Children's use of mobile phones

An international comparison 2012

GSMA

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Contents

Introduction

**Children's use of mobile phones –
An international comparison 2012**
provides a detailed picture of children's mobile phone behaviour across five different countries – Japan, India, Indonesia, Egypt and Chile. Now in its fourth year, the 2012 study surveyed 4,500 pairs of children and their parents/guardians. It builds on work previously conducted in India, Japan and Egypt, and features Indonesia and Chile for the first time.

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The 2012 research has been funded by mobile operators in each country with a contribution from the GSMA and the continued support of the Mobile Society Research Institute. The report data was obtained through a series of surveys conducted in each country during July and August 2012. Unless otherwise specified, all data contained in the report is based on these surveys.

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
- How they feel about their mobile phone
- Parents' concerns over their children's use of mobile phones

Additionally, topics for the 2012 survey included:

Social networking and privacy: How many children use social networking services (SNS) on mobile phones; how many contacts do they have; are children and parents aware of what information they are making public via their mobile phones?

Internet access via mobile and content: Are children accessing the internet via mobile; how many are doing it; how long do they spend using it, and what content are they looking for?

Mobile app use: Are apps being accessed by children and how does that compare with their parents' use; what types of apps are being used, and which are the most popular?

The impact on confidence and relationships: Do mobile phones affect children's confidence; do they feel more secure with a mobile phone; how does a mobile phone impact on their external relationships, and what tools do they think are best for strengthening relationships?

1.2 – Sampling methodologies

The surveys were undertaken by researchers in each of the countries. Children and parents were presented with different questionnaires that followed the same themes, allowing for direct comparisons to be drawn on key areas. A summary of the surveys in each country is shown in Table 1-2-1.

Table 1-2-1: Survey summaries

Country	Month surveyed	Number of respondents	Children's age range (years)	Survey mode
Total	**July-August 2012**	**4,574 pairs** **Boy 2,410. Girl 2,164**	**8–18**	–
Japan	August 2012	1,000 pairs Boy 513. Girl 487	8–18	Web
India	July–August 2012	1,008 pairs Boy 607. Girl 401	10–18	Personal in-home
Indonesia	July 2012	1,003 pairs Boy 447. Girl 556	8–18	Personal in-home
Egypt	July–August 2012	1,059 pairs Boy 588. Girl 471	8–18	Personal in-home and drop-off
Chile	July–August 2012	504 pairs Boy 255. Girl 249	8–18	Personal in-home and telephone

1.2.1 – Sampling – Japan

The survey was conducted online using internet monitors from the research firm MyVoice Communications, Inc. The respondents were Japanese residents who have children aged between eight and 18 years old. The sampling of age and sex is consistent with the demographics of the Japanese population as the calculations were based on the population estimates from the Ministry of Internal Affairs and Communications (as of 1 October 2010). Participation requests were emailed to 1,708 guardian-child pairs selected from the internet monitors and valid responses were obtained from 1,000 of those pairs. The internet monitors were maintained for quality by the research company, allowing a representative sample of Japanese children.

Table 1-2-2: Sample distribution by age and population

Age	Total	8	9	10	11	12	13	14	15	16	17	18
Population (in '000)	100%	8.8%	8.9%	9.0%	9.0%	9.1%	9.0%	9.0%	9.3%	9.4%	9.2%	9.3%
	13,128	1,150	1,166	1,178	1,179	1,198	1,193	1,185	1,222	1,229	1,205	1,223
Sample	100%	8.8%	8.9%	9.0%	9.0%	9.1%	9.1%	9.0%	9.3%	9.4%	9.2%	9.3%
	1,000	88	89	90	90	92	90	90	93	93	92	93

1.2.2 – Sampling – India

The survey was conducted through face-to-face interviews with 1,008 pairs of children, aged between 10 to 18 years, and their guardians.

Ten cities were selected and each area was divided into four zones to provide an accurate representation. Random sampling was applied in each zone.

Interviewers read the questions to each participant and cards with options printed on them were used when necessary.

Table 1-2-3: Sample distribution by age

Age	Total	10	11	12	13	14	15	16	17	18
%	100	10.2	10.9	10.7	11.1	11.4	10.8	11.5	11.6	11.7
n	1,008	103	110	108	112	115	109	116	117	118

Table 1-2-4: Sample distribution by age

Area	Total		Delhi	Mumbai	Kolkata	Channai	Bangalor	Hyderabad	Ahmedabad	Pune	Surat	Jaipur
Age	1,008	100%	205	200	103	100	100	101	47	54	47	51
10	103	10.2%	21	23	13	11	11	11	2	6	1	4
11	110	10.9%	21	25	11	10	11	10	5	6	5	6
12	108	10.7%	24	19	11	9	11	13	5	5	5	6
13	112	11.1%	21	23	11	13	11	11	7	5	5	5
14	115	11.4%	224	22	11	11	11	11	5	7	6	7
15	109	10.8%	25	18	12	11	11	11	5	6	5	5
16	116	11.5%	21	26	10	11	11	11	6	6	8	6
17	117	11.6%	24	22	11	11	11	11	7	6	8	6
18	118	11.7%	24	22	13	13	12	12	5	7	4	6

1.2.3 – Sampling – Indonesia

The survey was conducted in five different regions through face-to-face interviews with 1,003 pairs of children, aged between 8 and 18 years, and their guardians.

Primarily three areas in Java Island (Greater Jakarta, Surabaya and Bandung), one area in Sumatera and one area in Sulawesi were chosen as they offered the best population dispersion. Multistage random sampling was then applied at a subdistrict level with house to house interviews being carried out at four house intervals. Overall, the questionnaire was dispersed among 82 subdistricts across all areas.

Table 1-2-5: Sample distribution by age

Age	Total	8	9	10	11	12	13	14	15	16	17	18
%	100	2.5	1.2	15.0	12.0	14.8	12.9	9.7	7.3	9.0	9.8	6.1
n	1,003	25	12	150	120	148	129	97	73	90	98	61

Table 1-2-6: Sample and proportion in each area

Area	Population of children (5–19 year old in 2010)	Sample (n)	Sample (%)
Greater Jakarta	3,945,505	642	64
Surabava	651,895	101	10
Bandung	612,835	101	10
Medan	598,799	101	10
Makassar	388,575	58	6
Total	**10,050,000**	**1,003**	**100**

1.2.4 – Sampling – Chile

The survey was conducted through face-to-face and telephones interviews with 1,003 pairs of children and guardians. The children surveyed were aged between eight and 18 years.

The survey was undertaken in Santiago and locations were chosen according to the socioeconomic status. The sampling was conducted using systematic intervals to provide greater diversity to the sample.

Table 1-2-7: Sample distribution by age

Age	Total	8	9	10	11	12	13	14	15	16	17	18
%	100	13.3	10.3	9.7	11.1	10.1	6.2	6.0	11.5	6.3	6.2	9.3
n	504	67	52	49	56	51	31	30	58	32	31	47

1.2.5 – Sampling – Egypt

The survey was conducted through face-to-face interviews with 1,030 pairs of children and guardians living across 12 geographic locations. The amount of valid responses collected was 1,050 pairs representing an 81 per cent success rate. Children between the ages of eight and 18 were surveyed. Each individual was chosen randomly and provided with a 15-minute briefing about the survey's purpose and were then left to answer the questions.

The field survey was conducted by four partner NGOs which had experience in the selected locations that covered Suez Canal, Cairo, Alexandria, Upper Egypt and North Delta regions.

Twelve different regions were selected to represent the Egyptian community as closely as possible, both geographically and demographically. Two of the chosen locations were major metropolitan areas and the remainder were medium-size urban areas.

Table 1-2-8: Sample distribution by age

Age	Total	8	9	10	11	12	13	14	15	16	17	18
%	100	2.5	3.0	3.5	5.0	8.1	8.5	12.2	12.4	16.6	13.8	14.4
n	1,059	27	32	37	53	86	90	129	131	176	146	152

Table 1-2-9: Sample and Proportion in Each Area

Region: Governate and City	Population (As of Nov 2011)	Sample (n)	Sample (%)
Alexandria – Alexandria	4,110,015	110	10.5
Assuit – Assuit City	3,441,597	92	8.8
Beheira – Rashid, Damanhur	4,737,129	127	12.1
Cairo – Metropolis	7,786,640	209	19.9
Giza – Giza City	5,724,545	154	14.6
Ismailia – Ismailia City	942,832	25	2.4
Port Said – Port Said City	570,768	15	1.5
Kalioubia – Banha, Shoubra K	4,237,003	114	10.8
Qena – Qena City	3,001,494	81	7.7
Red Sea – Hurghada	288,233	8	0.7
Sohag – Sohag City	3,746,377	101	9.6
Suez – Suez City	512,135	14	1.3
Total	**39,098,768**	**1.050**	**100**

Summary of key findings

Chapter outline

Chapter 3 – Children and mobile phones – an overview
This chapter discusses the differences across the five countries surveyed and how they relate to mobile phone ownership rates, age of first acquisition, type of handset owned, purchase price and usage charges.

Chapter 4 – Children's use of mobile phones
This chapter looks at calling, messaging and the use of other features such as cameras and music and video players. It also examines children's mobile internet behaviour.

Chapter 5 – Apps, social networking and other services
This chapter looks at the types of mobile content children access and the apps and social networking services they use.

Chapter 6 – Parental concerns and digital literacy
This chapter examines why parents give children mobile phones, what their concerns are and how they respond to those concerns. It also looks at children's digital literacy, comparing the people whom parents think should be providing digital guidance versus the people children actually ask.

Chapter 7 – Mobile technology and children's wellbeing
This chapter presents the results from the 2012 research along with key findings from a range of other external studies.

2.1 – Key findings by chapter

Chapter 3
Children and mobile phones – an overview

- 65% of all children surveyed currently use a mobile phone; of those, 81% have a new handset.

- 12 is the most common age for children to get their first mobile phone.

- 27% of child mobile phone owners have a smartphone. Children's smartphone ownership in India and Indonesia is double that of their parents.

- Children whose parents own smartphones or feature-phones are more likely to have one also.

- Tablet use is relatively low with only 18% penetration in Egypt and Chile, 7% in Indonesia and between 5–7% in Japan and India.

Chapter 4
Children's use of mobile phones

- Initially, children use their mobile phone predominantly for calling; however, as they get older, messaging becomes the preferred choice of communication.

- Nearly 24% and 20% of children in Indonesia and India respectively, send over 51 messages a day.

- 54% of all child mobile phone users access the mobile internet; this increases to over 87% when looking exclusively at smartphone users.

- 70% of all children who use the internet through their phone access it at least once a day.

- 11% of child mobile phone users surveyed list their handset as their primary device for accessing the internet; this increases to almost 32% among smartphone users.

- Cameras are the most used pre-installed function on mobiles (75%) followed by music players (60%) and movie players (50%).

Chapter 5
Apps, social networking and other services

- Of those children who access the internet via their mobile phone, 57% download or use apps; this is highest in Chile (78%) and lowest in Egypt (44%).

- Across all countries, entertainment apps are the most popular among children.

- Entertainment is the only category of apps that children use more than their parents across all countries.

- Information apps have the greatest increase in use as children get older, starting at 18% use for 8-year-olds and rising to 36% at age 18. Although entertainment apps are the most popular, they are the only app category to decline from 90% use at age 10 to 77% at age 18.

- 49% of children who access the internet via a mobile phone use it for social networking. 45% of these have have their profiles set to public; this is as high as 55% among 13-year olds.

- 70% of children have met or started to communicate with `new friends' online.

Chapter 6
Parental concerns and digital literacy

- Over 70% of parents have concerns about children's mobile phone use, with viewing inappropriate sites and overuse sharing the highest percentage at around 82%.

- Parents whose children use social networking sites are no more concerned about privacy than those whose children don't.

- 65% of all parents surveyed set rules on their children's mobile phone use, but there was no common response to rule-breaking across all countries.

- Over 54% of parents who have access to parental control solutions use them; content filters are the most popular control method at 57%.

- Almost 67% of parents believe that an adult in the family should educate their children about mobile phone use; this is a consistent preference across all countries.

Chapter 7
Mobile technology and children's wellbeing

- Nearly 80% of children surveyed say that having a mobile phone increases their confidence; this is particularly prevalent among children aged 10–13 (above 80%).

- 63% of all children surveyed feel insecure without their mobile phones; this rises significantly in children aged 16–18 (66-71%).

- Despite the popularity of mobile phones, children still talk face-to-face with their parents more than they call or message them.

- 90% of children who use social networking services on their mobile phone agree that these services reinforce relationships with close friends.

2.2 – Key findings by country

Japan

Mobile phone ownership rate

- 57% of children own a mobile phone with first ownership peaking at age 15.
- 27% of all children with a mobile phone own a smartphone.

Use of mobile phones

- 87% of children use their mobile phones for both calling and messaging, however Japan has the lowest call frequency of all countries surveyed with 45% of children making less than one call a day.

Mobile internet

- 51% of all children who use a mobile use it to access the internet this increases to 95% when looking at smartphone users.
- 62% of smartphone users list their mobile handset as their primary device for accessing the internet.

Mobile apps use

- 62% of all children with mobile phones use apps. This increases to 86% when looking at smartphone users.
- Entertainment apps are the most popular at 82%, followed by information apps at 38%.

Social networking on mobile phones and privacy

- 44% of children who access the internet via mobile phones use social networking services on their handsets.
- 25% of children who use social networking services have a profile set as open to public; while 43% list their profile as private.

Parental concerns and mobile safety

- Parents' concerns about their children viewing inappropriate sites such as dating or sexually explicit content are relatively low compared to the other countries.
- 77% of Japanese parents surveyed set rules on mobile use, this is higher than any other country surveyed.

India

Mobile phone ownership rate

- Although only 35% of children exclusively own a mobile phone this increases to 83% when taking shared ownership into account. Just 16% of child mobile phone users have smartphones.

Use of mobile phones

- 22% of children and 80% of parents use the calling function only; call frequency is particularly high among children with 64% making six or more calls a day.
- The use of messaging is popular with 55% of children sending 11 or more messages and nearly 25% of children sending over 50.

Mobile internet

- 44% of child mobile phone users access the internet via mobile phones.

Mobile apps use

- 74% of children with access to handsets use apps; this is higher than thier parents usage at 65%.
- Entertainment apps are used most at 91%, followed by education and learning apps at 60%.

Social networking on mobile phones and privacy

- 36% of all children who access the internet via their mobile use social networking sites.
- 30% of children who use social networks have their profile set as open to the public while 35% have set their profile as private.

Parental concerns and mobile safety

- Concerns about children's privacy is lowest among the five countries, 53% of parents are "very concerned" or "somewhat concerned" about their children's privacy on mobile phones.
- 55% of Indian families do not set rules on mobile phone use.
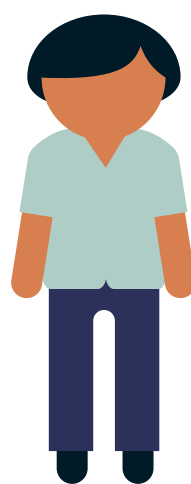
Indonesia

Mobile phone ownership rate

- 67% of children own a mobile phone.
- Only 12% of child mobile phones users have smartphones.

Use of mobile phones

- 85% of children use their mobile phones for both calling and messaging.
- Messaging is a popular form of communication with 56% of children sending eleven or more messages, and 20% of children sending 50+ messages a day.

Mobile internet

- Children's internet access via mobile phones is 60%, the highest of the five countries surveyed.

Mobile apps use

- 53% of children use apps, which increases to 89% when looking at smartphone users.
- Entertainment app use is most popular among children who use or download apps at 85%, followed by communication apps at 46%.

Social networking services and privacy

- Indonesian children who access the internet via mobile have the highest use of social networking services of the five countries at 63%.
- 65% of children who use social networks have their profile set as open to the public while 17% have set their profile as private.

Parental concerns and mobile safety

- 67% of parents set rules on their child's mobile phone use.

Egypt

Mobile phone ownership rate

- 91% of children own a mobile phone. This is as high as 60% for nine year olds.
- 16% of child mobile users have smartphones.

Use of mobile phones

- Call frequency is high, with 54% of children making six or more calls a day

Mobile internet

- 54% of all children who use a mobile use it to access the internet; this increases to 94% when looking at child smartphone users.

Mobile apps use

- 44% of children with mobile phones use apps, which increases to 62% when looking only at child smartphone users.
- Entertainment app use is most popular at 66% among children who use or download apps.

Social networking services and privacy

- 47% of children who access the internet via their mobile phone use them for social networking.
- 45% of children's profiles are open to the public, while only 16% are set as private.

Parental concerns and mobile safety

- 65% of Egyptian parents set rules for their children's mobile phone use.
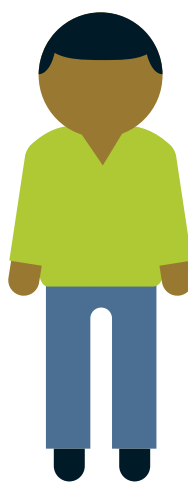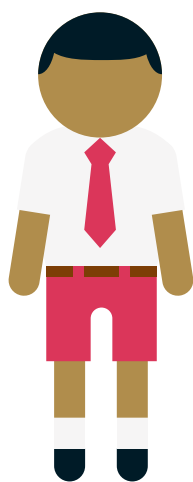
Chile

Mobile phone ownership rate

- 79% of children own a mobile phone with the age of first ownership peaking at age 10.
- 42% of child mobile phone users have a smartphone.

Use of mobile phones

- 61% of children who use a mobile phone use it for both calling and messaging, the lowest of the five countries surveyed.

Mobile internet

- 54% of all children who use a mobile use it to access the internet.

Mobile apps use

- 78% of children with access to handsets use apps; this is higher than thier parents usage at 71% .
- Entertainment app use is most popular among children who use or download apps at 94%, followed by communication apps at 37%.

Social networking services and privacy

- 49% of children use social networking services via their mobile phones.
- 26% of children's profiles are set as open to the public while 48% are set as private.

Parental concerns and mobile safety

- Parents' concern about children's privacy is high, with 91% of parents being "very concerned" or "concerned".
- 64% of parents have introduced rules on their children's mobile phone use.

Guest Commentary:
Putting the Research Into Perspective

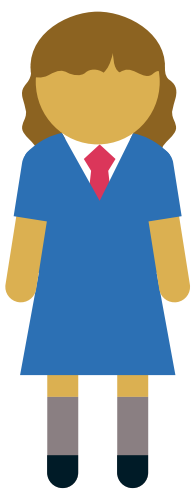**Sonia Livingstone, Professor at the London School of Economics and Director of the EU Kids Online Network,** *is a recognised authority around the world on internet use by children. Her research examines media audiences; children, young people and the internet in social, domestic and educational contexts; media and digital literacies; the mediated public sphere; internet use and policy; and the public understanding of communications regulation.*

Each decade brings a new and potentially transformative technology into the lives of ordinary people. We've seen television in the 1960s, VCRs in the 1970s, computers in the 1980s, games machines in the 1990s, internet in the 2000s and mobile phones in the 2010s. Each technology occasions a strikingly similar set of hopes and fears about the benefits and harms they may bring with them. This is partly because we repeatedly project onto the latest technology our hopes and fears for our children (we hope they will be active, confident, safe, and fully engaged in their community) and partly because technologies are precisely designed and marketed as solutions to existing problems and needs.

This report not only tells us about mobile phones but also about childhood in five very different countries. It is clear that children strongly wish to communicate by any and all means available – most recently via social networking and texting – as indeed is their right, explicitly stated in the UN Convention on the Rights of the Child. The extraordinarily rapid diffusion of mobile phones (and social networking sites) suggests that, until now, this need has been substantially unmet. Are children today less isolated, lonely, bored or unheard because they have mobile phones? Or, instead, are mobiles needed today precisely to counter the deeper forces that are divorcing children from traditional social contexts and so creating new forms of isolation?

The mobile phone is not, I suggest, fundamentally altering the nature of communication, or privacy, or relationships. As the report makes clear, there is little evidence that face-to-face communication is being displaced. Children still prefer to talk to family and friends in person, regardless of the different communication channels available to them. But what is changing are children's expectations of their own autonomy, especially in relation to their parents. This is also becoming visible with children at younger ages. The dominant narrative of childhood, from infancy to adulthood, is that of the tension between dependence and independence, of being socialised into the traditions of the parent generation versus taking steps into a fast-changing and unpredictable world that demands new skills and practices from the younger generation. And the specific affordances of mobile phones match children's preferred mode of communication – essentially, under conditions of their own choosing; privately, in times and places under their Control, and with intimate or multiple contacts of their own making. Presumably it is this that lies behind children's judgements of confidence and insecurity associated with having a phone.

From the parents' perspective, we might interpret the report's findings as showing how parents recognise and respond to these changing circumstances. Of course, there are many ways that parents can support their children as they face the challenges ahead – with financial resources, educational opportunities, provision of social and cultural privileges and more. But these are hard to muster. Far easier to put a mobile in their children's hands – for presumably the parents have paid for these phones – and hope that the child can thereby become a digital native better equipped for the future. I don't say that this is a conscious strategy nor that it will succeed. But given the conditions of hardship or uncertainty facing families especially in India, Indonesia, Egypt and Chile, such a rapid and substantial investment in mobile phones and internet access demands explanation.

My above sketch of technological 'advance' over the decades, if so we judge it, is most accurate for the privileged West. Yet the findings in this report are noteworthy for the commonalities they reveal in children's experiences of mobile phones across five very different countries, none of them Western and only one of them wealthy, as well as in Europe and North America (where findings are very similar). This suggests an emerging commonality in children's experience worldwide as global capitalism extends its markets, bringing technologically sophisticated consumer goods to societies where much else is lacking.

On the other hand, countries do differ, and any reader of this report is surely keen to learn more about the cultural specificities that lie behind the figures and percentages herein. In terms of wealth and inequality, religion and values, politics and social institutions, and much more, these are very different countries. Is it their religious values that lead over half of parents to use filters on their child's phone? Is it the age of transfer to secondary or high school that leads 11-13 year olds to gain the most confidence from having a phone? Is it their nation's status as early adopters of new technology that leads Japanese children to gain least confidence from having a phone, or find it least likely to enhance their relationships? And why should Indonesian children gain the most in terms of confidence, and strength of relationships? As I know from conducting within-European comparisons for EU Kids Online, explaining country differences can be surprisingly hard, and one always wants to know more of the cultural context. Still, since Japan gained widespread mobile use early (in global terms) and Indonesia gained it late, we might anticipate that, while use is likely to remain high, children's perception of mobile phones as vital to their confidence, security and relationships will diminish with familiarity.

Professor Sonia Livingstone
London School of Economics and Director of the EU Kids Online network

LSE THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

Children and mobile phones – an overview

How many children own mobile phones and what do they use them for? This chapter discusses the differences across the five countries surveyed and how they relate to mobile phone ownership rates, age of first acquisition, type of handset owned, purchase price and usage charges.

Key findings

65% of all children surveyed currently use a mobile phone; of those, 80% have a new handset.

12 is the most common age for children to get their first mobile phone.

21% of child mobile phone owners have a smartphone. Smartphone ownership by children in India and Indonesia is double that of their parents.

Children whose parents own smartphones or feature-phones are more likely to have one also.

Tablet use is relatively low, with 18% penetration in Egypt and Chile, 7% in Indonesia and between 5–7% in Japan and India.

3.1 – Mobile phone use

Of the five countries surveyed, Egypt has the highest proportion of children using a mobile phone (91%), followed by Chile (79%), Indonesia (67%), Japan (57%) and India (35%) (Figure 3-1-1). Although penetration is lowest in India, many children have access to a shared family handset and when these two figures are combined, total ownership increases to 83 per cent. Shared handsets are not common in the other four countries[1].

Figure 3-1-1: Children's mobile phone usage (%)

Total (n)	Japan	India	Indonesia	Egypt	Chile
4,567	1,000	1,008	1,003	1,052	504
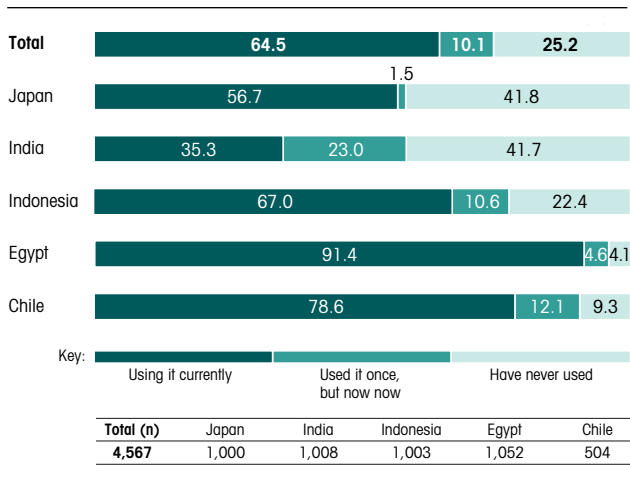
In all countries, the rate of children's mobile phone ownership increases as they get older (Figure 3-1-2). Both Egypt and Chile show high usage rates from a younger age, with over 60 per cent at age nine and over 80 per cent at age 12. India's rates increase from age 13, reaching 50 per cent at age 16; however, this number is still relatively low compared to the other countries.

Figure 3-1-2: Mobile phone penetration by age (%)

Japan n =1,000	India n =1,008	Indonesia n =,003	Egypt n =1,059	Chile n =504

Total (n) 4,574
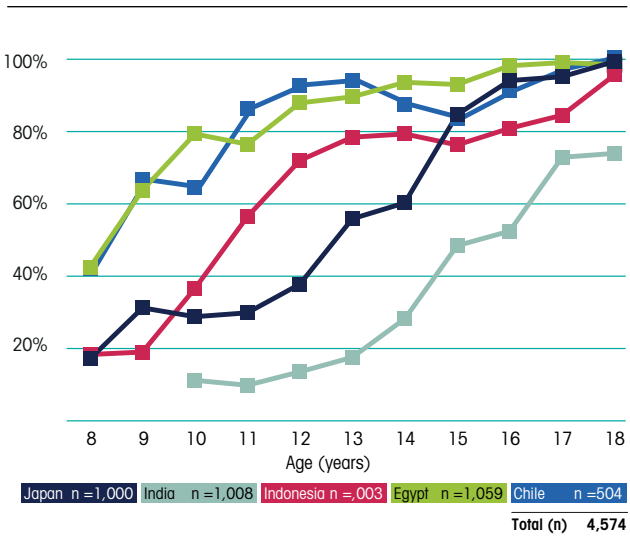
3.2 – Age of first ownership

Across the five countries, 12 is the most common age for a child to own their first mobile phone (Figure 3-2-1).

Figure 3-2-1: Age of first mobile phone ownership (% of children who use mobiles)

Japan n =567	India n =356	Indonesia n =672	Egypt n =961	Chile n =396

Average   Total   2,952
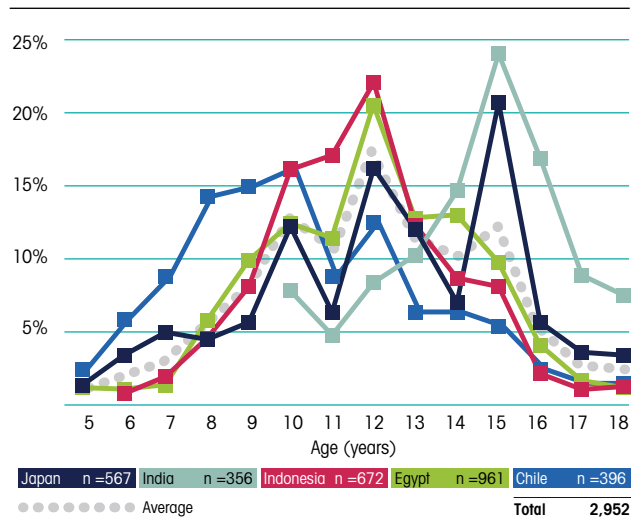
The results shown in Figure 3-2-1 are dependent on the age distribution of the sample and tend to be biased towards a younger age of first ownership. For example, if a 12-year-old is asked when they first received a mobile phone, they could not reply 12 years or older. The more respondents aged 12 or younger there are, the lower the age of first ownership will be.

