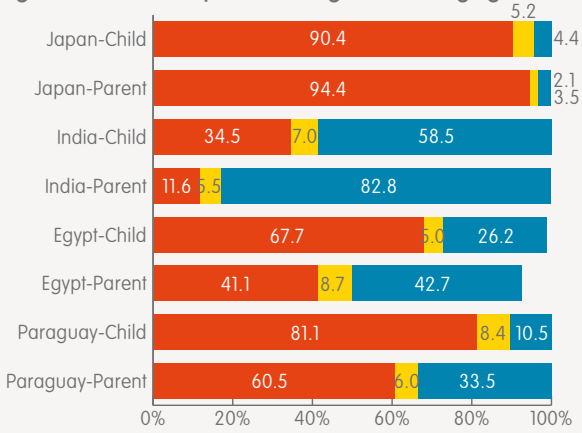


Figure 3-1-2: Mobile phone calling and messaging rates



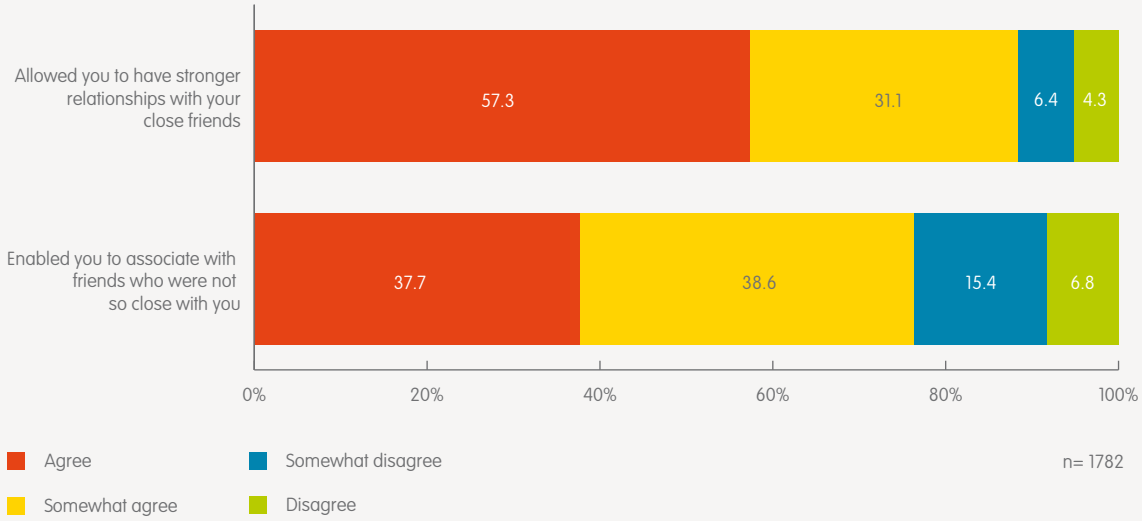
Use both the phone call and message functions

Use only the message function

Use only the phone call function

	n
Japan-Child	523
Japan-Parent	1000
India-Child	574
India-Parent	1014
Egypt-Child	953
Egypt-Parent	1014
Paraguay-Child	392
Paraguay-Parent	500
Total	5970

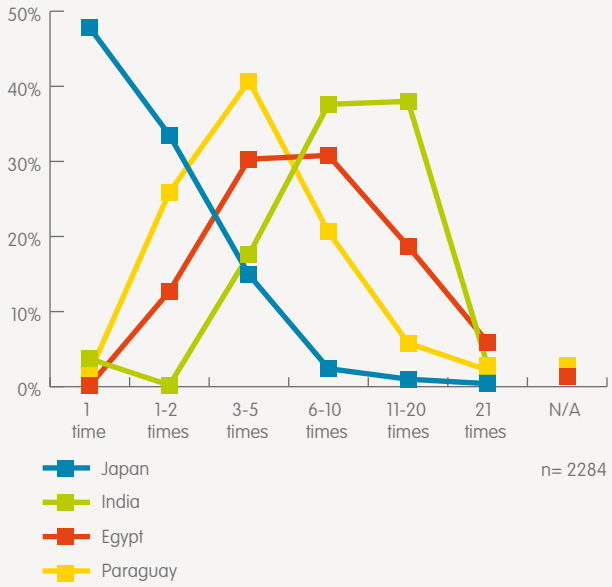
Figure 3-1-3: Effect of mobile phone messaging on children's friendships



3-2 Frequency of calling and messaging

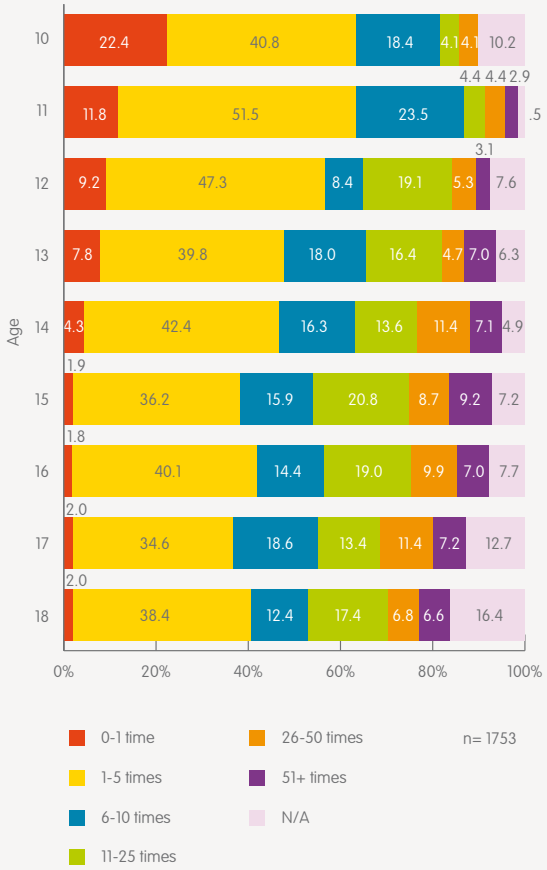
The average daily call frequency varies from country to country (Figure 3-2-1). The country with the highest calling frequency is India, where 40% or more of children make at least 11 calls per day, and nearly 80% make at least six calls per day. The next highest is Egypt, where 55% of children make six or more calls per day, followed by Paraguay where nearly 30% also make six or more calls. Japan, however, has an extremely low daily call frequency, with 48% of children making on average less than one call and over 80% making two or fewer calls.

Figure 3-2-1: Number of calls per day



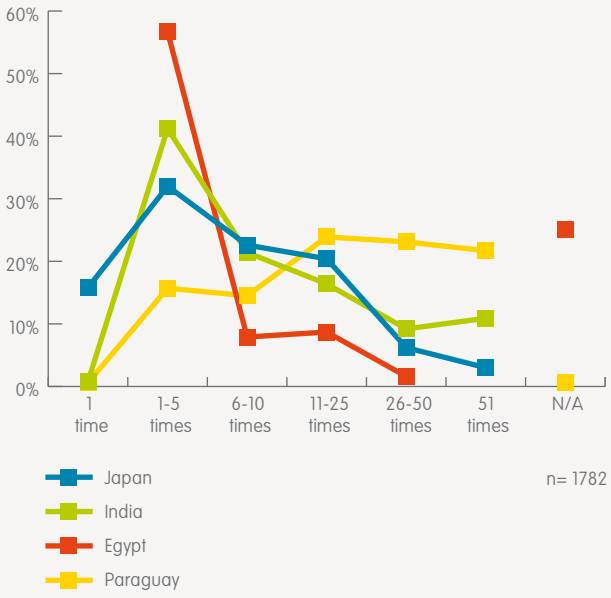
The use of messaging becomes more frequent as children get older (Figure 3-2-2). The proportion of children who send six or more messages per day rises steadily from 27% at age 10, peaking at 55% at age 15 and settling down to 50% at age 17 and 43% at age 18.

Figure 3-2-2: Number of messages per day, by age



There are also differences internationally in the use of messaging (Figure 3-2-3). Paraguay shows an exceptionally high rate of messaging by children, with nearly 70% sending 11 or more messages daily. Next is India (58%), then Japan (52%) and then Egypt (18%) where children send six or more messages each day.

Figure 3-2-3: Number of messages per day



3-3 Usage of additional mobile phone functions and services

How do children use the additional functions and services of their mobile phones? Table 3-3-1 shows the usage rates of these various functions and services: camera, music player, movie player, TV viewing, barcode reader, mobile money and GPS.

Table 3-3-1: Use of additional functions and services on mobile phones

	Total	Japan	India	Egypt	Paraguay
Camera	**51.1%**	45.2%	36.1%	72.9%	52.0%
Music player	**43.8%**	24.2%	36.3%	69.2%	50.3%
Movie player	**25.6%**	17.2%	19.6%	41.9%	23.9%
TV	**13.6%**	23.4%	3.0%	16.0%	10.8%
Application download	**12.8%**	14.8%	7.1%	18.1%	10.4%
Barcode/QR reader	**9.5%**	21.7%	1.7%	8.7%	2.9%
Mobile money	**8.9%**	2.5%	4.1%	24.0%	2.9%
GPS	**6.3%**	8.3%	7.0%	5.0%	3.5%

n= 3357

Overall, the highest usage rate is 51% for cameras followed by 44% for music players and 26% for movie players. Common or popular functions and services vary from country to country. In Japan, use of TV viewing (23%) and barcode readers (22%) are particularly high compared with other countries, whereas the use of mobile money is low (3%). In India, the rate of use of many functions is low, except for cameras, and music and movie players. Egypt has very high rates of use of AV functions — 73% for music players and 42% for movie players — and high rates for most other functions and services, such as 24% for mobile money. Paraguay shows average rates of use of most functions and services and no particularly high rates.

In addition to looking at the overall rates of use of different mobile phone functions and services by children, the survey took into account whether those functions and services are pre-installed on children's handsets. The usage rates shown in Table 3-3-2 therefore reflect only the owners of handsets with those functions and services pre-installed.

Table 3-3-2: Use of pre-installed functions and services on mobile phones

	Total		Japan		India		Egypt		Paraguay	
	Installation	Use	Installation	Use	Installation	Use	Installation	Use	Installation	Use
Camera	**75.7%**	**93.2%**	96.6%	86.3%	63.8%	97.8%	74.2%	94.9%	68.1%	93.6%
Music player	**70.1%**	**85.0%**	76.7%	58.1%	64.1%	97.8%	71.1%	94.0%	68.6%	90.0%
Movie player	**48.5%**	**74.0%**	69.4%	45.7%	37.3%	90.7%	50.1%	80.9%	37.2%	78.8%
TV	**30.0%**	**63.2%**	68.6%	63.0%	10.3%	50.8%	21.8%	70.7%	19.4%	68.4%
Mobile money	**26.6%**	**48.5%**	53.9%	8.5%	10.6%	67.2%	35.0%	66.2%	6.9%	51.9%
Barcode/QR reader	**26.0%**	**57.4%**	79.3%	50.4%	6.1%	48.6%	13.1%	64.0%	5.4%	66.7%
GPS	**22.6%**	**46.7%**	51.4%	29.7%	19.5%	61.6%	8.6%	56.1%	11.0%	39.5%

	n
Installation	2442
Use	1845

The function with the highest rates of both installation and use is a camera, with a very high 76% rate of installation and 93% rate of use. For mobile money, its 27% rate of installation is not high, but its rate of use is almost half (49%). The fact that the rates of use of functions and services are all around 50% suggests that half or more of children will use any function or service that is already installed on their mobile phone.

Japan has unusually high rates of installation of a number of functions or services compared with other countries: 69% for TV viewing, 54% for mobile money, 80% for barcode readers and 51% for GPS (Table 3-3-2). This reflects the fact that nearly all mobile handsets on the market come with all these relatively new functions and services pre-installed. However, the rate of use of some functions and services in Japan is lower than in other countries, and the lowest for five of the seven items surveyed.

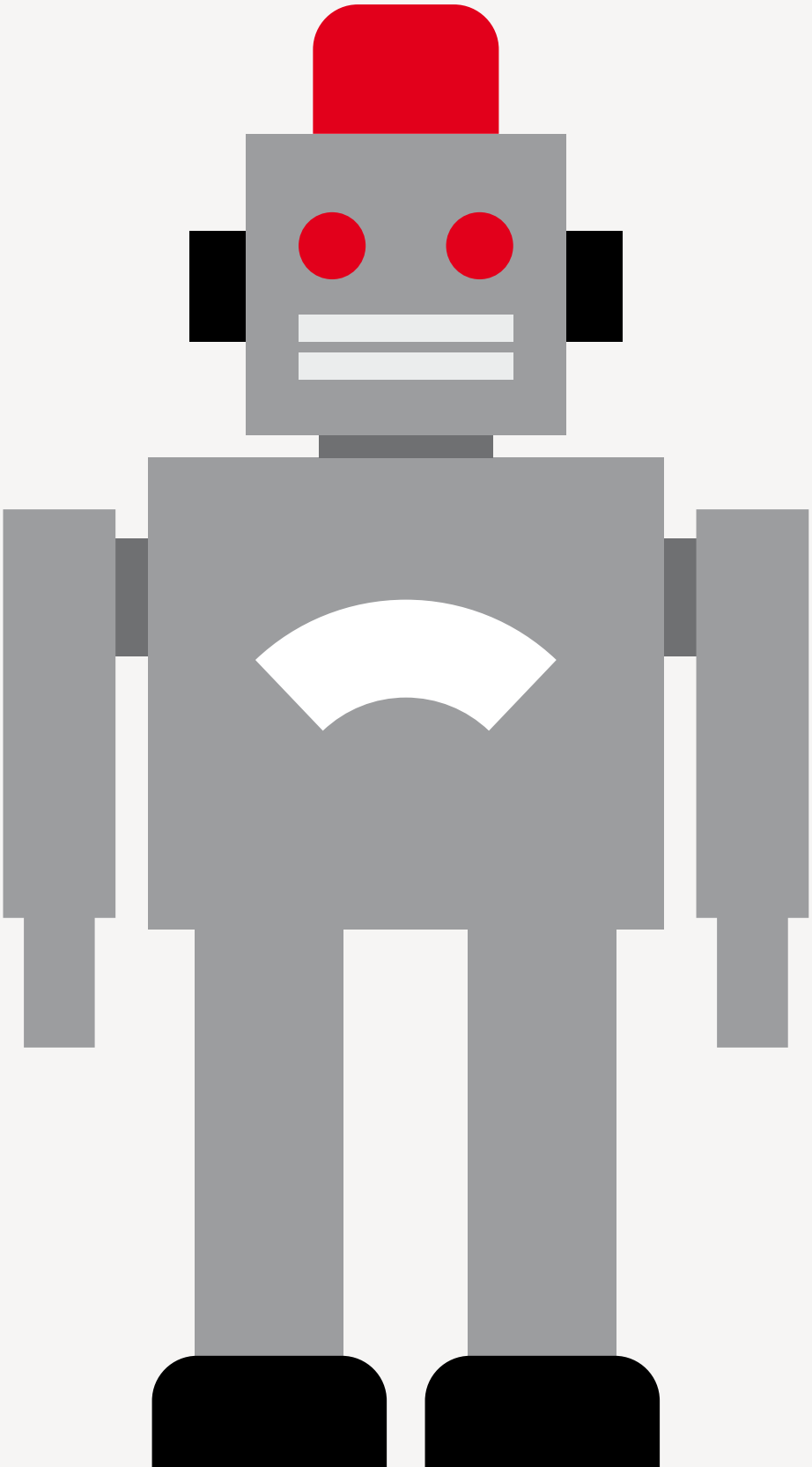
The rate of use of mobile money is particularly low at 9%, potentially because parents or guardians do not permit its use even though the function is installed.

India has no particularly striking rates of installation, but shows some very unusual patterns of activity. Its rates of use are the highest for five of the functions and services surveyed, for all except for TV viewing and barcode reading. India's rate of use of movie players is also extremely high.

Comparing the rates of use of additional functions and services by children and their parents, Table 3-3-3 shows children use almost every kind of function or service more actively than their parents.

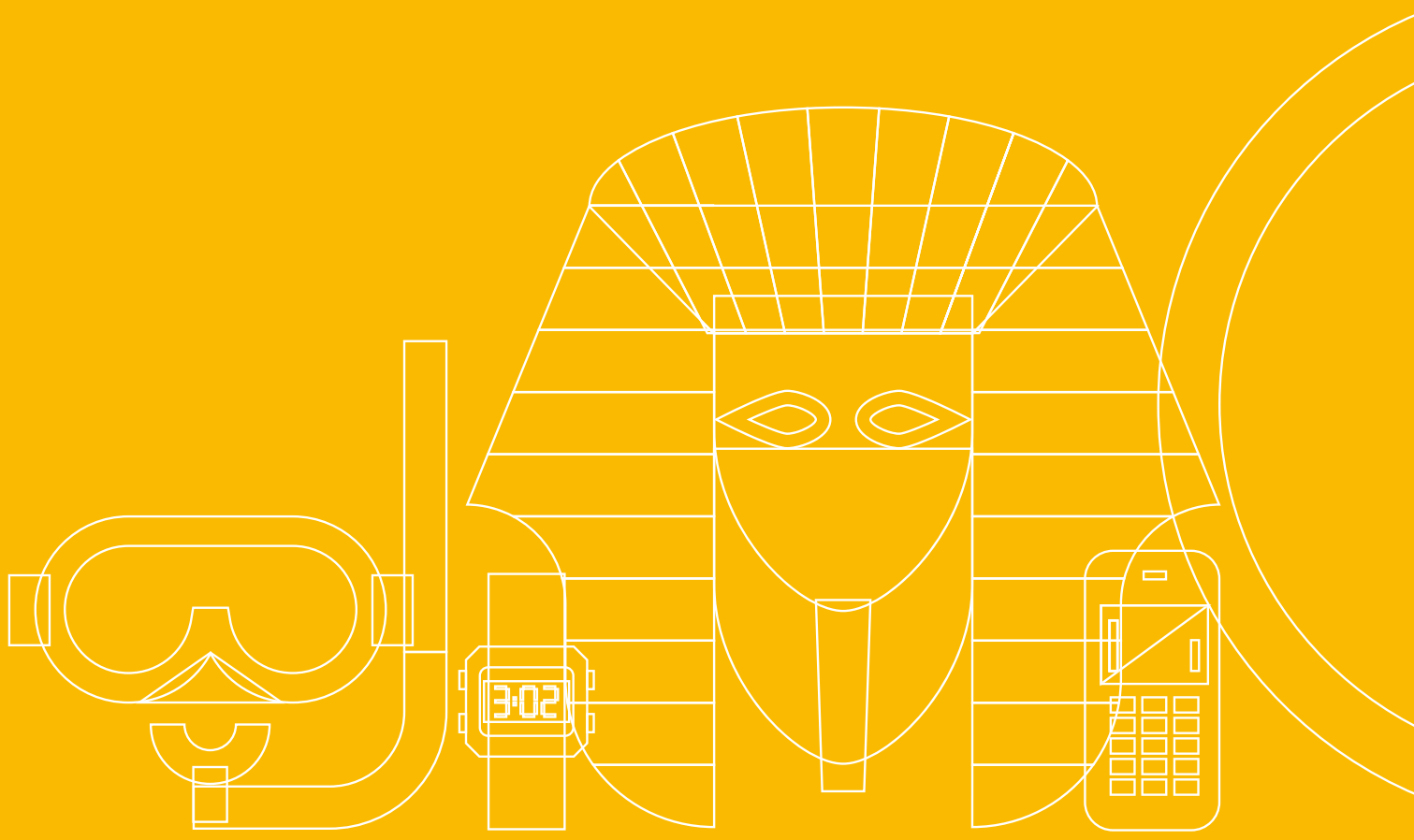
Table 3-3-3: Comparison between children and parents use of pre-installed functions and services on mobile phones, by country

	Total		Japan		India		Egypt		Paraguay	
	Child	Parent	Child	Parent	Child	Parent	Child	Parent	Child	Parent
Camera	**93.2%**	**87.4%**	86.3%	81.6%	97.8%	89.5%	94.9%	92.7%	93.6%	90.0%
Music player	**85.0%**	**69.6%**	58.1%	36.0%	97.8%	89.3%	94.0%	84.9%	90.0%	82.3%
Movie player	**74.0%**	**53.1%**	45.7%	27.5%	90.7%	80.1%	80.9%	72.4%	78.8%	59.7%
TV	**63.2%**	**58.0%**	63.0%	57.7%	50.8%	40.7%	70.7%	64.2%	68.4%	57.9%
Barcode/QR reader	**57.4%**	**58.1%**	50.4%	59.9%	48.6%	40.6%	64.0%	50.0%	66.7%	22.2%
Mobile money	**48.5%**	**36.6%**	8.50%	24.5%	67.2%	50.0%	66.2%	52.0%	51.9%	58.6%
GPS	**46.7%**	**43.5%**	29.7%	40.9%	61.6%	54.1%	56.1%	46.4%	39.5%	37.5%



Chapter — 4
Mobile internet

So how much do children access the internet from their mobile phones? How old are they when they start to access the internet and what kind of content do they access?



Key findings

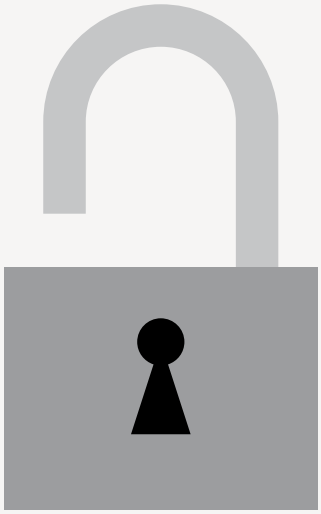
40% of children access the internet from mobile phones and the rate of usage increases as children get older.