In an attempt to mitigate this bias, children aged 17 or 18 were asked when they first owned a mobile phone. The results are shown in Figure 3-2-2.

Japan's sharp spike at age 15 shows that many children get a mobile phone when they enter high school. Indonesia shows a similar trend, however children are younger when they receive their first handset.

Figure 3-2-2: Mobile phone ownership at age 17 to 18 (% of 17 and 18 year olds who use mobile phones)

Japan n =179	India n =170	Indonesia n =140	Egypt n =293	Chile n =77

Total   859
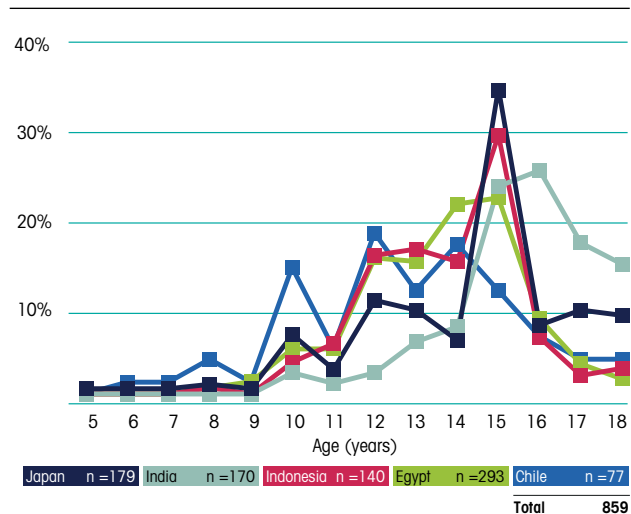
1 See Appendix, FA3-1-1.

Figure 3-3-1: Comparison of new mobile phones to pre-owned/used mobile phones (% of children who use mobile phones)

% of new mobile phones

95.6 Japan
92.7 India
80.3 Chile
78.6 Indonesia
71.1 Egypt
81.4 Average

Total (n)	2,935
Japan	567
India	356
Indonesia	672
Egypt	944
Chile	396

4.4　7.3　19.7　21.4　28.9　18.6

% pre-owned/used mobile phones
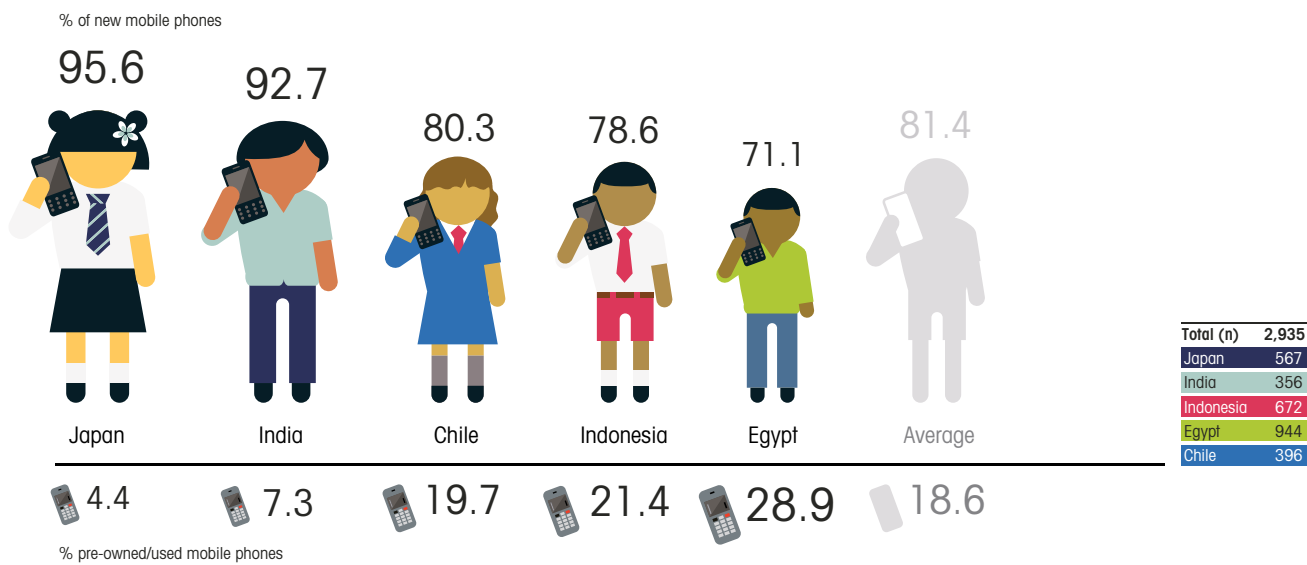
3.3 – Mobile phones – new or used

Almost 81 per cent of children surveyed own a new mobile phone, with Japan having the highest proportion at 96 per cent, followed by India at 93 per cent.

Additionally, where parents own a new mobile phone, 86 per cent of their children also have a new model. Where parents own a pre-owned/used phone, 40 per cent of their children also have a used model (Figure 3-3-2).

Figure 3-3-2: Comparison of parent ownership of new or used mobile phone with their child (% of children and parents who use a mobile phone)

	Child/new phone	Child/old phone
Parent/new phone	86.0	14.0
Parent/old phone	60.2	39.8

Key: Child/new phone　Child/old phone

Total (n)	Child	Parent
6,325	2,935	3,390
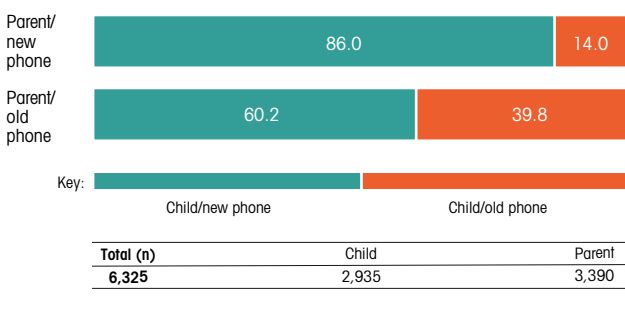
3.4 – Handset cost and usage charges[2]

As purchasing power in each of the countries differs greatly, it is quite hard to draw direct comparisons; however, listed below are some of the key indicators by country.

- In Japan, 28 per cent of children get a mobile phone through a contract (as such the cost of the phone was 0 USD), and over 23per cent spend 76 USD or more each month.
- In India, almost 40 per cent of children have a phone costing up to 56.7 USD and over 76 per cent pay up to 4.7 USD on monthly charges.
- Cheaper handsets are preferred in Indonesia with 45 per cent owning a mobile costing up to 50 USD and 89 per cent paying up to 10 USD on monthly charges.
- Almost 40 per cent of Egyptian children have a mobile phone costing up to 82 USD with largest proportion (28%) spending 4.9 to 8.2 USD on monthly charges.
- In Chile, the highest proportion of mobile phones (25%) were costing between 10.5 and 31.5 USD, with the most common monthly charges (29%) being between 10.5 to 21 USD.

A more detailed breakdown of each country's phone costs and monthly charges can be found in the appendix (TA 3-4-1 and TA 3-4-2).

2　The exchange rates. 1 Japanese Yen = 0.0127 USD, 1 Indian Rupee = 0.0189 USD, 1 Indonesian Rupee = 0.0001 USD, 1 Egyptian Pound = 0.164 USD and 1 Chilean Peso = 0.0021 USD.(October 15, 2012)
3　In Japan, many smartphone functions, such as GPS, M-wallet, barcode readers and apps, have been available on feature-phones for the last 8 to 10 years.

3.5 – Types of mobile phones used

Mobile 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[3]:** 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 access to the internet and Wi-Fi, where users can easily download and run apps. Examples of smartphones include iPhone, Blackberry and phones that use the Android operating system.

As Figure 3-5-1 shows, approximately 21 per cent of children with mobile handsets own a smartphone. Chile has the highest smartphone ownership rate at 42 per cent and Indonesia has the lowest at 12 per cent.

In Japan, 73 per cent of children own feature-phones that have several smartphone functions (eg GPS, barcode readers and apps). Over 60 per cent of children in India and Indonesia using mobile phones own feature-phones. In Egypt, about 60 per cent are feature-phones and 24 per cent are basic phones. In Chile, 49 per cent are feature-phones and only 9 per cent are basic phones.

When comparing smartphone ownership for parents and children in Japan, Egypt, and Chile, the rate is nearly the same for both. Meanwhile, in India and Indonesia, smartphone ownership is approximately twice as high for children than parents (Figure 3-5-1).

Children whose parents own a smartphone are more likely to own one also. Conversely, when parents own a feature-phone or basic phone, the ratio of their children owning the same handset type also rises (Appendix FA3-5-1).

Figure 3-5-1: Mobile phone type comparison between children and parents (% of children and parents who use mobile phones)

	Total	Japan	India	Indonesia	Egypt	Chile
Parent (n)	**3,428**	911	350	670	997	500
Child (n)	**2,943**	566	356	672	953	396

Figure 3-5-2 shows children's smartphone ownership by age. For each country, the uptake of smartphones tends to increase as children get older. Note that Chile has the highest smartphone ownership rate regardless of age. In Japan, the smartphone ownership rate drastically increases at age 15.

Figure 3-5-2: Smartphone ownership rates by age (% of children who use a mobile phone)
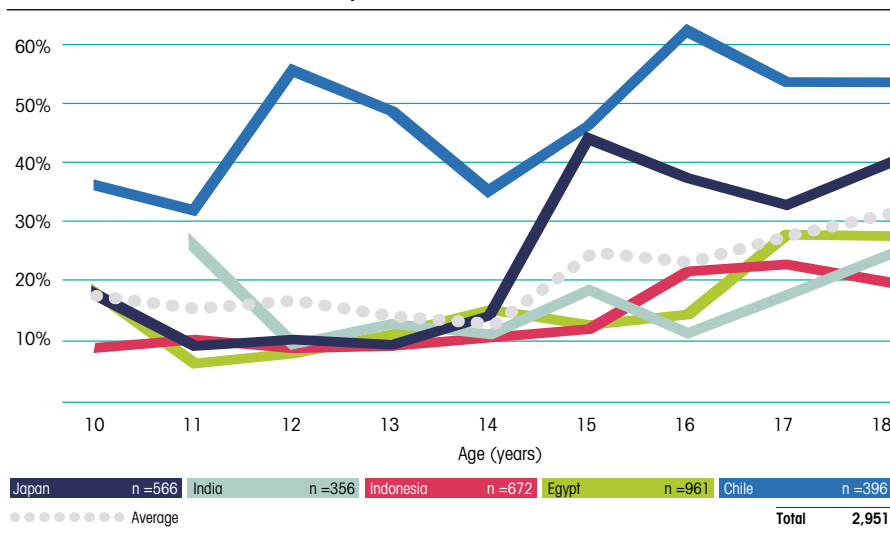
Japan	n =566	India	n =356	Indonesia	n =672	Egypt	n =961	Chile	n =396
Average								Total	2,951

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3   In Japan, many smartphone functions, such as GPS, M-wallet, barcode readers and apps, have been available on feature-phones for the last 8 to 10 years.

Children's smartphone ownership is growing globally. Between 2011 and 2012, smartphone ownership increased significantly in Japan (9-27 %), India (11-16%) and Egypt (14-16%) (Appendix FA3-5-2).

There are also significant increases in smartphone ownership at older ages. For example, in Japan, ownership for children aged 15 grew by 37 per cent between 2011 and 2012 (Figure 3-5-3). Additionally, in Egypt, smartphone ownership for children aged 17 increased by around 15 per cent (Figure 3-5-5).

Figure 3-5-3: Children's smartphone ownership by age in Japan (% of children who use mobile phones)

Age:	10	11	12	13	14	15	16	17	18		
2012 (n)	24	25	33	49	53	78	87	87	92		
2011 (n)	19	26	33	42	59	73	78	82	84		
					Total 2011	523	**Total 2012**	**567**			
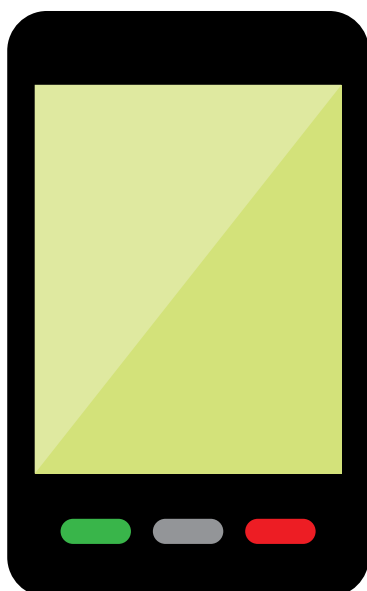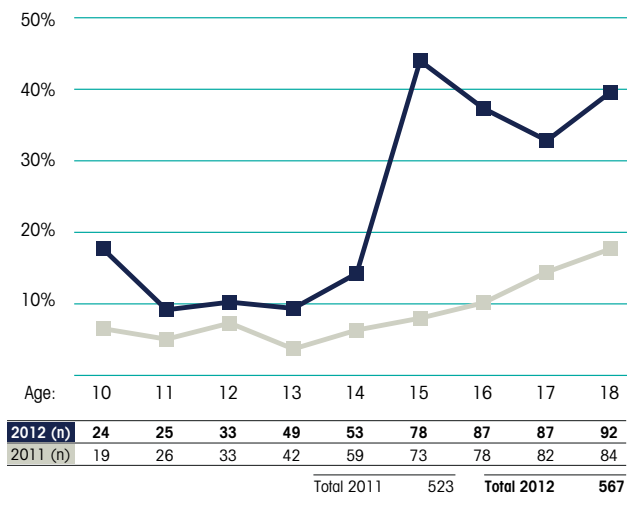
Figure 3-5-4: Children's smartphone ownership by age in India (% of children who use mobile phones)

Age:	12	13	14	15	16	17	18	
2012 (n)	12	17	30	51	59	84	86	
2011 (n)	45	42	66	69	83	99	103	
				Total 2011	507	**Total 2012**	**339**	
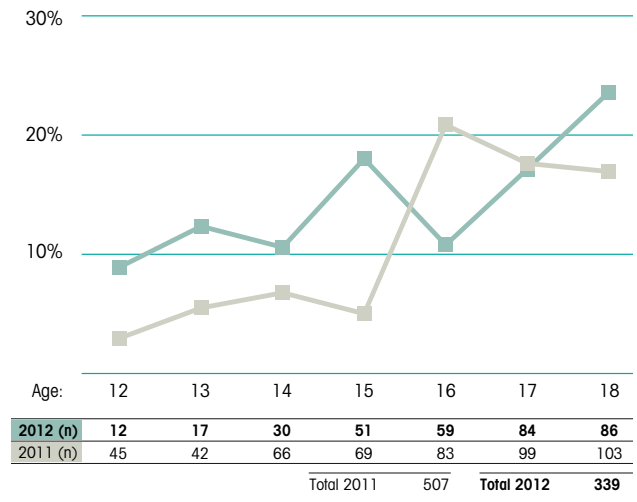
Figure 3-5-5: Children's smartphone ownership by age in Egypt (% of children who use mobile phones)

Age:	11	12	13	14	15	16	17	18	
2012 (n)	40	75	80	120	121	172	144	149	
2011 (n)	36	69	58	89	97	136	166	251	
					Total 2011	902	**Total 2012**	**901**
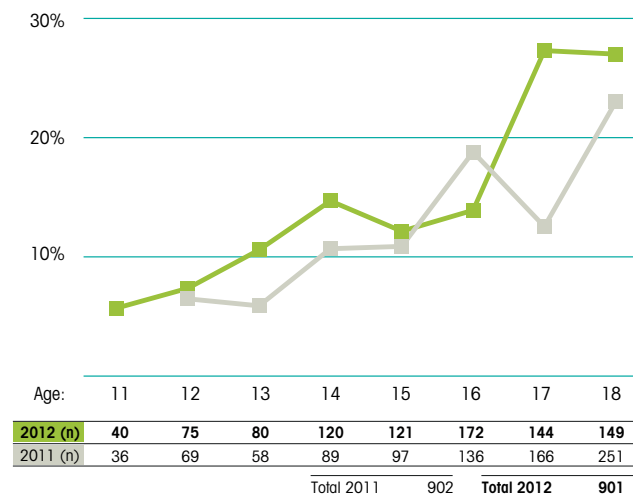
3.6 – Tablet use

Although tablets are becoming increasing popular around the world, children's tablet use is not high (Figure 3-6-1). By far, the largest percentage of children using tablets is in Egypt and Chile, followed Indonesia, Japan and India.

Although Japan's tablet use has risen by 200 per cent between 2011 and 2012, there has not been much change in India or Egypt (Figure 3-6-2).

Figure 3-6-1: Tablet device usage (%)

| Egypt | Chile | Indonesia | Japan | India | Average |
| 18.4 | 17.9 | 7.3 | 6.7 | 5.3 | 10.5 |

Total (n)	4,574
Japan	1,000
India	1,008
Indonesia	1,003
Egypt	1,059
Chile	504
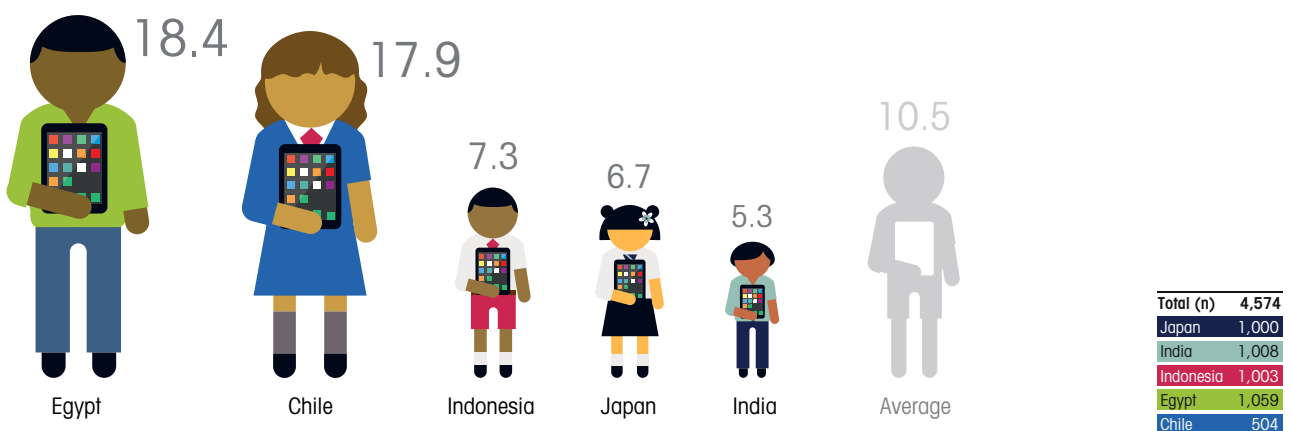
Figure 3-6-2: Comparison of tablet device usage in 2012 vs. 2011 (%)

	2011	2012
Japan (n) 1,000 **1,000**	2.7	6.7
India (n) 1,014 **1,008**	6.1	5.3
Egypt (n) 1,014 **1,059**	17.6	18.4
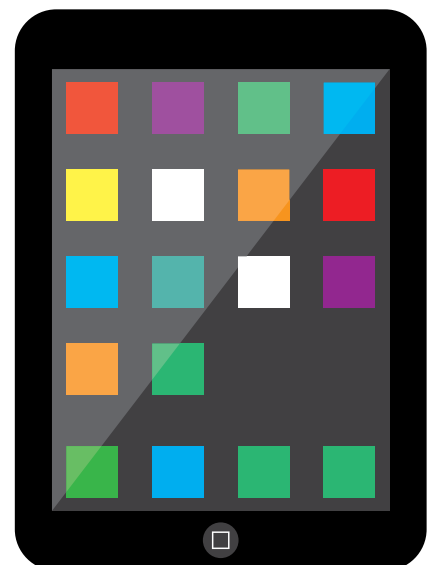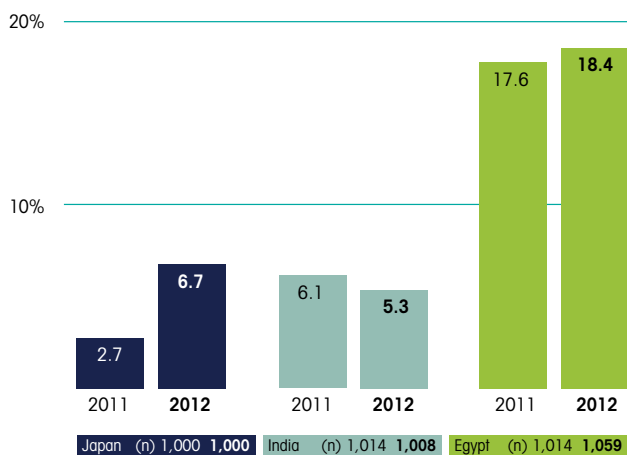
Children's use of mobile phones

Which mobile phone functions are most popular among children? This chapter looks at calling, messaging and the use of other features such as cameras and music and video players. It also examines children's mobile internet behaviour.

Key findings

Initially, children use their mobile phone predominantly for calling; however, as they get older, messaging becomes the preferred choice of communication.

Nearly 25% and 20% of children in Indonesia and India, respectively, send over 51 messages a day.

54% of all child mobile phone users access the mobile internet; this increases to over 87% when looking exclusively at child smartphone users.

More than 70% of all children who use the internet through their mobile phone access it at least once a day.

11% of all children surveyed list their handset as their primary method of accessing the internet; this increases to almost 32% among child smartphone users.

Cameras are the most used pre-installed function on mobiles (more than 75%) followed by music players (more than 60%) and movie players (more than 50%).

4

4.1 – Calling and messaging

Looking at mobile phones as a communication tool, children generally start to use their handset for calling rather than messaging. However, as they get older, messaging increases and eventually exceeds that of calling.

In all of the countries surveyed, the majority of children use both the calling and messaging functions. The percentage of children who only use their phone's calling function varies by country, with Chile (28%), India (22%) and Egypt (22%) at the top end of the scale and Japan (7%) and Indonesia (4%) at the lower end (Table 4-1-1). Moreover, there is a small number of children who use their phones for messaging only, accounting for 13 per cent in India, 11 per cent in Indonesia and Chile, 9 per cent in Egypt, and 6 per cent in Japan.

Japanese children's usage patterns are similar to their parents. In the other four countries children use their mobile phones for both calling and messaging more than their parents. When looking at parents' trends in India, Indonesia, Egypt, and Chile, a high ratio of parents use the calling function only (Figure 4-1-1).

Table 4-1-1: Mobile phone use – calling and messaging (% of children who use mobile phones)

	Use only the phone call function	Use both phone call and messaging functions	Use only the messaging functions
Total	**15.9**	**73.7**	**9.6**
Japan	7.2	86.8	6.0
India	22.2	64.6	13.2
Indonesia	3.7	85.1	11.2
Egypt	22.3	66.8	8.5
Chile	28.0	60.9	11.1

n = 2,952

Figure 4-1-1: Mobile phone calling and messaging rates by country (% of children and parents who use mobile phones)

	Total	Japan	India	Indonesia	Egypt	Chile
Child (n)	**2,929**	567	356	672	938	396
Parent (n)	**4,094**	925	996	670	1,003	500
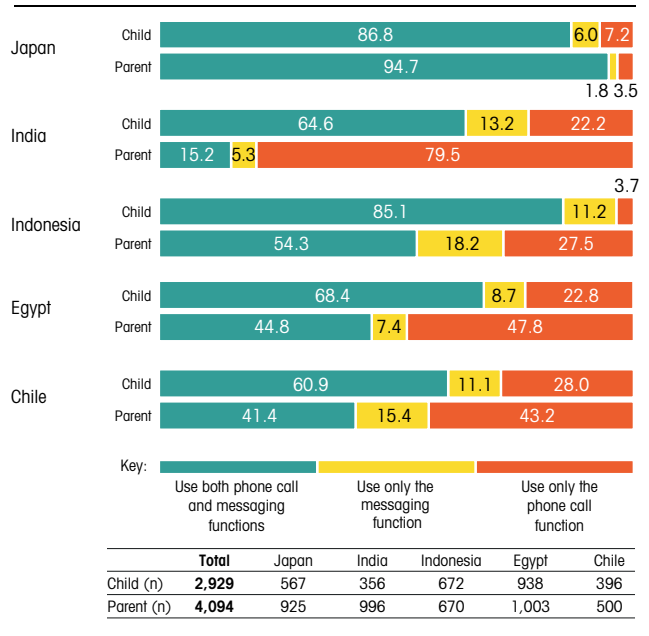
Figure 4-2-1: Number of calls, by country (% of children who call who use a mobile phone)

Key: 0-1 times | 1-2 times | 3-5 times | 6-10 times | 11-20 times | 21+ times

Total (n)	2,631
Japan	533
India	301
Indonesia	597
Egypt	848
Chile	352
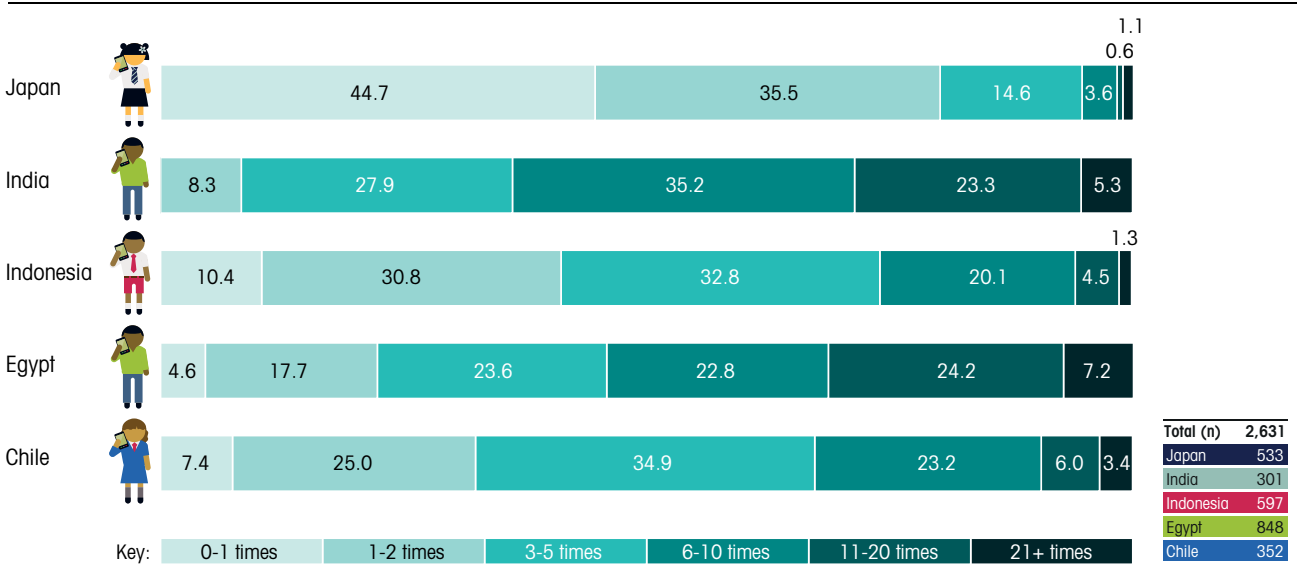
4.2 – Calling and messaging frequency

The average daily call frequency varies between countries (Figure 4-2-1). Call frequency is particularly high in India and Egypt where the majority of children make six or more calls daily and 29 per cent and 31 per cent respectively make 11 or more calls. In contrast, Japan has an extremely low daily call rate, with 45 per cent of children making on average less than one call and over 80 per cent making two or fewer calls a day.

Messaging becomes more frequent as children get older (Figure 4-2-2). The proportion of children who send six or more messages a day rises steadily from 39 per cent at age 10, 53 per cent at age 13 and 63 per cent at age 18.