Frequency of use is extremely high in Japan, with 18% accessing the mobile internet more than 11 times per day and over a third of children accessing it more than six times a day.

In Japan and Paraguay, 70% of children who use the mobile internet do so for more than 30 minutes a day.

Overall, 7% of children use their mobile as the main device to access the internet. However, a high proportion of children with smartphones use them as their primary access to the internet, with 56% in Japan, 42% in India and 41% in Paraguay.

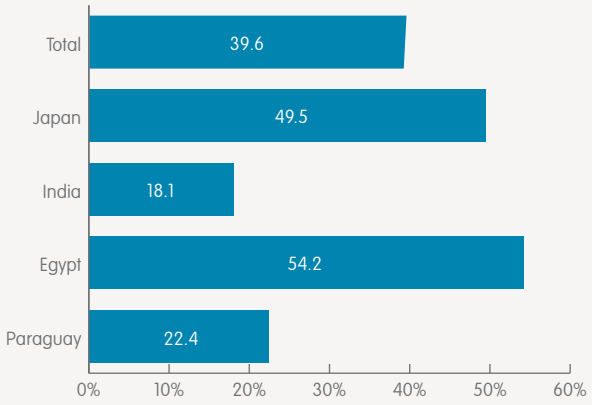
Only 3% of children with smartphones in Egypt use it as their primary device for the internet — instead 30% use a games console as their primary device to access the internet.



4-1 Mobile internet use patterns

The rate of internet use from mobile phones is 40%[1] across all four countries. The highest rate is 54% in Egypt, followed by Japan with 50%, Paraguay 22% and India 18% (Figure 4-1-1).

Figure 4-1-1: Penetration rate of mobile internet amongst children

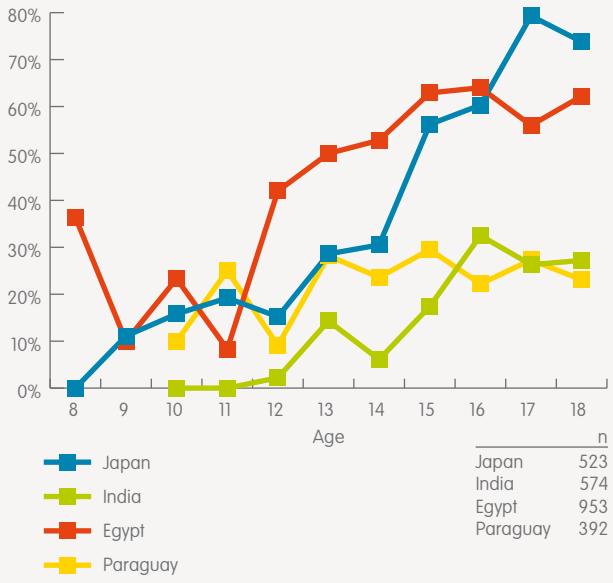


	n
Japan	523
India	574
Egypt	953
Paraguay	392
Total	2442

Rates of mobile internet use by country and by age are shown in Figure 4-1-2. There is a big difference in mobile internet use from country to country. In Japan the rate of use among 9-year-olds is about 10%, rising sharply from age 14 and reaching nearly 80% among 18-year-olds. In Egypt, 40% of 12-year-olds use mobile internet, increasing steadily to 60% among 17 to 18-year-olds. In Paraguay 10% of 10-year-olds use mobile internet, rising to between 20 and 30% of children aged 13 to 18. In India, there is no use up to the age of 11 and only a rate of 2% at age 12, but a sharp rise from age 13 and peaking at about 30% at age 16.

1 The base is the children who have mobile phones.

Figure 4-1-2: Penetration rate of mobile internet by age



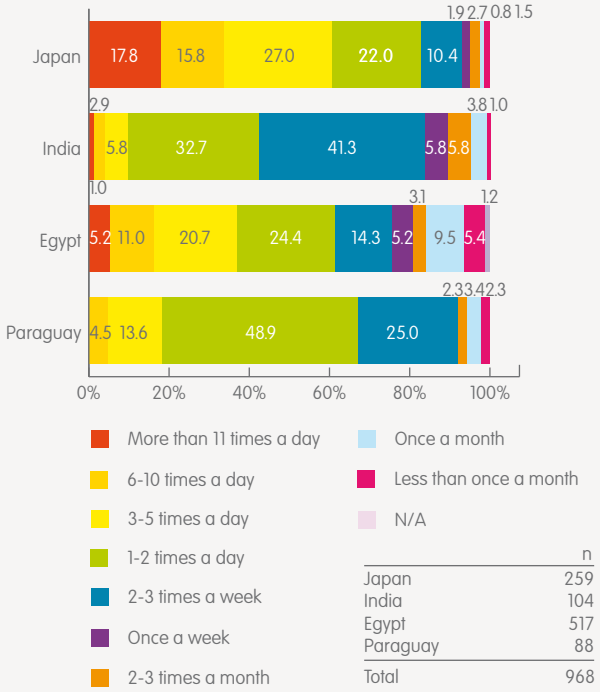
	n
Japan	523
India	574
Egypt	953
Paraguay	392

4-2 Mobile internet — access frequency and duration

Frequency of access to the internet using mobile phones is shown in Figure 4-2-1.[2] Overall, 65% of all mobile internet users access it at least once a day. Notable is the very high frequency of mobile internet use by Japanese children, where as many as 83% of those who access the internet do so at least once a day. The proportion accessing the internet at least once a day is 67% in Paraguay, 61% in Egypt and 42% in India. For more frequent use, the proportion of Japanese children accessing the internet at least six times a day is 34%, followed by 16% in Egypt, and just 5% in Paraguay and 4% in India.

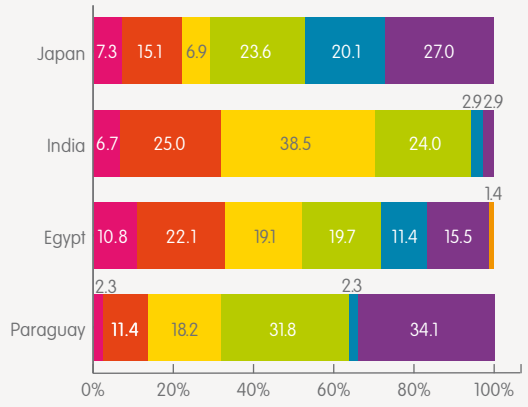
To determine how much time children spend accessing the internet from their mobile phones they were asked the average length of time they spend in a day. The results are shown in Figure 4-2-2.

Figure 4-2-1: Frequency of mobile internet usage by children



	n
Japan	259
India	104
Egypt	517
Paraguay	88
Total	968

Figure 4-2-2: Average time spent accessing mobile internet per day



	n
Japan	259
India	104
Egypt	517
Paraguay	88
Total	968

2 The base is children who access the internet from a mobile phone.

About 70% of Japanese and Paraguayan children who use the mobile internet do so for more than 30 minutes a day. It was also revealed that 27% of Japanese children and 34% of Paraguayan children who access the internet do so for at least two hours a day. In India nearly 40% of children spend 15 to 30 minutes a day on the mobile internet. While in Egypt access duration varied significantly from child to child, with just over half of children using it for less than 30 minutes a day.

4-3 Mobile internet — content

Table 4-3-1 shows the kind of internet content children access from their mobile phones. Overall about half the children surveyed use their mobile phones to "download or play ringtones, ring songs, screensavers, games, music or videos" and "obtain information related to news, weather forecasts, transport, sports, entertainment, movies, hobbies and travel".

In Egypt children are most like to "obtain information" (44%) followed by "download or play ringtones, ring songs, screen savers, games, music or videos" on the mobile internet. Interestingly, 23% of children in Egypt use the mobile internet to "spend time on a virtual world" which is significantly more than other countries. Following Egypt in mobile internet use is Japan, where more than 60% of children "download or play ringtones, ring songs, screensavers, games, music or videos" and "obtain information related to news, weather forecasts, transport, sports, entertainment, movies, hobbies and travel". Next is India, where 66% use mobiles to "download or play ringtones, ring songs, screensavers, games, music or videos", 40% "use the internet for school or work", 39% "play internet games on your own or against the phone", 31% "watch video clips", 30% "post photos or music to share with others", 28% "play games with other people on the internet", and 26% "use instant messaging". These results indicate higher rates of use across a wide range of content and for diverse purposes.

In Paraguay, use of mobiles to "use instant messaging" (36%) and to "post photos or music to share with others" (26%) exceeded overall averages. Paraguayan children tend to use the mobile internet for communicating with friends and acquaintances. The rate of use to "obtain information related to news, weather forecasts, transport, sports, entertainment, movies, hobbies and travel" was a below average at 26%.

Table 4-3-1: Internet content accessed by children on their mobile phones

	Japan	India	Egypt	Paraguay	Total
1. Information					
(1) Obtain information related to news, weather forecasts, transport, sports, entertainment, movies, hobbies and travel	62.5	47.1	44.1	26.1	**47.7**
(2) Use the internet for school or work	16.6	40.4	15.9	26.1	**19.6**
2. Entertainment					
(1) Download or play ringtones, ring songs, screensavers, games, music or videos	60.6	66.3	40.6	40.9	**48.8**
(2) Watch video clips	14.3	30.8	15.1	25.0	**17.5**
(3) Play internet games on your own or against the phone	13.5	39.4	21.7	21.6	**21.4**
(4) Play games with other people on the internet	11.6	27.9	14.7	5.7	**14.5**
(5) Create a character, pet or avatar	4.2	1.0	4.8	1.1	**3.9**
(6) Spend time in a virtual world	1.2	2.9	22.6	2.3	**12.9**
3. Communication					
(1) Communicate via web email (Hotmail, Gmail, etc.)	12.7	32.7	25.9	25.0	**23.0**
(2) Post photos or music to share with others	8.5	29.8	6.6	26.1	**11.4**
(3) Use instant messaging	4.6	26.0	4.1	36.4	**9.5**
(4) Use the phone camera to make a video call	3.5	12.5	9.1	3.4	**7.4**
4. Shopping					
(1) Buy a product online, participate in online auctions or make a reservation for tickets or travel services	5.0	13.5	3.9	2.3	**5.1**
5. Apps					
(1) Download or use apps	28.2	27.9	13.3	17.0	**19.2**

10 points or higher than total
5 points or higher than total
5 points or lower than total
10 points or lower than total

unit = % ratio of usage amongst mobile phone internet users

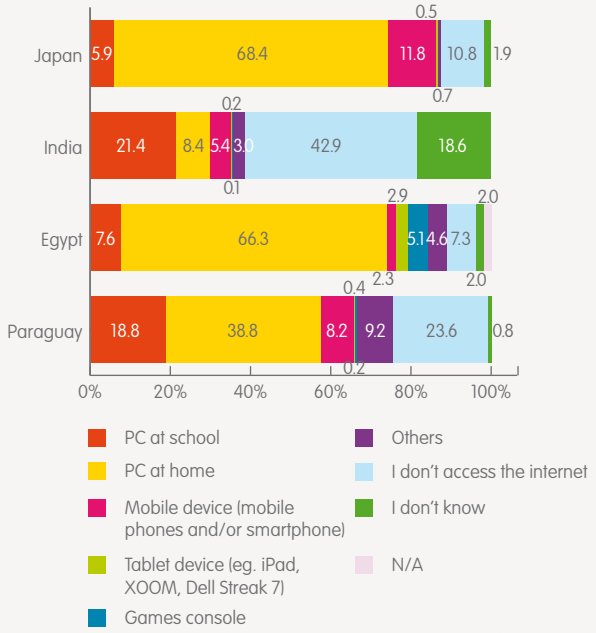
	n
Japan	259
India	104
Egypt	517
Paraguay	88
Total	968

4-4 Mobile internet access — devices

Children were asked what device they use most when using the internet, and their responses are shown in Figure 4-4-1. Nearly 70% of Japanese and Egyptian children use a computer at home and 74% use them if available at their school. Results from Paraguay also show an emphasis on computers, with 58% using a computer at home or school. In India, the proportion of children using a computer to access the internet at home and school combined is only 30%, while as many as 43% replied "I don't access the internet".

A relatively small proportion of children use a mobile phone as their main device for going online. The top result was 12% in Japan, followed by 8% in Paraguay, 5% in India and 2% in Egypt.

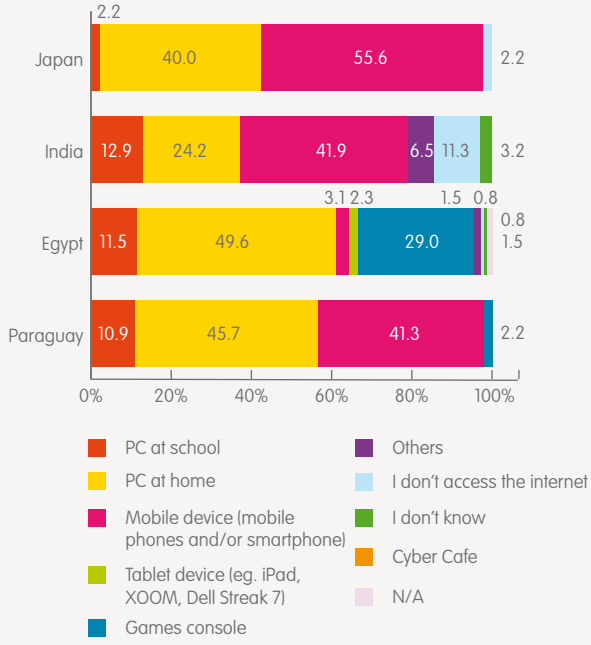
Figure 4-4-1: Primary devices used to access the internet



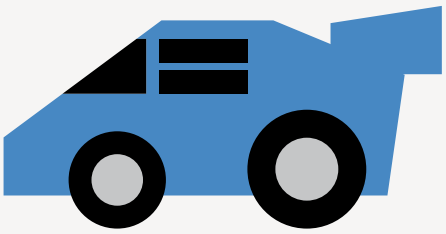
	n
Japan	1000
India	1014
Egypt	1014
Paraguay	500
Total	3528

Looking exclusively at child smartphone users, however, many more children use a mobile phone as their main device for internet access (Figure 4-4-2). The highest proportion is 56% in Japan, followed by 42% in India and 41% in Paraguay. Among Egyptian children who use smartphones the proportion is only 3%—however a very high 30% of Egyptian children use a games console as their main device for accessing the internet.

Figure 4-4-2: Primary device used to access the internet by child smartphone users

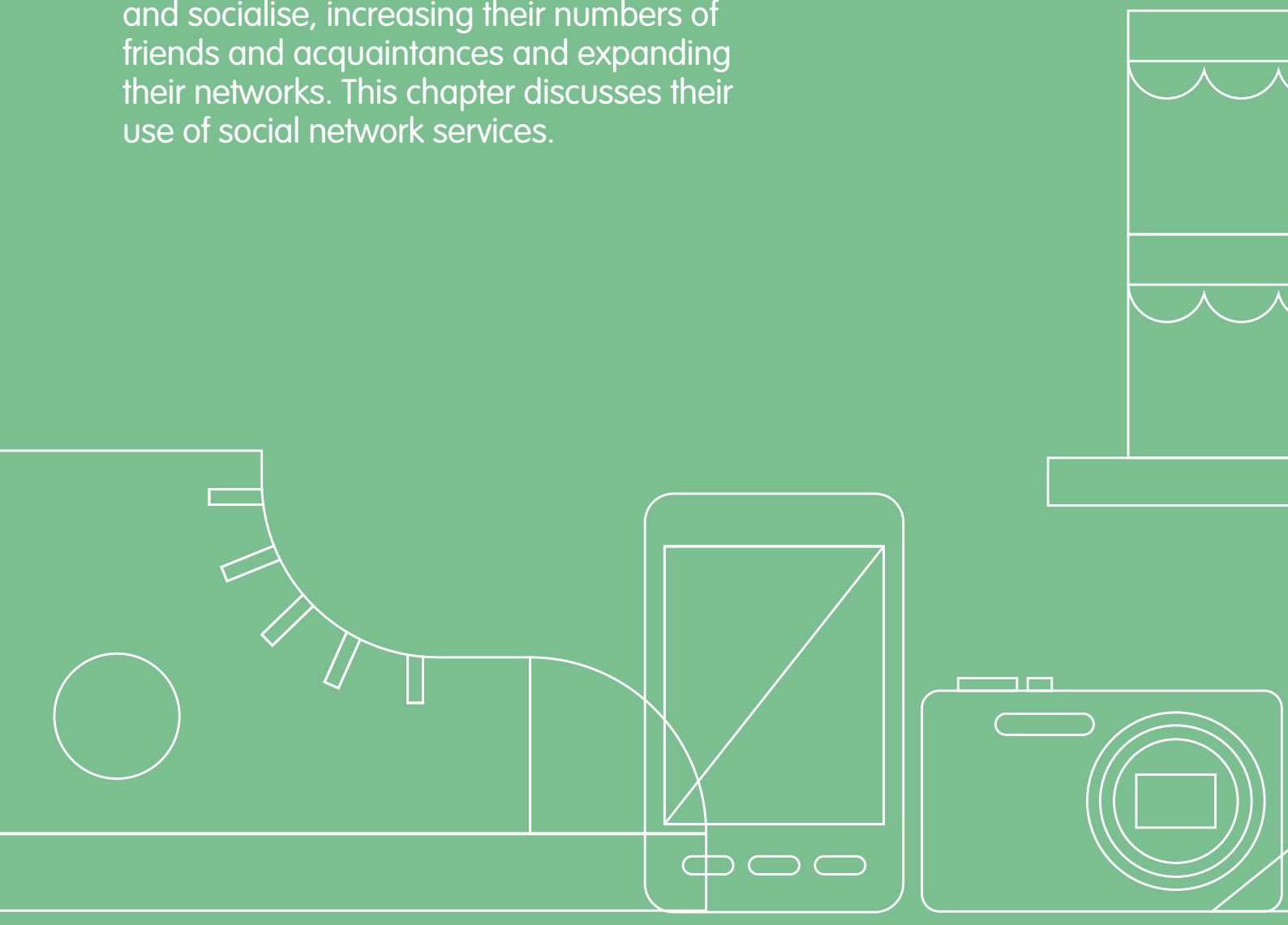


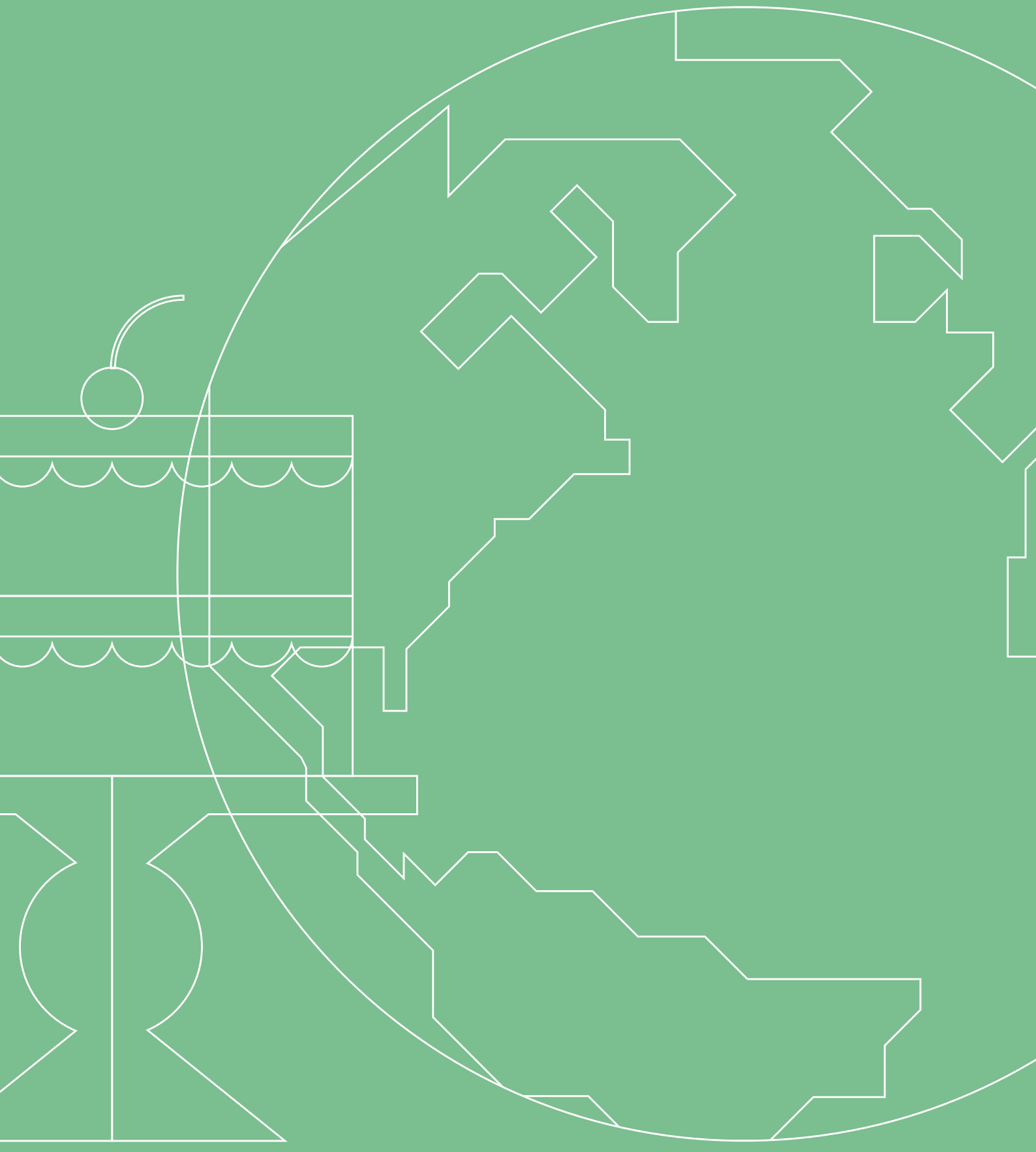
	n
Japan	45
India	62
Egypt	131
Paraguay	46
Total	284



Chapter — 5
Social networking use on mobile phones

Children's social connections generally increase as they get older and have more opportunities to go out into the world and socialise, increasing their numbers of friends and acquaintances and expanding their networks. This chapter discusses their use of social network services.