There are also messaging differences internationally (Figure 4-2-3). Around 55 per cent of children in India and Indonesia send 11 or more messages per day and nearly 80 per cent send six or more. In Chile, usage is particularly concentrated between one to five messages daily, accounting for 61 per cent. In Japan and Egypt, the ratios for six or more messages per day are 47 per cent and 32 per cent respectively, and 26 per cent and 14 per cent for 11 or more messages.

Figure 4-2-2: Number of messages sent per day, by age (% of children who send messages with mobile phones)

Age	0–1	1–5	6–10	11–25	26–50	51+
10 years	16.3	44.9	24.5	6.1	4.1	4.1
11 years	13.2	47.8	16.9	13.2	5.9	2.9
12 years	15.1	37.3	20.9	12.0	8.4	6.2
13 years	9.1	38.3	21.7	13.0	10.4	7.4
14 years	10.7	40.3	17.0	14.6	6.7	10.7
15 years	8.3	42.3	20.0	12.0	9.3	8.0
16 years	8.6	34.3	23.7	14.0	9.1	10.3
17 years	11.5	30.7	17.4	18.7	7.9	13.8
18 years	6.9	29.8	22.1	16.5	10.5	14.1

Key: 0–1 | 1–5 | 6–10 | 11–25 | 26–50 | 51+

Total (n)	Japan	India	Indonesia	Egypt	Chile
2,438	526	277	647	703	285
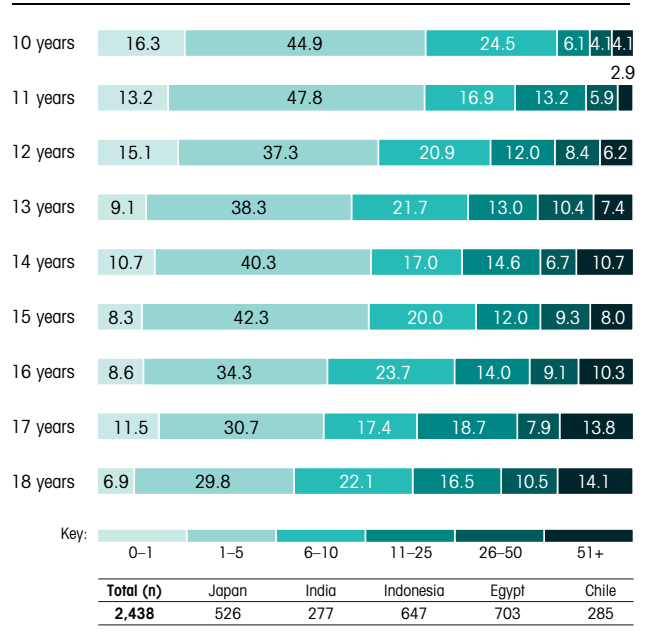
Figure 4-2-3: Number of messages sent per day (% of children who send messages with mobile phones)

Country	0-1	1-5	6-10	11-25	26-50	51+
Japan	15.8	37.6	20.3	17.5	5.9	2.9
India	23.8	20.9	15.2	16.2	23.8	
Indonesia	2.6	18.5	23.3	21.3	14.4	19.8
Egypt	18.6	48.9	18.1	8.0	3.8	2.6
Chile	12.6	60.7	16.5	4.2	2.8	3.2

Key: 0-1 messages | 1-5 messages | 6-10 messages | 11-25 messages | 26-50 messages | 51+ messages

Total (n)	2,438
Japan	526
India	277
Indonesia	647
Egypt	703
Chile	285
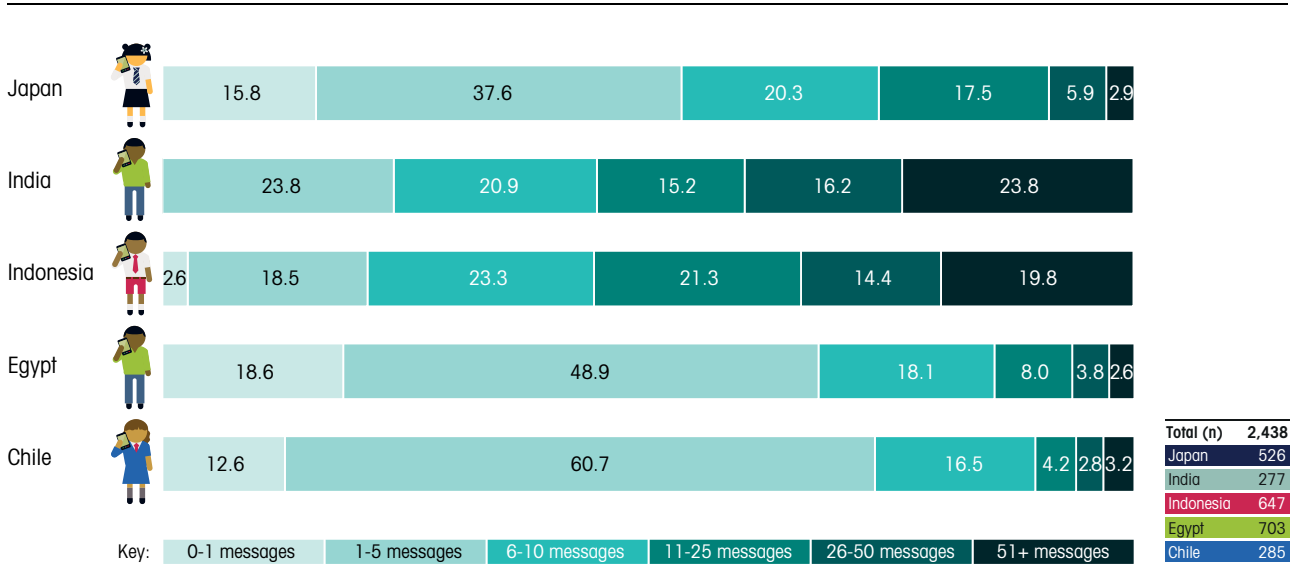
Figure 4-3-1: Mobile internet penetration comparison between child smartphone and non-smartphone users (% of children who use mobile phones)

Total	All mobiles	53.8
	Smartphone	87.3
Japan	All mobiles	51.3
	Smartphone	94.7
India	All mobiles	43.8
	Smartphone	78.9
Indonesia	All mobiles	60.1
	Smartphone	85.9
Egypt	All mobiles	54.3
	Smartphone	93.5
Chile	All mobiles	54.0
	Smartphone	78.2

	Total	Japan	India	Indonesia	Egypt	Chile
All mobile phone users (n)	**2,952**	567	356	672	961	396
Smartphone users (n)	**604**	151	57	78	153	165
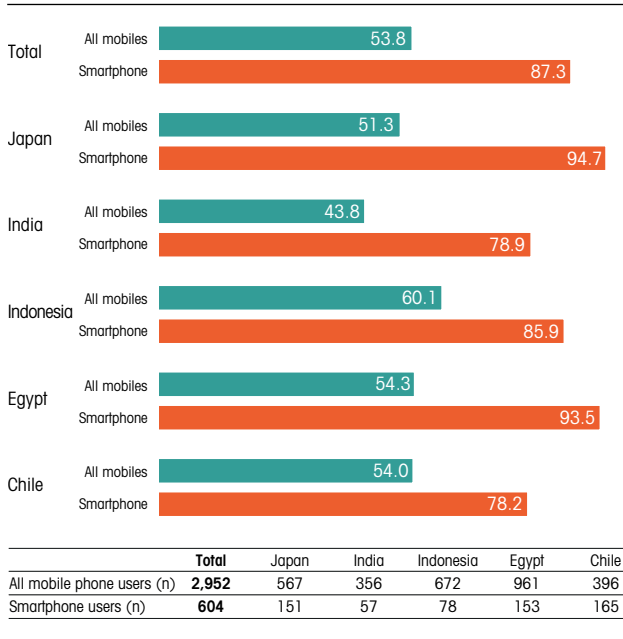
4.3 – Mobile internet use

Children's mobile internet use is 54 per cent across all five countries surveyed (Figure 4-3-1). Indonesia has the highest percentage at 60 per cent, followed by Egypt and Chile (54%), Japan (51%) and India (44%). Mobile internet use was particularly high among child smartphone users in each country.

Mobile internet use by country and age is shown in Figure 4-3-2. In most countries, consumption increases as children get older. Children in Indonesia and Chile access the internet from an early age, with around 60 per cent usage around age 13. It's not until age 15 that use exceeds 60 per cent in Japan and Egypt, and in India no significant age trend is apparent.

Figure 4-3-2: Penetration rate of mobile internet by age (% of children who use mobile phones)

Japan	India	Indonesia	Egypt	Chile

Total (n)	2,952
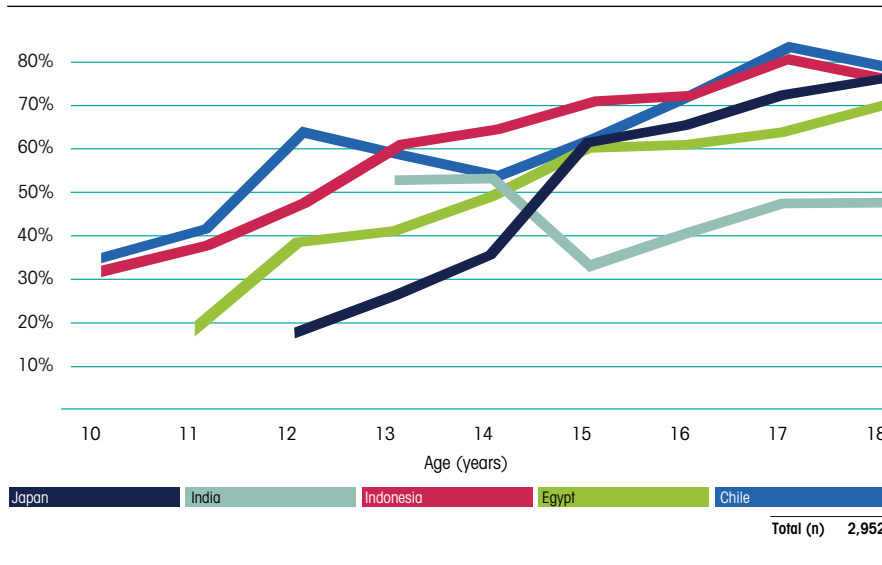
n = 2,952[1]

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1   The sample size is small for children aged 8 to 11 in Japan, 10 to 12 in India, 8 to 9 in Indonesia, 8 to 10 in Egypt, and 8 to 9 in Chile. Accordingly these data are not provided.

4.4 – Mobile internet access – duration and frequency

Overall, more than 70 per cent of child mobile internet users access the web at least once a day (Figure 4-4-1). Notable is Japan's particularly high mobile internet use, with 37 per cent of children accessing it six or more times per day. This compares to 29 per cent in Chile, 23 per cent in India, 22 per cent in Egypt and 16 per cent in Indonesia.

Figure 4-4-1: Frequency of mobile internet usage by children (% of children who access the internet via mobile)

	6+ times a day	3–5 times a day	1-2 times a day	1-3 times a week	Once a week or less
Japan	36.8	26.1	16.5	12.4	8.2
India	22.6	21.3	33.5	16.8	5.8
Indonesia	16.1	26.0	36.1	20.0	1.7
Egypt	22.1	18.6	32.4	20.8	6.0
Chile	29.0	25.2	22.9	15.4	7.5

Total (n)	Japan	India	Indonesia	Egypt	Chile
1,579	291	155	404	515	214

Figure 4-4-2 shows the average amount of time children spend daily accessing the internet from their phone.

Figure 4-4-2: Average time spent accessing mobile internet (% of children who access the internet via mobile)

	0–5 mins	5–14 mins	15–29 mins	30–59 mins	1–2 hours	2 hours+	N/A
Japan	12.7	20.3	24.1	18.2	12.4	12.4	
India	4.5	19.9	28.2	28.8	9.6	9.0	
Indonesia	4.0	23.8	23.5	30.4	13.6	4.7	
Egypt	7.5	21.1	15.7	22.4	11.3	10.3	11.7
Chile	11.2	28.0	21.5	16.4	10.7	12.1	

Total (n)	Japan	India	Indonesia	Egypt	Chile
1,587	291	156	404	522	214

4.5 – Internet access – mobile and other devices

Figure 4-5-1 shows which device children primarily use to access the internet. In Chile, Egypt, and Japan, 82, 68 and 60 per cent 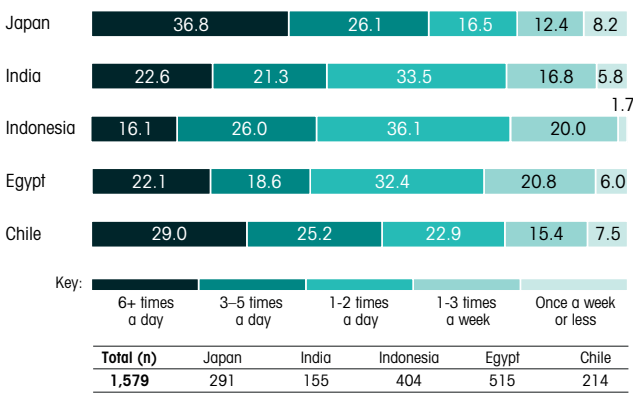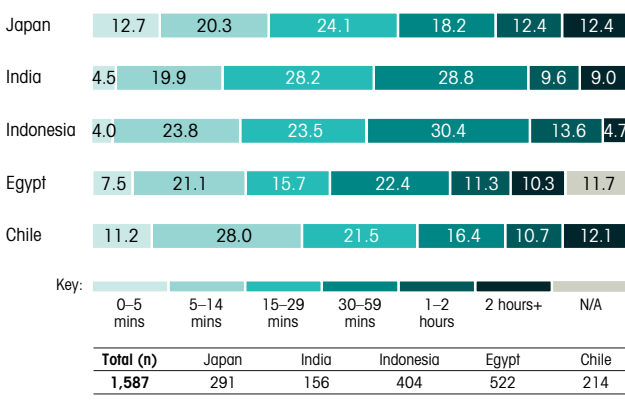of children respectively answered that they use their home computer. These percentages increase to 89, 74 and 65 per cent respectively when including a school computer. Meanwhile, the combined total of home and school computer use was only 37 per cent for India and 18 per cent for Indonesia. Over 50 per cent of Indian children and 30 per cent of Indonesian children answered that they do not use the internet.

Overall, a relatively small amount of children primarily use a mobile phone to access the internet, ranging from 25 per cent in Indonesia to less than one per cent in India. However, these figures are much higher when looking solely at child smartphone users, with Japan having the largest proportion of children who primarily use mobile internet (62%), followed by Indonesia (46%) (Figure 4-5-2).

Figure 4-5-1: Primary devices used to access the internet (%)

	PC at school	PC at home	Mobile device[1]	Tablet device[2]	Games Console	Others	I don't access the internet
Total	9.5	45.3	11.2	1.2	1.3	7.7	23.8
Japan	5.4	59.7	15.4	2.1	2.4	0.6	14.2
India	23.0	14.3	0.5	0.3	5.5		56.3
Indonesia	4.6	13.4	25.1	0.1	0.7	25.5	30.4
Egypt	6.1	67.7	7.5	2.5	2.1	5.5	8.6
Chile	6.8	82.2	6.8	0.6	0.4	1.2	2.0

1 Mobile phone and/or smartphone   2 e.g., iPod, XOOM, Dell Streak 7

Total (n)	Japan	India	Indonesia	Egypt	Chile
4,203	991	923	811	978	500
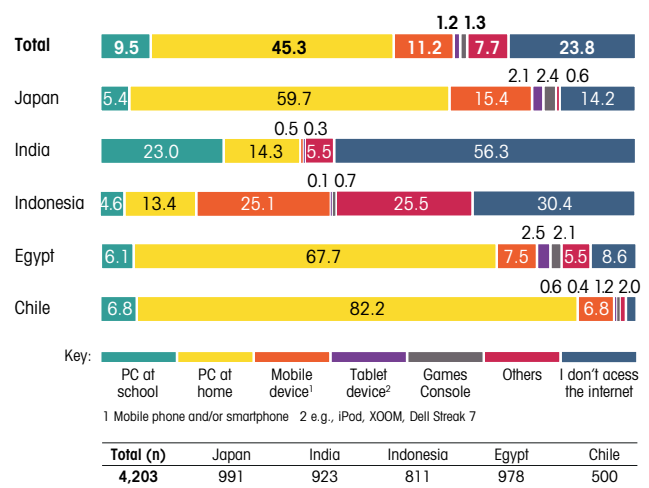
4-5-2: Primary devices used to access the internet by child smartphone users (% of children who use smartphones)

	PC at school	PC at home	Mobile device[1]	Tablet device[2]	Games Console	Others	I don't access the internet
Total	7.7	49.6	31.7	2.7	0.5	2.2	5.6
Japan	0.7	34.0	62.0	2.0	1.3		
India	34.5	45.5	3.6	3.6			12.7
Indonesia	9.5	18.9	45.9	1.4	2.7	17.6	4.1
Egypt	4.1	55.2	21.4	7.6	11.7		
Chile	7.4	74.2	15.9	0.6	0.6	0.6	0.6

1 Mobile phone and/or smartphone   2 e.g., iPod, XOOM, Dell Streak 7

Total (n)	Japan	India	Indonesia	Egypt	Chile
587	150	55	74	145	163

4.6 – Use of pre-installed mobile phone functions

Figure 4-6-1 shows which pre-installed handset functions and services are most popular among children. These functions typically include cameras, music and movie players, TV viewing, passwords/PINs, GPS and e-money[2].

Overall, cameras are the most used function (more than 75%), followed by music players (more than 60%) and movie players (more than 50%). Other popular functions vary between each country. For example, mobile money is quite high in Egypt (49%) and India (39%[3]) compared to the other countries.

Figure 4-6-1: Use of pre-installed functions and services (% of children who download or use apps on a mobile phone)

📷 Camera   ♪ Music player   👥 Movie player   📺 TV   ✳✳✳ Password/PIN   📍 Location services   💲 Mobile money

Japan: 89.3, 59.3, 53.7, 63.7, 57.7, 29.3, 11.4

India: 98.7, 98.4, 91.7, 56.5, 60.9, 68.4, 38.5

Indonesia: 96.3, 96.5, 82.8, 83.1, 43.3, 26.7, 12.7

Egypt: 75.3, 75.0, 63.3, 45.7, 50.8, 57.8, 49.0

Chile: 96.6, 94.7, 83.3, 74.0, 63.4, 47.1, 26.7

Total (n)	1,009
Japan	180
India	126
Indonesia	241
Egypt	255
Chile	207

2   The usage rates shown in the table reflect only the owners of handsets that have those functions and services pre-installed on them.
3   Note that the sample size is small (n=52). See Appendix, TA4-6-1.

Table 4-6-1: Use of pre-installed functions and services (% of children who download or use apps on a mobile phone)

	Total		Japan		India		Indonesia		Egypt		Chile	
	pre-installed	use	pre-installed	use	pre-installed	use	pre-installed	use	pre-installed	use	pre-installed	use
Camera	**85.8**	**89.0**	90.3	89.3	85.4	98.7	87.4	96.3	77.9	75.3	96.2	96.6
Music Player	**83.2**	**83.6**	72.8	59.3	88.8	98.4	88.7	96.5	78.3	75.0	95.5	94.7
Movie Player	**65.0**	**72.6**	69.0	53.7	64.6	91.7	59.5	82.8	55.3	63.3	92.4	83.3
TV	**27.8**	**61.5**	63.1	63.7	12.9	56.5	18.5	83.1	25.3	45.7	12.6	74.0
A password/PIN	**53.9**	**54.6**	77.6	57.7	32.3	60.9	37.8	43.3	50.8	50.8	74.5	63.4
Location Services	**37.8**	**44.7**	66.1	29.3	26.7	68.4	15.6	26.7	40.2	57.8	39.1	47.1
Mobile money	**23.4**	**29.6**	48.0	11.4	14.6	38.5	9.4	12.7	30.0	49.0	3.8	26.7

> 70%	< 30%

Table 4-6-2 shows that children across the five countries use almost every kind of additional function or service far more actively than their parents.

Table 4-6-2: Comparison between children and parents use of pre-installed functions and services (% of children who download or use apps on a mobile phone)

	Total		Japan		India		Indonesia		Egypt		Chile	
	Child	**Parent**	Child	Parent	Child	Parent	Child	Parent	Child	Parent	Child	Parent
Camera	**89.0**	**84.8**	89.3	82.5	98.7	88.8	96.3	93.5	75.3	75.6	96.6	93.4
Music Player	**83.6**	**69.2**	59.3	37.0	98.4	85.7	96.5	92.3	75.0	71.3	94.7	83.4
Movie Player	**72.6**	**55.2**	53.7	34.2	91.7	75.7	82.8	72.5	63.3	54.8	83.3	71.2
TV	**61.5**	**51.5**	63.7	52.4	56.5	52.9	83.1	75.3	45.7	38.0	74.0	55.4
A password/PIN	**54.6**	**47.7**	57.7	46.2	60.9	38.4	43.3	28.5	50.8	47.2	63.4	63.7
Location Services	**44.7**	**44.0**	29.3	37.6	68.4	54.9	26.7	16.9	57.8	45.6	47.1	64.2
Mobile money	**29.6**	**29.8**	11.4	23.8	38.5	29.2	12.7	20.0	49.0	41.2	26.7	50.0

Greater number
Lesser number

Apps, social networking and other services

The number of children who access the internet and use apps via their mobile phone is significantly increasing. This chapter looks at the types of mobile content children access and the apps and social networking services they use.

Key findings

Of those children who access the internet via their mobile phone, 57% of them download or use apps; this is highest in Chile (78%) and lowest in Egypt (44%).

Across all countries, entertainment apps are the most popular among children.

Entertainment is the only category of apps that children use more than their parents across all countries.

Information apps have the greatest increase in use as children get older, starting at 18% use for 8-year-olds and rising to 36% at age 18. Although entertainment apps are the most popular, they are the only app category to decline from 90% use at age 10 to 77% at age 18.

45% of children on social networking sites have public profiles; this is as high as 55% among 13-year-olds.

70% of children who use social networking services communicate with 'new friends' online.

5

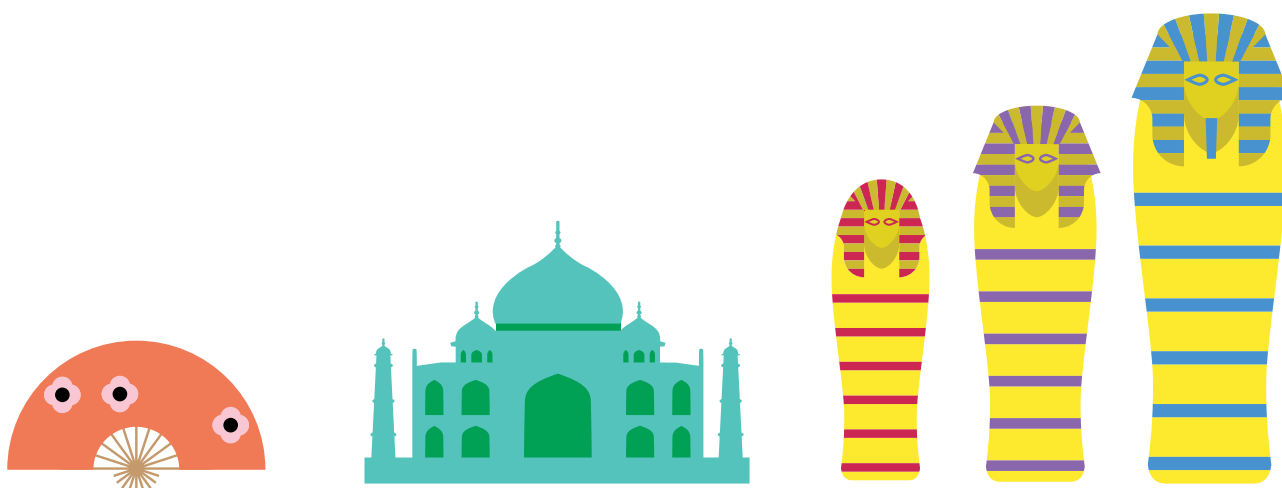## 5.1 – Internet content accessed by mobile phone

Table 5-1-1 shows the different types of internet content children access from their mobile phones. In India, Indonesia, Egypt and Chile, ringtones, games, music and videos are most popular; whereas in Japan, children primarily access information such as news, weather, transport, sport and hobbies.