Key findings

Children who use the mobile internet have high social networking use at 73% and this is even higher with smartphone users at 85%.

Egypt has the highest proportion of social networking users on mobile phones with 87%, followed by Paraguay with 77%, India 76% and Japan 42% of those who use the mobile internet.

Children use social networking on mobile phones more than parents, with just 43% of parents who access the mobile internet using these services.

72% of 12-year-olds who use the internet on their phone access social networking services.

5-1 Social networking use

Use of social networking services and microblogging via mobile phones by children is not yet mainstream. Overall, 29% of child mobile phone users access social networking and microblogging sites using their phones (Figure 5-1-1). Egypt has the highest proportion with 47%, while Japan, Paraguay and India have rates of 21%, 17% and 14% respectively. The overall proportion of parents who use their mobile phones to access such sites is only 12% (Figure 5-1-1). In each country children surpass their parents: 30% of parents in Egypt use their phones to reach these sites, with 9% in Japan, 4% in Paraguay and 3% in India. Moreover there is no correlation between parents' and children's use of social networking and microblogging sites, indicating that parental use does not influence children's use of such sites.

Since most access to social networking and microblogging sites from mobile phones is through the internet, what percentage of child mobile internet users access such sites from their mobile phones? The overall rate is 73%, as shown in Figure 5-1-2. Egypt has the highest rate at 86%, Paraguay and India have rates of 76 to 77%, and Japan has the lowest rate at 42%.

Figure 5-1-1: Comparison of child and parent mobile phone users accessing mobile social networking

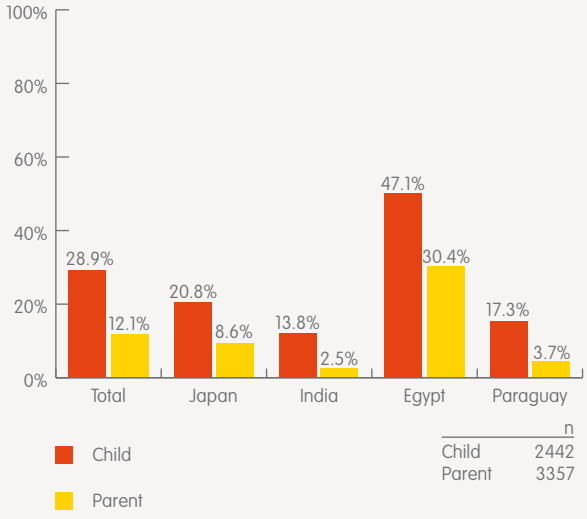
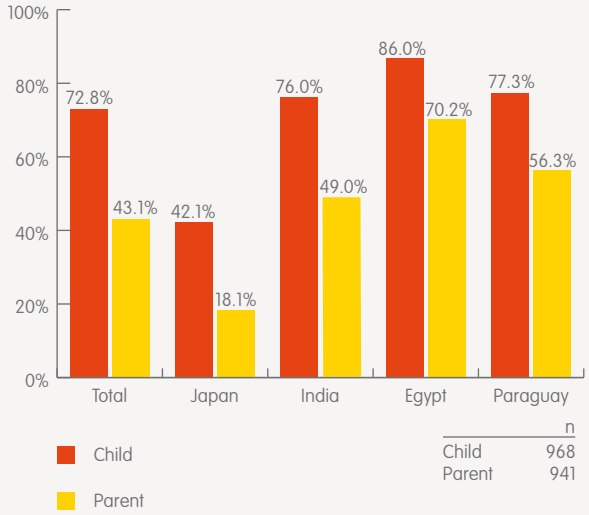
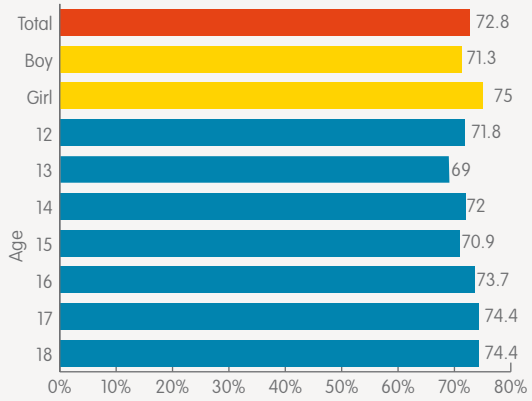


Figure 5-1-2: Comparison of child and parent mobile internet users accessing mobile social networking



Looking at age (Figure 5-1-3), 72% of 12-year-olds already use social networking and microblogging. The rate increases gradually, remaining between 69 and 75% for all ages. Girls exhibit a slightly higher rate of use than boys: 75% compared to 71%.

Figure 5-1-3: Age of mobile internet users accessing mobile social networking

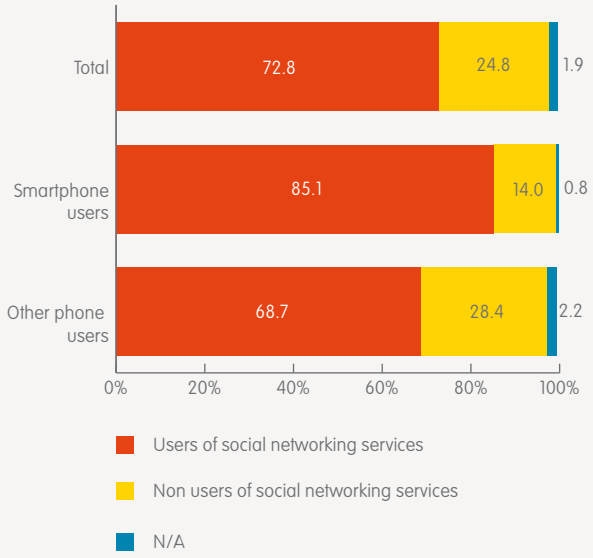


	n
Boy	568
Girl	400
Total	968

	n
12	39
13	58
14	82
15	127
16	171
17	199
18	258

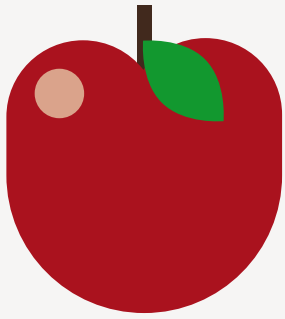
Separating smartphone users from users of other handsets, 85% use social networking and microblogging sites, significantly higher than the rate of 69% for other handset users (Figure 5-1-4).

Figure 5-1-4: Mobile internet users accessing mobile social networking services



5-2 Social networking services used by children

While messaging on mobile phones remains hugely popular, social networking is a key communications tool in the lives of children. Social networking and microblogging are immensely popular worldwide. Table 5-2-1 shows that other than in Japan, the most popular platform by far is Facebook. It has swept other social networking services aside, with an 86% rate of use in India and Egypt and 94% in Paraguay. Only in Japan is Facebook use very low, at less than 1%. This may be due to the existence of several other social networking services[1] which were well established and popular before Facebook entered the Japanese market (Table 5-2-1).



1 Mixi (for 15-year-old+) is the most popular. Mobage Town is for younger children and has no age limit.

Table 5-2-1: Social networking services used by children

Japan			India			Egypt			Paraguay		
	n	%		n	%		n	%		n	%
Mixi	41	36.9	Facebook	68	86.1	Facebook	393	86.4	Facebook	64	94.1
Mobage-town	21	18.9	Orkut	6	7.6	Twitter	114	25.1	Orkut	13	19.1
Twitter	19	17.1	Twitter	5	6.3	Other	2	0.4	Twitter	8	11.8
Gree	16	14.4							My Space	1	1.5
Zenryaku profile	4	3.6									
Maho-no i Land	3	2.7									
Facebook	1	0.9									
Other	6	5.4									
Total	**111**	**100**	**Total**	**79**	**100**	**Total**	**455**	**119**	**Total**	**68**	**127**

5-3 Number of contacts on social networking services

How many other people do children communicate with on social networking and microblogging sites? The number of people a child communicates with on social networking services often reflects the size of his or her social network.

The average number of contacts across the four countries is 95 (Table 5-3-1), but the median value (50) and mode value (20) indicate a large variation overall.

Table 5-3-1: Number of contacts on social networking sites

		n	Average	Maximum	Median	Minimum	Mode	Variance	Standard variation
Total		**692**	**94.7**	**680.0**	**50.0**	**2.0**	**20.0**	**13529.1**	**116.3**
Country	Japan	111	15.3	120.0	10.0	2.0	10.0	420.9	20.5
	India	78	70.3	300.0	50.0	3.0	50.0	3304.5	57.5
	Egypt	443	102.5	680.0	60.0	4.0	30.0	12877.7	113.5
	Paraguay	60	216.1	600.0	190.0	5.0	300.0	28785.4	169.7
Gender	Boy	394	97.4	620.0	53.5	2.0	20.0	13218.1	115.0
	Girl	298	91.2	680.0	40.0	2.0	20.0	13964.7	118.2
Age	8	4	111.0	200.0	111.0	22.0	200.0	8454.7	91.9
	9	0	NA	NA	NA	NA	NA	NA	NA
	10	9	94.8	500	30	10	20	24700	157.2
	11	9	76.1	320	50	5	20	9836	99.2
	12	27	97.4	430	80	5	100	7679	87.6
	13	38	111.5	680	55	4	20	22498	150.0
	14	58	99.6	513	74	2	170	10541	102.7
	15	88	91.3	550	48	3	10	14500	120.4
	16	124	117.3	620	58	2	50	18725	136.8
	17	145	88.8	586	45	2	20	12035	109.7
	18	190	81.4	515	36	2	30	10567	102.8

Paraguayan children have a particularly high average of 216 contacts. The difference between countries is large: Egypt comes next with 103, followed by India with 70 and then Japan with a low 15. Paraguay has an extremely high median value of 190 and 60 in Egypt and 50 in India; while Japan has 10.

Overall, parents have more contacts than their children (Table 5-3-2) however children are catching up. Looking at the average figures in each country, however, children have wider networks in India and Japan, whereas parents have wider networks in Paraguay and Egypt.

Table 5-3-2: Comparison of average number of social networking contacts between children and parents

	Average		Median	
	Child	Parent	Child	Parent
Total	**95**	**101**	**50**	**45**
Japan	15	14	10	5
India	70	67	50	50
Egypt	103	116	60	75
Paraguay	216	316	190	93

Age does not affect the average values (Table 5-3-1), repudiating the assumption that the number of social networking contacts increase with age as circles of friends expand. Boys have larger average values, maximum values, median values and mode values. Although Table 5-3-1 shows boys have larger circles of friends, this difference is not statistically significant.

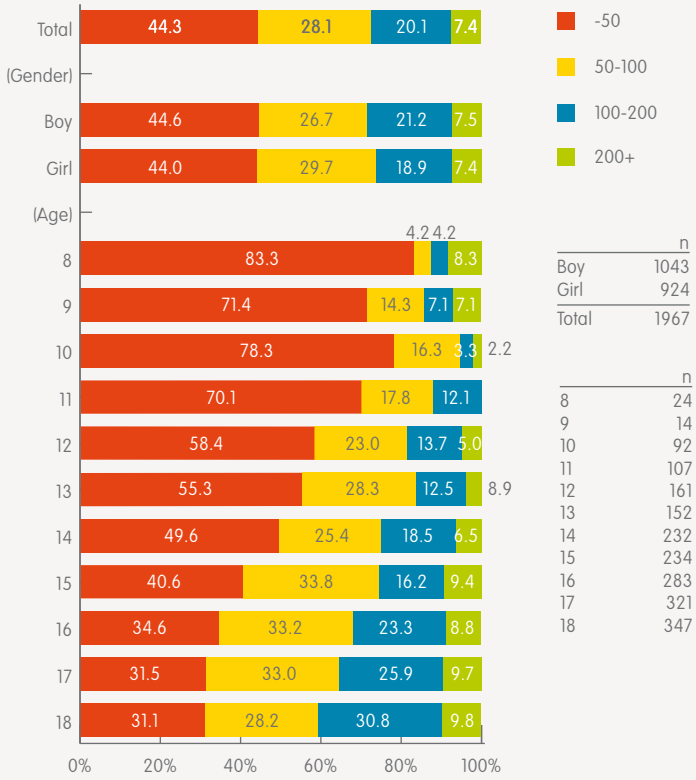
5-4 Number of contacts on mobile phones

Table 5-4-1 shows the number of personal contacts saved on children's mobile phones. Overall, the number of saved contacts is less than 50 in about 45% of cases, 50 to 100 in about 30% of cases, and 100 to 200 in about 20% of cases. Although the number of contacts saved on a mobile phone cannot be compared directly with the number of social networking contacts that a child has, it is perhaps one more indication of the size of his or her social network. Japan and India have a very similar distribution, as do Egypt and Paraguay — children in Egypt and Paraguay have more contacts in their mobile phones than children in Japan and India. The number of contacts on mobile phones increases steadily with age (Figure 5-4-1). This differs markedly from the relatively stable number of contacts on social networking (Table 5-3-1).

Table 5-4-1: Number of children's mobile phone contacts, by country

	n	-50	50-100	100-200	200-
Total	**1967**	**44.3%**	**28.1%**	**20.1%**	**7.4%**
Japan	523	52.0%	28.9%	13.2%	5.9%
India	566	52.7%	23.0%	19.1%	5.3%
Egypt	487	34.1%	30.4%	26.1%	9.4%
Paraguay	391	34.8%	31.7%	23.5%	10.0%

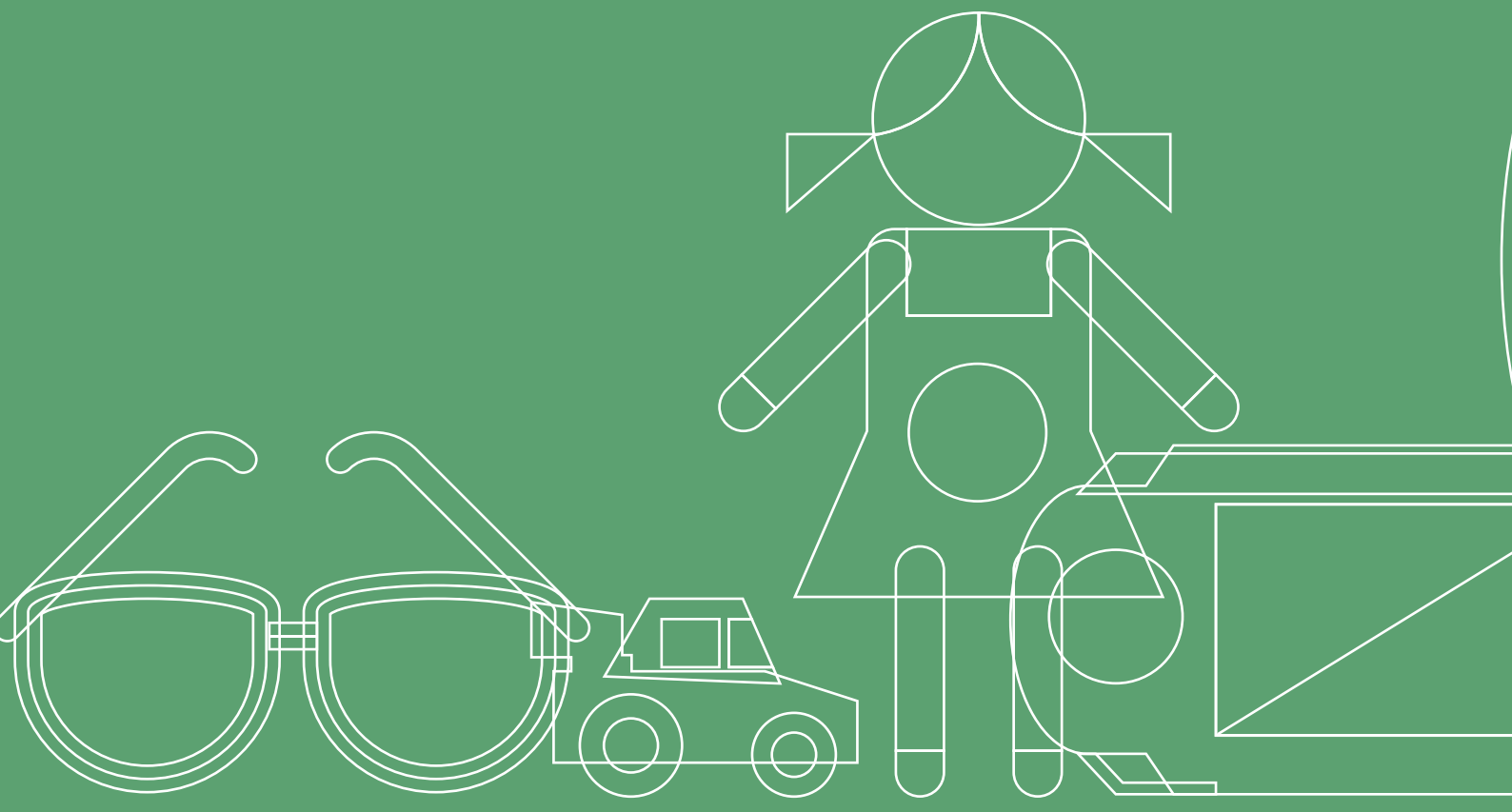
Figure 5-4-1: Number of mobile phone contacts, by age

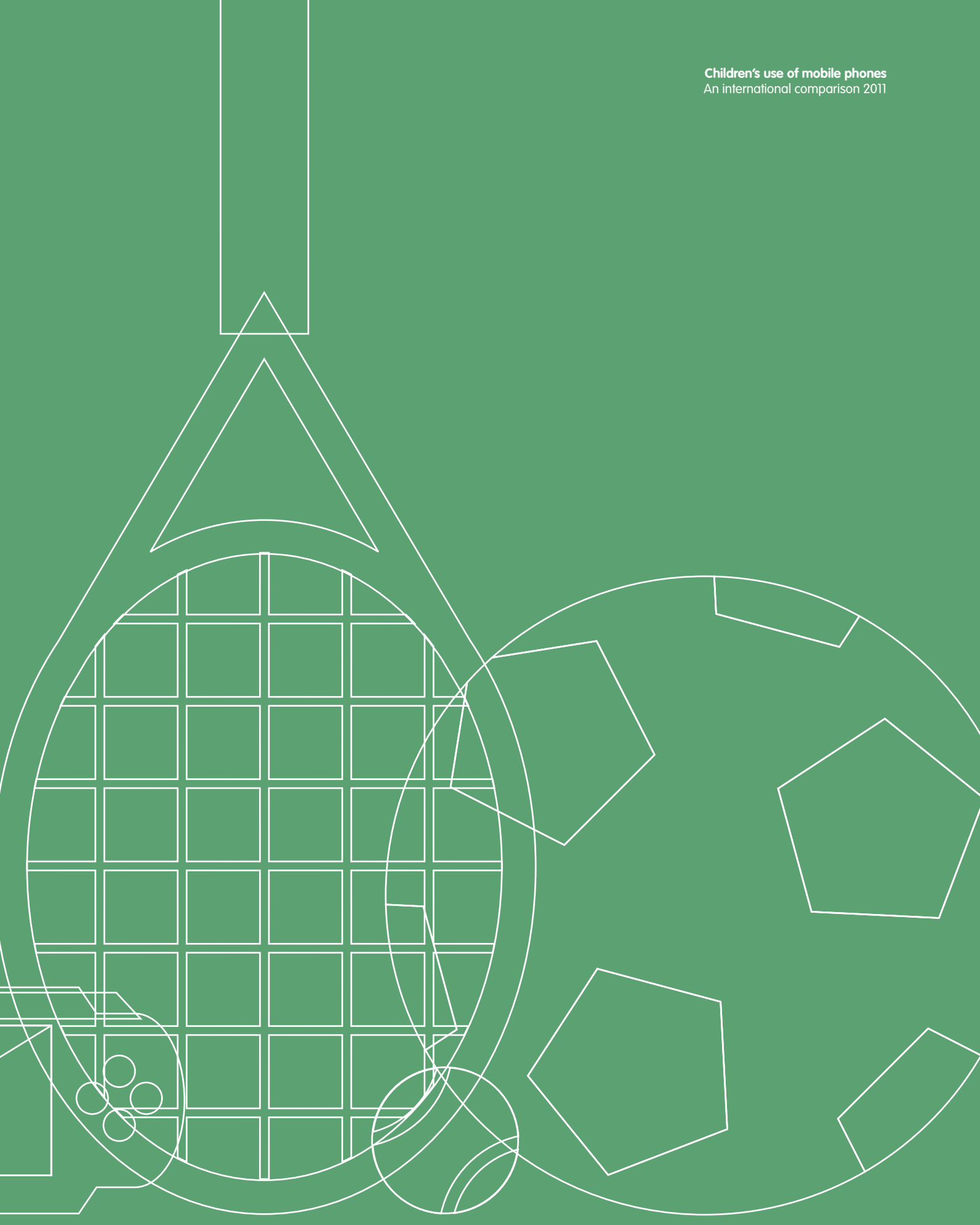


Chapter — 6

Mobile communication between parents and children

What is the current situation regarding mobile communication between parents and children? Does it have any influence on the parents-child relationship? In this chapter, we will consider the state of mobile communication between parents and children along with its effects.





Key findings

The main reason parents give their children a mobile phone is to keep in regular day-to-day contact.

Children call their parents more than message them.

52% of parents whose children use mobile phones feel safer in an emergency.

6-1 Effects of mobile phone use on parent/child relationships

When asked why their children first had a mobile phone, 54% of parents said that "our children needed a mobile phone to be able to contact us in their daily lives", followed by 42% who said that "our children needed a mobile phone to be able to contact us in an emergency or when they were out" (Table 6-1-1).

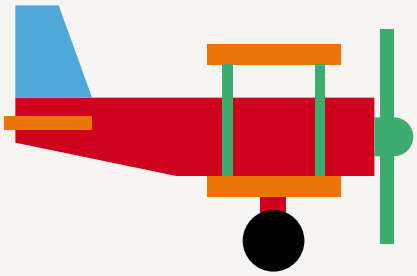
How do parents feel about parent-child communication after their children have started to use a mobile phone? Around 64% said that "I can now contact my child whenever I want", which means that parents must be satisfied to some extent with mobile phones as a means of normal parent-child communication, their original aim.[1] However, the proportion of parents across all four countries who say "I have better communication with my child now" is 36%, which is by no means high. The only country in which this proportion is high is India, with 73%. In Egypt it is around 45% and is only 18% and 9% in Paraguay and Japan respectively. Furthermore, only 16% of parents said that "my child has a larger circle of friends now", and 7% said that "mobile phone functions and services are convenient in children's daily life". These low figures reveal that parents do not believe that mobile phones have significantly changed their children's lives or friendships.

Overall 51% of children say that they have used their mobile phone to ask for help in an emergency[2] and 52% of parents say that "we feel safer in an emergency".

Table 6-1-1: Parents reasons for their child using a mobile phone

	Total	Japan	India	Egypt	Paraguay
Needed to keep in daily contact with his/her mother/father or guardian	54.3%	39.6%	68.3%	52.9%	67.3%
Needed to contact someone in an emergency or when away from home	41.8%	38.3%	55.9%	42.0%	33.0%
Given one when advancing to the next level of education or the next year	37.2%	44.7%	27.2%	48.7%	6.5%
Friends started to have mobile phones	25.7%	15.5%	34.1%	34.7%	10.9%
Needed a mobile phone for study/ work	8.2%	0.6%	16.6%	10.9%	5.0%
Other	1.6%	4.0%	0.0%	0.6%	1.8%

n= 2050

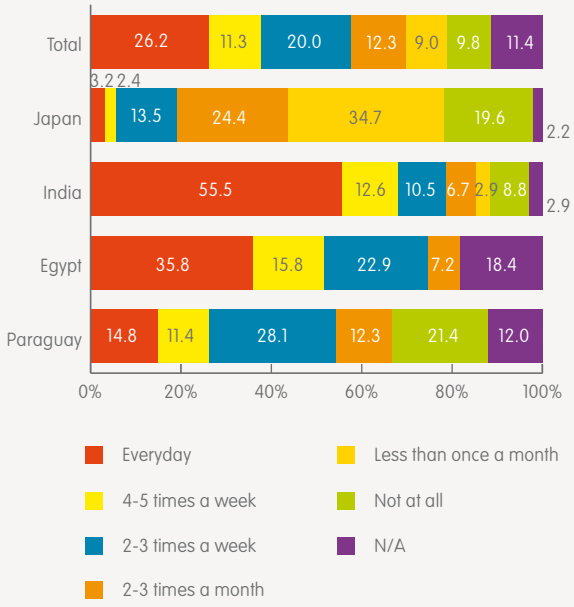


1 For the data, see Appendix 2, *Figure A-10*.
2 For the data, see Appendix 2, *Table A-2* and *Table A-3*.

6-2 Parent-child communication — mobile calling

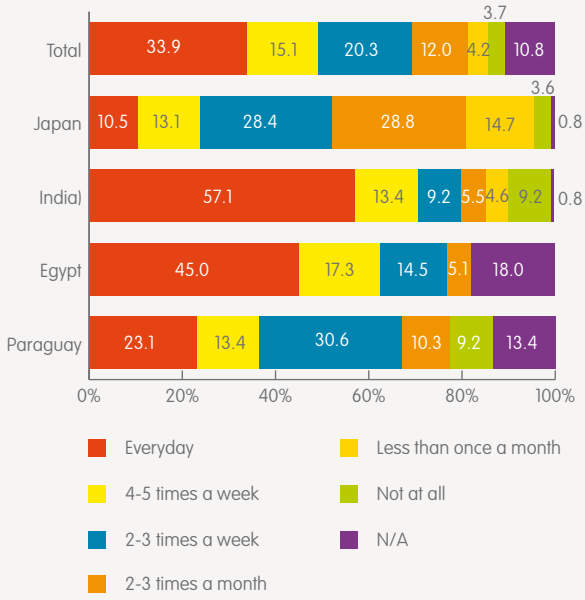
While communicating through mobile phone calls is common for all parents and children, there is a tendency for children to call parents more often in India and Egypt (Figure 6-2-1 and 6-2-2). In Japan children do not talk as much with their parents on their mobile phones.

Figure 6-2-1: Call frequency to father, by country



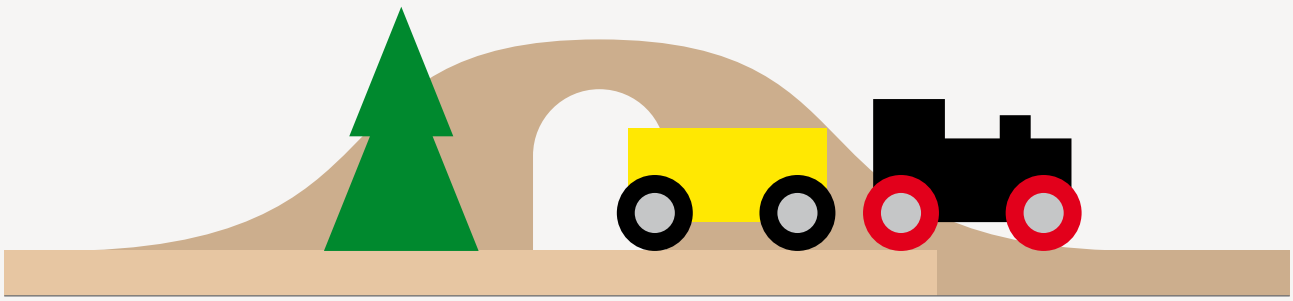
	n
Japan	496
India	238
Egypt	895
Paraguay	359
Total	1988

Figure 6-2-2: Call frequency to mother, by country



	n
Japan	496
India	238
Egypt	895
Paraguay	359
Total	1988

The frequency of calls with both mothers and fathers increases as children get older, although the rate of increase is greater with mothers.[3] Boys talk on mobile phones with both mothers and fathers slightly more than girls. Of children who call their parents "almost every day", 26% call their fathers and 34% call their mothers.

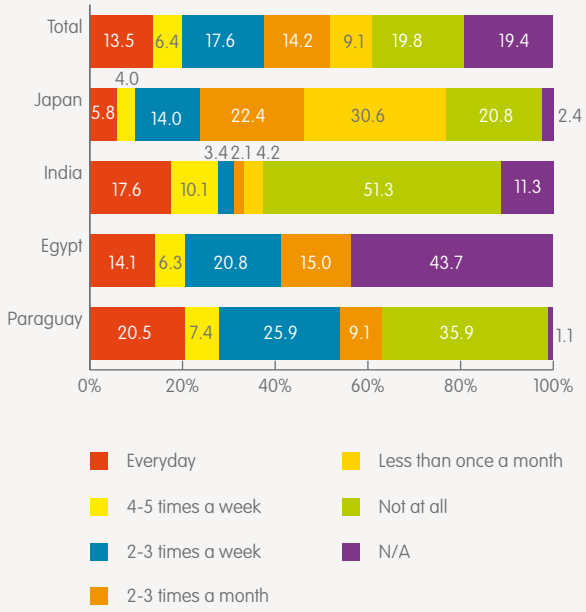


3 For the data, see Appendix 2, *Figure A-11* and *Figure A-12*.

6-3 Parent-child communication — mobile messaging

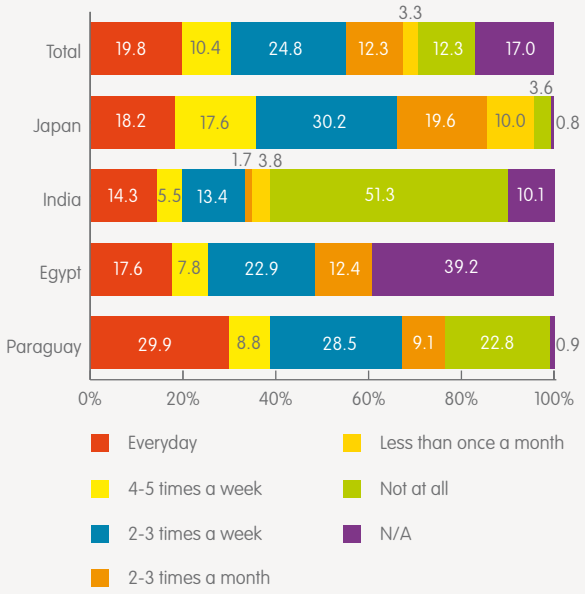
The highest rate of messaging with parents is in Paraguay, followed by Japan. Around 51% of children in India said they never communicate with their parents by messaging (Figures 6-3-1, 6-3-2). Given 59%[1] of Indian children do not usually send messages from their mobile phones at all, the result that half of Indian children do not communicate with their parents by messaging is understandable.

Figure 6-3-1: Message frequency to father, by country



	n
Japan	500
India	238
Egypt	693
Paraguay	351
Total	1782

Figure 6-3-2: Message frequency to mother, by country



	n
Japan	500
India	238
Egypt	693
Paraguay	351
Total	1782

The frequency of parent-child messaging is, as in the case of calling, greater with mothers than fathers.[2] The proportion of children who exchange messages four to five times per week with their mothers is about 30%, compared with less than 20% with their fathers. Nearly 20% of children never communicate with their fathers by messaging and only 12% never do with their mothers.

There is no tendency for messaging with parents to increase as children get older, as there is with calling.[3] Girls communicate with their mothers by messaging slightly more than boys. Of children who message their parents "almost every day", 14% message their fathers and 20% message their mothers.

Overall children call their parents more than they message them (Figure 6-2-1, 6-3-1). Japan, however, stands out from the other countries in that messaging is used more often than calling as a means of communication between parents and children.

1 See Chapter 3-1.
2 For the data, see Appendix 2, *Figure A-13*.
3 For the data, see Appendix 2, *Figure A-14*.

6-4 Parent-child communication — face-to-face communication

How does daily face-to-face communication compare with mobile phone communication?

Most children talk with their parents "almost every day", 71% talk with their fathers and 85% their mothers.[4] Around 26% of children talk via mobile phone with their fathers and 34% with their mothers, compared with 14% who message their fathers and 20% their mothers almost every day.[5] This confirms that face-to-face communication with parents is by far more frequent than communication by mobile phone.

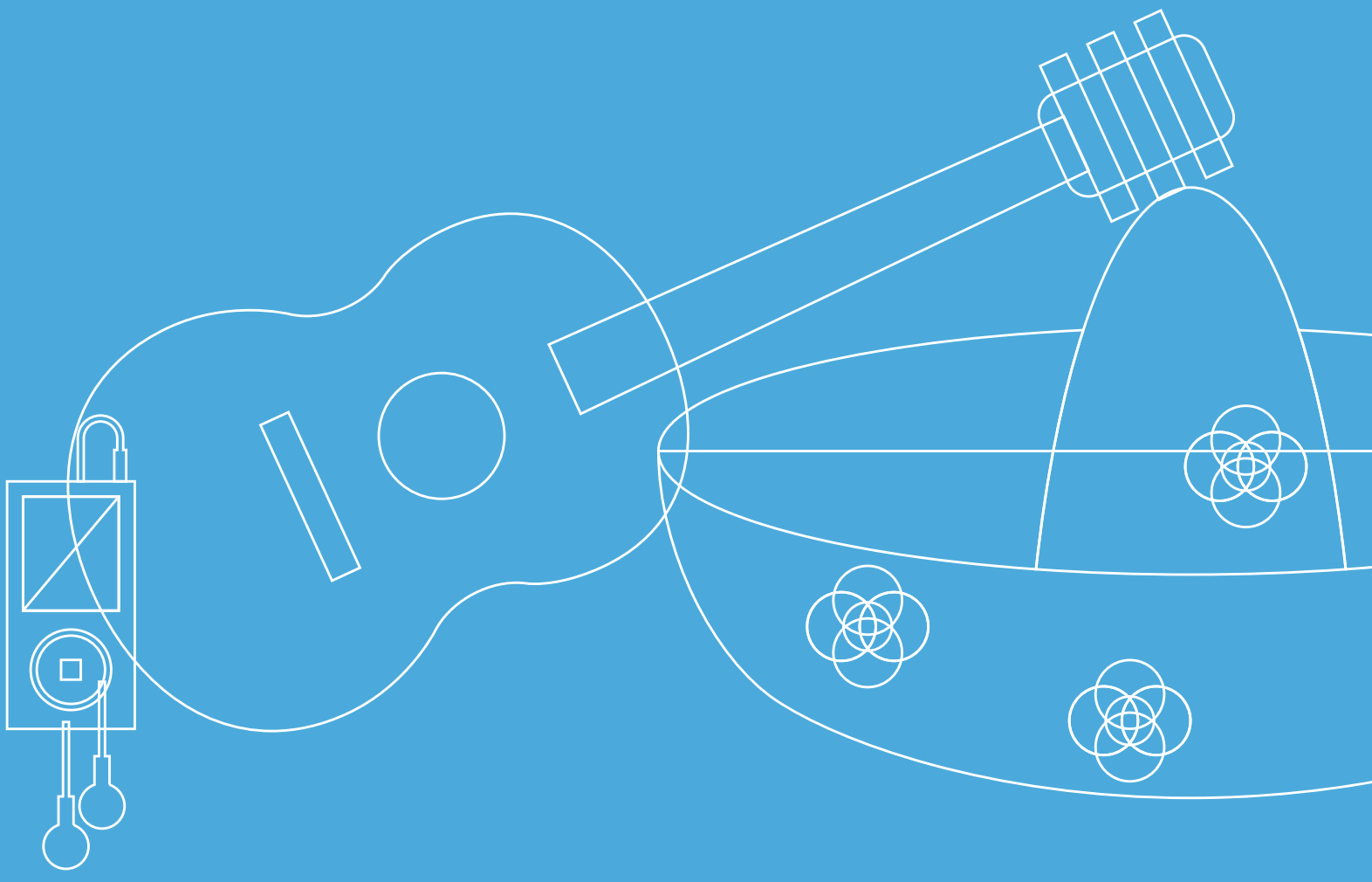
Is mobile phone communication more frequent in families who also converse more often face-to-face? The results correlated as expected[6]: the more frequently children communicated face-to-face with their parents, whether their father or mother, the more often they communicated with them by talking or texting on their mobile phones.

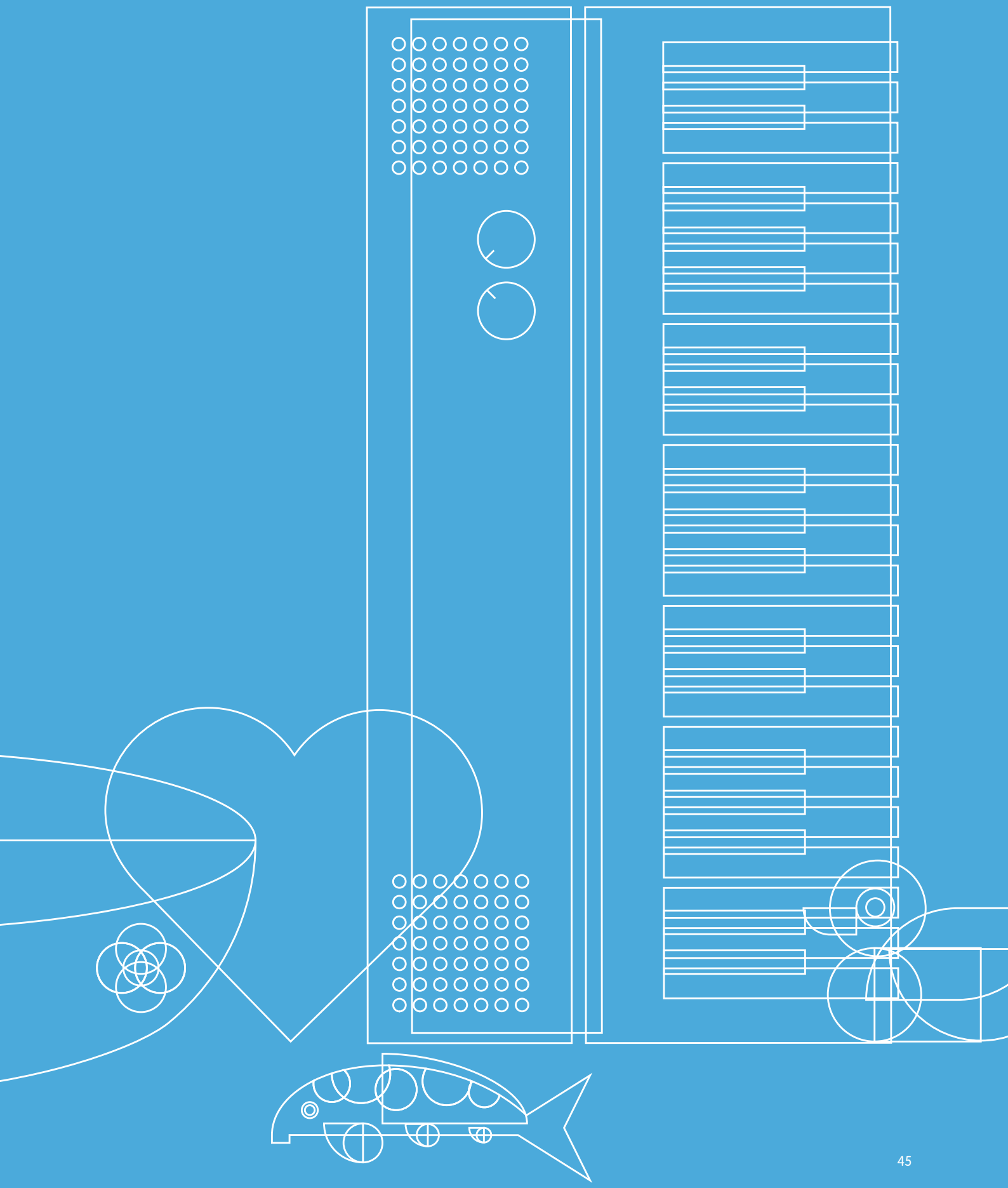
4 For the data, see Appendix 2, *Figure A-15*.
5 For the data, see Appendix 2, *Figure A-11* and *Figure A-12*.
6 For the data, see Appendix 2, *Table A-4* and *Figure A-5*.

Chapter — 7

Parental concerns and mobile safety

In 2011, it is common to see children carrying mobile phones in many countries in the world. This is bringing new and exciting opportunities for young people. However, as children become familiar with personal digital devices in the form of mobile phones, parents are expressing concerns.





Key findings

Parents have a high level of concern over their children's use of mobile phones, with 70 to 80% concerned about most issues, particularly overuse, costs and privacy.

There is significant concern about disclosure of their children's personal information among parents, with nearly 70% of parents saying they are "very concerned" or "somewhat concerned" about their children's privacy when using mobile phones.

While 80% of children protect their profiles on social networking sites, almost one in five children have open profiles including nearly a third of children in Paraguay.

As children get older they seek advice less from their parents and more from friends on mobile issues. Very few, regardless of age, look to their school teachers for advice.

More than 60% of families have agreements or rules about mobile phone use, including 70% of families in Japan and Egypt, 45% in India and 50% in Paraguay.

Mobile phones and the internet are compelling and far-reaching educational and entertainment tools for adults and children alike, but like any tool, they can potentially be misused. No one who accesses the online world is immune from risks and issues that may arise and children, unlike adults, often lack the experience to know how to deal with difficult situations. It is the role of adults to provide a better and more secure environment in which children can take advantage of the benefits of these technologies.