Figure 5-1-1 also shows some interesting features of the types of internet content accessed by children on the mobile phone:

- Playing games is very popular among children in Chile and Japan, at around 45 per cent.
- Communication via web email is highest in Egypt (34%), followed by Chile (30%).
- Use of phone services, such as Skype, is highest in Japan at 17 per cent, yet very low for the other countries ranging from 1-8 per cent.
- Shopping, accessing auctions or making online reservations is low with an average of 5 per cent, however the rate among child smartphone users is much higher at 12 per cent[1].
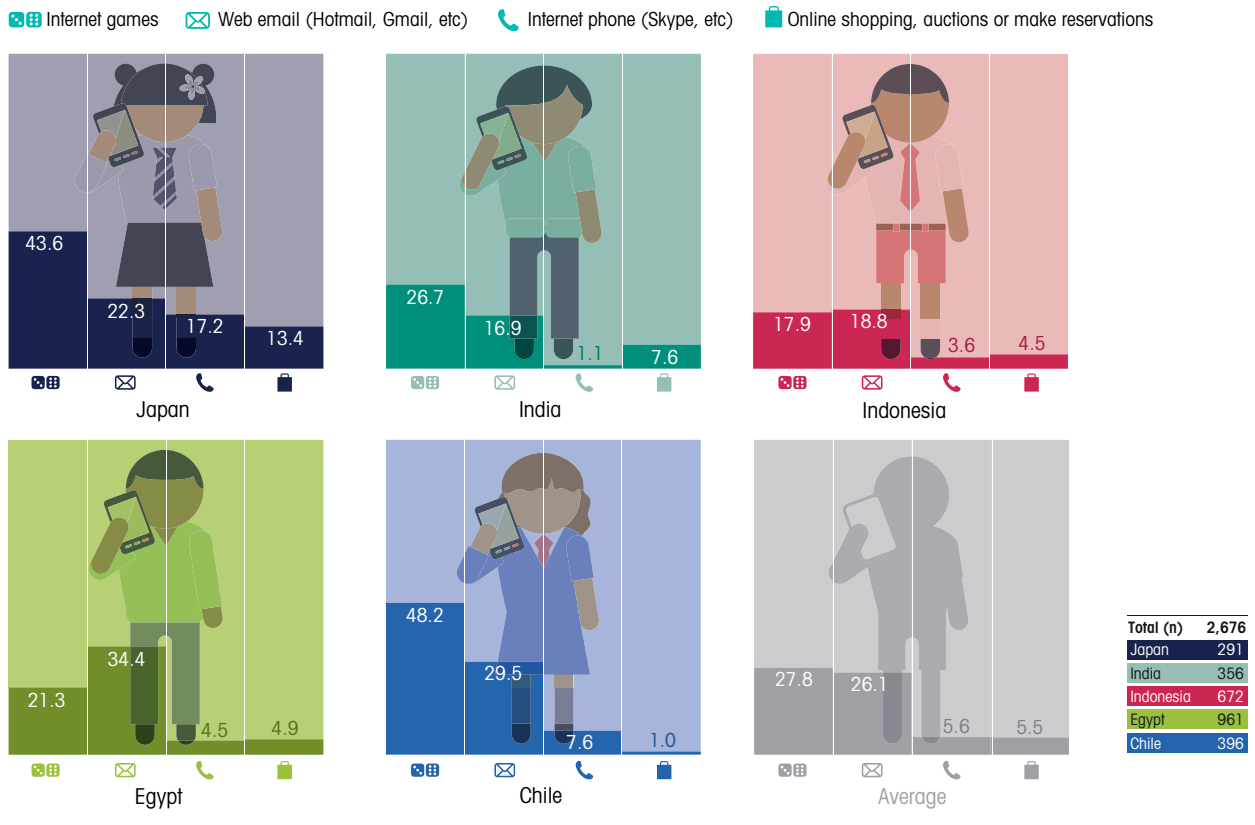
Table 5-1-1: Types of internet content children access via mobile phone
(% of children who access the internet via mobile)

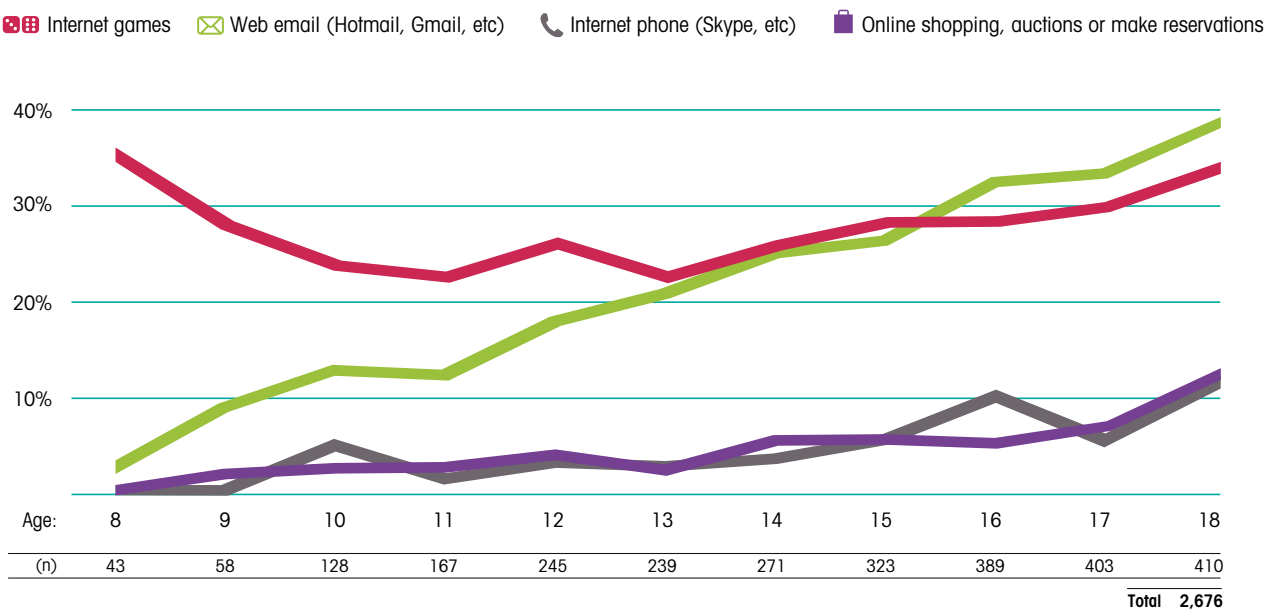|		Total	Japan	India	Indonesia	Egypt	Chile
Information	Obtain information related to news, weather forecasts, transport, sports, entertainment, movies, hobbies and travel	**26.6**	69.1	21.3	18.5	22.1	24.7
	Use the internet for school or work	**18.2**	25.8	19.4	19.9	13.4	19.9
Entertainment	Access ringtones, ring songs, screensavers, games, music or videos	**59.0**	58.1	77.2	81.5	39.0	53.8
	Play internet games on your own or aginst the phone	**22.6**	42.6	21.1	11.9	15.6	44.7
	Watch video clips	**19.6**	27.1	25.3	9.5	16.1	34.6
	Play games with other people on the internet	**10.7**	11.0	12.1	9.7	12.0	7.6
Communication	Communicate via web email (Hotmail, Gmail, etc.)	**26.1**	22.3	16.9	18.8	34.4	29.5
	Use internet phone services (Skype, etc.)	**5.6**	17.2	1.1	3.6	4.5	7.6
Shopping	Friends started to have mobile phones	**5.5**	13.4	7.6	4.5	4.9	1.0
Other	Needed a mobile phone for study/ work	**0.2**	1.7	-	-	-	-
n		**2,676**	291	356	672	961	396

1   See Appendix TA 5-1-1

Figure 5-1-1: Types of internet content children access via mobile phone
(% of children who access the internet via mobile)

Internet games   Web email (Hotmail, Gmail, etc)   Internet phone (Skype, etc)   Online shopping, auctions or make reservations

Japan
43.6 22.3 17.2 13.4

India
26.7 16.9 1.1 7.6

Indonesia
17.9 18.8 3.6 4.5

Egypt
21.3 34.4 4.5 4.9

Chile
48.2 29.5 7.6 1.0

Average
27.8 26.1 5.6 5.5

Total (n)	2,676
Japan	291
India	356
Indonesia	672
Egypt	961
Chile	396

As shown in Figure 5-1-2 with the exception of internet games, children increasingly access different types of internet content on their mobile phones as they get older. From age 16, web email is most popular followed by internet games.

Figure 5-1-2: Mobile internet content accessed by children (% of children who access the internet via mobile)

Internet games   Web email (Hotmail, Gmail, etc)   Internet phone (Skype, etc)   Online shopping, auctions or make reservations

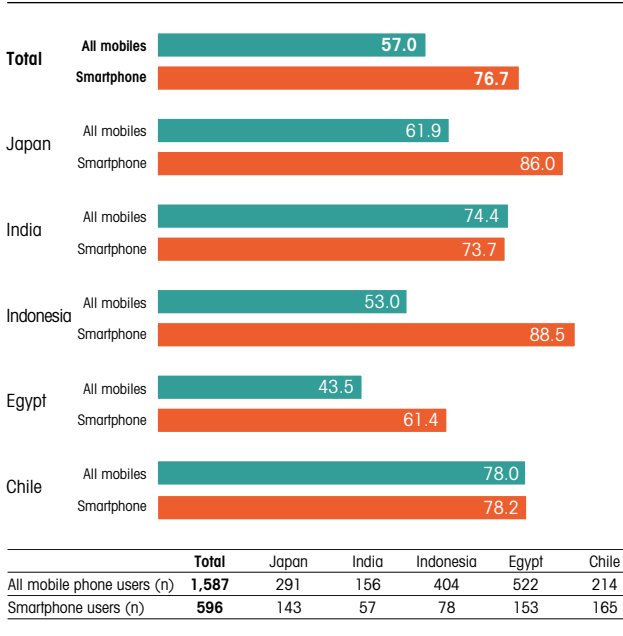| Age:	8	9	10	11	12	13	14	15	16	17	18
(n)	43	58	128	167	245	239	271	323	389	403	410

	Total	2,676

5.2 – Mobile apps - downloads and use

Figure 5-2-1 shows that 57 per cent of children who access the internet on their mobile phone download or use mobile apps, however there are variations between countries with Chile having the highest proportion (78%) and Egypt the lowest (44%).

Children with smartphones use apps much more than children with other handset types. For example, 89 per cent of Indonesian children with smartphones use apps compared to 53 per cent of total child mobile phone users (Figure 5-2-1).

Figure 5-2-1: Child mobile internet users who download/ use apps by types of mobile phones (% of children who access the internet via mobile)

	Total	Japan	India	Indonesia	Egypt	Chile
All mobile phone users (n)	**1,587**	291	156	404	522	214
Smartphone users (n)	**596**	143	57	78	153	165

App use is also relatively high across all ages with rates remaining between 50-60 per cent (Figure 5-2-2).

Figure 5-2-2: Child mobile internet users who download/ use apps by age (% of children who access the internet via mobile)
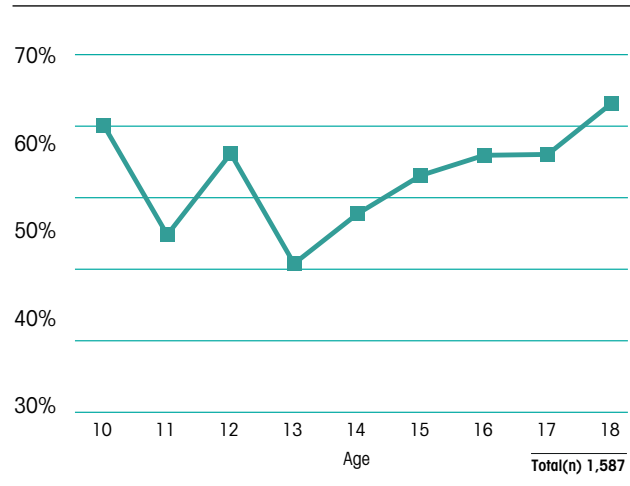
In Japan, India and Chile, it is more common for children than parents to download and use mobile apps (Figure 5-2-3).

Figure 5-2-3: Comparison of children and parent mobile phone users who download or use mobile apps (% of children and parents who access the internet via mobile)
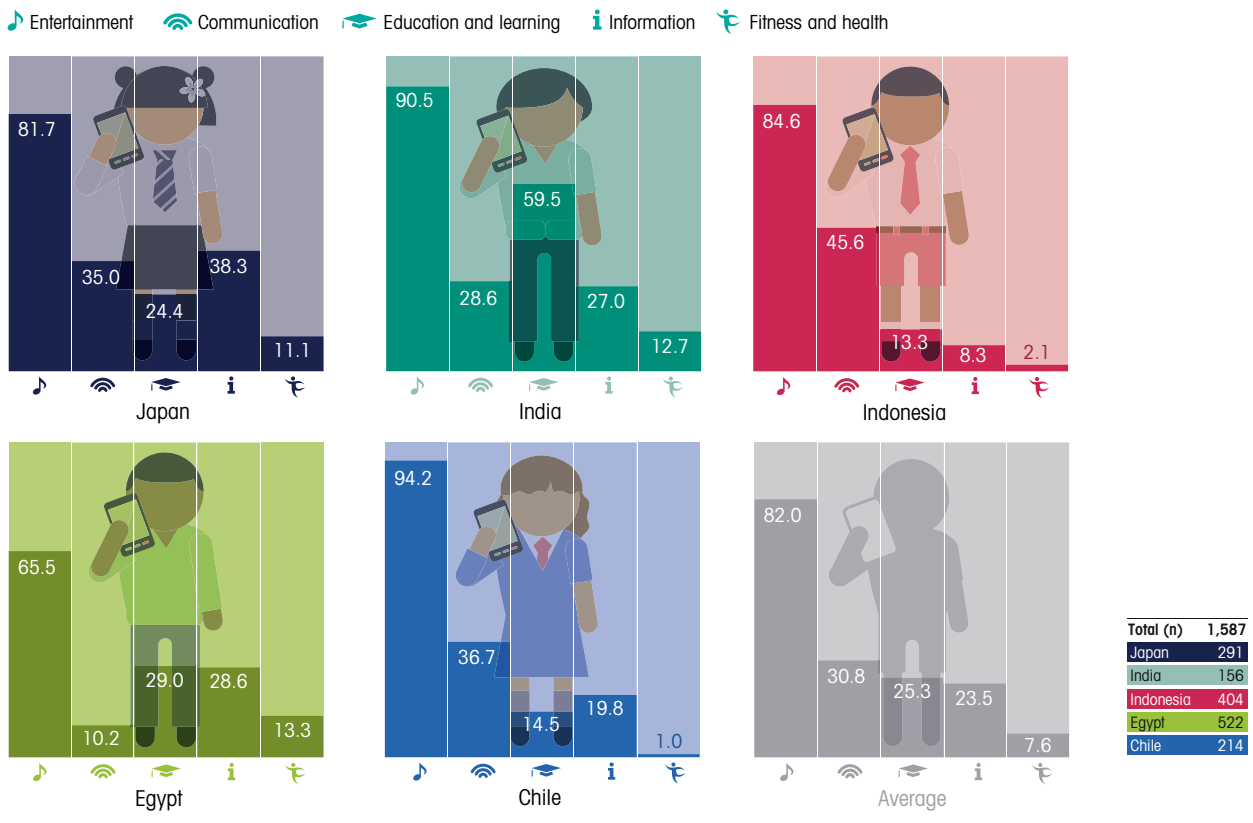

Child (n)	**1,587**
Parent (n)	**1,201**
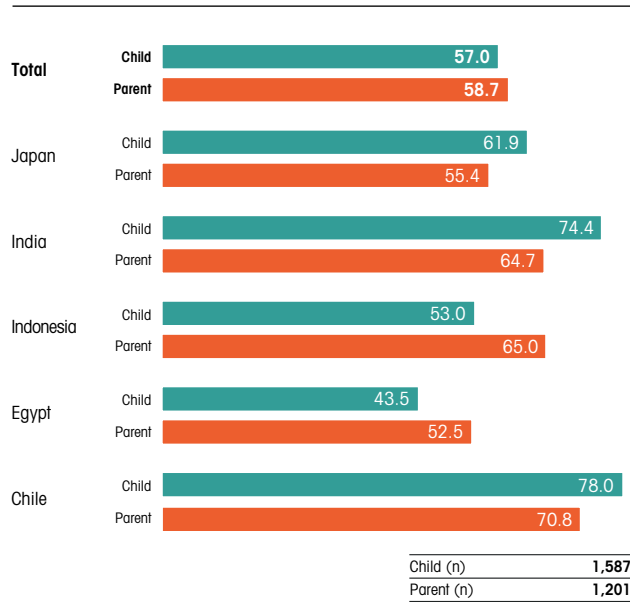
5.3 – Mobile apps – downloads and use by type

In the survey, mobile apps are categorised into five different types:

1. Entertainment (eg games, music)
2. Communication (eg social networking, instant messaging)
3. Education and learning (eg digital textbook)
4. Information (eg news, weather transportation, search tools)
5. Fitness and health (eg pedometer, recorder of running)

Across the five countries, entertainment apps are most popular (66-94%) and fitness and health are the least popular (1-13%) among children who download or use mobile apps (Figure 5-3-1).

Figure 5-3-1: Types of mobile apps children use (% of children who download or use apps)

♪ Entertainment   📶 Communication   🎓 Education and learning   i Information   🏃 Fitness and health

Japan: 81.7, 35.0, 24.4, 38.3, 11.1

India: 90.5, 28.6, 59.5, 27.0, 12.7

Indonesia: 84.6, 45.6, 13.3, 8.3, 2.1

Egypt: 65.5, 10.2, 29.0, 28.6, 13.3

Chile: 94.2, 36.7, 14.5, 19.8, 1.0

Average: 82.0, 30.8, 25.3, 23.5, 7.6

Total (n)	1,587
Japan	291
India	156
Indonesia	404
Egypt	522
Chile	214

Entertainment apps are most popular among all ages (77-90%). There is a steady increase in the use of the other four apps as children get older (from 0-26% to 13-37%).

- Entertainment apps are most popular but use declines as children get older.
- Fitness and health apps steadily rise to 13 per cent between ages of 10 and 18. A gender difference was also found with girls using these types of apps considerably more than boys (Appendix TA 5-3-1).
- Information app use has the largest increase from 18 per cent at age 10 to 36 per cent at age 18.

Figure 5-2-3 shows that in Japan, India and Chile, overall app use is higher for children than for parents, however, differences occur when comparing app types. For instance, entertainment apps are consistently used more by children than parents across the five countries (Table 5-3-1, Figure 5-3-3). Additionally, children tend to use other types of apps more actively than their parents but the apps used differ from country to country.[2]

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2   For more detail, refer to Appendix FA5-3-1.

Figure 5-3-2: Types of mobile apps children use by age (% of children who download or use apps)

♪ Entertainment   📶 Communication   🎓 Education and learning   i Information   🤸 Fitness and health

| ♪ | (n) 827 | 📶 | (n) 356 | 🎓 | (n) 672 | i | (n) 944 | 🤸 | (n) 396 |
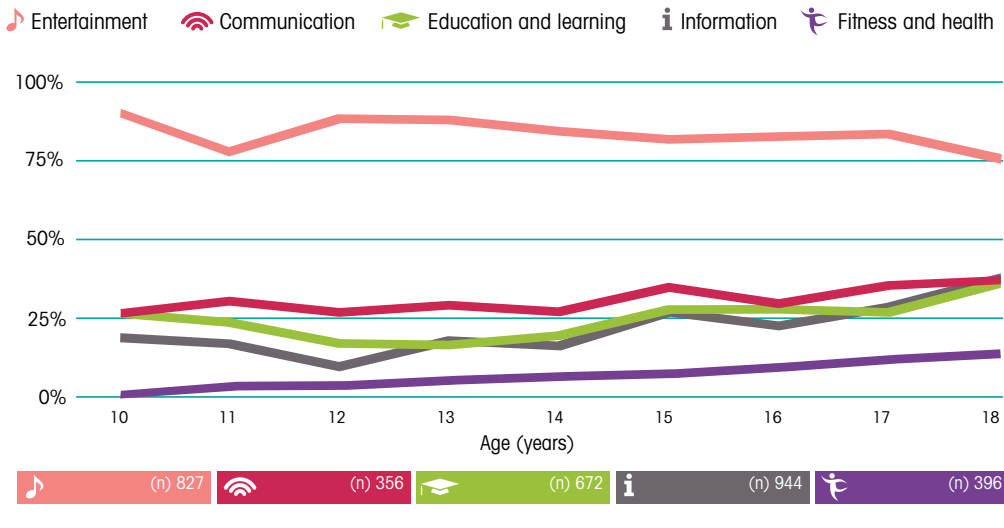
Table 5-3-1: Between parents and children, who uses each app type more, by country

♪ Entertainment   📶 Communication   🎓 Education and learning   i Information   🤸 Fitness and health

🧒 = children
👥 = parents

	children (n)	parents(n)
Total	**1,587**	**1,201**
Japan	291	271
India	156	22
Indonesia	404	52
Egypt	522	181
Chile	214	179
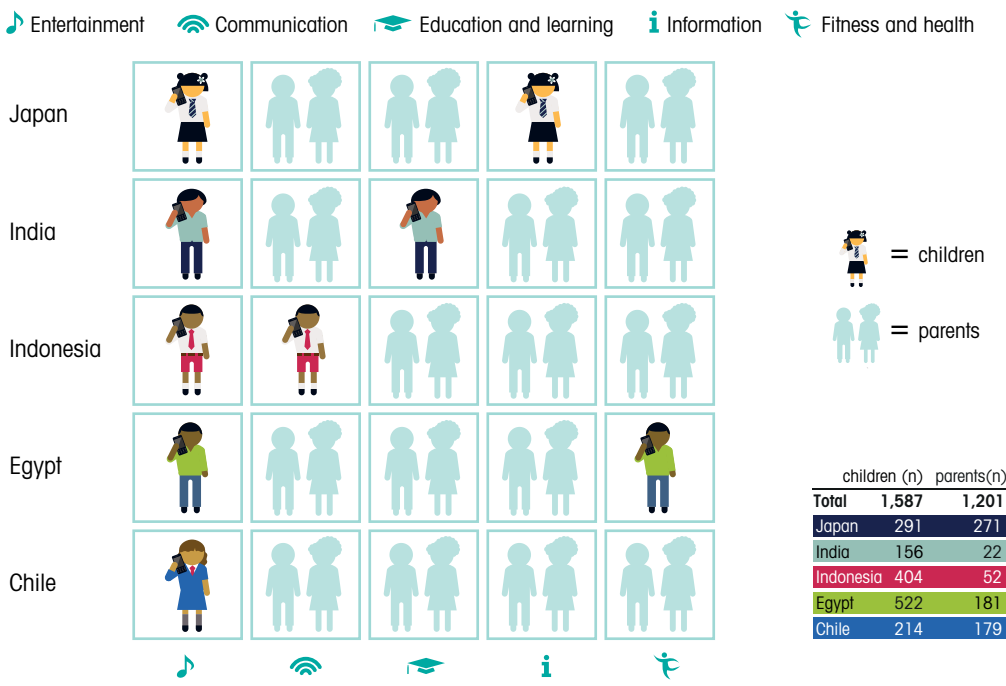
Figure 5-3-3: Child and parent mobile app use (% of children who download or use apps)

	Total (n)	2,788
	Child	1,587
	Parent	1,201

Entertainment 82.0 58.7
Communication 30.8 48.0
Education and learning 25.3 40.0
Information 23.5 27.2
Fitness and health 7.6 15.3
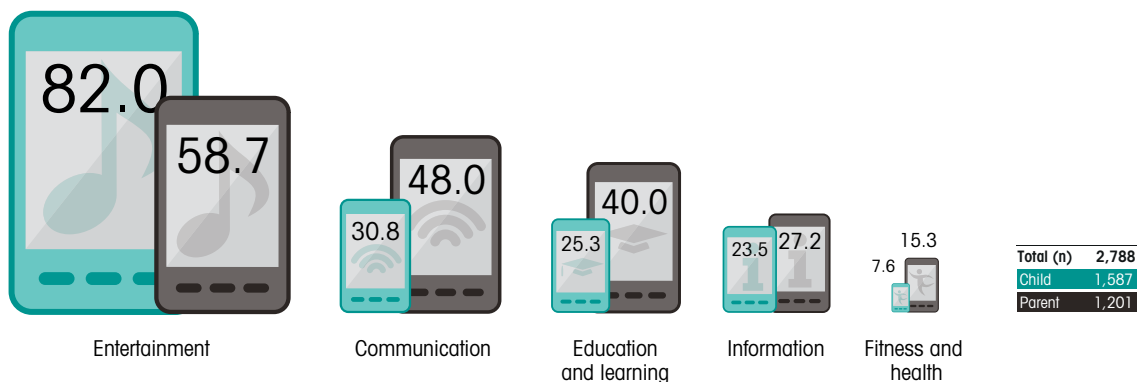
5.4 – Social networking on mobile phones

Forty-nine per cent of child mobile phone users access social networking and micro-blogging sites on their phones (Figure 5-4-1)[3]. When comparing countries, Indonesia leads at 63 per cent, followed by Chile (49%), Egypt (47%), Japan (44%) and India (36%).
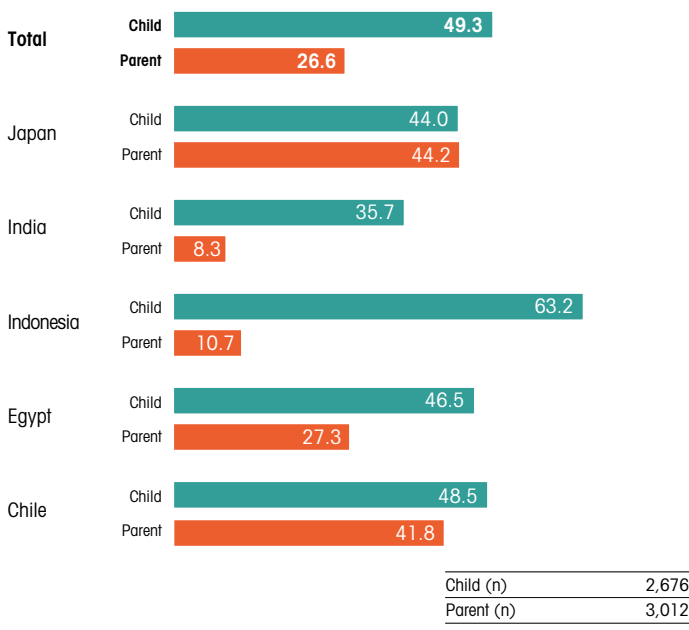
In all countries except Japan, children's use of social networking services (SNS) on mobile phones surpasses their parents (Figure 5-4-2). The largest gap between children and parents is in Indonesia and India where parents' use of SNS is less than 11 per cent whereas children's use is 63 per cent and 36 per cent respectively.

Figure 5-4-1: Children who access SNS on their mobile phones*
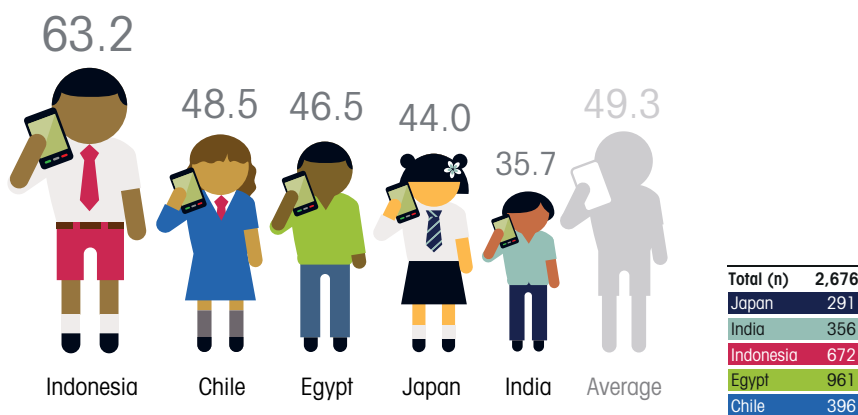
Total (n)	2,676
Japan	291
India	356
Indonesia	672
Egypt	961
Chile	396

*India, Indonesia Egypt and Chile, % of children who use mobile phones.
Japan % of children who access the internet via mobile.

Figure 5-4-2 Comparison of children and parent accessing SNS on their mobile phones*

Total	Child	49.3
	Parent	26.6
Japan	Child	44.0
	Parent	44.2
India	Child	35.7
	Parent	8.3
Indonesia	Child	63.2
	Parent	10.7
Egypt	Child	46.5
	Parent	27.3
Chile	Child	48.5
	Parent	41.8

Child (n)	2,676
Parent (n)	3,012

*India, Indonesia Egypt and Chile, % of children who use mobile phones.
Japan % of children who access the internet via mobile.

3   The base for India, Indonesia, Egypt and Chile is children who use mobile phones. The base for Japan is children access internet via mobile phones.

As children get older, they gradually use SNS on their mobile phone more (Figure 5-4-3[4]). For example, majority of 12 year-old mobile internet users in Indonesia and Chile already use mobile SNS. In contrast, less than 50 per cent of 18 year-old mobile internet users in Japan and India are not accessing SNS at all.

A few gender differences were also found with boys exhibiting slightly higher use than girls in India, Indonesia and Egypt. The opposite was found in Japan and Chile[5].

As would be expected, children with smartphones use SNS significantly more than those with other handset types (Figure 5-4-4).

Table 5-4-1 shows the most popular SNS platforms used by children overall (this includes all internet-enabled devices such as mobile phones, computers, etc.). In all countries except for Japan, Facebook is used by over 87 per cent of children.

Figure 5-4-3: Use of social networking services on mobile phones by age*
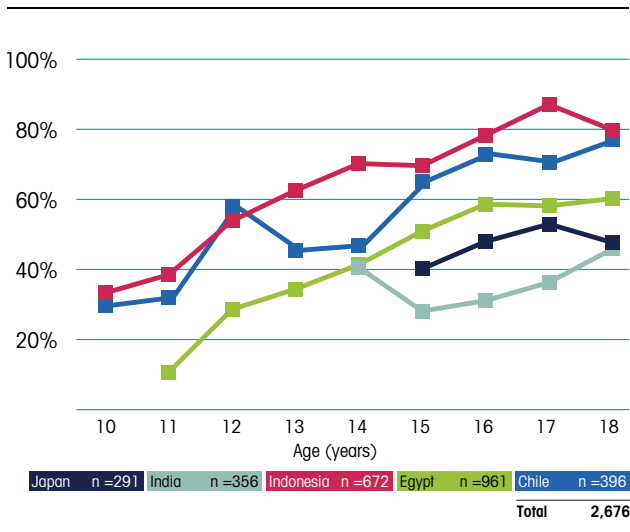
Japan n =291	India n =356	Indonesia n =672	Egypt n =961	Chile n =396
			Total	**2,676**

*India, Indonesia Egypt and Chile, % of children who use mobile phones. Japan % of children who access the internet via mobile.