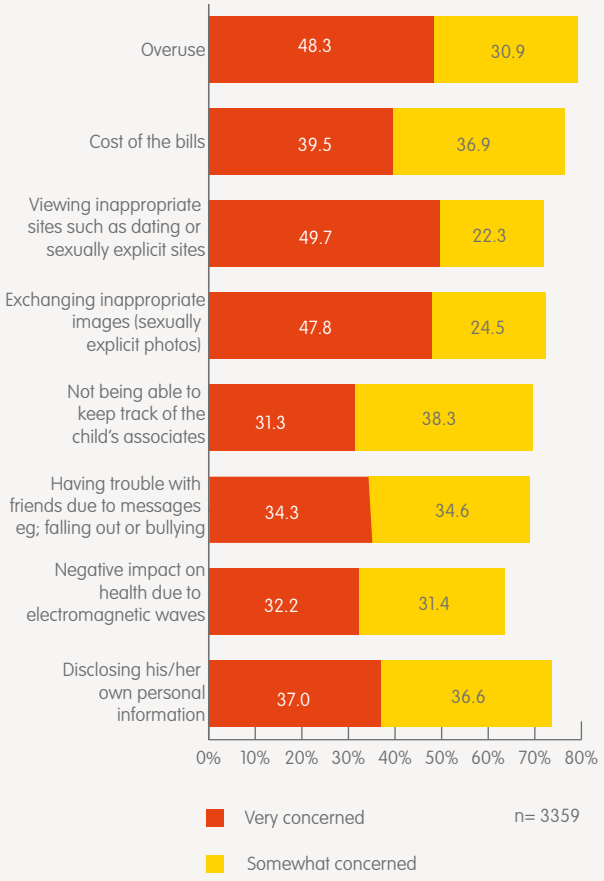
What are the concerns parents have and the precautions they take when giving mobile phones to their children?

7-1 Parental concerns about children's use of mobile phones

As discussed in chapter 6, the main aim of parents giving their children mobile phones is to maintain contact with them when they are apart. Although giving children mobile phones achieves that aim, and children and parents enjoy the convenience of mobile phones, concerns do arise for parents.

Figure 7-1-1[1] shows the proportion of parents who said they were "very concerned" or "somewhat concerned" about key issues.

Figure 7-1-1: Parents concerned over child's use of mobile phone

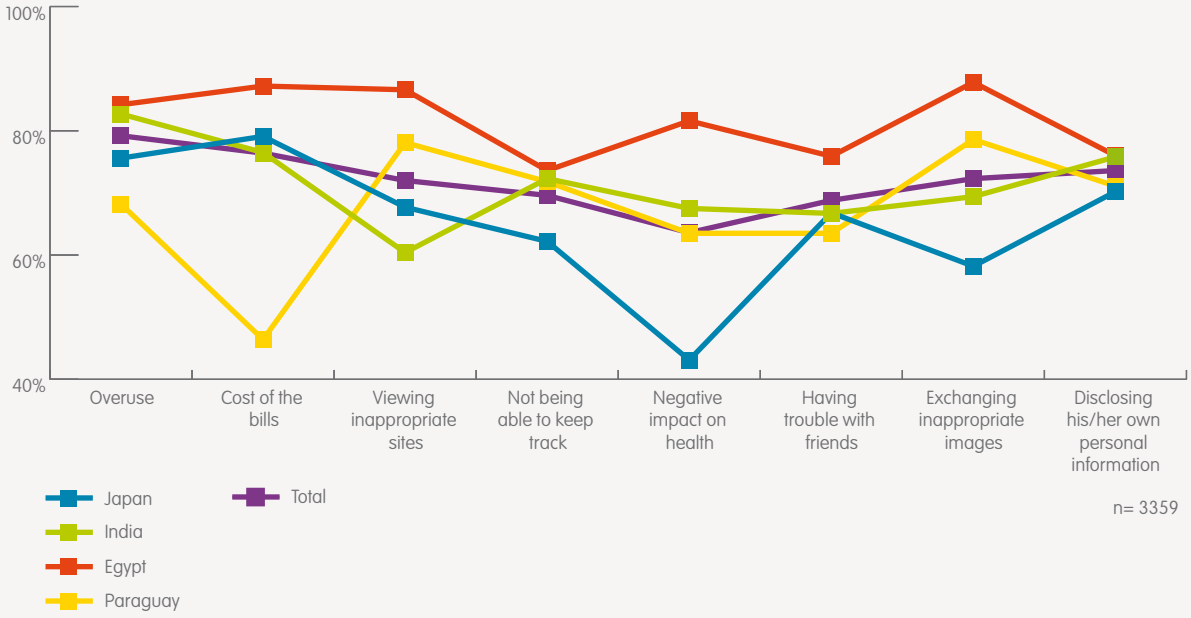


1 Respondents from Japan and India were only the parents of children with mobile phones. Respondents from Egypt and Paraguay included all parents.

Figure 7-1-2 shows that the proportion of parents who are "very concerned" or "somewhat concerned" is 70 to 80% for most issues. Although parents choose to let their children have mobile phones, they are not always happy about how their children use them — presenting mobile phones as both a convenient tool and a cause of concern. The strongest concerns are time spent using mobile phones (79%), usage costs (76%) and privacy (74%).

Children's age somewhat affects the level of their parents' concern.[2] Their worries about their children having problems due to communication with friends or running up high bills are greater when their children are only 8 to 9-years-old than when they are older. Differences due to the gender of children are extremely small.

Figure 7-1-2: Parents concerned about child's use of mobile



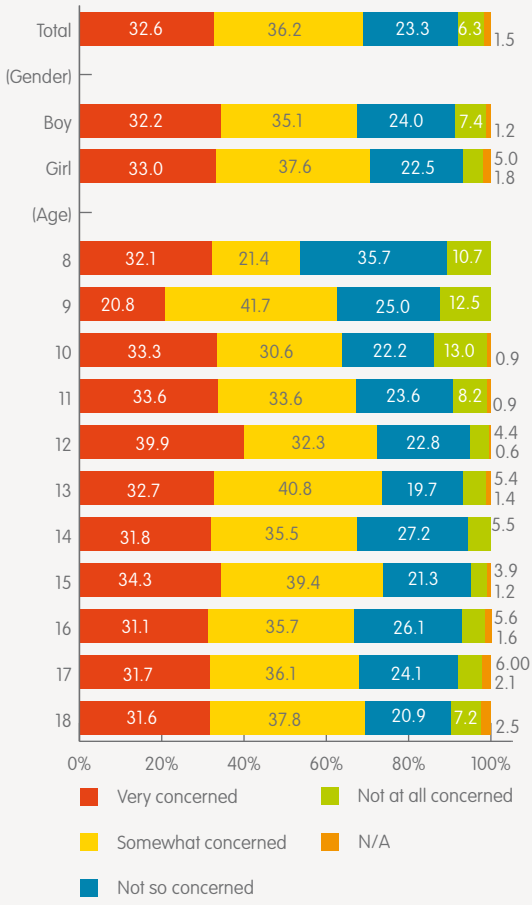
2 For the data, see Appendix 2, *Table A-6*.

Egyptian parents express the most concern overall, while in the other countries there are some small variations (Figure 7-1-2). In Japan, the proportion of parents worried about the effect of electromagnetic waves is markedly lower, at 43%, and the proportion concerned about their children exchanging inappropriate images is also lower, at 58%. In India, browsing inappropriate websites is a concern at 60%, lower than in other countries. Concern about almost all aspects of mobile usage is highest in Egypt, particularly in regards to their children exchanging inappropriate images, browsing inappropriate websites, and running up expensive bills. Paraguay has the lowest proportion of parents concerned about their children running up expensive bills, at 46%.

7-2 Parental concerns about children's privacy

Overall, there is significant concern amongst parents about disclosure of their children's personal information. For many children, a mobile phone is the first personal communications device they own and it is a means of accessing people and information, and of interacting and exchanging their own private details with others, unsupervised by parents. Such exchanges may bring risks. Figure 7-2-1 shows that overall nearly 70% of parents say they are "very concerned" or "somewhat concerned" about their children's privacy when using mobile phones.[1] The age of the children does not seem to make much difference, and parents continue to be concerned about their children's use of mobile phones from early childhood to late teens.

Figure 7-2-1: Percentage of parents concerned about their child's privacy on mobile phones



	n
Boy	1225
Girl	999
Total	2224

	n
8	28
9	24
10	108
11	110
12	158
13	147
14	217
15	254
16	322
17	382
18	474

1 Respondents from Japan and India were only the parents of children with mobile phones. Respondents from Egypt and Paraguay included all parents.

7-3 Disclosure of children's privacy

How much of their own personal information do children actually disclose? Privacy settings on social networking services are used by many children. Positively, 80% of children limit the public disclosure of their own profiles to their friends and their friends' friends (Figure 7-3-1, Figure 7-3-2). This means the profiles of nearly 20% of children can be seen by anyone. Indian children choose the strictest settings among the four countries, with only 10% allowing everyone to see their profiles, while Paraguayan children have the most relaxed settings, at about 32% open profiles (Figure 7-3-1).

Figure 7-3-1: Children's social networking privacy settings, by country

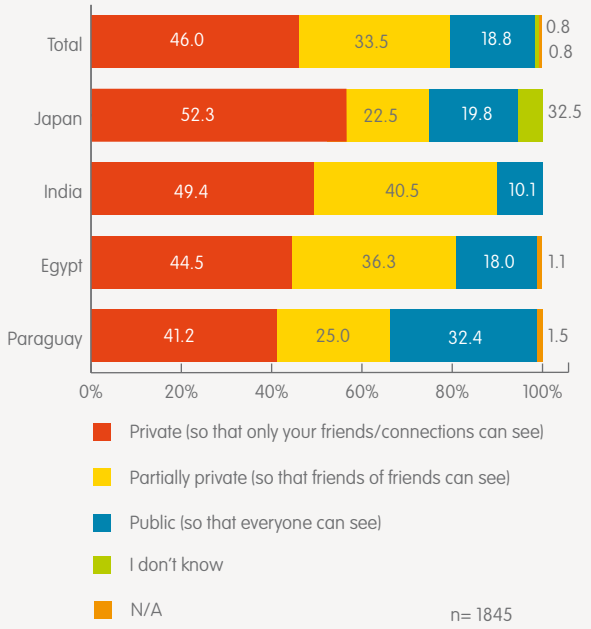
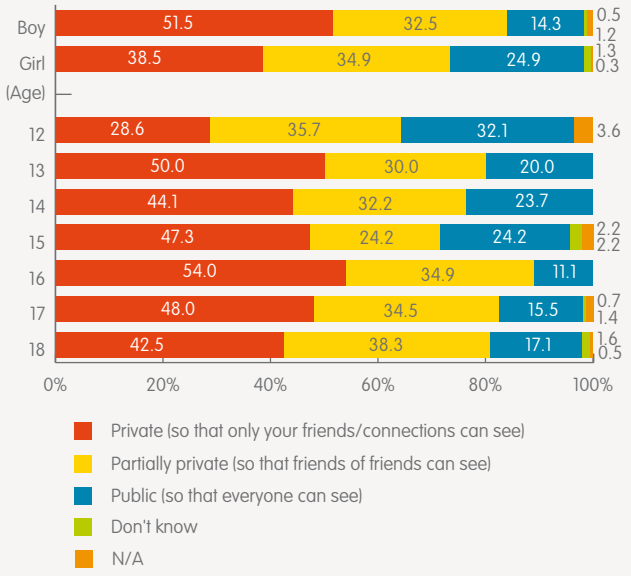


Figure 7-3-2: Children's social networking privacy settings, by age



	n
12	28
13	40
14	59
15	91
16	126
17	148
18	193

There is an assumption that parents of children whose profiles have more relaxed privacy settings may be more concerned about their children's privacy. However, when analysing parents' concerns over "children disclosing their own personal data" (Figure 7-1-1), and their children's social networking profile settings, no significant connection was found. This suggests that parents do not fully appreciate the extent to which their children are disclosing personal information.

Figure 7-3-1: Use of mobile phone password/PIN by children and parents, by country

Total		Japan		India		Egypt		Paraguay	
Child	Parent	Child	Parent	Child	Parent	Child	Parent	Child	Parent
66.5%	**53.3%**	58.1%	48.0%	83.3%	78.8%	73.5%	65.8%	55.7%	47.4%

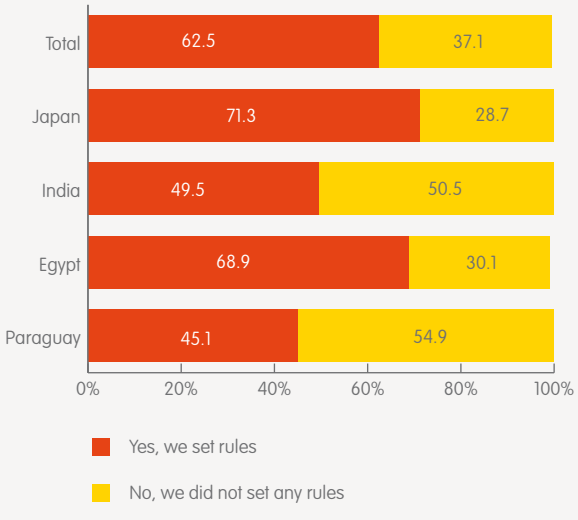
Child n= 889
Parent n= 1102

As a general indicator of the awareness of privacy protection, the use of a password/PIN for locking handsets was surveyed. More children — 67%[1] — use a password/PIN function than parents, at 53%. Again, Indian children show a high rate of 84% (Table 7-3-1).

7-4 Family rules about children's use of mobile phones

One way of alleviating parents' concerns about their children's use of mobile phones is family agreements or parental rules setting out what children are allowed and not allowed to do on their mobile phones. Figure 7-4-1[2] shows that overall more than 60% of families have such agreements or rules. Japan and Egypt have the highest proportion of such families, about 70%. On the other hand, a majority of families in India and Paraguay do not set such rules, with results of about 50% and 45%, respectively. However, India shows a difference from the previous survey in 2010, which showed less than 20% having rules.

Figure 7-4-1: Percentage of families introducing rules for usage of mobile phones

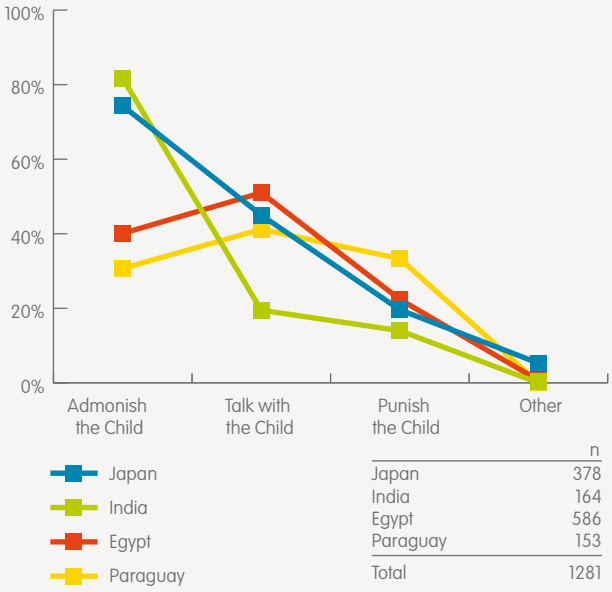


	n
Japan	530
India	331
Egypt	850
Paraguay	339
Total	2050

Whether or not agreements or rules about mobile phones are made within families is determined by the circumstances of each family, but parents who are more concerned about their children's use of mobile phones are more likely to set rules.

Children sometimes break the rules. When this happens, how do parents deal with this? The results of this survey show differences depending on the country. In Japan and India, parents most commonly admonish their children, while in Egypt and Paraguay parents most commonly discuss the issue with their children (Figure 7-4-2). Parents in each country generally follow-up in some way when children break family agreements or rules.

Figure 7-4-2: Parents' response when their children break mobile phone rules



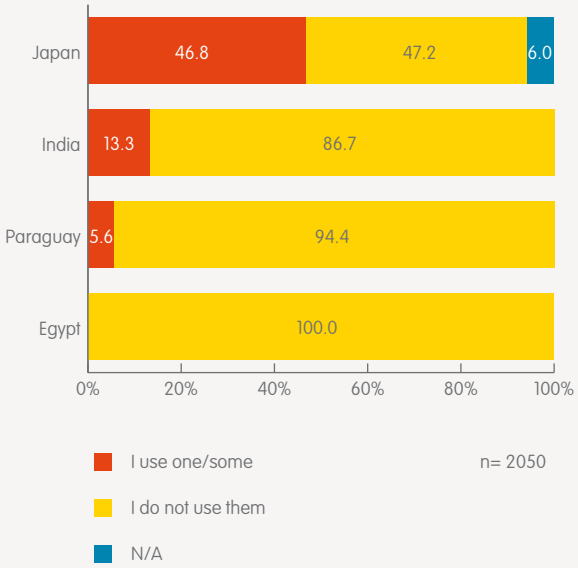
	n
Japan	378
India	164
Egypt	586
Paraguay	153
Total	1281

1 The base is children of use of mobile phones.
2 For the data of type of rules, see Appendix 2, *Figure A-16*.

One method tried by parents to alleviate their most common concerns about their children's use of mobile phones is to restrict their children's access to the internet. There are various ways and levels of restriction, from forbidding all internet access (the strongest level), to specifying sites children are allowed or forbidden to visit, to setting permissible times and places for children to go online and allowing access when with a parent.

Figure 7-4-3[3] depicts the use of technological methods of restricting internet access (or a filtering service). Access restriction is used in about nearly half of Japanese children's mobile phones, compared with 13% in India and a low 6% in Paraguay and 0% in Egypt.

Figure 7-4-3: Parental usage of technological methods to restrict internet access



7-5 Digital literacy and sources of advice for children

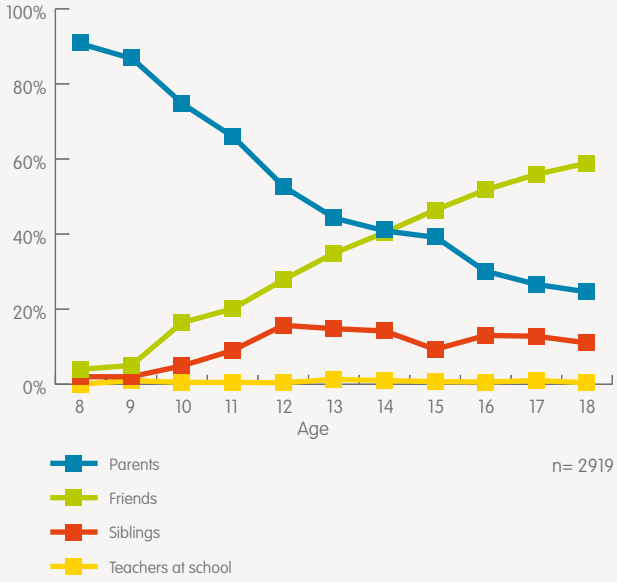
As penetration rates of smartphones, tablet PCs, and other devices for internet access increase, the number of children using mobile phones and accessing the internet will rise. This brings many opportunities, but giving children the means to protect themselves from any risks that arise.

As previously discussed, agreements or rules about children's use of mobile phones are not made in all families, and even where they are made, they are not always followed. In addition, the level of use of technical solutions to restrict access is low, and even when such solutions are used, they are not fail-safe.

Parental controls can help to minimise risk to children from their mobile and online usage, but children also need to be educated about risks and how to avoid them — that is, they need to understand the kinds of risk they face, and who they can call on for help. Children require the skills and knowledge — or digital literacy — to embrace the positive experience offered by mobile and online communication and to also be aware of potential negative aspects.

Our research has shown that children use more mobile phone functions and services than their parents, and are probably more highly skilled, on one level, at using mobile phones. Figure 7-5-1 shows that although younger children predominantly ask their parents for help when they encounter a problem on their mobile phone, as they get older they increasingly seek advice from their friends rather than parents, older siblings or school teachers.

Figure 7-5-1: Who children seek advice from about their mobile phone, by age



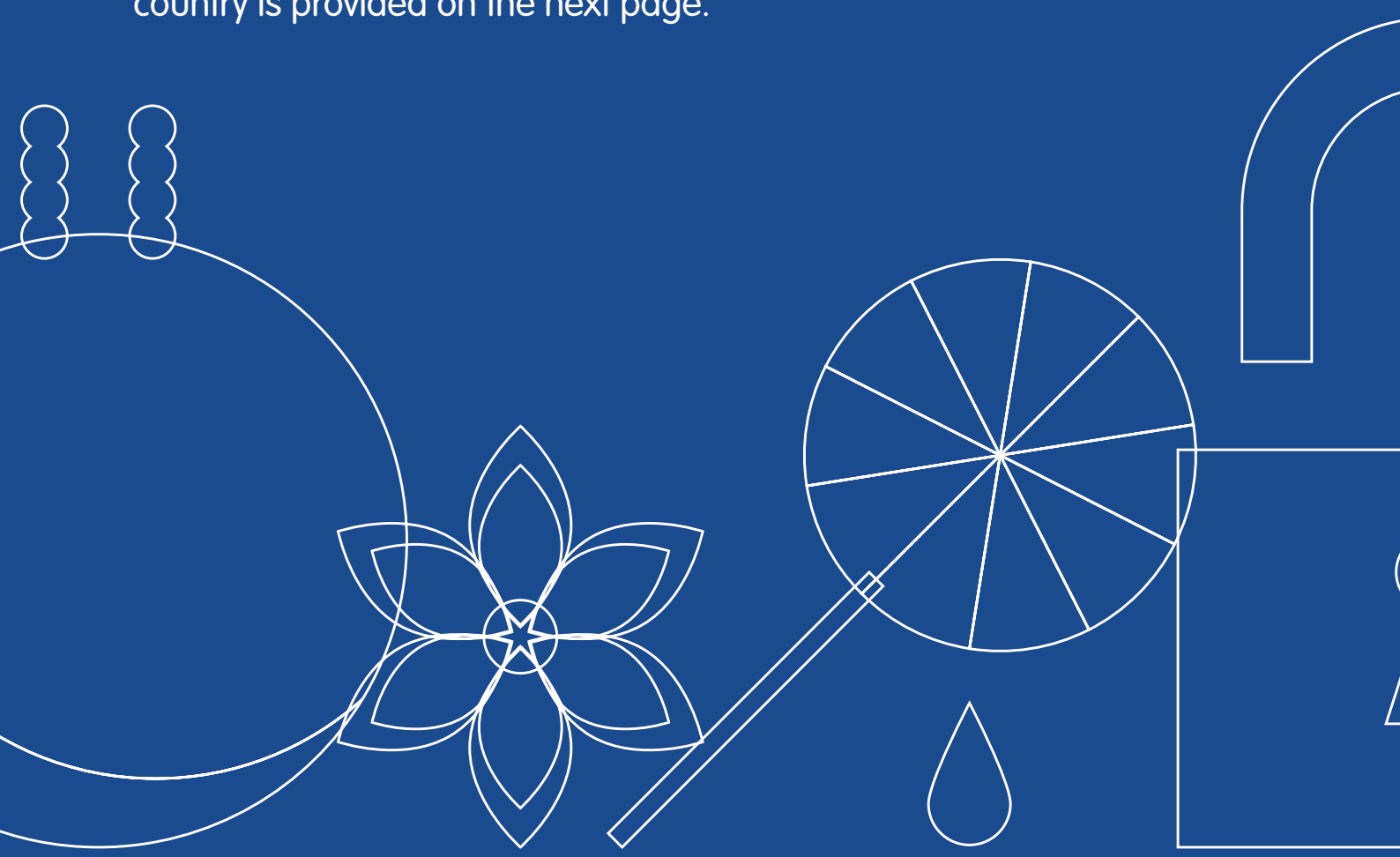
In many countries, industry, governments, parents and teachers have adopted strategies and programs aimed at improving children's digital literacy. As technology and online services continue to evolve it is important to continue this work and for all parties to work together to guide children to the use them in a safe, responsible, and effective manner.

3 Respondents from Japan and India were the parents of children with their own mobile phones. Respondents from Paraguay included parents of children using shared mobile phones.

Chapter — 8

Appendix 1
Survey overview

The data included in this report was obtained through a series of surveys conducted in Japan, India, Egypt and Paraguay between June and July 2011. Unless otherwise specified, all data contained in this report is based on these surveys. An outline of the surveys for each country is provided on the next page.



Survey objectives

The aim of these surveys was to identify the status of mobile phone usage by children aged eight to 18 in Japan, India, Egypt and Paraguay for 2011 and explore parental concerns about their children's use of mobile phones and the children's communication with their parents and friends.

Survey methodology

The surveys were outsourced and conducted by researchers and research firms in each of the countries. Two questionnaires were created, one for parents and one for children. A summary of the surveys in each country is shown in Table A1-2-1.

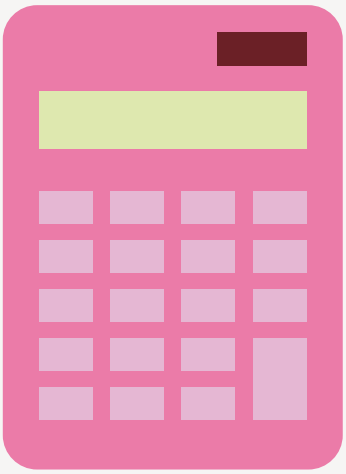
Summary of the surveys, by country

	Date	Number of Respondents	Children's age range	Survey mode
Japan	July 2011	1,000 pairs Boy 513, Girl 487	8 to 18 year-old	Web survey
India	June 2011	1,014 pairs Boy 608, Girl 406	10 to 18 year-old	Personal in-home survey
Egypt	June 2011	1,014 pairs Boy 581, Girl 433	8 to 18 year-old	Personal in-home and drop-off survey
Paraguay	June 2011	500 pairs Boy 255, Girl 245	10 to 18 year-old	Personal in-home survey

Country indicators for mobile phone market, by country

	Japan	India	Egypt	Paraguay
ARPU (USD)	USD57.0 (Q2,2011)	USD3.4 (Q2,2011)	USD4.6 (Q2,2011)	USD13.0 (Q2,2011)
Voice	USD0.191/ 30 sec.	INR 0.01 pasia/ sec.	USD0.03/ minute on net USD0.05 minute else-where	USD0.05/min
Data	USD0.003/ packet (3G) USD0.04/ packet (2G)	INR 750/4GB (3G) INR 199/3GB (2G)	USD0.2/MB to monthly subscription of US$26 USD0.05/MB to Prepaid	USD1.1/MB to Prepaid USD0.66/MB to Postpaid
/message	USD0.039/ message with 200 characters		USD0.05/SMS - 160 Latin or 72 Arabic characters. Local destination. USD0.14 /SMS - 160 Latin characters. International destination.	USD0.012/ message with 160 character
Flat rate	USD77.8/ month	N/A	N/A	N/A

- Each country has various types of tariff plans. Tariffs are shown only for international comparison.
- 1 India Rupee =100 Paisa = 0.02 USD



Japan

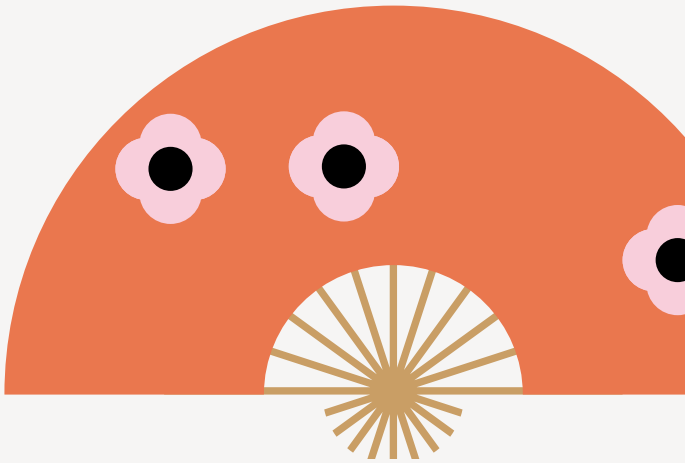
This survey was conducted online by research firm MyVoice Communications. Surveys were conducted with male and female residents of Japan with children aged between eight and 18 years old, and with their children. Component ratios by gender and age of children aged eight to 18 were calculated according to population component ratios from population estimates of the Ministry of Internal Affairs and Communications, as of 1 October 2009. Requests to take part were emailed to 1,708 parent/guardian and child pairs and 1,000 valid responses were received. Internet monitors were maintained for quality assurance by the research company and a representative sample of Japanese children was obtained for this survey.

Sample distribution by age and gender

			8	9	10	11	12	13	14	15	16	17	18	Total
Japan	**Total**	**n**	88	90	90	91	90	90	92	92	91	93	93	**1,000**
		%	8.8	9.0	9.0	9.1	9.0	9.0	9.2	9.2	9.1	9.3	9.3	**100**
	Boy	**n**	45	46	46	47	46	46	47	47	47	48	48	**513**
		%	8.8	9.0	9.0	9.2	9.0	9.0	9.2	9.2	9.2	9.4	9.4	**100**
	Girl	**n**	43	44	44	44	44	44	45	45	44	45	45	**487**
		%	8.8	9.0	9.0	9.0	9.0	9.0	9.2	9.2	9.0	9.2	9.2	**100**

Sample distribution by residential area

	Sample		Population of children (8-18 years) (in 2007)
	n	%	
Hokkaido	41	4.1	557,141
Tohoku	52	5.2	1,037,817
Kanto	426	42.6	4,027,064
Kohuriku	27	2.7	592,443
Chubu	117	11.7	1,001
Kinki	182	18.2	2,154,481
Chugoku	50	5	811,135
Shikoku	27	2.7	426,314
Kyushu	78	7.8	1,657,243
TOTAL	**1,000**	**100**	**13,216,583**



Appendix 1
Survey overview

India

In this survey, face-to-face paired interviews were conducted with the child and either their mother, father or guardian, through a structured paper questionnaire. Data collection was carried out during June 2011, with 1,014 interviews conducted across 10 urban centres in India.

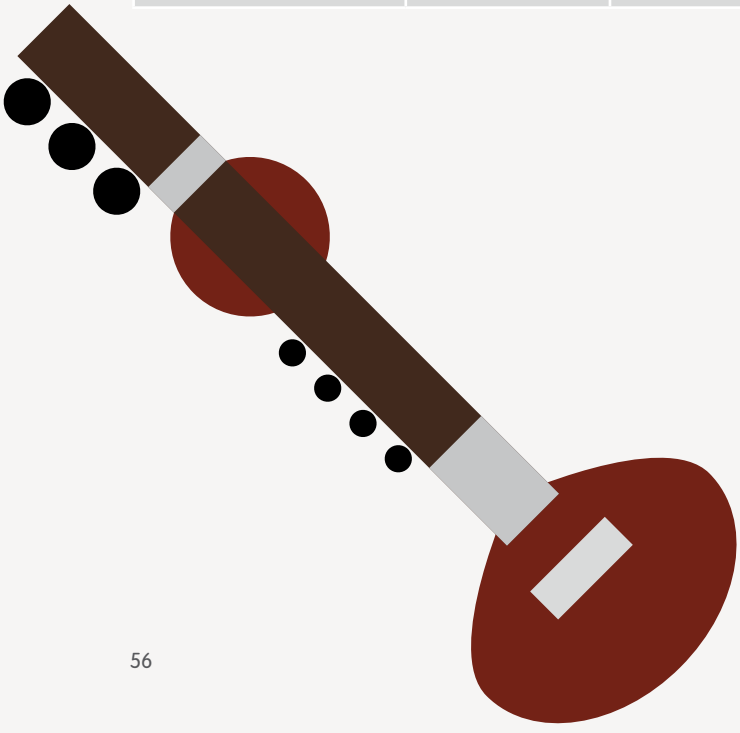
The survey was conducted in metropolitan areas, both metros and mini metros, and arranged random sampling was used to select households with a child 10 to 18 years. India has a widely-accepted socio-economic classification (SEC) which is based on the education and occupation of the respondent. The survey was conducted among SEC A, SEC B and SEC C, with SEC representation in proportion to India's urban population. Similar to SEC, the gender representation is also in line with the population, with interviews conducted with 60% boys and 40% girls.

Sample distribution by age and gender

			10	11	12	13	14	15	16	17	18	Total
India	Total	n	91	108	117	103	125	115	111	126	118	1,014
		%	9.0	10.7	11.5	10.2	12.3	11.3	10.9	12.4	11.6	100
	Boy	n	55	66	68	54	71	76	66	80	72	608
		%	9.0	10.9	11.2	8.9	11.7	12.5	10.9	13.2	11.8	100
	Girl	n	36	42	49	49	54	39	45	46	46	406
		%	8.9	10.3	12.1	12.1	13.3	9.6	11.1	11.3	11.3	100

Sample and population size of the cities covered

City	Zone	City type	Sample	Population size (in 2001)
Delhi	North	Metro	201	12,791,458
Mumbai	West	Metro	200	16,368,084
Kolkata	East	Metro	100	13,216,546
Chennai	South	Metro	104	6,424,624
Bangalore	South	Metro	100	5,686,844
Hyderabad	South	Metro	104	5,533,640
Pune	West	Mini	50	3,755,525
Patna	East	Mini	50	1,707,429
Ludhiana	North	Mini	50	1,395,053
Cochin	South	Mini	55	1,355,406



Distribution of socio-economic classification (SEC) of sample

	SEC A	SEC B	SEC C
Total	**28%**	**34%**	**38%**
Delhi	35%	43%	22%
Mumbai	23%	32%	46%
Bangalore	21%	27%	52%
Kolkata	29%	41%	30%
Hyderabad	37%	32%	32%
Chennai	25%	34%	41%
Ludhiana	34%	50%	16%
Patna	30%	34%	36%
Pune	14%	40%	46%
Cochin	31%	49%	20%

Overall SEC

	Education						
Occupation	**Illiterate**	**School: Up to 4 years**	**School: 5-9 years**	**SSC or HSC**	**Some college but not graduate**	**Graduate/ post-graduate – General**	**Graduate/ post-graduate – Professional**
Unskilled workers	E2	E2	E1	D	D	D	D
Skilled workers	E2	E1	D	C	C	B2	B2
Petty traders	E2	D	D	C	C	B2	B2
Shop owners	D	D	C	B2	B1	A2	A2
Businessmen or industrialist with number of employees – None	D	C	B2	B1	A2	A2	A1
Businessmen or industrialist with number of employees – 1-9	C	B2	B2	B1	A2	A1	A1
Businessmen or industrialist with number of employees – 10+	B1	B1	A2	A2	A1	A1	A1
Self-employed professionals	D	D	D	B2	B1	A2	A1
Clerical/salesman	D	D	D	C	B2	B1	B1
Supervisory level	D	D	C	C	B2	B1	A2
Officer/executives – Junior	C	C	C	B2	B1	A2	A2
Officer/executives – Middle or senior	B1	B1	B1	B1	A2	A1	A1

Not included in the study

Appendix 1
Survey overview

Egypt

The survey questionnaires were given to 1,350 pairs of children and parents/guardians living in four geographic locations. Another 35 pairs were given to Mobinil. In total, 1,014 pairs of valid responses were collected, representing a 73% success rate.

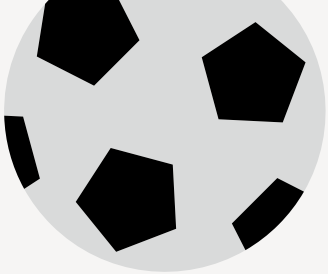
Four different regions were selected: Cairo and Alexandria, which have almost a third of the population; Assuit, a medium sized urban area which is complemented by large agricultural presence; and Arish, the capital of North Sinai. Within these locations, local NGO working groups chose individuals at community centres, youth clubs, schools and street cafes (a popular pastime in Egypt).

Sample distribution by age and gender

			8	9	10	11	12	13	14	15	16	17	18	Total
Egypt	**Total**	**n**	13	15	31	42	76	60	94	104	141	173	265	**1,014**
		%	1.3	1.5	3.1	4.1	7.5	5.9	9.3	10.3	13.9	17.1	26.1	**100**
	Boy	**n**	6	4	20	23	44	27	50	61	84	102	160	**581**
		%	1.0	0.7	3.4	4.0	7.6	4.6	8.6	10.5	14.5	17.6	27.5	**100**
	Girl	**n**	7	11	11	19	32	33	44	43	57	71	105	**433**
		%	1.6	2.5	2.5	4.4	7.4	7.6	10.2	9.9	13.2	16.4	24.2	**100**

Cities covered and sample size

City and zone	Sample	Population
Assuit South Central South Central	302	Assuit City: 0.5 million Assuit Governorate is 3.1 million
Cairo North Central	301	Cairo City: 6.9 million Greater metropolitan Cairo is 17 million
Alexandria North West	211	4.4 million
Arish North East	200	Greater [metropolitan] Cairo is 16 million



Paraguay

The survey was conducted with 500 pairs of children aged between 10 and 18 years and their parents who were living in Asuncion and the metropolitan area, Great Asuncion. The decision was based on a review of the demographic distribution of Paraguay and the income level of the country which showed most of the population is located in Asuncion and Gran Asuncion. It showed that around 1,245,000 children out of the 2,426,000 children aged under 18 who live in Paraguay live in these areas. Corresponding quotas — 300 pairs in Asuncion and 200 in Great Asuncion — were based on the data population information from the 2002 National Census and were set by age, gender and area of residence of the child, with samples chosen at random.

The survey was conducted face-to-face for approximately 15 minutes in children's homes or high traffic public places. A small percentage of cases were organised in schools where children completed the survey and later their parents filled in their survey. Significant representation of the country was obtained.

Sample distribution by age and gender

			10	11	12	13	14	15	16	17	18	Total
Paraguay	**Total**	**n**	64	49	60	52	64	52	50	56	53	**500**
		%	12.8	9.8	12.0	10.4	12.8	10.4	10.0	11.2	10.6	**100**
	Boy	**n**	32	30	29	30	32	25	25	33	19	**255**
		%	12.5	11.8	11.4	11.8	12.5	9.8	9.8	12.9	7.5	**100**
	Girl	**n**	32	19	31	22	32	27	25	23	34	**245**
		%	13.1	7.8	12.7	9.0	13.1	11.0	10.2	9.4	13.9	**100**

Samples and proportions per city

City	Zone	City type	Population (2002 census)	Population of children (10-18 year old, census 2002)	Sample
Asunción	Asu	Metro	510,910	90,355	300
Fernando de la Mora	GA	Metro	113,990	21,502	32
Lambaré	GA	Metro	119,830	22,557	33
Luque	GA	Metro	185,670	37,372	55
Mariano R. Alonso	GA	Metro	64,920	13,904	21
San Lorenzo	GA	Metro	203,150	39,525	59
Total			**1,198,470**	**225,215**	**500**

Chapter — 8

Appendix 2 Supplementary figures and tables

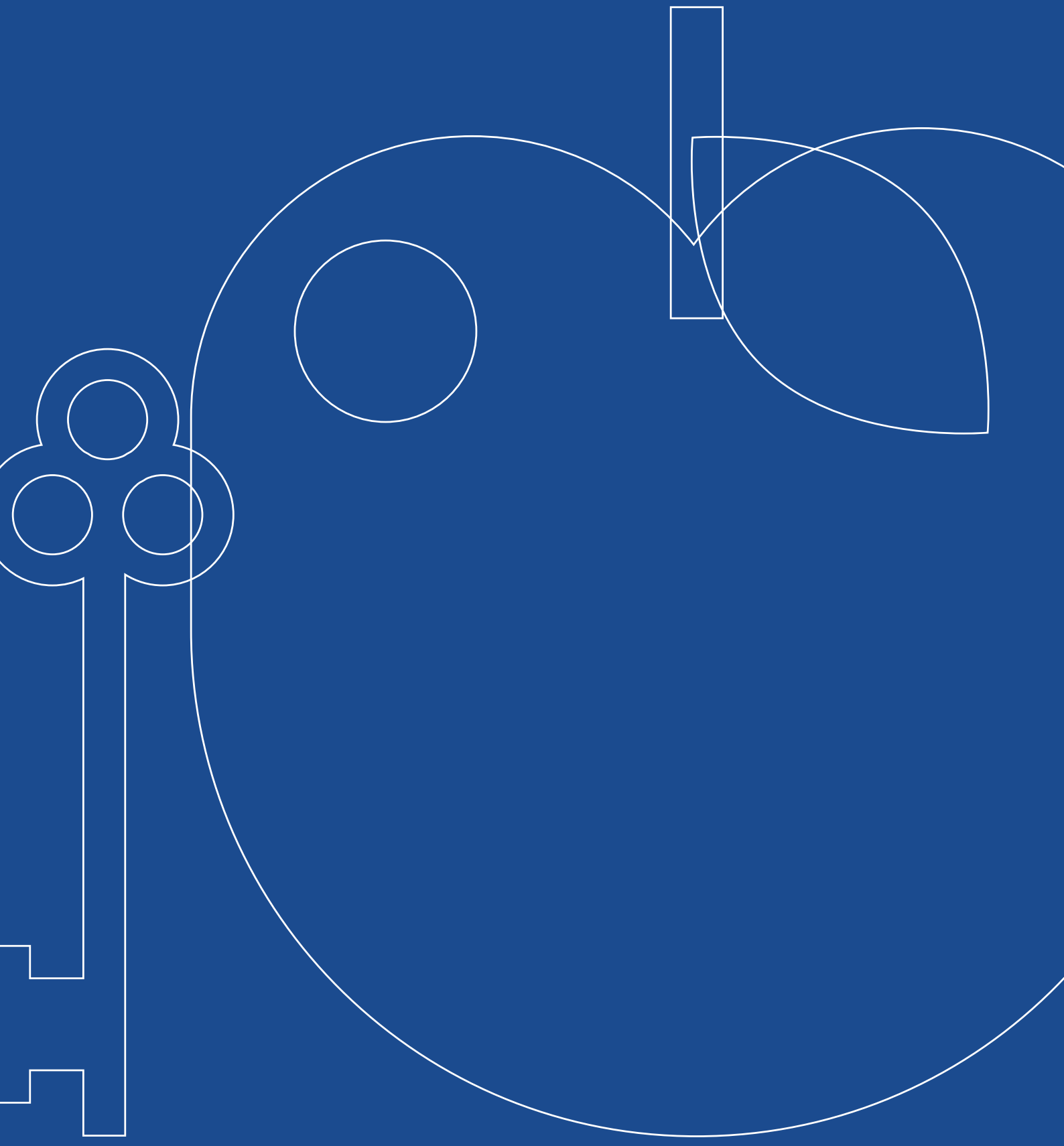
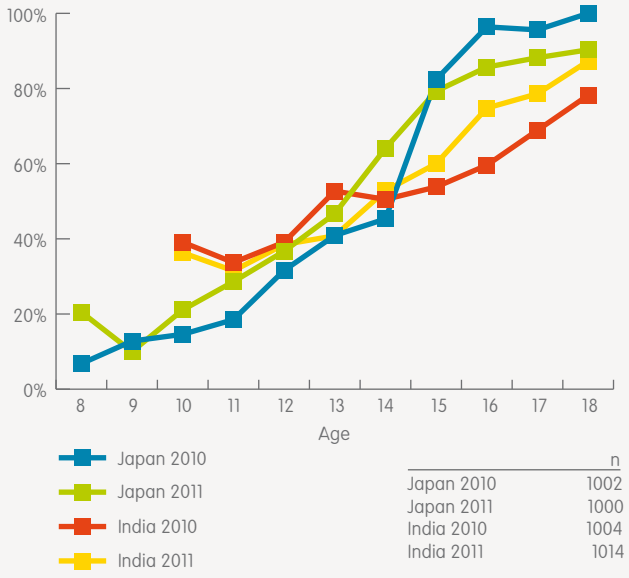
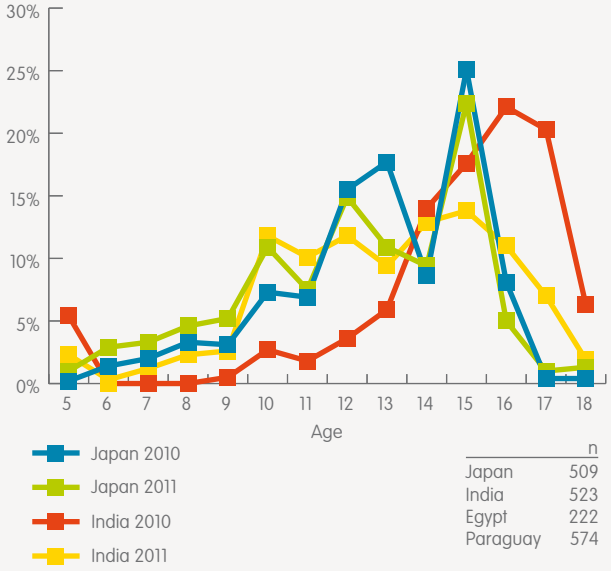