Figure 5-4-4: Use of social networking services on mobile phones (% of children who access SNS via mobile phone)

Total (n)	Japan	India	Indonesia	Egypt	Chile
2,668	291	356	6722	953	396
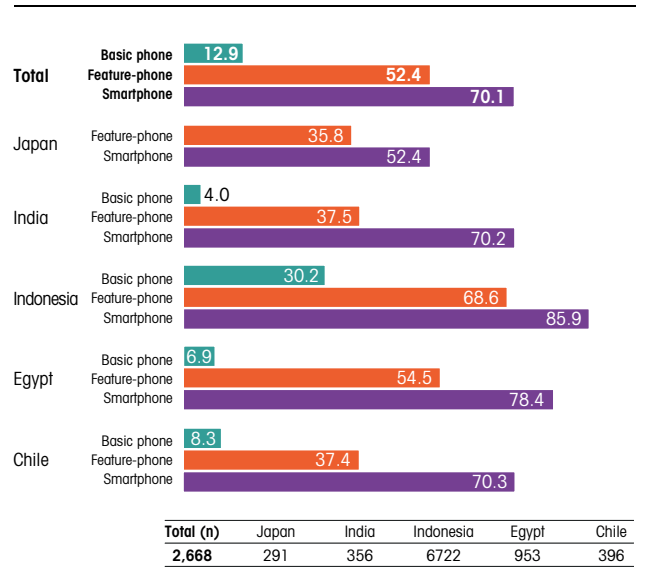
Table 5-5-1: Social networking sites used by children (% of children who access SNS via mobile phone)

	Japan	India	Indonesia	Egypt	Chile
Facebook	18.0	87.4	94.4	89.7	90.6
Twitter	21.1	11.8	5.4	6.5	7.3
mixi	32.0	-	-	-	-
Mobage	14.1	-	-	-	-
GREE	10.9	-	-	-	-
Orkut	-	0.8	-	-	-
Plurk	-	-	0.2	-	-
No answer	-	-	-	3.6	-
Other	3.9	-	-	0.2	2.1
Total	100.0	100.0	100.0	100.0	100.0
n	128	127	425	447	192

4   The sample size is small for children aged 10 to 14 in Japan, children aged 10 to 13 in India and children aged 10 in Egypt. Accordingly, these data are not provided.
5   See Appendix FA5-4-1

5.5 – Children's social networks

The average number of contacts children have on SNS differs between countries (Table 5-5-1)[6]. Indonesian children have a particularly high average of 585 contacts, followed by Chile (366), India (175), Egypt (123) and Japan with a low 21.

Table 5-5-1: Number of children's social network contacts

	Average number of 'friends' on social networking sites	Max.	Min.	Standard deviation	N
Japan	21.4	200	0	28.81	128
India	175.3	850	2	176.31	127
Indonesia	584.9	5,300	2	778.83	423
Egypt	122.8	4,000	1	240.86	429
Chile	366.4	5,445	1	639.75	191

It may often be assumed that the number of children's contacts on SNS increases with age because the range of their behaviour and scope of social interaction tends to expand as they get older. However, when looking at changes in the number of contacts by age (12 to 18[7]), no significant differences are seen (Figure 5-5-1).
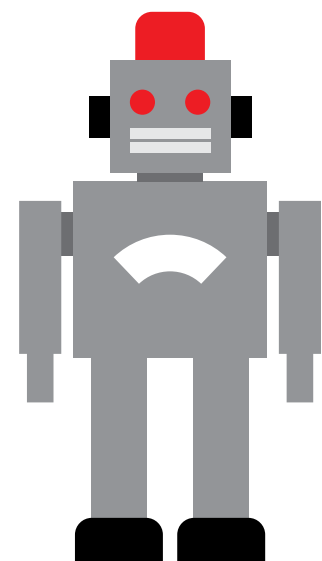
Figure 5-5-1: Number of children's social networking contacts by age

Japan n =112	India n =113	Indonesia n =380	Egypt n =412	Chile n =160

● ● ● ● ● Average

	Total	1,197
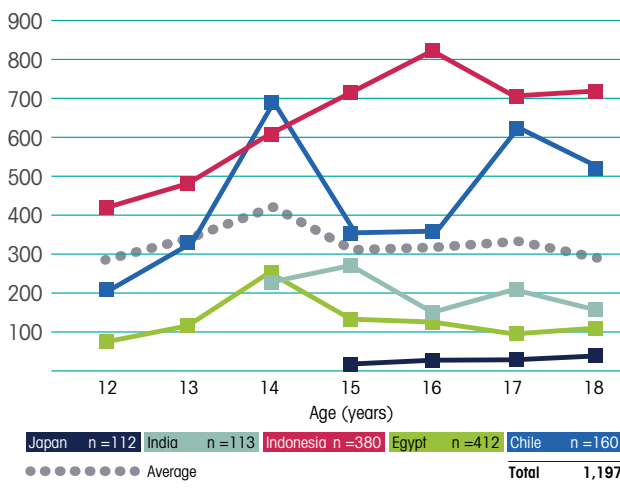
Over 70 per cent of children who use SNS met or started to communicate with new "friends" online (Figure 5-5-2). When comparing countries, Indonesia has the highest proportion (83%) and Japan has the lowest (49%).

A defining characteristic for Japan is the very high ratio of 59% for new "friends" met on SNS compared to the number of contacts overall. However, there is no consistent trend across all countries although age does play a role (Appendix TA5-5-1 and TA5-5-2).

Figure 5-5-2: Children who have met new 'friends' on social networking services (% of children who access SNS via mobile)

	Total	Japan	India	Indonesia	Egypt	Chile
Total (n)	1,319	128	127	425	447	192

Key: Have — Not have — Don't know + N/A

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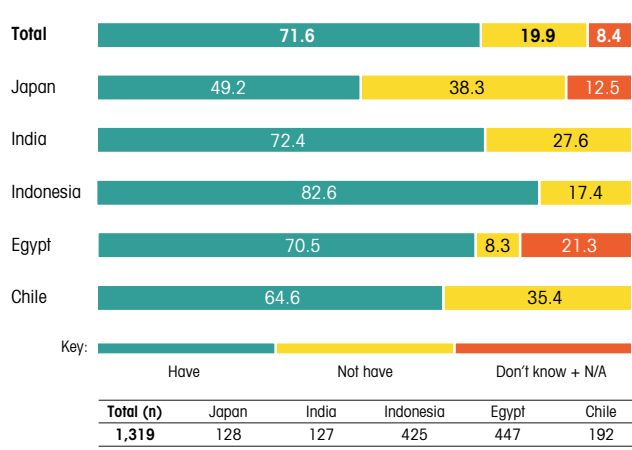
6   The base is social networking and/or micro-blogging users..

7   The sample size is small for children aged 12 to 14 in Japan, 12 to 13 in India. Accordingly these data are not provided.

Children tend to have a higher number of online contacts than their parents (Figure 5-5-3). This is consistent across all countries except Japan where children and parents have almost the same amount of contacts.
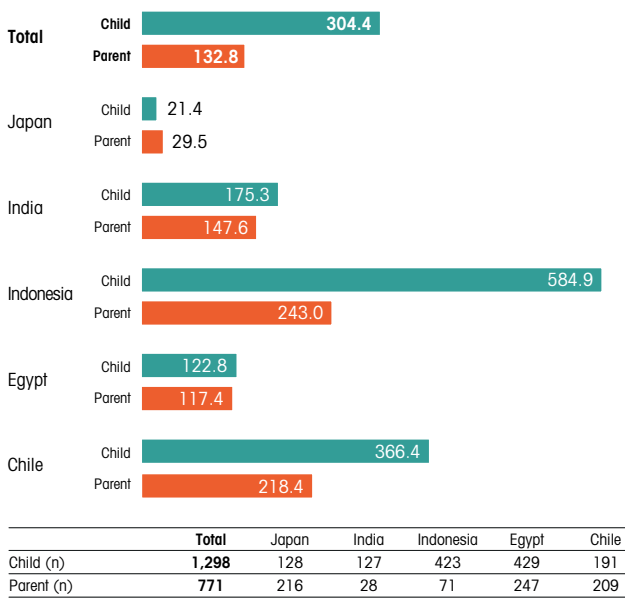
Figure 5-5-3: Comparison of average number of social networking services contacts between children and parents by country

	Total	Japan	India	Indonesia	Egypt	Chile
Child (n)	**1,298**	128	127	423	429	191
Parent (n)	**771**	216	28	71	247	209

5.6 – Children's privacy settings on social networks

On social networking services there are various settings that allow the user to control the amount of content they share with others. Three levels of privacy were examined in the survey:

1. Private – only friends/connections can see the user's information
2. Partially private – friends of friends can see the user's information
3. Public – everyone can see the user's information

Overall, 45 per cent of children who use SNS surveyed have public profiles (Figure 5-6-1). Public settings are more common in Indonesia (65%) and Egypt (45%).

Figure 5-6-1: Children's social networking services privacy settings (% of children who access SNS via their mobile phone)

	Total (n)	Japan	India	Indonesia	Egypt	Chile
	1,319	128	127	425	447	192
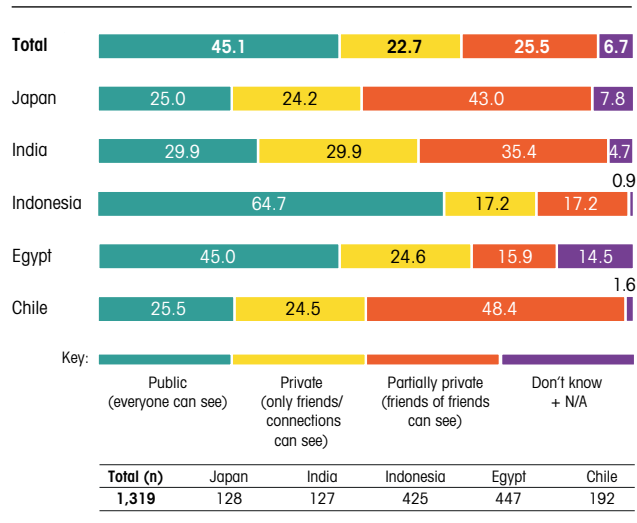
A significant gender difference was also found with girls having higher privacy settings than boys (Appendix FA5-6-1 and TA5-6-1).

There is also a clear trend between age and privacy settings. The younger the child is, the lower the level of privacy (Figure 5-6-2)[8]. This starts to change as children get older and medium to high level privacy settings are gradually used. This may reflect a better understanding of privacy protection and settings.

Despite this increasing awareness with age it is important to note that the majority of children aged 11-13 have public profiles. Although the ratio drops to 35 per cent by age 18, this figure cannot be considered low as it still accounts for one out of three children (Figure 5-6-2).

Figure 5-6-2: Children's social networking services privacy settings by age (% of children who access SNS via their mobile phone)

Age:	11	12	13	14	15	16	17	18
Key:	Public (everyone can see)		Partially private (friends of friends can see)		Private (only friends/ connections can see)			
(n)	49	108	111	133	163	222	238	243
							Total	**1,267**

When comparing children's and parents' privacy settings, the ratios for each level are quite similar, particularly in Indonesia, Egypt and Chile (Figure 5-6-3). This suggests that parents and children often share the same level of privacy awareness.

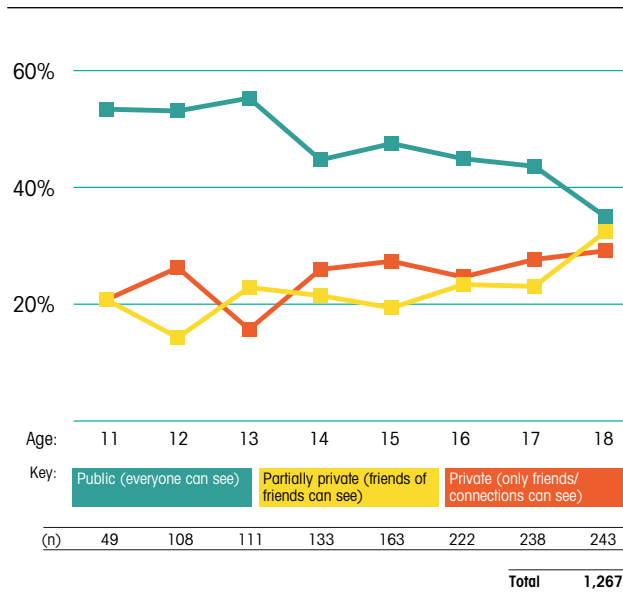**Figure 5-6-3: Comparison of social networking services privacy settings between children and parents (% of parents and children who access SNS via mobile phones**

	Japan	India	Indonesia	Egypt	Chile
Child (n)	128	127	425	447	192
Parent (n)	216	29	72	274	209

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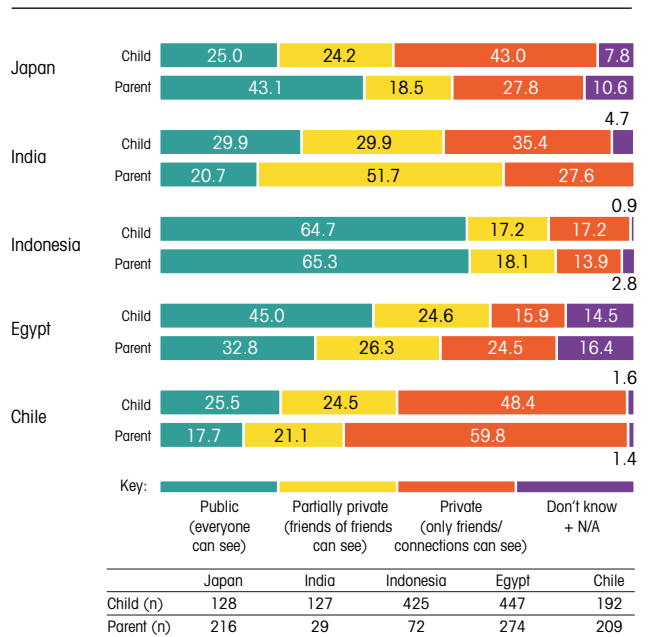
8   The sample size is small for children aged 8 to 11. Accordingly these data are not provided.
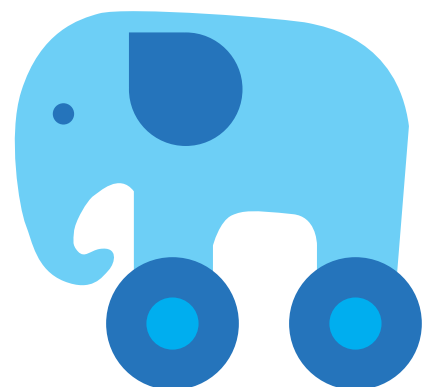
Parental concerns and digital literacy

This chapter examines why parents give children mobile phones, what their concerns are and how they respond to those concerns. It also looks at children's digital literacy, comparing the people whom parents think should be providing digital guidance versus the people children actually ask.

Key findings

Over 70% of parents have concerns about children's mobile phone use, with viewing inappropriate sites and overuse sharing the highest percentage at around 82%.

Parents whose children use social networking sites are no more concerned about privacy than those whose children don't.

65% of all parents surveyed set rules on their children's mobile phone use, there was no common response to rule-breaking across all countries.

Over 54% of parents who have access to parental control solutions use them; content filters are the most popular control method at 57%.

Almost 67% of parents believe that an adult in the family should educate their children about mobile phone use; this is a consistent preference across all countries.

6.1 – Why parents give their child a phone

When asked why their children started using a mobile phone[1], parents responded, mainly, that it was for the purpose of staying in daily contact. In all countries except Japan, the second highest reason was the ability to contact someone in the case of an emergency.

Table 6-1-1: Parents' reasons for their child using a mobile phone (% of parents with children who use a mobile phone)

	Japan	India	Indonesia	Egypt	Chile
Needed to keep in daily contact with his/her mother/father or guardian	45.7	75.3	70.6	64.9	84.0
Needed to contact someone in an emergency or when away from home	39.8	66.9	52.5	39.8	40.6
Given one when advancing to the next level of education or the next year	44.2	44.7	14.8	41.0	10.3
Friends started to have mobile phones	15.4	41.9	43.1	30.8	12.5
Needed a mobile phone for study/ work	1.7	33.4	18.8	11.6	6.3
Other	4.6	0.3	0.0	0.9	7.3

Total 2,887
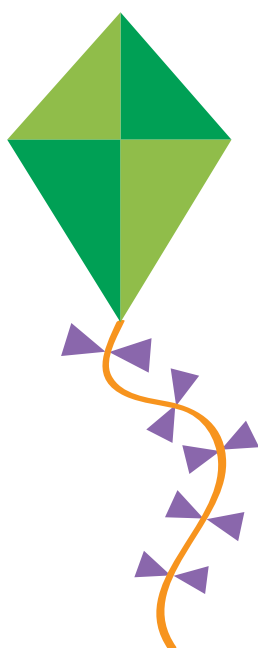
6.2 – Parental concerns about children's use of mobile phones

Parents primarily give children a mobile phone to maintain contact with them when they are apart. Although both children and parents seem to enjoy the convenience this brings, parental concerns over children's mobile use do arise.

Figure 6-2-1[2] shows the proportion of parents who said they are very or somewhat concerned about mobile phone use issues. Over 70% of parents have concerns about all of the issues—with viewing inappropriate sites (e.g. dating or sexually explicit sites) and overuse being the top concerns. In all of the countries except Japan, between 82% and 94% of parents are very or somewhat concerned about their child viewing inappropriate sites. This proportion is lower in Japan, at 65% (Figure 6-2-2).

Figure 6-2-1: Parents' concerns over their childs use of a mobile phone (%)

Viewing inappropriate sites
62.4 | 19.9

Overuse
48.5 | 33.0

Cost of the bills
40.1 | 35.8

Not being able to keep track
37.8 | 37.2

Disclosing his/her own personal information
38.5 | 35.2

Having trouble with friends
34.9 | 36.3

Negative impact on health
40.0 | 31.1

Key: Very concerned | Somewhat concerned

Total (n) 4,574

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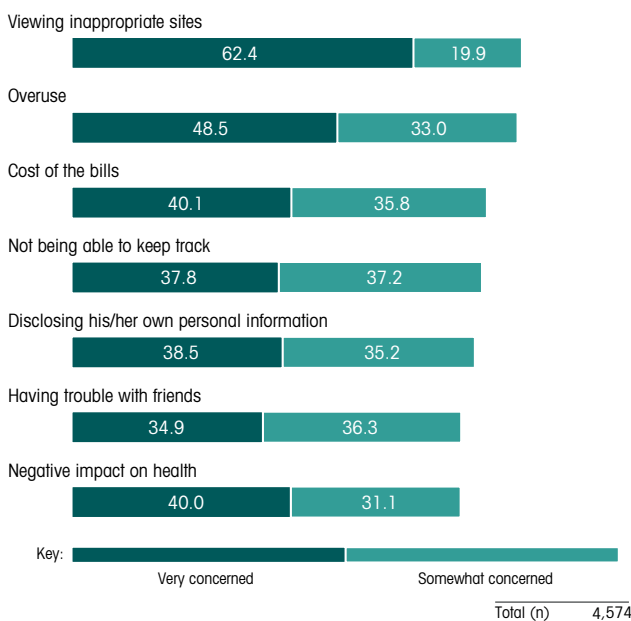
1 The base is the parents who answered that their children have their own mobile phones.
2 Respondents included all parents.

Figure 6-2-2: Parents concerned about children's mobile phone use (%)

1 Overuse
2 Cost of the bills
3 Viewing inappropriate sites such as dating or sexually explicit sites
4 Not being able to keep track of the child's associates
5 Having trouble with friends due to messages eg; falling out or bullying
6 Negative impact on health due to electromagnetic waves
7 Disclosing his/her own personal information

Japan	India	Indonesia	Egypt	Chile

	Total (n)	4,574

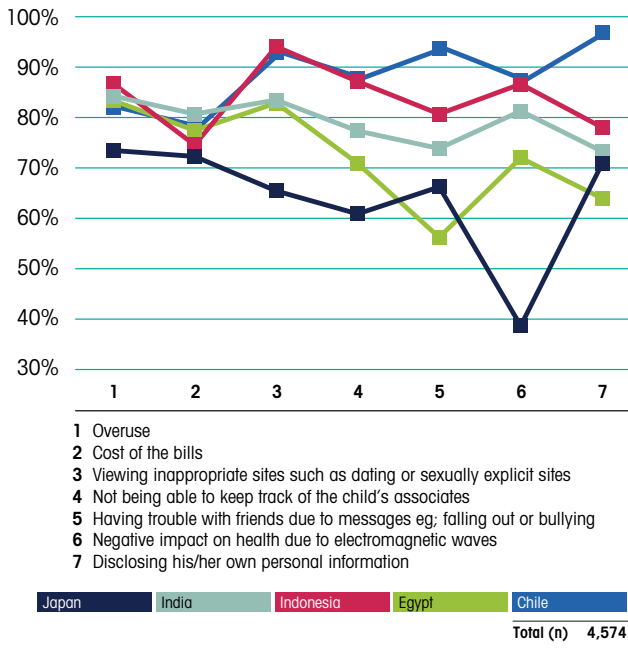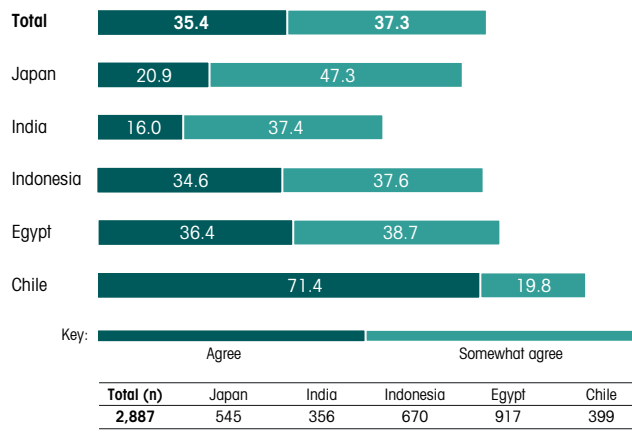Parents in Indonesia and Chile tend to be more concerned than in the other countries. A particularly high proportion of Chilean parents are worried about their children disclosing personal information (97%) and problems that arise through messaging, such as problems with friends or bullying (93%). In Japan and Egypt, the percentage of concerned parents is comparatively low compared to the other countries.

6.3 – Parental concerns about children's privacy

Figure 6-3-1 shows that more than 70% of parents are very or somewhat concerned about children's privacy when using mobile phones[3]. This is particularly high in Chile where, of the 91% of parents who expressed concern, 71% responded that they are "very concerned."

Although the level of concern about privacy varies from country to country, reflecting the conditions of the country and national characteristics, parents are consistently less worried about their own privacy—and to a similar degree across all countries—than that of their children.[4]

Figure 6-3-1: Percentage of parents concerned about their child's privacy on mobile phones (% of parents with children who use a mobile phone)

	Agree	Somewhat agree
Total	35.4	37.3
Japan	20.9	47.3
India	16.0	37.4
Indonesia	34.6	37.6
Egypt	36.4	38.7
Chile	71.4	19.8

Key: Agree / Somewhat agree

Total (n)	Japan	India	Indonesia	Egypt	Chile
2,887	545	356	670	917	399

Overall, little change is seen in parental concern as children get older (Figure 6-3-2), that is, concerns remain high. However, when looking only at parents who are "very concerned," a clear trend is revealed, showing that as children's age increases, the percentage of parents displaying concern decreases. Significant differences between the level of parental concern over boys and girls are found across age groups, with greater concern for girls[5]. Decreasing concern as children grow older is seen for both boys and girls, but the decrease in concern for girls is smaller.

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3   Respondents were the parents of children with mobile phones.
4   For the data, see Appendix FA6-3-1.
5   For the data, see Appendix TA6-3-1 and TA6-3-2.

Figure 6-3-2: Parents concerned about their child's privacy on mobile phones by age (% of parents with children who use a mobile phone)
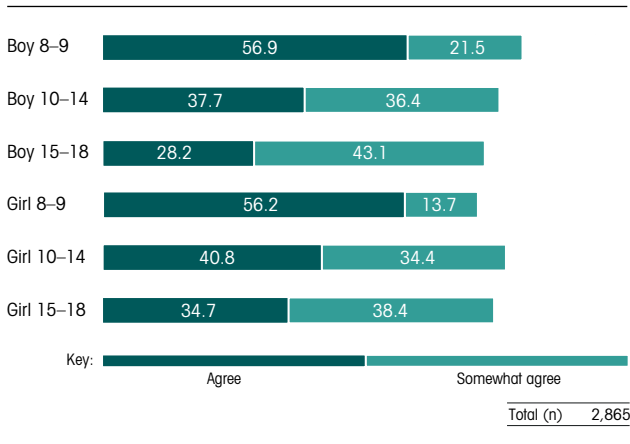
	Agree	Somewhat agree
Boy 8–9	56.9	21.5
Boy 10–14	37.7	36.4
Boy 15–18	28.2	43.1
Girl 8–9	56.2	13.7
Girl 10–14	40.8	34.4
Girl 15–18	34.7	38.4

Key: Agree / Somewhat agree

Total (n) 2,865

Chapter 5 shows that, in general, children use social networking services more than their parents. For parents who are unfamiliar with social media, understanding what their children do on these services and how they share information may be difficult. However, this survey shows that parents of children who use social networking services are no more concerned about their child's mobile phone use.

Whether or not their child uses social networking services, parents remain concerned about mobile phone use (Figure 6-3-3). Similarly, the level of parental concern towards their child's privacy is constant, regardless of how public their child's profile is.

Figure 6-3-3: Percentage of parents concerned about their child's privacy on mobile phones (by children who use social networking and those who don't)

	Very concerned	Somewhat concerned	Not so concerned	Not at all concerned
Child SNS users	43.6	33.0	18.2	5.2
Child non-SNS users	42.5	31.7	17.6	8.1

Key: Very concerned / Somewhat concerned / Not so concerned / Not at all concerned

Total (n) 2,422
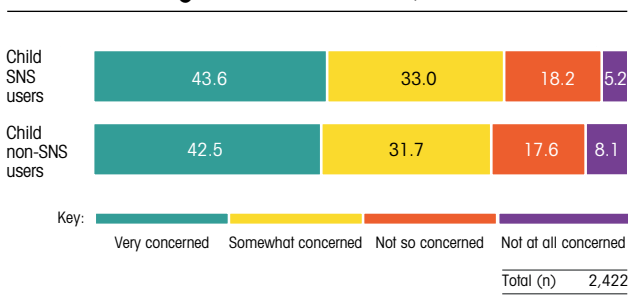
Figure 6-3-4 shows the percentage of parents who are worried about their child's privacy, split by the child's privacy setting on social networking services. As discussed in chapter 5, privacy settings are classified into three levels: private; public; and partially private. There are almost no changes in the percentage of parents who are concerned, for each of the three levels. These results suggest that parents might not have an accurate understanding of children's use of social networking services.

Figure 6-3-4: Parents concerned about their child's privacy on mobile phones (% of parents whose children use SNS via their mobile)

	Very concerned	Somewhat concerned	Not so concerned	Not at all concerned
Public (everyone can see)	42.4	31.5	20.0	6.1
Partially provate (friends of friends can see)	38.2	39.9	17.8	4.0
Private (only friends/connections can see)	48.8	29.5	16.7	5.1
Don't know	32.1	53.6	10.7	3.6

Key: Very concerned / Somewhat concerned / Not so concerned / Not at all concerned

Total (n) 1,256
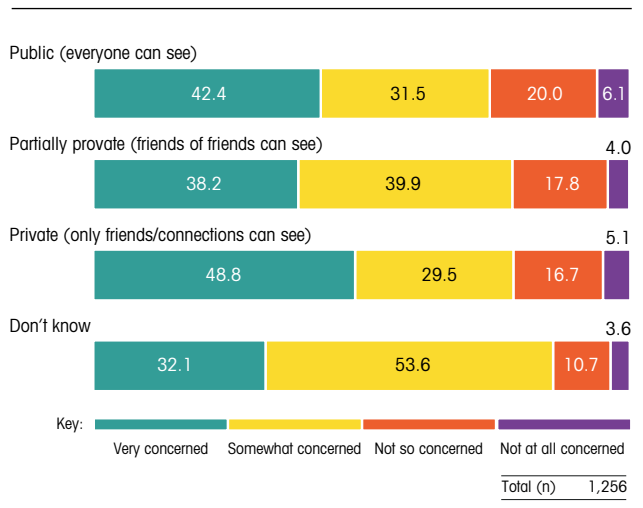
6.4 – Family rules about children's use of mobile phones

One way of alleviating parents' concerns about their child's mobile phone use is to have family agreements or parental rules specifying what they are allowed to do on their phone. Figure 6-4-1[6] shows that 65% of families whose children use mobile phones have such agreements or rules. Japan has the highest proportion (77%) and India the lowest (46%).