Figure A-1. Chapter 2.1. Changes in mobile phone ownership rates of Japan and India in 2010 and 2011



	n
Japan 2010	1002
Japan 2011	1000
India 2010	1004
India 2011	1014

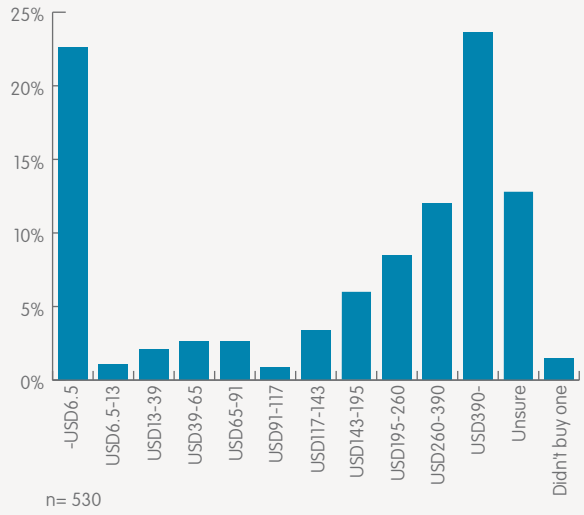
Figure A-2. Chapter 2.2. Percentage of ages when mobile phones are first owned regarding Japan and India in 2010 and 2011



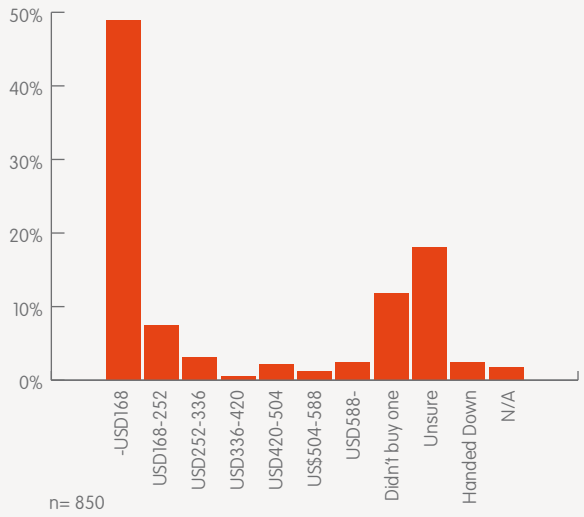
	n
Japan	509
India	523
Egypt	222
Paraguay	574

Figure A-3. Chapter 2.4. Handset cost

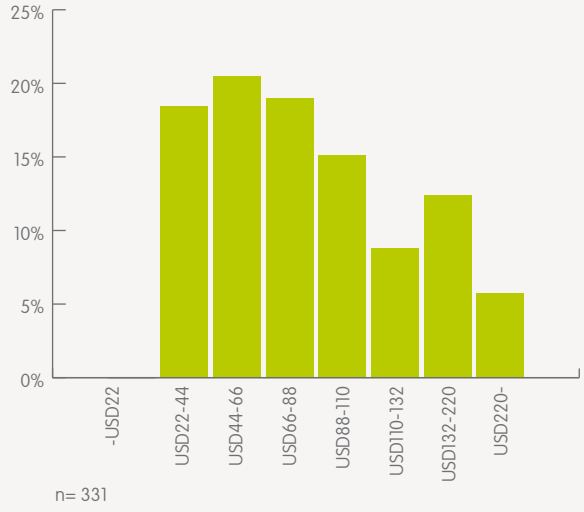
Japan



Egypt



India



Paraguay

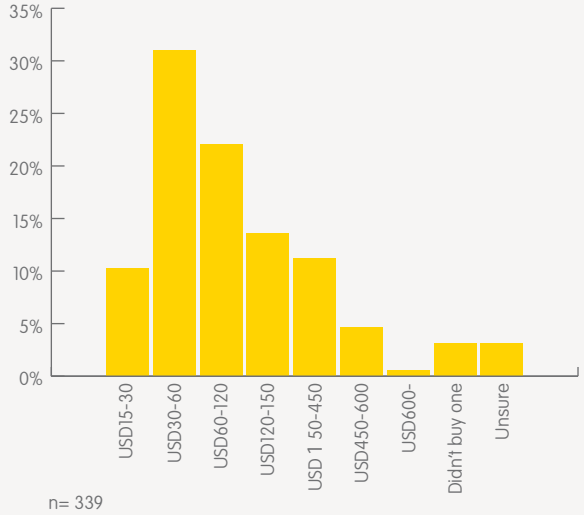
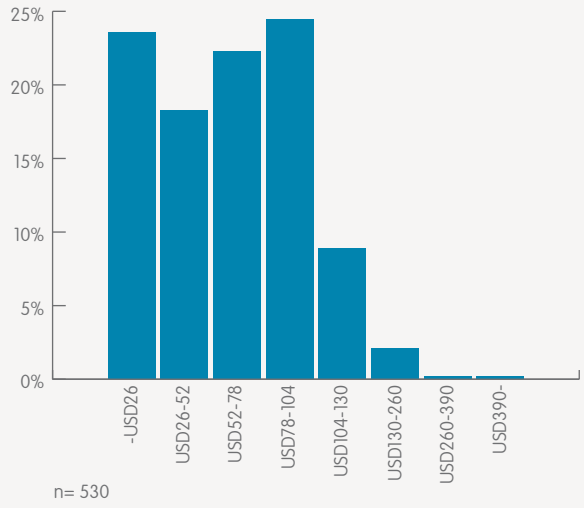
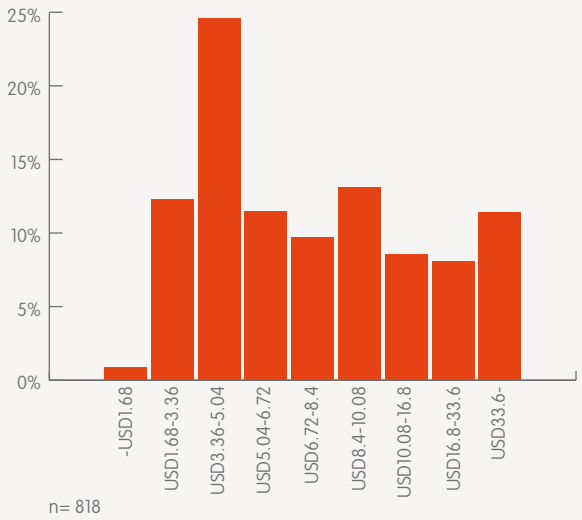


Figure A-4. Chapter 2.5. Monthly cost

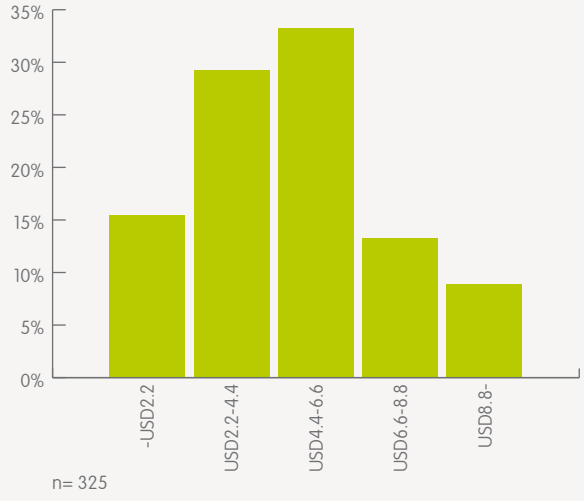
Japan



Egypt



India



Paraguay

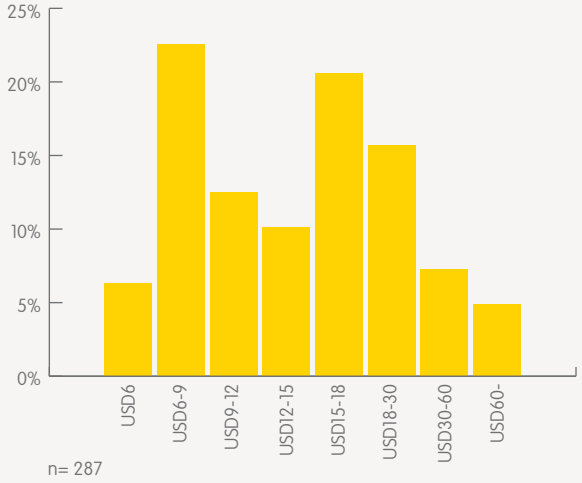
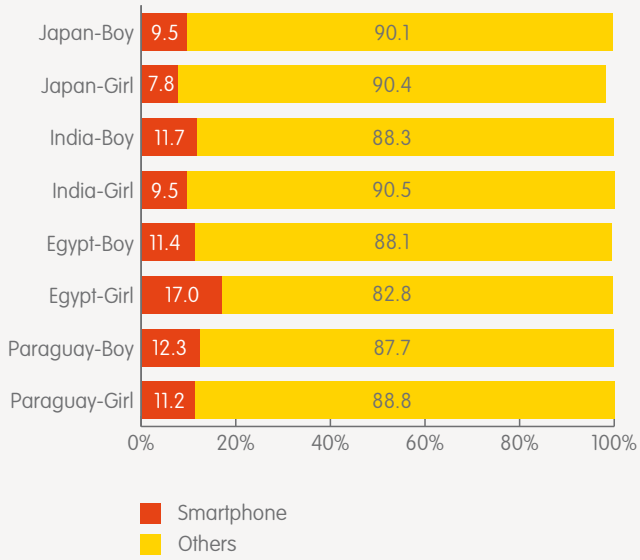


Figure A-5. Chapter 2.6. Percentage of smartphones users, by country and gender



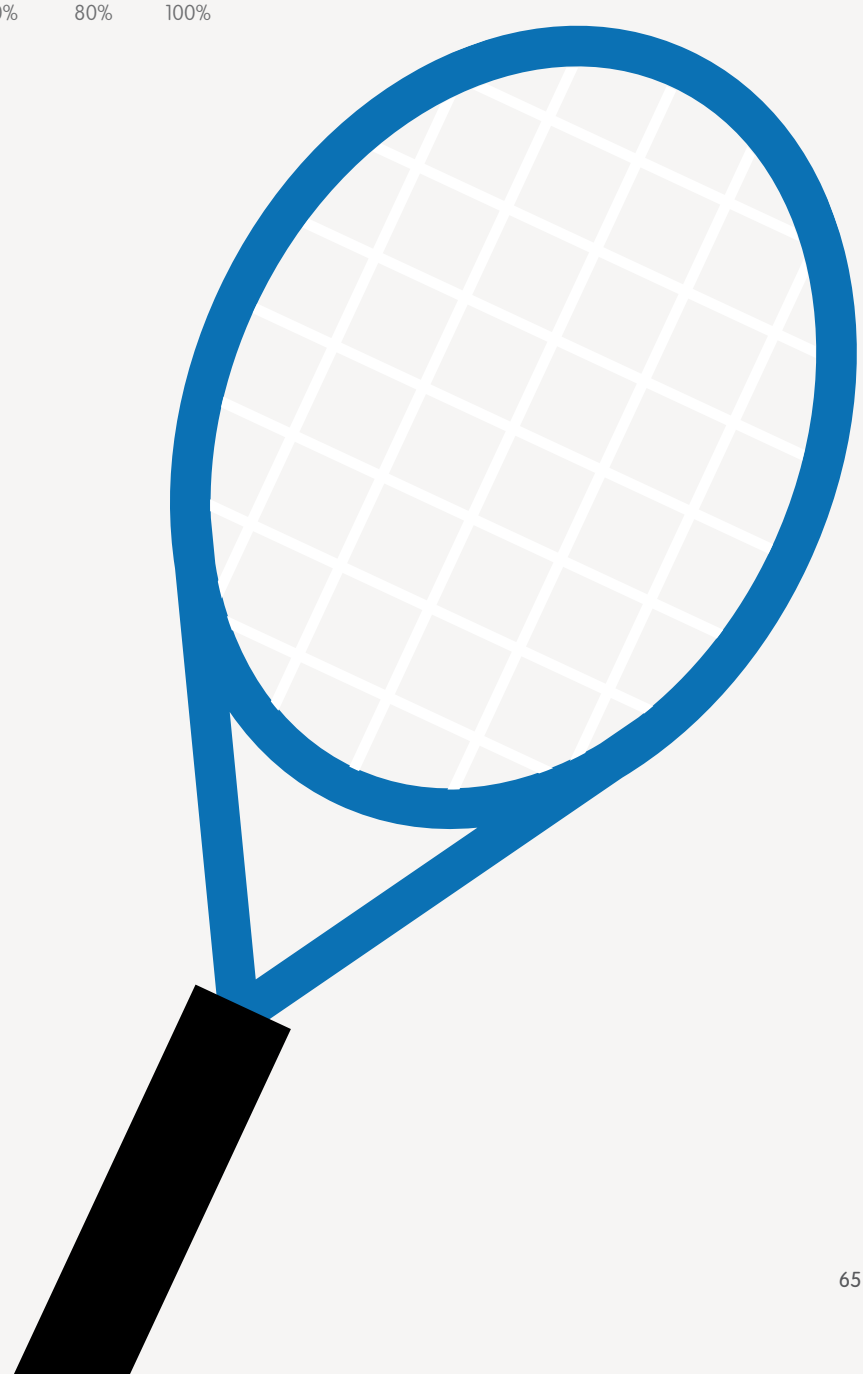


Figure A-6. Chapter 2.6. Percentage of smart phones users by income level

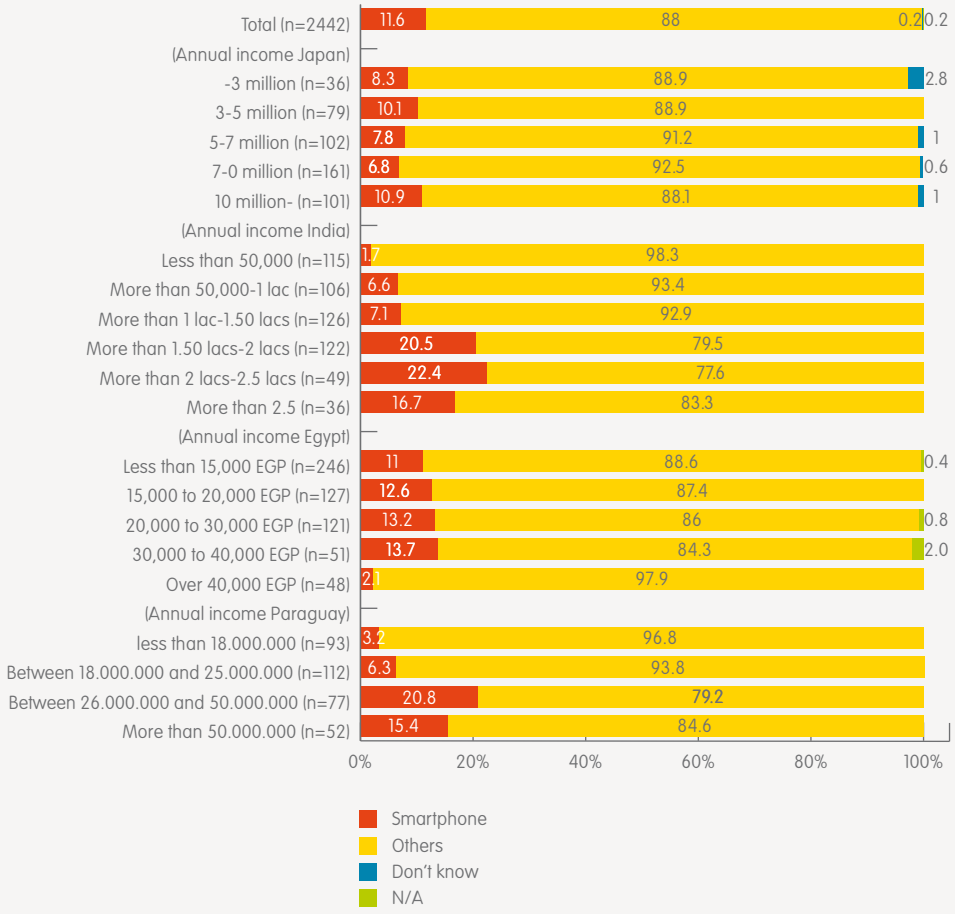
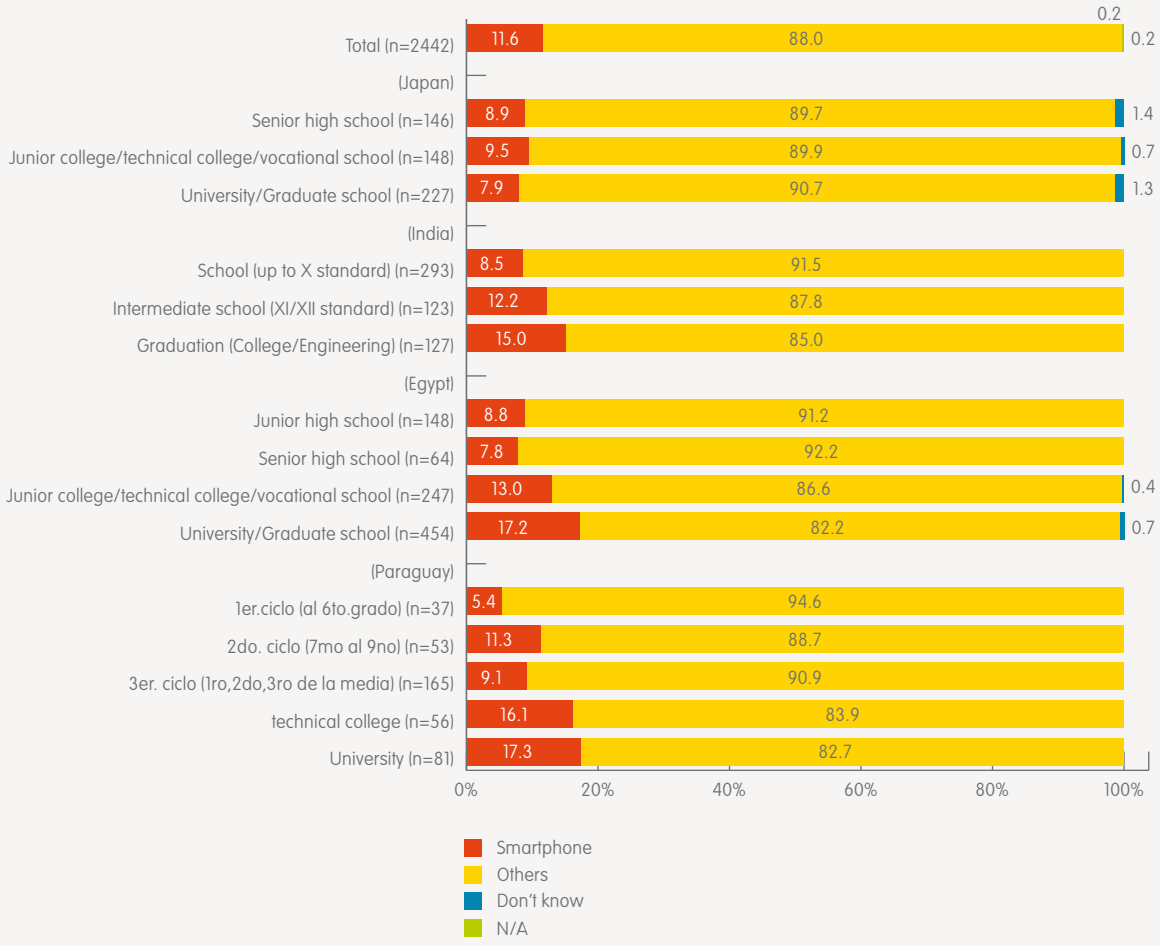