Figure 6-4-1: Percentage of families introducing rules for mobile phone use (% of parents with children who use a mobile phone)

	Agree	Somewhat agree
Total	65.2	34.8
Japan	76.5	23.5
India	45.5	54.5
Indonesia	66.9	33.1
Egypt	65.2	34.8
Chile	64.4	35.6

Key: Agree | Somewhat agree

Total (n)	Japan	India	Indonesia	Egypt	Chile
2,874	545	356	670	904	399
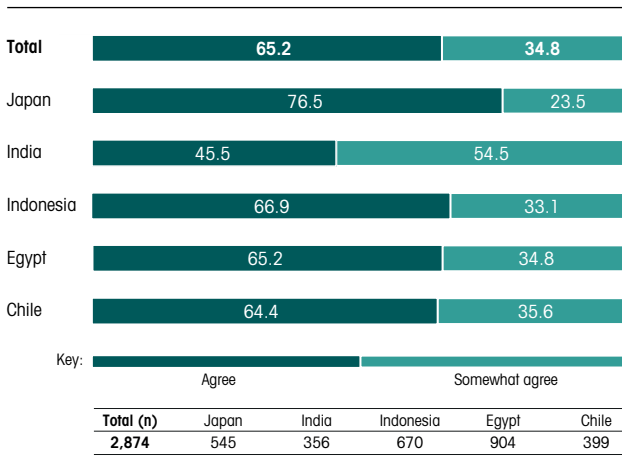
Parents in different countries respond differently when their children break the rules. In Japan and Egypt, parents mostly discuss the issue with their child, whereas in India and Indonesia, children are mainly admonished (Figure 6-4-2).

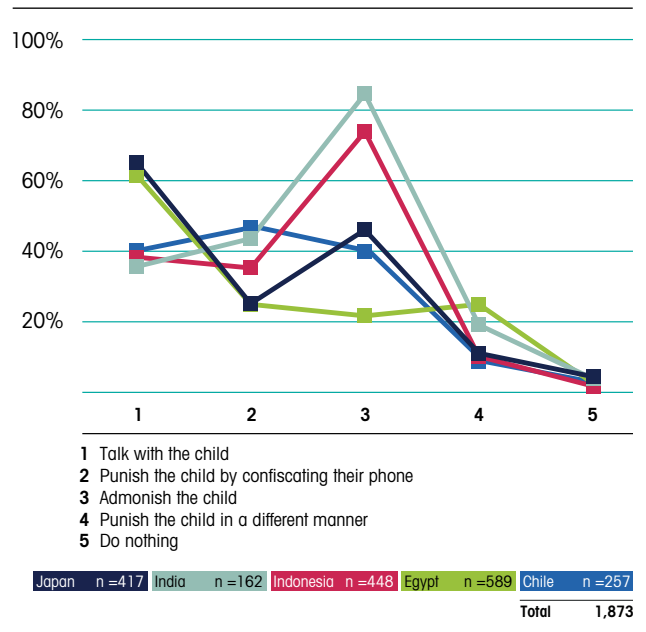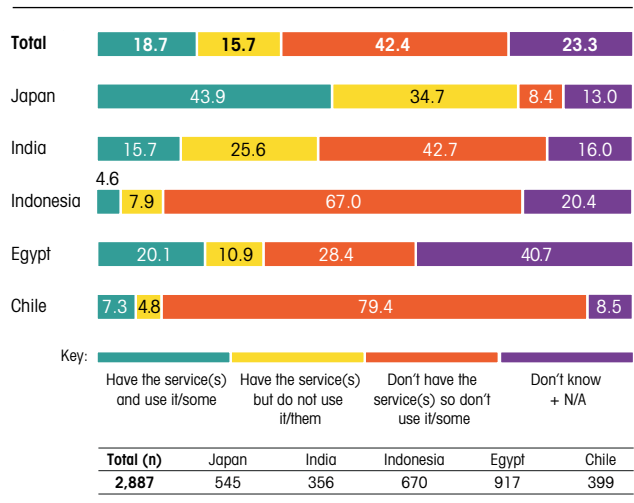**Figure 6-4-2: Parents' response when their child breaks mobile phone rules (% of parents who set rules on mobile phone usage)**

1 Talk with the child
2 Punish the child by confiscating their phone
3 Admonish the child
4 Punish the child in a different manner
5 Do nothing

Japan n =417	India n =162	Indonesia n =448	Egypt n =589	Chile n =257

	Total	1,873

Technological controls, such as filtering and usage controls, enable parents to restrict children's mobile phone use. However, these services may not be available to every family in all countries (Figure 6-4-3).

Figure 6-4-3: Parental control services on a child's mobile phone (% of parents of children who use a mobile phone)

	Have the service(s) and use it/some	Have the service(s) but do not use it/them	Don't have the service(s) so don't use it/some	Don't know + N/A
Total	18.7	15.7	42.4	23.3
Japan	43.9	34.7	8.4	13.0
India	15.7	25.6	42.7	16.0
Indonesia	4.6	7.9	67.0	20.4
Egypt	20.1	10.9	28.4	40.7
Chile	7.3	4.8	79.4	8.5

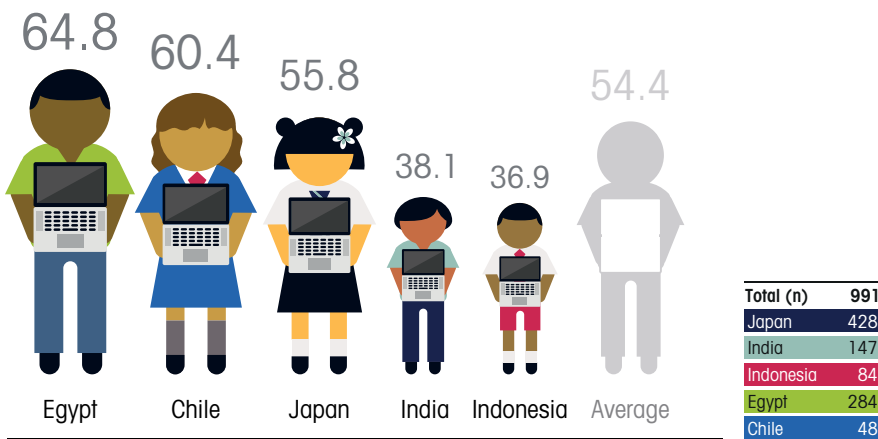| Total (n)	Japan	India	Indonesia	Egypt	Chile
2,887	545	356	670	917	399

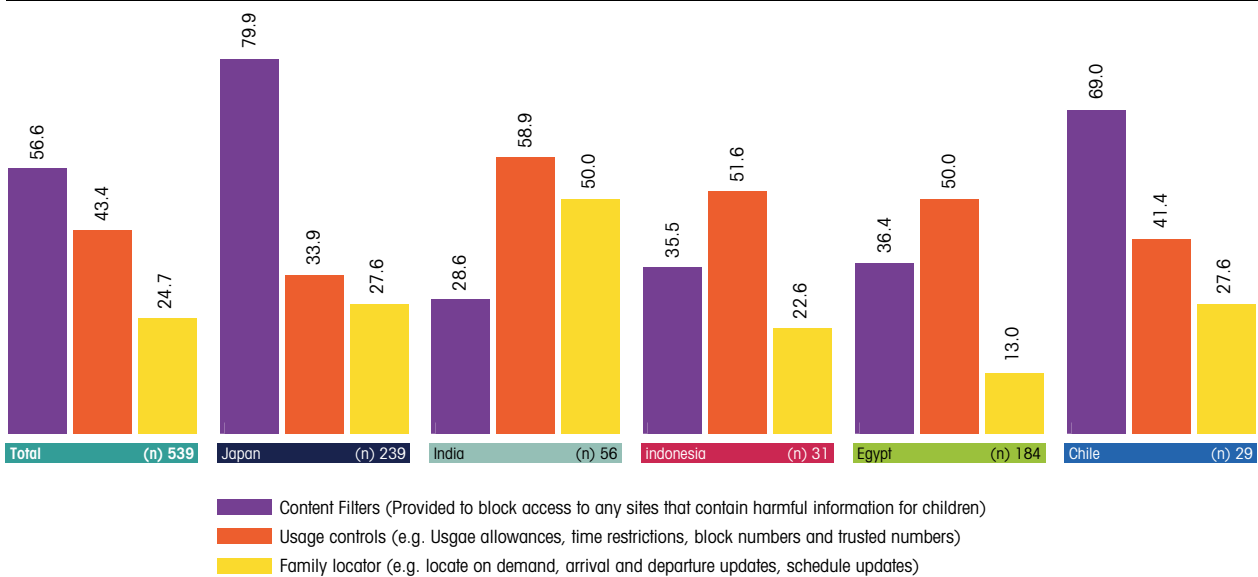6   For the data of type of rules, see Appendix FA6-4-1.

Except in Japan, many parents do not have access to parental control services (Figure 6-4-3); however, where these services are available, 54% of parents use them (Figure 6-4-4).

Additionally, the more parents are concerned about their child's mobile phone use, the more they tend to use parental control services (see Appendix TA 6-4-1).

Figure 6-4-4: Parental control service usage by country
(% of parents of children who use mobile phones to which parental control services are available)

Egypt	Chile	Japan	India	Indonesia	Average
64.8	60.4	55.8	38.1	36.9	54.4

Total (n)	991
Japan	428
India	147
Indonesia	84
Egypt	284
Chile	48

Figure 6-4-5: Types of parental control used by parents for children's mobile phones
(% of parents whose children use parental control services)

	Total (n) 539	Japan (n) 239	India (n) 56	indonesia (n) 31	Egypt (n) 184	Chile (n) 29
Content Filters	56.6	79.9	28.6	35.5	36.4	69.0
Usage controls	43.4	33.9	58.9	51.6	50.0	41.4
Family locator	24.7	27.6	50.0	22.6	13.0	27.6

■ Content Filters (Provided to block access to any sites that contain harmful information for children)
■ Usage controls (e.g. Usgae allowances, time restrictions, block numbers and trusted numbers)
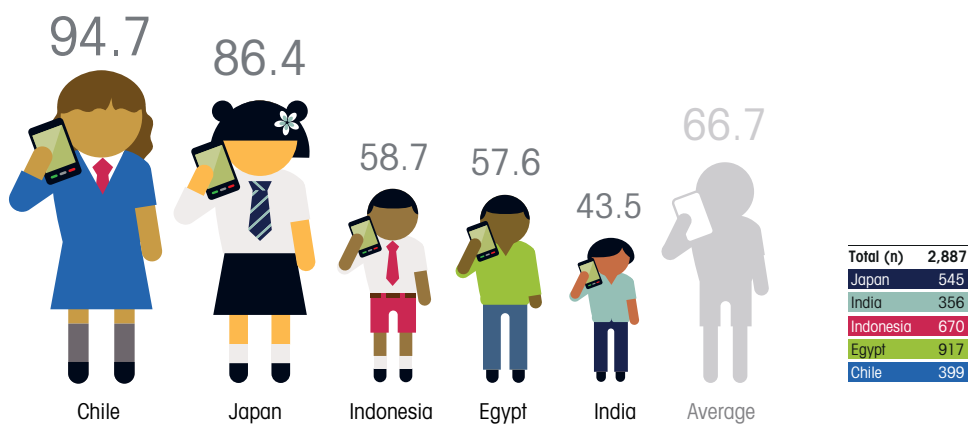■ Family locator (e.g. locate on demand, arrival and departure updates, schedule updates)

Content filters are the most common type of control method used by parents, followed by usage controls and family locator services (Figure 6-4-5).

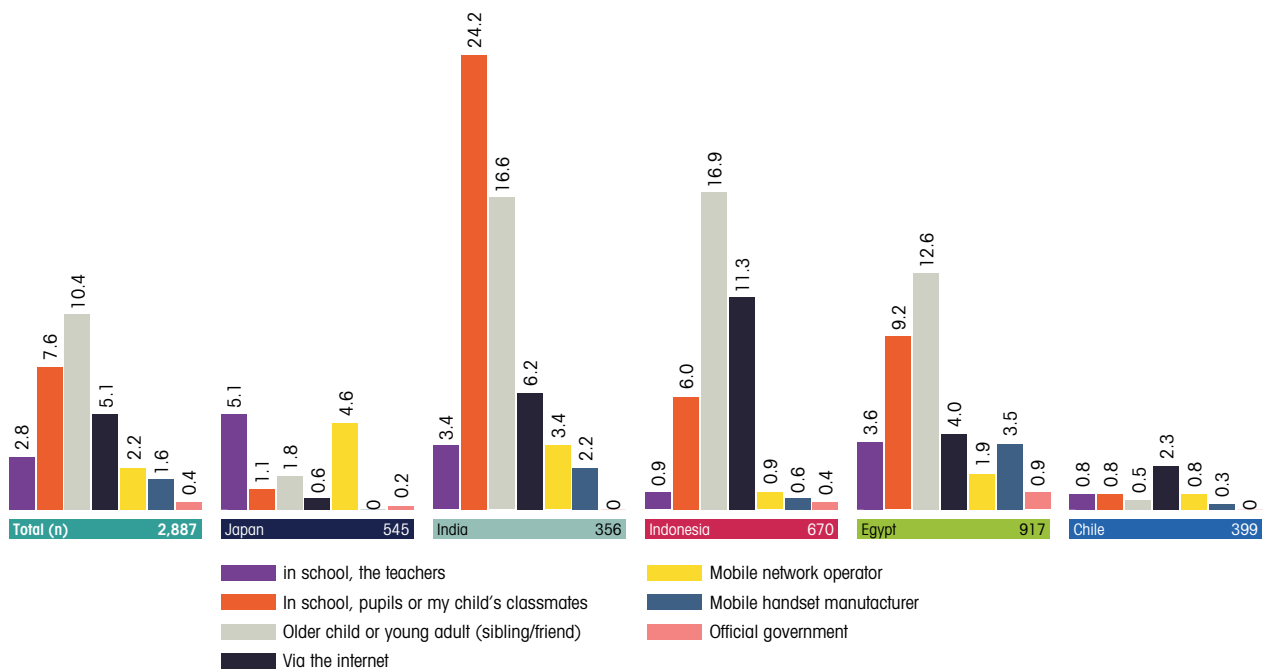## 6.5 – Digital literacy and sources of advice for children

Improving children's digital literacy is another way to make mobile phone use safer for children, for example, by helping children understand the risks, how to avoid them and whom to ask for help.

When asked who is the best person to educate their child on mobile phone use, over 67% of parents believe it should be an adult in the family (Figures 6-5-1 and 6-5-2). The next most popular answers are pupils or classmates and older siblings or friends (Figure 6-5-2)[12]. Responses indicating mobile operators, handset manufacturers and government were extremely low in each country.

Figure 6-5-1: Parents who believe an adult in the family should educate children on mobile phone use (% of parents whose children use mobile phones)[13]

Total (n)	2,887
Japan	545
India	356
Indonesia	670
Egypt	917
Chile	399

Chile 94.7 · Japan 86.4 · Indonesia 58.7 · Egypt 57.6 · India 43.5 · Average 66.7

Figure 6-5-2: People whom parents think should educate children about mobile phone use (not including family members) (% of parents whose children use mobile phones)

Legend:
- in school, the teachers
- In school, pupils or my child's classmates
- Older child or young adult (sibling/friend)
- Via the internet
- Mobile network operator
- Mobile handset manufacturer
- Official government

12 The base is parents whose children use mobile phones
13 The base is parents whose children use mobile phones

Figure 6-5-3: People from whom children seek advice about their mobile phone (% of children who use a mobile phone)

1 Friends
2 Parents
3 Older sibling/family member
4 Teachers at school
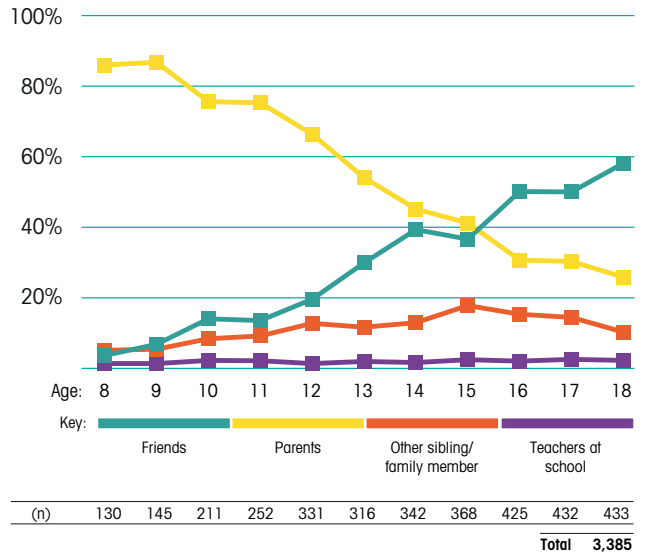5 Other
6 Nobody

Japan n =1,000	India n =356	Indonesia n =672	Egypt n =961	Chile n =396
			Total	**3,385**
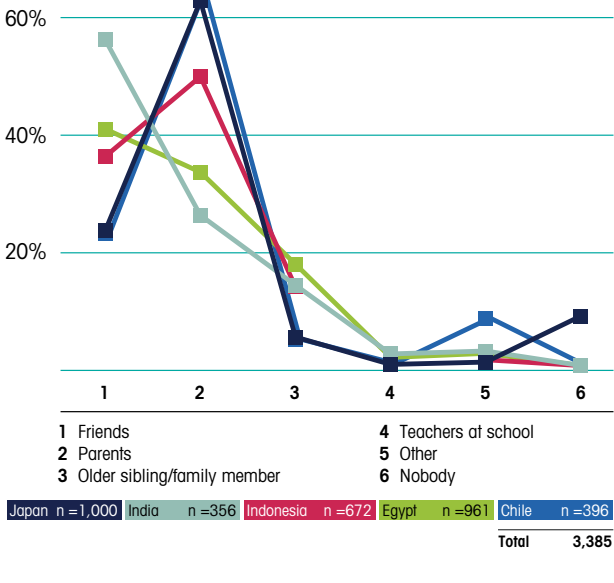
Figure 6-5-4: People from whom children seek advice about their mobile phone by age (% of children who use a mobile phone)

Key: Friends | Parents | Other sibling/family member | Teachers at school

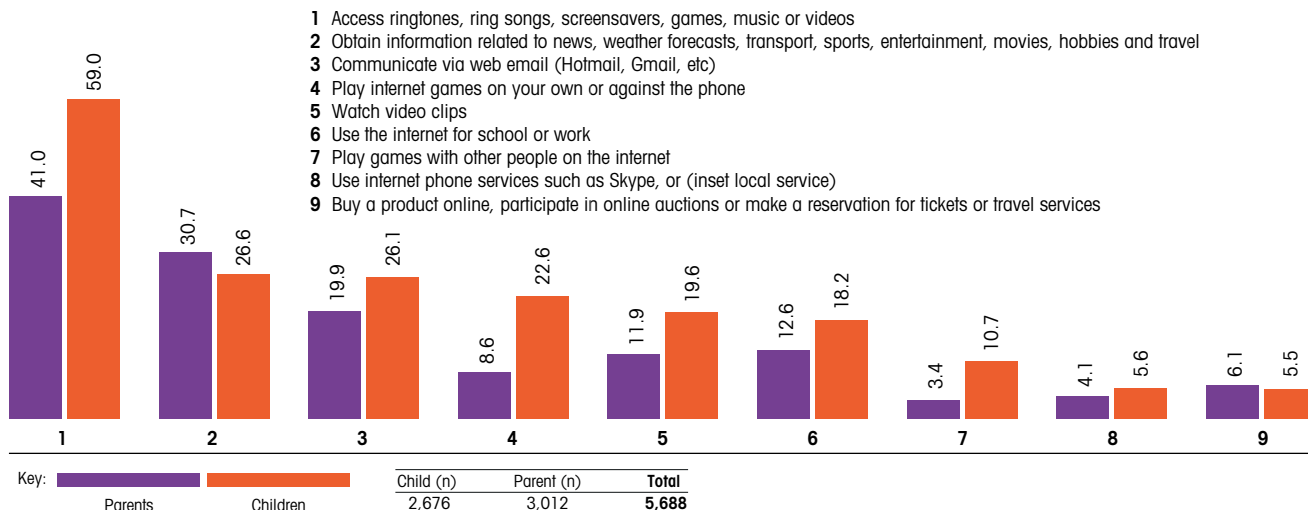| (n)	130	145	211	252	331	316	342	368	425	432	433
										Total	**3,385**

Children mainly seek advice from parents and friends when they encounter a problem on their mobile phone (Figure 6-5-3). Younger children predominantly ask their parents for help and older children increasingly turn to their friends.

Although parents often provide advice to children on their mobile phone use, it is not clear whether they are digitally literate themselves. For the purposes of this survey, it is assumed that mobile literacy increases with mobile phone use. Accordingly, a comparison of parent and child literacy levels has been made to establish whether parents are well equipped to provide education and advice on their children's mobile phone use.

In general, children use all mobile phone services, excluding information services, more often than their parents (Figure 6-5-5, FA 6-5-1, FA 6-5-2). Furthermore, as described in Chapter 5, the use of social networking services is higher for children than for parents (Figure 5-4-2).

Although no significant variances are observed in social networking use between parents and children in Japan and Chile, considerable differences are found in India, Egypt and particularly Indonesia, where 63% of children use the platforms compared to 11% of parents (Figure 5-4-2). These results suggest that children may have higher levels of digital literacy than their parents. Although parents may believe they can educate their children appropriately on mobile phone use, many lack knowledge of the services and technology to do this effectively.

Figure 6-5-5: What children do their mobile phone (% of children who access the internet via mobile)

1 Access ringtones, ring songs, screensavers, games, music or videos
2 Obtain information related to news, weather forecasts, transport, sports, entertainment, movies, hobbies and travel
3 Communicate via web email (Hotmail, Gmail, etc)
4 Play internet games on your own or against the phone
5 Watch video clips
6 Use the internet for school or work
7 Play games with other people on the internet
8 Use internet phone services such as Skype, or (inset local service)
9 Buy a product online, participate in online auctions or make a reservation for tickets or travel services

Key: Parents | Children

Child (n)	Parent (n)	Total
2,676	3,012	**5,688**

Mobile technology and children's wellbeing

What role does mobile technology play in children's wellbeing? Does it have a positive effect on their confidence and relationships? This chapter presents the results from the 2012 research along with key findings from a range of other external studies.

Key findings

Nearly 80% of children surveyed say that having a mobile phone increases their confidence; this is particularly prevalent among children 10–13 years old (all above 80%).

63% of all children surveyed feel insecure without their mobile phones; this rises significantly in children aged 16–18 (66% to 71%).

Despite the popularity of mobile phones, children still talk face-to-face with their parents more than they call or message them.

90% of children who use social networking services on their mobile phone agree that these services reinforce relationships with close friends.
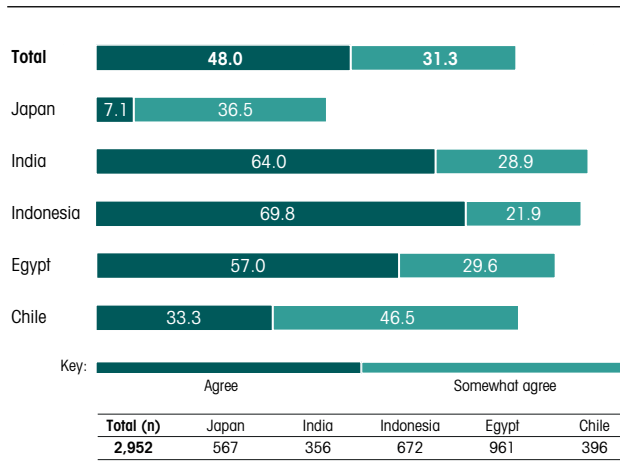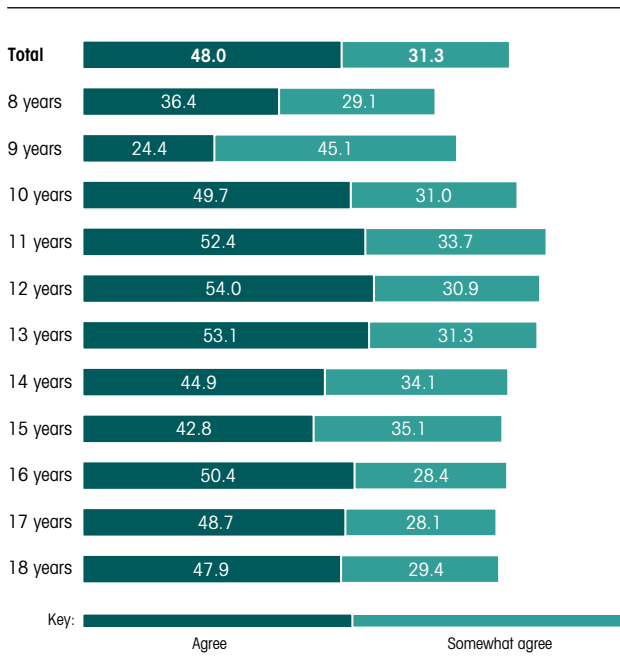
7.1 – Mobile phone ownership and confidence

Whether children's confidence is enhanced by having a mobile phone differs greatly between countries. The strongest results are seen in India and Indonesia with over 90 per cent of children agreeing that owning a mobile phone makes them feel more confident. Japan has the lowest proportion at 44 per cent (Figure 7-1-1).

Figure 7-1-1: "Having a mobile phone makes me feel more confident" (% of children who use a mobile phone)

	Agree	Somewhat agree
Total	48.0	31.3
Japan	7.1	36.5
India	64.0	28.9
Indonesia	69.8	21.9
Egypt	57.0	29.6
Chile	33.3	46.5

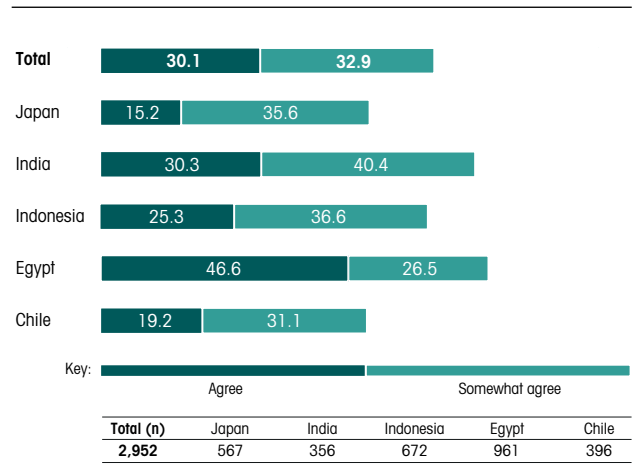| Total (n)	Japan	India	Indonesia	Egypt	Chile
2,952	567	356	672	961	396

When comparing age, younger children are less likely to think that having a mobile phone makes them more confident. For example, 66 per cent of children at age eight feel more confident if they own a mobile phone. This figure rises with age, peaking at 86 per cent at age 11 (Figure 7-1-2).

Figure 7-1-2: "Having a mobile phone makes me feel more confident" by age (% of children who use a mobile phone)

	Agree	Somewhat agree
Total	48.0	31.3
8 years	36.4	29.1
9 years	24.4	45.1
10 years	49.7	31.0
11 years	52.4	33.7
12 years	54.0	30.9
13 years	53.1	31.3
14 years	44.9	34.1
15 years	42.8	35.1
16 years	50.4	28.4
17 years	48.7	28.1
18 years	47.9	29.4

When looking at insecurity, Figure 7-1-3 show that more than 50 per cent of child mobile phone owners feel insecure without their phone. The highest ratios are seen in Egypt and India (70%) and the lowest in Japan and Chile (50%).
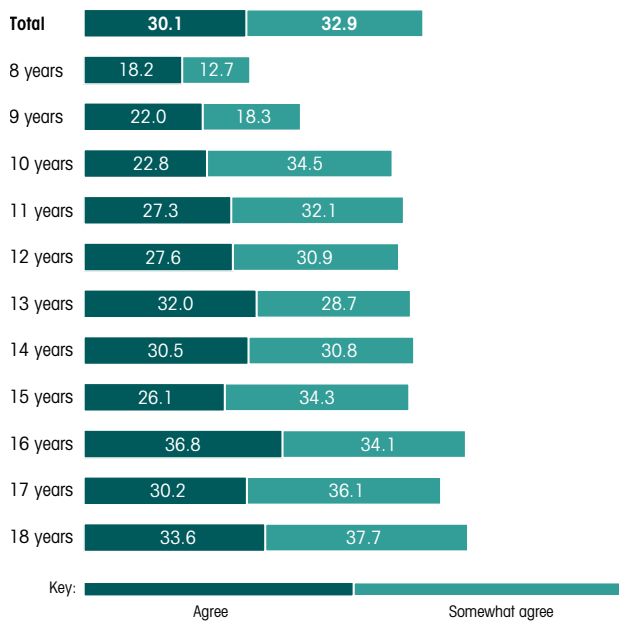
Figure 7-1-3: "I feel insecure without my mobile phone" (% of children who use a mobile phone)

	Agree	Somewhat agree
Total	30.1	32.9
Japan	15.2	35.6
India	30.3	40.4
Indonesia	25.3	36.6
Egypt	46.6	26.5
Chile	19.2	31.1

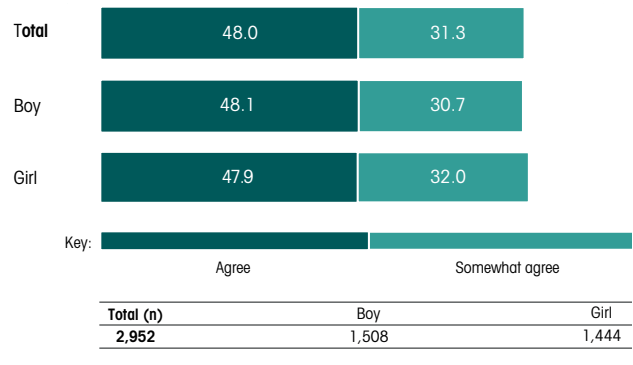| Total (n)	Japan	India	Indonesia	Egypt	Chile
2,952	567	356	672	961	396

Older children tend to feel more insecure without their mobile phone, with the proportions increasing from approximately 30 per cent at age eight to 71 per cent at age 18 (Figure 7-1-4).
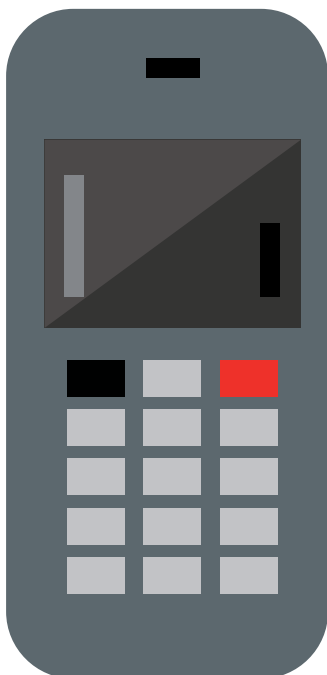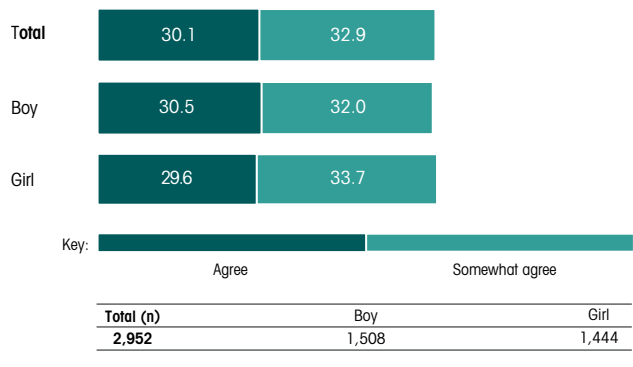
No gender differences are found when examining confidence and insecurity, with both girls and boys showing similar responses (Figure 7-1-5 and Figure 7-1-6).

Figure 7-1-4: "I feel insecure without my mobile phone" by age (% of children who use a mobile phone)

	Agree	Somewhat agree
Total	30.1	32.9
8 years	18.2	12.7
9 years	22.0	18.3
10 years	22.8	34.5
11 years	27.3	32.1
12 years	27.6	30.9
13 years	32.0	28.7
14 years	30.5	30.8
15 years	26.1	34.3
16 years	36.8	34.1
17 years	30.2	36.1
18 years	33.6	37.7

Key: Agree / Somewhat agree

Figure 7-1-5: "Having a mobile phone makes me feel more confident" by gender (% of children who use a mobile phone)

	Agree	Somewhat agree
Total	48.0	31.3
Boy	48.1	30.7
Girl	47.9	32.0

Key: Agree / Somewhat agree

Total (n)	Boy	Girl
2,952	1,508	1,444

Figure 7-1-6: "I feel insecure without my mobile phone" by gender (% of children who use a mobile phone)

	Agree	Somewhat agree
Total	30.1	32.9
Boy	30.5	32.0
Girl	29.6	33.7

Key: Agree / Somewhat agree

Total (n)	Boy	Girl
2,952	1,508	1,444

7.2 – Child-to-parent communication preferences

In a world that is becoming increasingly digital, traditional face-to-face communication between children and their parents continues to dominate over all other forms. However, the frequency of all child-parent communication, including face-to-face, calling and messaging, is more common with mothers than fathers.

Further, in most cases children are more likely to call rather than message their parents, except in Japan where they prefer to message their mothers (14%) rather than call them (10%) (Table 7-2-1).
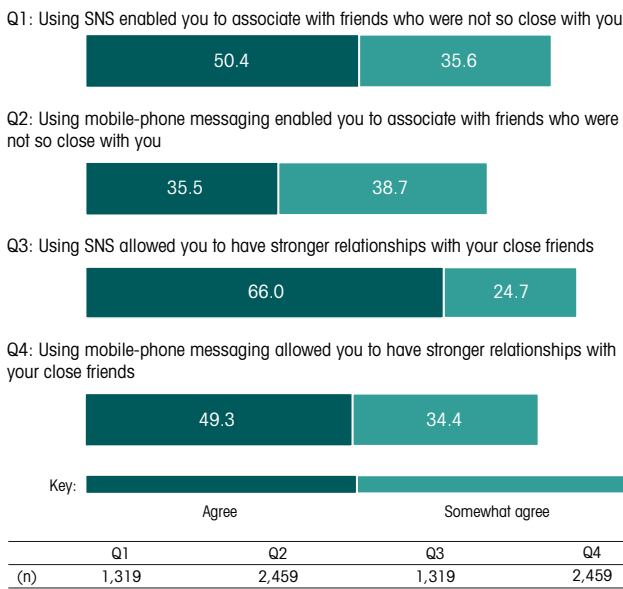
Table 7-2-1: Types of child/parent communication (%)

		Father		Mother
		Almost everyday		Almost everyday
Total	Face-to-face	78.5	Face-to-face	88.3
	Calling	34.5	Calling	40.9
	Message	16.5	Message	22.0
Japan	Face-to-face	65.5	Face-to-face	92.1
	Calling	3.8	Calling	9.8
	Message	3.6	Message	14.4
India	Face-to-face	84.4	Face-to-face	86.0
	Calling	52.2	Calling	54.8
	Message	19.5	Message	15.5
Indonesia	Face-to-face	88.0	Face-to-face	96.4
	Calling	24.0	Calling	28.3
	Message	20.4	Message	25.5
Egypt	Face-to-face	82.0	Face-to-face	78.0
	Calling	54.8	Calling	58.6
	Message	23.6	Message	27.6
Chile	Face-to-face	66.1	Face-to-face	90.5
	Calling	39.8	Calling	64.3
	Message	10.5	Message	20.0

7.3 – Mobile technology, social networking and relationships

Figure 7-3-1 shows that social networking has greater influence than email or messaging when it comes to children strengthening and improving relationships with friends. Overall, 90 per cent of children who use social networking services on their mobile agree that it reinforces relationships with close friends, while 86% say it enables them to connect with acquaintances.
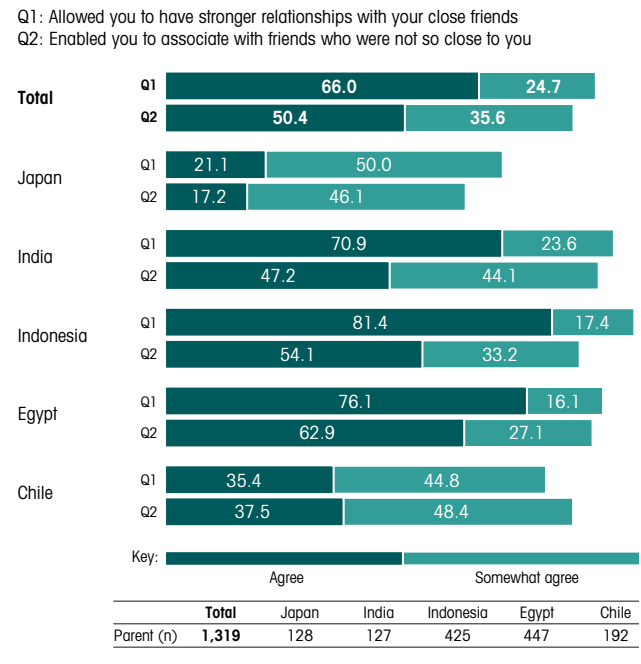
Figure 7-3-1: Social networkings influence on relations versus other forms of communication.*

Q1: Using SNS enabled you to associate with friends who were not so close with you

50.4	35.6

Q2: Using mobile-phone messaging enabled you to associate with friends who were not so close with you

35.5	38.7

Q3: Using SNS allowed you to have stronger relationships with your close friends

66.0	24.7

Q4: Using mobile-phone messaging allowed you to have stronger relationships with your close friends

49.3	34.4

Key:

Agree	Somewhat agree

	Q1	Q2	Q3	Q4
(n)	1,319	2,459	1,319	2,459

*Q1 and Q3 % of children who use social networking via their mobile phone. Q2 and Q4 % of children who use their phone for messaging

When looking at each country, the findings are relatively consistent except in Japan. Indonesia has the highest proportion with over 80 per cent of children who use social networking services on their mobile agreeing that it enhances their relationships with close friends, in contrast to a low 21 per cent in Japan (Figure 7-3-2).

Figure 7-3-2: Social networking influence on relationships (% of children who use SNS via their mobile)

Q1: Allowed you to have stronger relationships with your close friends
Q2: Enabled you to associate with friends who were not so close to you

		Agree	Somewhat agree
Total	Q1	66.0	24.7
	Q2	50.4	35.6
Japan	Q1	21.1	50.0
	Q2	17.2	46.1
India	Q1	70.9	23.6
	Q2	47.2	44.1
Indonesia	Q1	81.4	17.4
	Q2	54.1	33.2
Egypt	Q1	76.1	16.1
	Q2	62.9	27.1
Chile	Q1	35.4	44.8
	Q2	37.5	48.4

Key:

Agree	Somewhat agree

	Total	Japan	India	Indonesia	Egypt	Chile
Parent (n)	**1,319**	128	127	425	447	192

7.4 Mobile technology and children's wellbeing – external research

This section draws on a range of external research to examine how mobile technology impacts children's wellbeing in other regions. It includes studies from:

- EU Kids Online
- Pew Research Center
- Family Online Safety Institute and Hart Research Associates
- Common Sense Media
- Mobile Youth

The impact of social media on children's confidence

Valuable research is being undertaken in order to understand what children encounter through social networking and what they think and feel about their experiences.

Examples include the **Common Sense Media** 2012 study *Social Media, Social Life: How Teens View Their Digital Lives[1]*, which found that 90 per cent of American children aged between 13-17 ('teens') have used some form of social media. Most believe it has a more positive than negative impact on their social lives. The study also revealed that:

- Teens still prefer face-to-face communication, however 75 per cent have social media profiles and, of those:
  - 20 per cent say social media makes them feel more confident
  - 28 per cent say networking makes them feels more outgoing
  - 76 per cent say social networking makes no difference to their self-confidence levels
- 43 per cent of teens access social networking from a mobile device at least 50 per cent of the time

Internet bullying is a concern of many parents and governments. A 2011 study *Teens, Kindness and Cruelty on Social Network Sites[2]* by the **Pew Research Centre** found that:

- although 88 per cent of American teens who use social media have witnessed other people being mean or cruel on social network sites, 69 per cent think that peers are mostly kind to each other
- more teens report positive personal outcomes than negative ones from interactions on social network sites: 78 per cent report at least one good outcome and 41 per cent report at least one negative outcome
- only 12 per cent say they see cruel behaviour frequently
- 65 per cent have had a social networking experience that made them feel good about themselves
- 85 per cent of teens did not experience harassment in the previous 12 months

- among the 15 per cent who experience mean or cruel behaviour, there are no statistically significant differences in age, race, gender or economic status

Digital know-how versus digital intelligence – why parents still play an important role in the lives of their children

While children may have access to a mobile device at a young age, this early familiarity with digital technology does not necessarily protect them from internet associated risks. Adults, including parents and carers, can still help children recognise and avoid threats.

The 2011 **Pew Research Center** study[3] found that parents were the main advisors on safe and responsible internet and mobile use for 86 per cent of online American teenagers, followed by teachers and friends.

A 2010 European survey by **EU Kids Online**, titled *Risks and Safety on the Internet[4]*, showed that:

- 40 per cent of European 11-16 year olds did not know how to take basic online precautions such as blocking messages or changing security settings
- 36 per cent of 9-16 year olds thought they knew more about the internet than their parents
- 63 per cent had received advice from their parents about safe internet use
- 60 per cent had turned to a parent or teacher when something had bothered them online

Parental control is the subject of *Who needs Parental Control?[5]*, published by the **Family Online Safety Institute and Hart Research Associates** in 2011. Key findings from this survey of American parents of children aged 8-17 were:

- 75 per cent of parents felt knowledgeable about how to protect their child's safety on the internet
- 87 per cent of parents were aware of at least one method of internet parental control, and 53 per cent had used tools or software to monitor or limit their child's internet activity

The survey also indicated that when it comes to smartphones,

- only 50 per cent of parents whose children go online using smartphones felt knowledgeable about protecting them
- although 70 per cent of parents whose children use a mobile phone have reviewed their text messages, only 25 per cent of parents have set up parental controls on a smartphone their child uses

1   http://www.commonsensemedia.org/research/social-media-social-life
2   http://pewinternet.org/Reports/2011/Teens-and-social-media.aspx
3   http://pewinternet.org/Reports/2011/Teens-and-social-media.aspx
4   http://www2.lse.ac.uk/media@lse/research/EUKidsOnline/EU%20Kids%20II%20(2009-11)/EUKidsOnlineIIReports/D4FullFindings.pdf
5   http://www.fosi.org/research.html

The effect of mobile and social media on relationships

Mobile Youth has studied the enabling role of mobile technology in social engagement. Its *2012 Mobile Youth Report*[6] explores the use of mobile technology by young people aged 10-29:

- Young people's end goal in using technology is to enable and enhance offline social interaction
- Of the 1,000 students worldwide who volunteered to give up mobile media for 24 hours, 50 per cent were unable to go 24 hours without using their mobiles
- 38 per cent of college students said they could not survive 10 minutes without checking their mobile devices for updates
- Young people use mobile technology to get around parental controls on offline contact by using tools such as video chat, YouTube and Facebook groups as surrogates for physical 'hangouts' for up to six hours per day

Common Sense Media[7] found upsides and downsides to social media:

- 52 per cent of children surveyed reported that social media has helped relationships with friends
- 34 per cent of teens either strongly or somewhat agree that using social media takes away from time they could be physically spending with people

EU Kids Online[8] found:

- 39 per cent are in touch with people who they first met on the internet but who have a connection with friends or family offline
- 80 per cent in each age group communicate online with their existing offline social circle

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6   http://www.mobileyouth.org/report/ (NEED PERMISSION TO QUOTE)
7   http://www.commonsensemedia.org/research/social-media-social-life
8   http://www2.lse.ac.uk/media@lse/research/EUKidsOnline/EU%20Kids%20II%20(2009-11)/EUKidsOnlineIIReports/D4FullFindings.pdf

Appendix 1

Appendix 1

Japan

1. Income, culture and education

In Japan, 20 per cent of the population is in the upper-income class, 60 per cent is in the middle-income class, and 20 per cent is in the lower-income class. There has been a trend toward nuclear families, and in the middle-income class, it is common for singles to live in small apartments, while families often live in detached houses or apartments in areas somewhat separated from the high-rent cities.

At school, children participate in club and circle activities and study subjects like sports, music, and art. Children often enjoy leisure activities such as playing video and mobile games, reading comics, and watching cartoons. Children feel at ease going to karaoke boxes by themselves.

School examination competition is intense and from a young age it is common for children to attend crammer schools in addition to school. Due in part to this enthusiasm towards studies, 96 per cent of young people in Japan have graduated from senior high school or have the equivalent academic ability. The university entrance rate is 57.8 per cent and goes up to 81.3 per cent if distance learning universities and vocational schools are included[1].

2. ICT environment

Mobile phones are used by 24.2 per cent[2] of elementary school students, 56.1 per cent[3] of junior high school students, and 95 per cent[4] of high school students. In addition, the tablet penetration rate is 6.5 per cent[5] for elementary school students, 7.4 per cent[6] for junior high school students, and 5.7 per cent[7] for high school students.[8]

With the increased use of mobile phones among children, since around 2005 there has been a growing interest in providing a safer mobile phone use environment for children. Parallel to these developments, initiatives have been launched and voluntary guidelines have been formulated by telecommunications business organisations. Furthermore, the Act on Development of an Environment That Provides Safe and Secure Internet Use for Young People was enacted in 2009. Underpinning these developments are two approaches: the first is mobile literacy aimed at educating children on the use of information; and the second is to provide access limitations to filter information. Mobile literacy initiatives consist of schools and local governments inviting instructors from mobile phone businesses to hold meetings aimed at children, parents, and teachers. Meanwhile, the usage rate of filtering services that limit the access of children to the mobile internet of 55.3 per cent[9] (as of 2011) is a figure that is expected to increase in the future. The current issue faced is fostering the literacy in children required by our information-based society while using information access limitations, which are one of the main forms of filtering.

The number of social networking services (SNS) users in Japan is rapidly increasing. The usage rate for Japan's own mixi service is the highest at 45.9 per cent, while Facebook is the second highest at 25 per cent[10]. Facebook is mostly used by people in their 20s and 30s and by approximately 14 per cent of people over 45[11].

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1 As of 2010. Ministry of Education, Culture, Sports, Science and Technology, International comparison of Barometer of Education, 2011, p.10
2 n=397
3 n=397
4 n=282
5 n=397
6 n=269
7 n=282

8 Surveyed by NTT DOCOMO, Mobile Society Research Institute (Jan., 2012)
9 The base is the parents whose children use mobile phones. n=1,092. Surveyed by Ministry of Internal Affairs and Communications of Japan. (http://www8.cao.go.jp/youth/youth-harm/chousa/h23/net-jittai/html/2-2-1.html)
10 NTT DOCOMO, Mobile Society Research Institute, "Mobile Communication 2012-13 –White paper on Mobile Society", Chuo Keizai-sha Inc, Aug., 2012, p.149
11 socialbakers.

India

1. Income, culture and education

There is a caste system in India that classifies people based on occupation and birth in accordance with the precepts of ancient Hinduism.[12] The caste system was prohibited by the constitution after independence in 1947 and the government adopted protective policies to improve the status of members of the lower castes, such as affirmative action programs for education and employment.[13] Despite the gradual dissolution of the caste system that is underway, its roots remain strong in local village society and there are large differences in income among the different castes[14].

In terms of income levels, 2 per cent are in the upper-income class, 13 per cent are in the middle-income class, 34 per cent are in the upper low-income class, and 51 per cent are in the lower low-income class. The upper-income class consists of politicians and executives of major companies who often purchase luxury items such digital cameras and expensive cosmetics and employ servants. The middle-income class mainly consists of urban salaried workers, private business owners, government officials, and wealthy farmers. Approximately half of the members of this class own cars and major consumer appliances. The upper low-income class is composed of retail shop owners and persons engaged in the agriculture and fishing industries. Durable goods are available to this class. The lower low-income class is composed of farm laborers and part-time laborers. Most of their income is devoted to daily necessities[15].

The most popular sport in India is cricket, and it is very common for people to play cricket in parks on the weekends and holidays.

Children go to school in the morning and have breakfast at school. After returning home in the afternoon, many children have lunch and spend their time watching television after. On the weekends, children often play in the park, go shopping, or spend time watching television together with their families.[16]

Compulsory education applies to children aged six to 14[17], which includes five years of primary school and three years of upper primary school, for a combined total of eight years[18]. However, due to the large gap between the rich and poor, many children are not able to receive elementary education or end up leaving school midway. Only 48.7 per cent manage to graduate. Common reasons for leaving midway include the high costs, lack of interest towards studies, and needing to help with housework or labor.[19]

2. ICT environment

India is known as a key ICT country and is very active in software exports. Domestically, the full-fledged development of ICT is still in the initial phase.[20]

Most of the mobile phones used in India are pre-paid.[21] While the number of mobile phone contract holders has increased dramatically since 2000, ARPU has continued to decrease due to intensified price competition. In an aim to secure profits, since 2010 each mobile phone company has started to show an interest in shifting from voice-centered 2G services to the adoption and provision of 3G services that are capable of offering wireless internet and mobile value added services (MVAS)[22]. At the end of 2011, there were over 10 million 3G contract holders in India[23].

As for the mobile device market share, Indian-made devices account for 13 per cent of the market, while Chinese-made devices account for approximately 40 per cent. The reason Chinese-made devices are popular is that they are priced 20 per cent lower than devices made in Europe, such as Nokia devices. In terms of the sales routes for mobile devices, only 10 per cent of devices are sold through organised retail trade, while 90 per cent are sold through unorganised retail trade. In addition, some mobile devices are distributed through informal routes[24].

With the purpose of expanding the use of Indian-made mobile devices, the Telecom Regulatory Authority of India released its recommendations on the Telecom Equipment Manufacturing Policy in April 2011, establishing the goal of 50 per cent of handsets in India being domestically-made by 2019[25].

Facebook is also popular in India. Looking at the most popular mobile internet sites, facebook.com is the second most popular site after google.com[26]. Facebook is also popular among children, with a 12 per cent usage rate among children aged 13 to 17[27].

12 JETRO, Market and its opportunity in India, March, 2012, p.8
13 JETRO, BOP Bijinesu Senzai Niizu Chosa Houkokusho—Indo; Joho Tsushin Gijutsu Bunya (BOP business potential needs survey report—India: Information and telecommunications technology field), March, 2012, p.17
14 Recently SEC (Socio Economic Classification) has been applied to marketing in India to provide a more objective means of categorizing classes. Based on the occupation and education of the chief wage earner, consumers are classified into eight groups (A1 to E2). JETRO, Delhi & Mumbai Style, 2011, p.14
15 JETRO, Market and its opportunity in India, March, 2012, pp.12-15
16 JETRO, Delhi & Mumbai Style, 2011, p.63
17 UNESCO-UIS/OECD, Education Trends in Perspective: Analysis of the World Education Indicators, OECD, 2005, pp.120-121.
18 OECD, OECD Economic Surveys: INDIA, 2011, pp.156-158.
19 JETRO, BOP Bijinesu ni kansuru Senzai Niizu Chosa—Indo; Kyoiku Shokugyo Bunya (BOP business potential needs survey report—ndia: Education and vocational training field), March, 2010, p. 21-22
20 JETRO, BOP Bijinesu Senzai Niizu Chosa Houkokusho—Indo; Joho Tsushin Gijutsu Bunya (BOP business potential needs survey report—India: Information and telecommunications technology field), March, 2012, p. 23
21 NTT DOCOMO, Mobile Society Research Institute, "Mobile Communication 2012-13 –White paper on Mobile Society", Chuo Keizai-sha Inc, Aug., 2012, p.196.
22 Mobile Value Added Services: Additional services other than basic voice calls such as SMS and ring tones. For mobile phone companies MVAS are essential for improving ARPU and these services offer mobile content providers opportunities to generate business. NTT DOCOMO, Mobile Society Research Institute, "Mobile Communication 2012-13—White paper on Mobile Society", Chuo Keizai-sha Inc, Aug., 2012, p.237
23 NTT DOCOMO, Mobile Society Research Institute, "Mobile Communication 2012-13—White paper on Mobile Society", Chuo Keizai-sha Inc, Aug., 2012, pp.198-200.
24 JETRO, Market and its opportunity in India, March, 2012, pp.43-44.
25 JETRO, Market and its opportunity in India, March, 2012, p.43.
26 NTT DOCOMO, Mobile Society Research Institute, "Mobile Communication 2012-13 –White paper on Mobile Society", Chuo Keizai-sha Inc, Aug., 2012, p.207
27 socialbakers.

Indonesia

1. Income, culture and education

Indonesia is enjoying stable economic growth, as it has the third highest real GDP growth rate among the G20 nations[28]. Due to the rise in incomes resulting from this economic growth, the number of people who can afford to allocate a considerable amount of funds to education costs is increasing, particularly among the middle and upper-income classe[29]. The senior high school graduation rate is 41 per cent[30].

Indonesia developed as a strategic stop on the East-West trade route, and its history has been influenced by both India and Persia. It has a multicultural society[31].

Leisure activities that are popular among middle and upper-income class children in the urban areas include visiting malls, cafes, restaurants, and spaces that are equipped with slides, swings, etc. In Jakarta, because locations that children can safely play at are limited to parks contained within apartment complexes, these types of spaces exclusively for children are becoming more and more popular[32]. In recent years, the number of children learning to play musical instruments such as the piano and electronic organ is also on the rise[33].

In terms of sports, soccer is popular and badminton is known as the national sport. In the current capital of Jakarta, the number of large-scale pool complexes is increasing, making it possible to swim throughout the year[34].

As the economy continues to grow, parents have grown more enthusiastic towards their children's studies and more funds are being spent on education, particularly among the middle and upper-income classes. In particular, more attention is being paid to English language education, and the number of students attending cram schools and international schools is increasing[35].

2. ICT environment

In Indonesia, the UU ITE 11/2008 (Undang-Undang Informasi dan Transaksi Elektronik, the Information and Electronic Transaction Law) was promulgated on March 25, 2008. In face of the spread and increasing impact of ICT within Indonesian society, the UU ITE was formulated with children under age 18 in mind that are particularly familiar with new technologies. The UU ITE is chiefly concerned with 1. digital information and digital books, 2. digital signatures, 3. digital certification, 4. electric commerce, 5. domain names, 6. intellectual property rights, and 7. personal information[36].

In addition, the Indonesian government has developed software and products to protect minors from harmful websites, as well as educational software. However, while filtering services are provided, the utilization rate is very low[37].

As of 2011, smartphones account for 11 per cent of total mobile phone use[38]. Nokia smartphones, which account for 44 per cent of smartphones, are very popular due to their low prices. Meanwhile, Blackberry smartphones, which account for 22 per cent of smartphones, are mainly used among the upper-income class in urban areas. Blackberry smartphones are becoming even more popular due to the recent decrease in prices and unlimited access packs for services such as internet, Facebook, and Black Berry Messenger being offered by mobile phone companies. iPhones are also popular, particularly among young people, and the use of Android smartphones such as those offered by Samsung is gradually spreading.