Figure A-7. Chapter 2.6. Percentage of smart phones users by education level



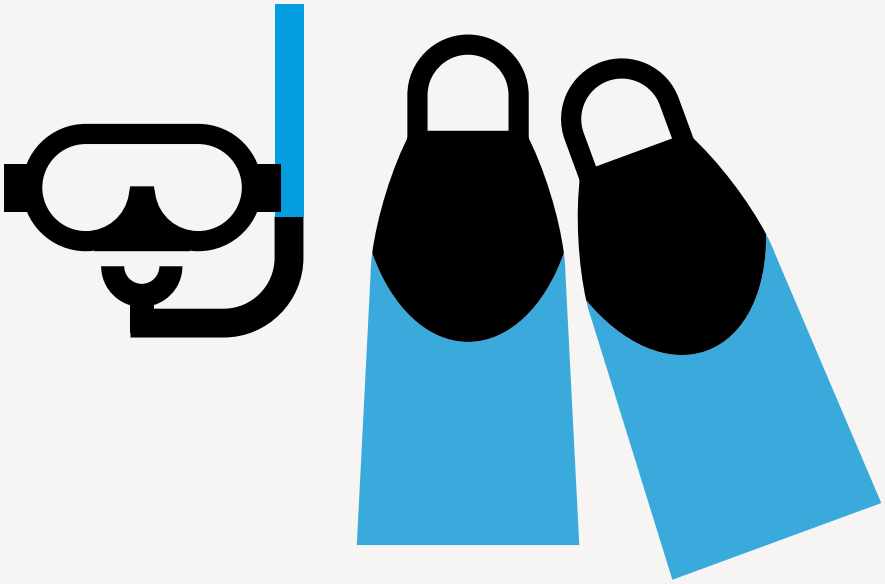


Figure A-8. Chapter 3.2. Number of calls made by parents per day, by country

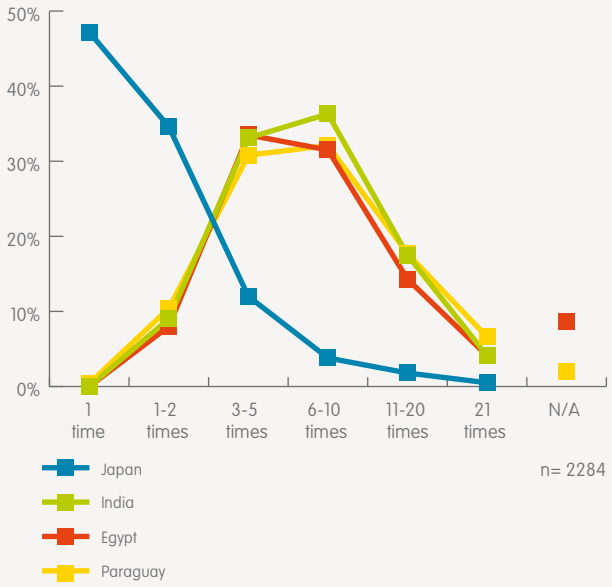


Figure A-9. Chapter 3.2. Number of messsages sent by parents per day, by country

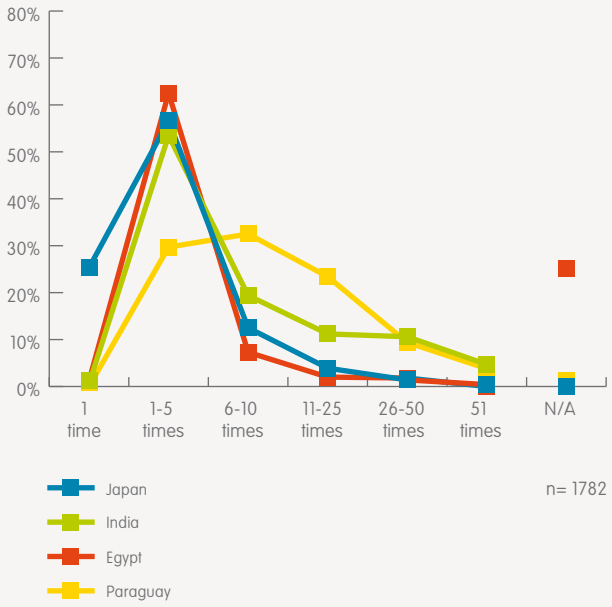


Table A-1. Chapter 3.3. Rate of use of touchscreen of mobile phone users, by country

Total	Japan	India	Egypt	Paraguay
9.4%	8.3%	5.3%	17.2%	5.2%

Figure A-10. Chapter 6.1. Motive for having a mobile phone, by country (Answers from parents, multiple answer)

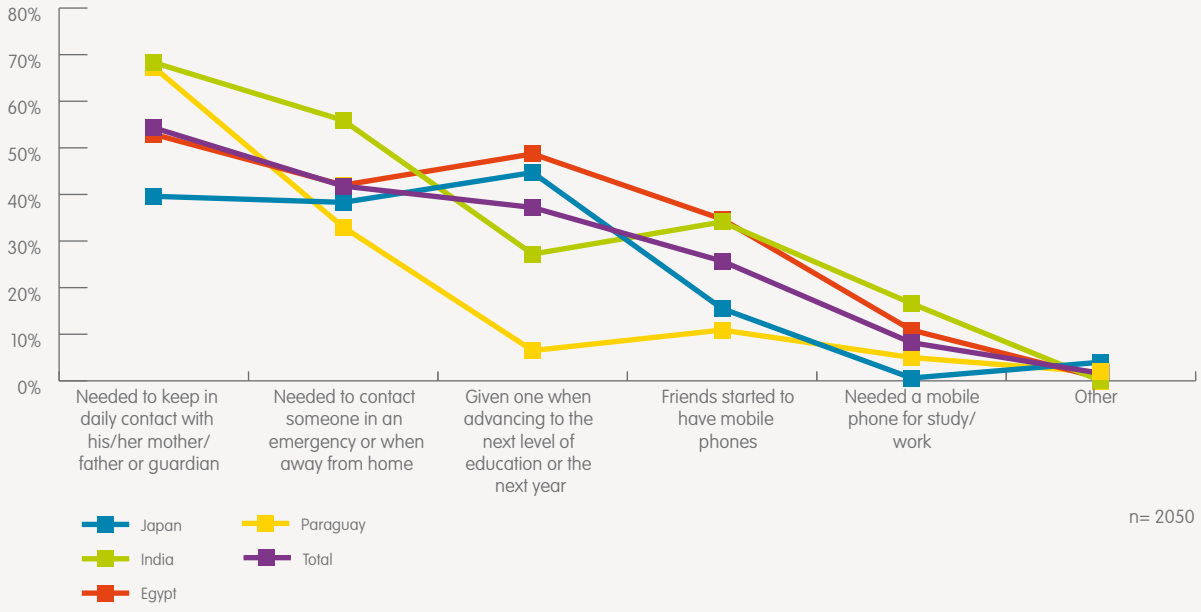


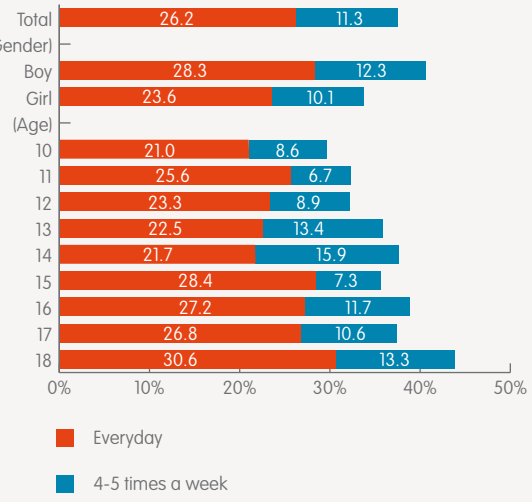
Table A-2. Chapter 6.1. Effects of having a mobile phone, by country (Answers from parents, multiple answer)

	Total	Japan	India	Egypt	Paraguay
I can now contact my child whenever I want	**64.0%**	66.2%	58.6%	65.1%	63.1%
I now have greater peace of mind because I can contact my child in case of emergency	**51.8%**	63.4%	53.2%	52.1%	31.3%
I have better communication with my child now	**35.5%**	8.9%	72.5%	44.7%	17.7%
My child has a larger circle of friends now	**16.0%**	19.4%	14.5%	19.9%	2.7%
Functions/services of the mobile phone have made our lives more convenient	**6.9%**	10.2%	10.9%	5.1%	2.7%

Table A-3. Chapter 6.1. Children's experience of use of mobile phones in an emergency, by country

	Total	Japan	India	Egypt	Paraguay
I have used my phone in an emergency, to report a crime or to seek medical help	**51.3%**	29.8%	61.7%	59.1%	45.7%

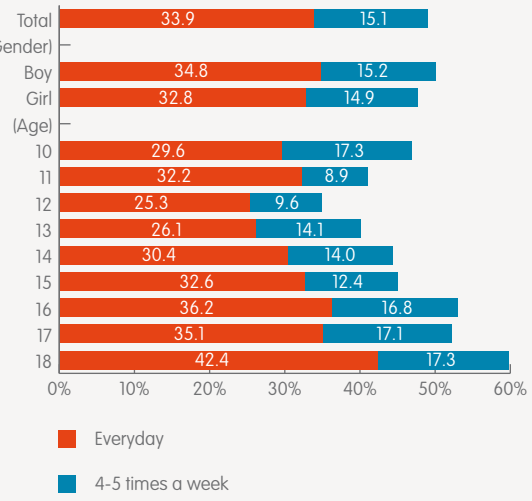
Figure A-11. Chapter 6.2. Call frequency with father, by gender and age (Answers from children)



	n
Boy	1083
Girl	905
Total	1988

	n
10	81
11	90
12	146
13	142
14	207
15	218
16	298
17	339
18	422

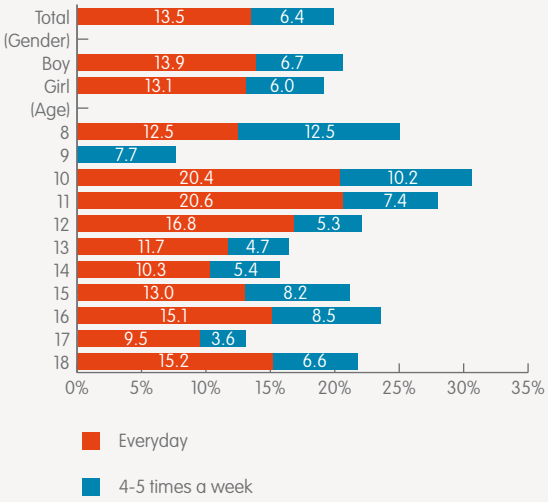
Figure A-12. Chapter 6.2. Call frequency with mother, by gender and age (Answers from children)



	n
Boy	1083
Girl	905
Total	1988

	n
10	81
11	90
12	146
13	142
14	207
15	218
16	298
17	339
18	422

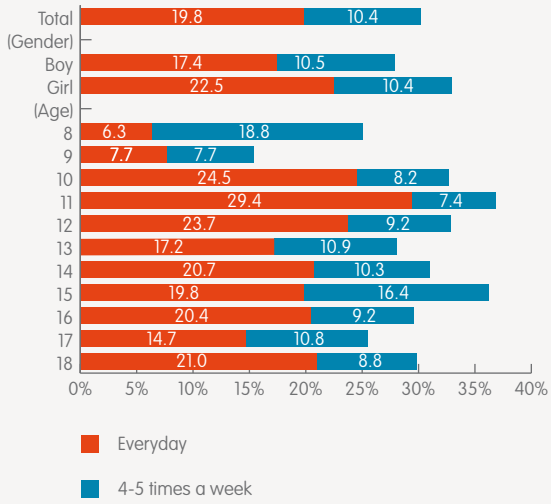
Figure A-13. Chapter 6.3. Messaging frequency with father, by gender and age (Answers from children)



	n
Boy	955
Girl	827
Total	1782

	n
8	16
9	13
10	49
11	68
12	131
13	128
14	184
15	207
16	284
17	306
18	396

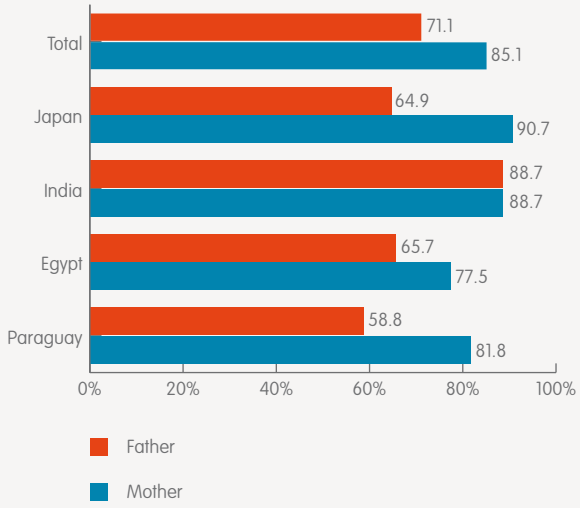
Figure A-14. Chapter 6.3. Messaging frequency with mother, by gender and age



	n
Boy	955
Girl	827
Total	1782

	n
8	16
9	13
10	49
11	68
12	131
13	128
14	184
15	207
16	284
17	306
18	396

Figure A-15. Chapter 6.4. Proportion of children who converse face-to-face with their parents "almost every day", by country



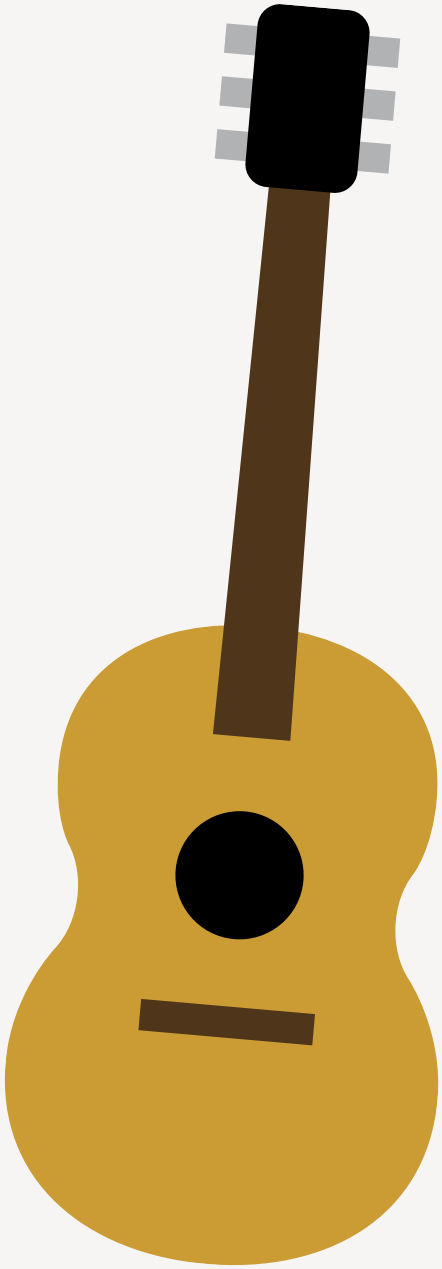


Table A-4. Chapter 6.4. Correlation coefficient between frequency of face-to-face conversation and frequency of mobile phone calls/messaging with father

		Frequency of call with father	Frequency of messages with father
Frequency of talk with father (face-to-face)	Pearson's correlation coefficient	0.117*	0.105*
	Significance probability	0.000	0.000
	n	1988	1782

*Significant at the 1% level

Table A-5. Chapter 6.4. Correlation coefficient between frequency of face-to-face conversation and frequency of mobile phone calls/messaging with mother

		Frequency of call with mother	Frequency of messages with mother
Frequency of talk with mother (face-to-face)	Pearson's correlation coefficient	0.100*	0.104*
	Significance probability	0.000	0.000
	N	1988	1782

*Significant at the 1% level

Table A-6. Chapter 7.1. Ratio of parents "worried" or "somewhat worried" about children's mobile phone usage, by gender and age

		n	Disclosing his/her own personal information	Negative impact on health due to electromagnetic waves	Having trouble with friends due to messages eg; falling out or bullying	Not being able to keep track of the child's associates	Exchanging inappropriate images (sexually explicit photos)	Viewing inappropriate sites	Cost of the bills	Overuse	N/A
Total		**3359**	**73.6%**	**63.6%**	**68.8%**	**69.6%**	**72.3%**	**72.0%**	**76.4%**	**79.2%**	**6.1%**
Gender	**Boy**	1864	74.1%	63.3%	67.0%	69.4 %	73.7%	72.5%	76.8%	79.3%	6.1%
	Girl	1495	73.0%	63.9%	71.2%	69.8 %	70.6%	71.4%	75.9%	79.0%	6.1%
Age	**8**	100	78.0%	60.0%	80.0%	74.0 %	68.0%	75.0%	86.0%	81.0%	7.0%
	9	105	76.2%	49.5%	78.1%	70.5 %	72.4%	78.1%	81.9%	80.0%	7.6%
	10	265	77.0%	59.6%	70.2%	72.1 %	72.8%	72.8%	78.5%	77.0%	7.2%
	11	278	77.3%	64.4%	71.6%	73.7 %	74.8%	73.0%	77.3%	79.9%	7.6%
	12	322	72.4%	64.0%	70.8%	74.5 %	73.9%	73.3%	78.0%	79.8%	6.2%
	13	284	69.0%	56.7%	68.3%	70.8 %	66.9%	70.4%	77.1%	82.0%	5.6%
	14	348	76.1%	65.2%	68.4%	67.0 %	74.4%	73.9%	74.7%	80.5%	5.5%
	15	345	70.7%	63.2%	63.5%	63.8%	67.2%	66.7%	77.1%	77.7%	6.1%
	16	378	69.0%	61.6%	64.6%	63.8%	69.8%	70.6%	74.1%	74.6%	8.7%
	17	430	76.0%	67.2%	71.6%	71.6%	76.7%	74.7%	74.2%	81.4%	4.4%
	18	504	73.2%	70.0%	66.3%	69.4%	73.4%	70.2%	74.6%	79.2%	4.4%

5 points or more higher than total
10 points or more lower than total
5 points or more lower than total
10 points or more higher than total

Figure A-16. Chapter 7.4. Ratio of family setting rules of mobile phone use by children, by country

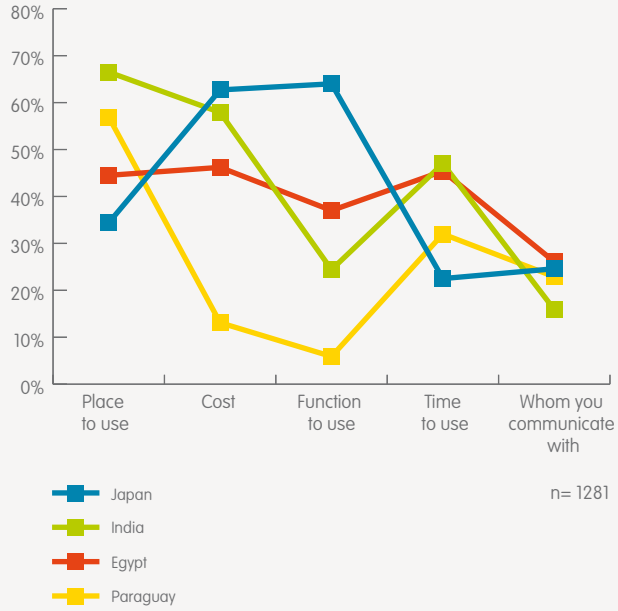


Figure A-17. Chapter 7.4. Ratio of family setting rules of mobile phone use by children, by country (from the survey in 2009)

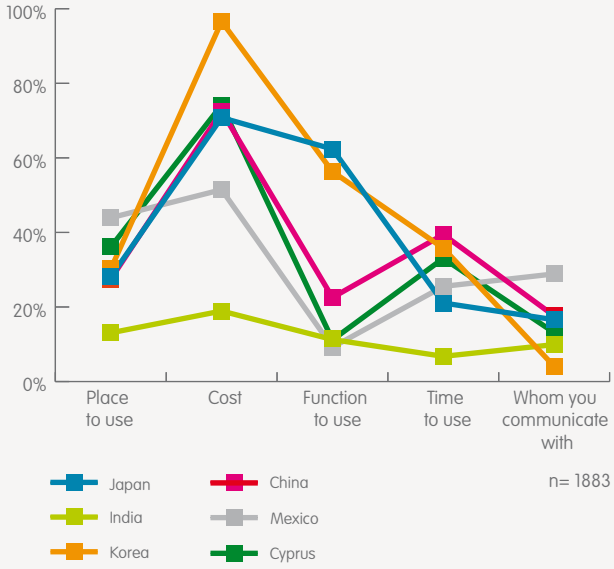


Table A-7. Chapter 7.4. Correlation between ratio of family with rules and level of parents' concern

		Disclosing his/her own personal information	Having trouble with friends due to the contents of email messages or postings on a message board eg; falling out or bullying	Not being able to keep track of the child's associates	Exchanging inappropriate images (sexually explicit photos)	Viewing in appropriate sites such as dating or sexually explicit sites	Cost of the bills	Overuse
Rules on mobile phone use by children (with or without)	Pearson's correlation coefficient	0.14**	0.22**	0.08**	0.121**	0.264**	0.174**	0.097**
	Significance probability (two-sided)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	n	2050	2050	2050	2050	2050	2050	2050

**Significant at the 1% level

The GSMA represents the interests of the worldwide mobile communications industry. Spanning 219 countries, the GSMA unites nearly 800 of the world's mobile operators, as well as more than 200 companies in the broader mobile ecosystem, including handset makers, software companies, equipment providers, Internet companies, and media and entertainment organisations. The GSMA is focused on innovating, incubating and creating new opportunities for its membership, all with the end goal of driving the growth of the mobile communications industry. For more information, please visit **www.gsmworld.com**

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