In Indonesia, approximately 60 per cent of internet users access SNS[39]. A large number of people use their mobile phones to access SNS, and the country is one of the top countries in the world for Facebook in terms of user numbers[40].

Currently in Indonesia, many people use pirate CDs and illegal free downloading services to obtain music. On the other hand, accompanying the increase in the mobile phone penetration rate, demand for ringback tones (RBT) services that provide legal music downloads is growing rapidly[41].

In games for mobile phones, users mainly use free games. Use of the free online game service such as GAMES.CO.ID has grown rapidly in recent years[42]. Because GAMES.CO.ID is accessible from Facebook, it has spread rapidly in Indonesia where Facebook enjoys a high usage rate.

28 OECD, Economic Surveys: INDONESIA, 2010, pp.8-9.
29 JETRO, Jakarta Style, March, 2011, p.58.
30 UNESCO/UIS/OECD, Education Trends in Perspective – Analysis of the World Education Indicators, 2005, pp.122-123.
31 JETRO, Jakarta Style, March, 2011, pp.52-53
32 JETRO, Jakarta Style, March, 2011, p.27
33 JETRO, Jakarta Style, March, 2011, p.60
34 JETRO, Jakarta Style, March, 2011, pp.46-50
35 JETRO, Jakarta Style, Mach, 2011
36 JETRO, Indonesia ni okeru Seishonen Hogo no tameno Internet Kisei to Unyo (Internet regulations for the protection of youth in Indonesia and their implementation), 2012
37 "Country report 2012 –Indonesia," 2012
38 JETRO, Sumaho to tomoni Ugokidasu Internet Taikoku Indonesia (Internet superpower Indonesia moving into smartphones), Feb., 2012, p.1
39 JETRO, Survey on internet and SNS use in south-eastern Asia, March, 2012, p.10
40 JETRO, Survey on internet and SNS use in south-eastern Asia, March, 2012, p.16
41 JETRO, Survey on web contents in Indonesia, March, 2012, pp.57-62
42 JETRO, Survey on web contents in Indonesia, March, 2012, pp.86-89

Egypt

1. Income, culture and education

Egypt enjoyed a period of rapid economic growth from 1995 to 2001 and has been growing steadily since then. While the economy was stagnant during 2011, growth is expected again from 2012 onward.

Due to ongoing political instability, tourism revenues and foreign direct investment (FDI) are declining. The youth unemployment is high, with a national average of 23 per cent, and initiatives are underway to resolve the unemployment problem by improving the quality of education[43].

Egyptians are bright and sociable, and enjoy talking. In addition, much importance is placed on the family and respect given to Islamic culture.

Children often enjoy playing games and watching cartoons. In addition, adults and children from the upper-income class enjoy popular facilities such as the Stars Centre Shopping Mall in Cairo that is equipped with large-scale amusement facilities[44].

Personal computers (PCs) are the most commonly used devices used by children to access the internet (61.1 per cent, including 49.6 per cent for home PCs and 11.5 per cent for school PCs), followed by game consoles (29 per cent)[45].

Children have the right to receive basic education[46] from age six for a period of nine years. However, in actuality 10 per cent of children from age 11 to 13 do not receive education[47].

From elementary school to senior high school, it is prohibited to bring mobile phones to most schools.

2. ICT environment

In terms of filtering services, although relevant guidelines have been released by the Ministry of Communications, Information and Technology, these guidelines are not well known among general users and they are only really adopted by cyber cafes, community centers, public libraries, and other facilities where computers are available. For all mobile content including games, the Egyptian Ministry of Culture conducts screening based on standards that restrict violent, sexual, and anti-Islamic content. Based on the results of the screening process, if inappropriate content has been discovered, the Ministry may issue instructions for the content to be changed or for sales to be suspended. Compared to other Arab countries where the screening criteria are said to be stringent, the screening is by Egyptian authorities is not quite as strict[48].

Facebook has the top share among SNS in Egypt. The usage rate is 21 per cent among children aged 13 to 17.[49] SNS were in use before the spread of smartphones, and SNS are mostly accessed from PCs.

43 AfDB/ OECD/ UNPD/ UNECA, African Economic Outlook, 2012, p.193.
44 JETRO, Survey on contents market of animation and games in UAE and Egypt, JETRO, Sep., 2010, pp.24-25.
45 GSMA/NTT docomo, "Children's use of mobile phones; An international comparison", 2011, p.31.
46 OECD AND IBRD/THE WORLD BANK, HIGHER EDUCATION IN EGYPT, pp.60-61
47 UNESCO-UIS/OECD, Education Trends in Perspective: Analysis of the World Education Indicators, OECD, 2005, pp.118-119.

48 JETRO, Survey on contents market of animation and games in UAE and Egypt, JETRO, Sep., 2010, pp.23-24.
49 Socialbakers.

Chile

1. Income, culture and education

In terms of income levels, 10 per cent are in the upper-income class, 45 per cent are in the middle-income class, and 45 per cent are in the lower-income class. In terms of occupations and standards of living for each income level, members of the upper-income class are engaged as specialists such as company executives, university professors, and lawyers. Many of them own luxury cars and employ housekeepers. Members of the middle-income class are often engaged as company employees or qualification holders such as accountants. The majority of these households own cars and fixed phones. Members of the lower-income class are general laborers or non-regular workers, and do not cars or fixed phones.[50]

Due to the recent popularity of SNS among the upper-income class, demand is on the rise for laptop PCs and digital cameras. In addition, consumption of mobile phones, video recorders, and DVDs has also increased.[51]

Among the countries of Latin America, Chile is known to be relatively safe. However, the parks in middle-class residential areas are considered too dangerous for children to play alone or for women to walk alone at night in.

During their leisure time and on holidays, children often participate in general sports such as soccer and jogging, and go to shopping malls together with family, friends, or other young people. Video games are also popular. In 2008, the game module penetration rate was 47 per cent on a national level, with 57 per cent of children aged 10 to 18 playing video games. Watching movies on DVDs is also popular.[52]

Chile is implementing education reforms that have been recommended by the World Bank, and education is made available to almost all children. However scores are not very high in international comparisons of academic abilities, suggesting that educational system is not highly effective.[53]

2. ICT Environment

In September 2009, the Chilean government announced that a shift would be made from analog broadcasting to digital terrestrial broadcasting, making simultaneous broadcasting to mobile devices (1seg TVs,[54] laptop PCs, and PDAs) and mobile phones possible.[55] TV stations have started pilot broadcasts, and mobile phones that can receive digital terrestrial broadcasting free of charge have been launched. Digital terrestrial broadcasting can be received free of charge by high-performance mobile phones (with touch screens, 3G, video-supported high resolution cameras, MP3 players, FM radios, Bluetooth functions, and retractable antennas).[56]

Currently, smartphone use is becoming widespread in Chile[57]. A wide variety of models are available, including the iPhone, BlackBerry, Motorola, Nokia, Sony Ericsson, Samsung, and LG.[58]

Although the number of mobile phones that support internet connectivity is increasing, regions with 3G networks available remain limited.[59] Broadband internet access services are being provided by Claro, Movistar, and Entel PCS, and it is expected that competition between these companies will heat up in the future with the advance of consolidation towards IP networks.[60]

Facebook has grown in popularity in Chile, with 73 per cent of the 18 to 44 age group using Facebook, and 15 per cent of the 13 to 17 age group using Facebook.

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50 JETRO, Marketing research in Chile, 2009, pp.3-4
51 Prepared based on JETRO, Santiago Style, p.15
52 JETRO, Santiago Style
53 IDE-JETRO
54 A 1seg TV is a TV that can receive digital terrestrial broadcasting from a mobile device.
55 JETRO, Report on digital terrestrial broadcasting in Chile, 2010, p.2, p.20
56 JETRO, Report on digital terrestrial broadcasting in Chile, 2010, pp.35-36

57 Here a smartphone refers to a mobile phone that uses a versatile operating system and provides an environment for the development of applications by third parties using public specifications.
58 Entel PCS (http://ayudaequipos.entel.cl/web/)
59 JETRO, Report on digital terrestrial broadcasting in Chile, 2010, p.28
60 JETRO, Report on digital terrestrial broadcasting in Chile, 2010, p.25

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(Ministry of Internal Affairs and Communications of Japan)
http://www.soumu.go.jp/main_sosiki/joho_tsusin/dtv/kihonjoho/kihonjoho1.html

OECD&IBRD/ THE WORLD BANK, *HIGHER EDUCATION IN EGYPT*, OECD, 2010.

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http://www.socialbakers.com/

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(Wireless Intelligence /Data tables)
https://wirelessintelligence.com/
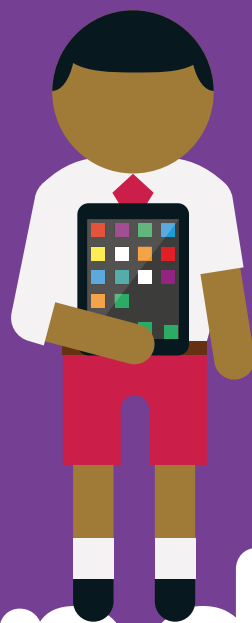
Appendix 2

Figure Appendix – FA3-1-1: Mobile phone usage of children surveyed by country (parents' answer)

Total (n)	Japan	India	Indonesia	Egypt	Chile
4,549	1,000	1,008	1,003	1,034	504
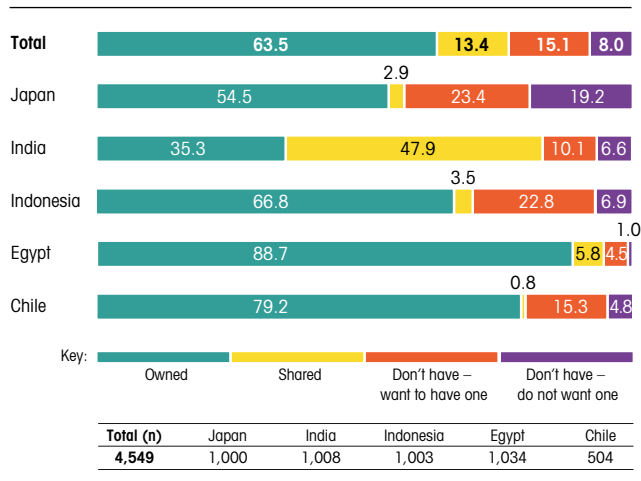
Table Appendix – TA3-4-1: Purchase price of mobile phones by country (USD)

Japan*	range	0	0.01–127	127–317.5	317.5–508	508+		
	%	27.8	21.0	19.5	15.4	16.3		
India	range	0–18.9	18.9–56.7	56.7–94.5	94.5–189	189+		N/A
	%	1.7	38.2	25.0	14.3	4.5		16.3
Indonesia	range	0–50	50–100	100–200	200+		"Didn't buy one – handed down"	Unsure
	%	45.2	32.1	11.0	7.3		3.7	0.6
Egypt	range	0–32.8	32.8–82	82–164	164–492	492+	"Didn't buy one – handed down"	Unsure + N/A
	%	2.3	37.9	24.1	19.3	2.4	8.0	6.0
Chile	range	0	10.5–31.5	31.5–105	105–210	210–420	Handed Down	Unsure
	%	16.5	25.1	24.1	9.3	19.5	3.3	2.3

*In Japan it is common to purchase a mobile phone on a installment plan. When you install the plan the inital cost would be 0 USD.

Table Appendix – TA3-4-2: Mobile phone usage charge per month by country (USD)

Japan	range	0–12.7	12.7–25.4	25.4–50.8	50.8–76.2	76.–101.6	101.6–127	127–254
	%	13.6	16.9	22.6	23.7	17.6	4.4	1.3
India	range	0–0.9	0.9–1.9	1.9–2.8	2.8–4.7	4.7+	N/A	
	%	3.1	20.8	28.1	24.4	14.0	9.6	
Indonesia	range	0–1.5	1.5–2.5	2.5–5	5–10	10+		
	%	6.1	27.3	32.4	22.7	11.5		
Egypt	range	0–3.3	3.3–4.9	4.9–8.2	8.2–16.4	16.4+	N/A	
	%	13.0	19.2	28.1	21.0	12.4	6.2	
Chile	range	0–6.3	6.3–10.5	10.5–21	21–31.5	31.5+		
	%	20.3	15.0	28.8	20.8	15.0		

Figure Appendix – FA3-5-1: Comparison of parent ownership of type of mobile device with their child

Parent with basic phone	34.2	54.5	11.3
Parent with feature-phone	10.3	74.3	15.4
Parent with smarthone	4.7	44.9	50.5

Key:
Child using basic phone | Child using feature-phone | Child using smartphone

Total (n)	Child	Parent
6,371	2,943	3,428
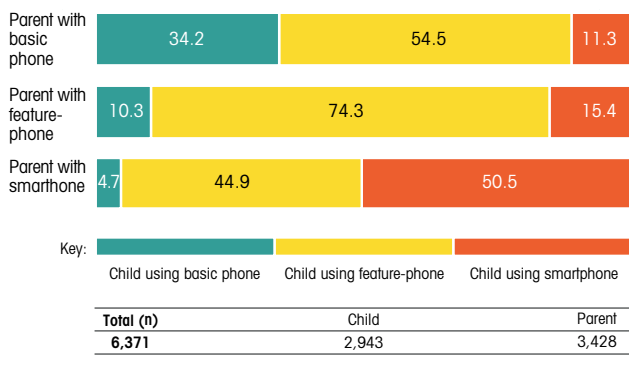
Table Appendix – TA4-1-1: Use of mobile phones for making calls and sending message, by country (2011)

	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 = 2,442

Figure Appendix – FA3-5-2: Type of mobile phone children use (2011) by country (children's answer)

			0.4
Total	88.0	11.6	
			1.1
Japan	90.2	8.6	
India	89.2	10.8	
			0.4
Indonesia	85.8	13.7	

Key:
Feature-phone + Basic phone | Smartphone | Don't know + N/A

Total (n)	Japan	India	Egypt
2,432	523	574	949
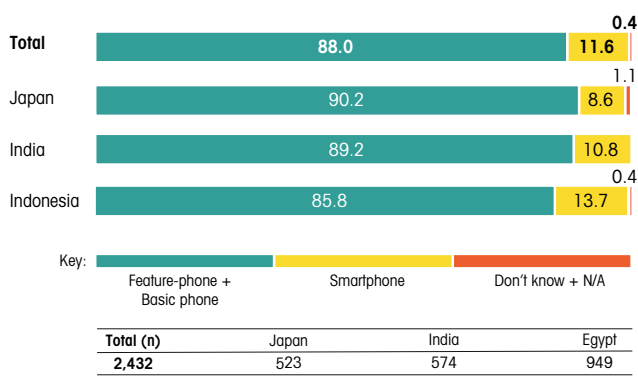
Figure Appendix – FA4-4-1: Frequency of mobile internet usage by children, by country (2011)

					1.9 2.7 0.8 1.5
Japan	17.8	15.8	27.0	22.0	10.4
1.0 2.9					3.8 1.0
India	5.8	32.7	41.3	5.8 5.8
				3.1	1.2
Egypt	5.2 11.0	20.7	24.4	14.3 5.2	9.5 5.4

Key:
More than 11 times a day | 6-10 times a day | 3-5 times a day | 1-2 times a day | 2-3 times a week | Once a week | 2-3 times a month | Once a month | Less than once a month | N/A

Total (n)	Japan	India	Egypt
880	259	104	517
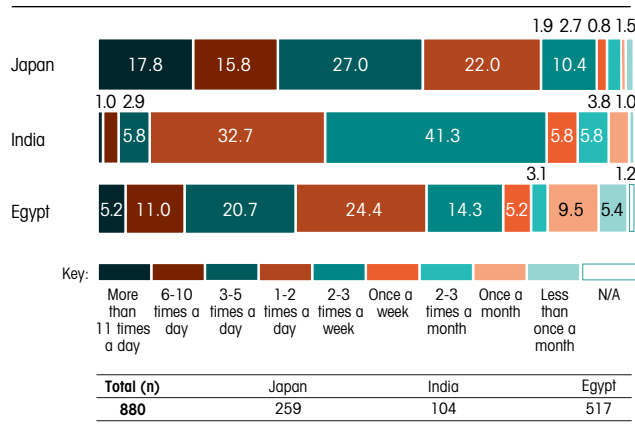
Table Appendix – TA4-6-1: Sample size of pre-installed functions and services use for children and their parents, by country

	Total		Japan		India		Indonesia		Egypt		Chile	
	Child	Parent	Child	Parent	Child	Parent	Child	Parent	Child	Parent	Child	Parent
Camera	2533	2733	512	910	304	214	587	444	749	708	381	457
Music Player	2455	2538	413	691	316	231	596	453	752	712	378	451
Movie Player	1918	1980	391	664	230	140	400	265	531	491	366	420
TV	821	994	358	647	46	17	124	73	243	192	50	65
A password/PIN	1592	1934	440	794	115	99	254	207	488	443	295	391
Location Services	1116	1235	375	566	95	51	105	65	386	338	155	215
Mobile money	690	983	272	576	52	24	63	55	288	296	15	32

Table Appendix – TA 5-1-1: Use of internet content "4. Shopping, auctions or reservation on line" on their mobile phones by children

	All mobile users	Smartphone users
Total	**5.5**	**11.7**
Japan	13.4	12.6
India	7.6	14.0
Indonesia	4.5	11.5
Egypt	4.9	20.3
Chile	1.0	2.4
n	2,676	596

Table Appendix – TA 5-3-1: Comparing use of "Fitness and health" apps between boys and girls

	t-value	Degress of freedom	Significance probability	Difference between averages	Standard error	Confidence interval	
						Least upper bound	Greatest lower bound
5. Fitness and health	-2.204	915.156	0.028*	-0.037	0.017	-0.070	-0.004

* Significant at the 5% level

Figure Appendix – FA 5-3-1: Comparison of mobile apps child and parent use by country

1 Entertainment   **2** Communications   **3** Education and learning   **4** Information   **5** Fitness and health
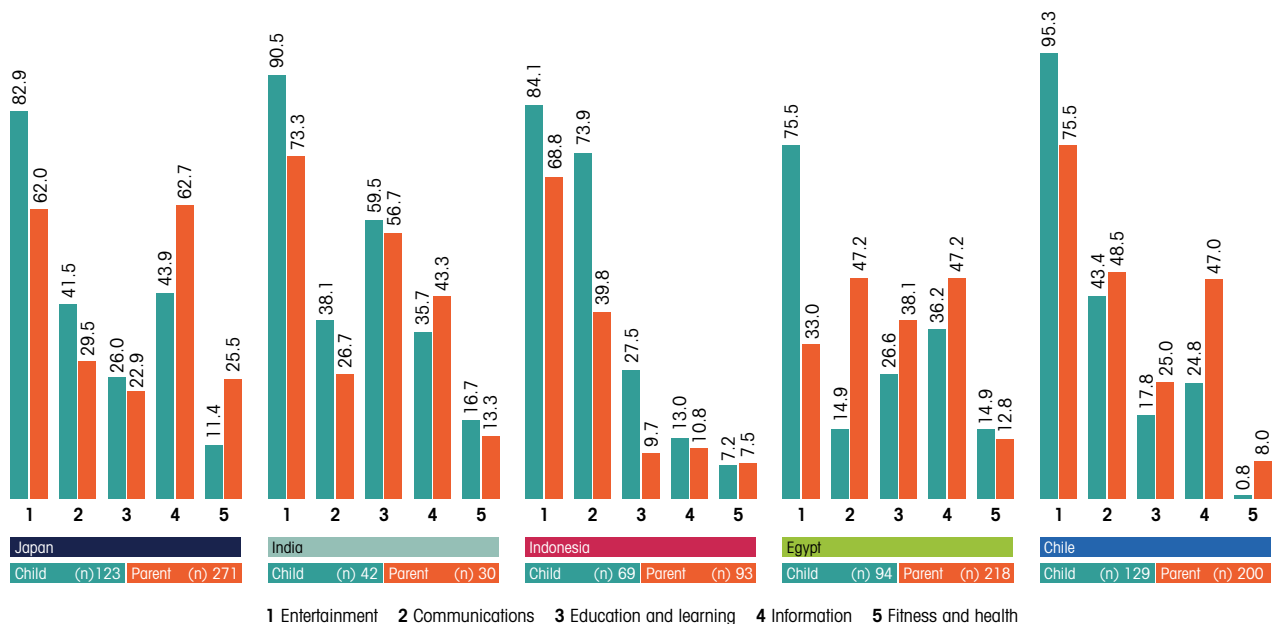
Figure Appendix – FA 5-4-1: Use of social networking services on mobile phone by gender, by country

(n)	Japan	India	Indonesia	Egypt	Chile
	291	356	672	961	396
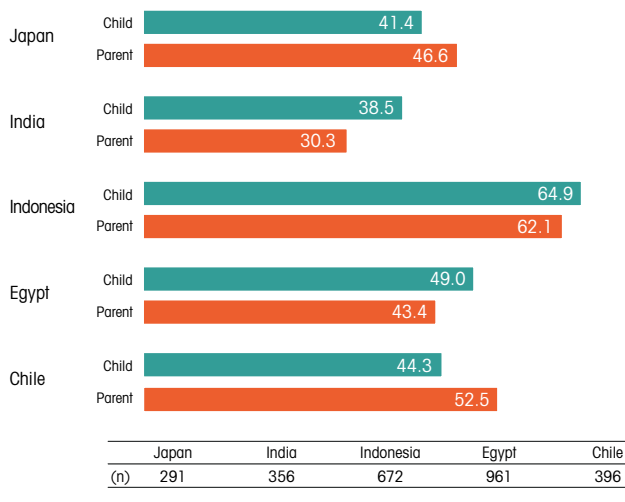
Figure Appendix – FA 5-6-1: Children's social networking services privacy settings by gender

Key:

	Public (everyone can see)	Partially private (friens of friends can see)	Private (only friends/ connections can see)	Don't know + N/A

(n)	Boy 674	Girl 645	**Total 1,319**
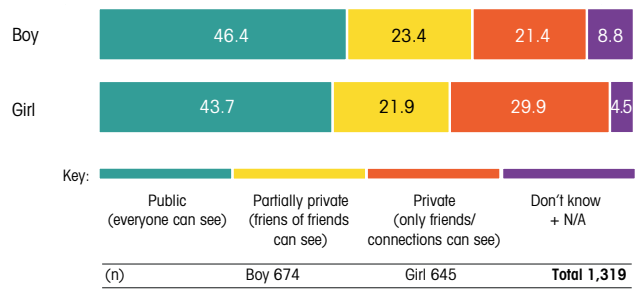
Table Appendix – TA 5-5-1:Correlation coefficient among children who have new "friends" met on social networking services by age

Pearson's coefficient of correlation	0.064*
Significance probability	0.026
N	1,208
Prob > |t|	0.028

* Significant at the 5% level

Table Appendix – TA 5-5-2: Children's number of 'friends" and 'new friends' met on social networking services by country (children with 'new friends' met on social networking services only)

	Average number of 'friends' on social networking sites	Avergae number of new 'friends' met on social networking sites	n
Japan	26.6	15.6	63
India	175.9	31.3	92
Indonesia	596.9	74.1	351
Egypt	129.6	48.9	315
Chile	476.5	75.8	124

Table Appendix – TA 5-6-1: Comparing social networking services privacy settings between boys and girls

					Confidence interval	
t-value	Degress of freedom	Significance probability	Difference between averages	Standard error	Least upper bound	Greatest lower bound
-2.713	1225.065	0.007*	-0.130	0.048	-0.225	-0.0364

* Significant at the 5% level

Figure Appendix – FA6-1-1: Motive for having a mobile phone, by country (Answers from parents)
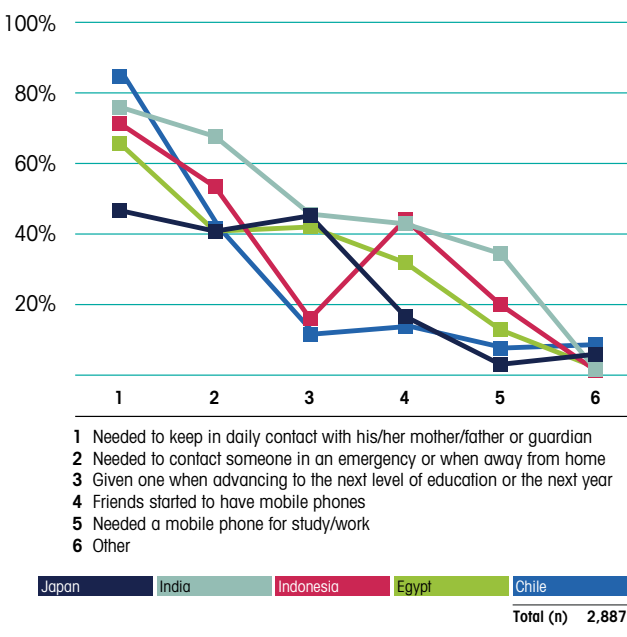

1 Needed to keep in daily contact with his/her mother/father or guardian
2 Needed to contact someone in an emergency or when away from home
3 Given one when advancing to the next level of education or the next year
4 Friends started to have mobile phones
5 Needed a mobile phone for study/work
6 Other

Japan   India   Indonesia   Egypt   Chile

Total (n)   2,887

Figure Appendix – FA6-2-1: Parents concerned about child's use of mobile phone, by country (2011&2012)

1 Overuse
2 Cost of the bills
3 Viewing inappropriate sites such as dating or sexually explicit sites
4 Not being able to keep track of the child's associates
5 Having trouble with friends due to messages eg; falling out or bullying
6 Negative impact on health due to electromagnetic waves
7 Disclosing his/her own personal information

Japan 2012   Japan 2011   India 2012   India 2011   Egypt 2012   Egypt 2011

Total(n) 2,887

Figure Appendix – FA6-1-2: Parents reasons for their child using a mobile phone, by country(2011&2012)

1 Needed to keep in daily contact with his/her mother/father or guardian
2 Needed to contact someone in an emergency or when away from home
3 Given one when advancing to the next level of education or the next year
4 Friends started to have mobile phones
5 Needed a mobile phone for study/work
6 Other

Japan   India   Egypt   Paraguay   Total (n)   2,050
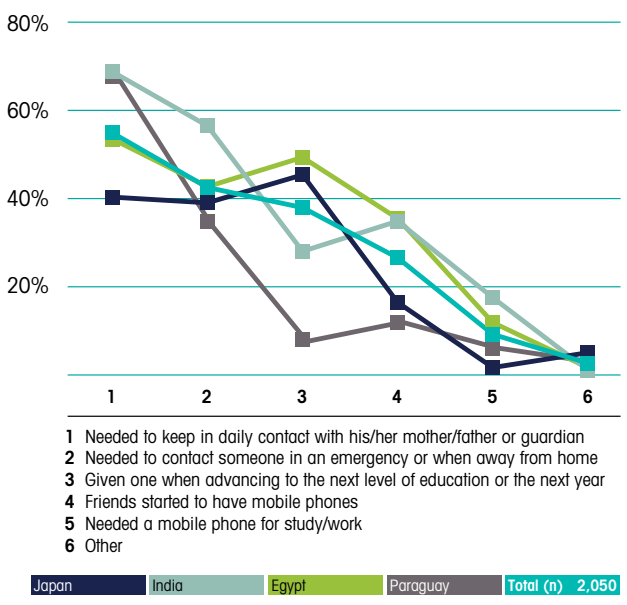
Figure Appendix – FA6-3-1: Percentage of parents concerned about their own privacy on mobile phones, by country

	Very concerned	Somewhat concerned	Not so concerned	Not at all concerned	N/A
Total	27.6	34.9	25.6	9.7	2.2
Japan	11.2	43.6	36.2	9.0	
India	10.9	38.3	30.3	20.6	
Indonesia	24.9	30.3	33.0	11.8	
Egypt	37.5	30.6	15.7	8.8	7.5
Chile	53.6	31.2	13.0		2.2

Total (n)	Japan	India	Indonesia	Egypt	Chile
3,448	925	350	670	1,003	500
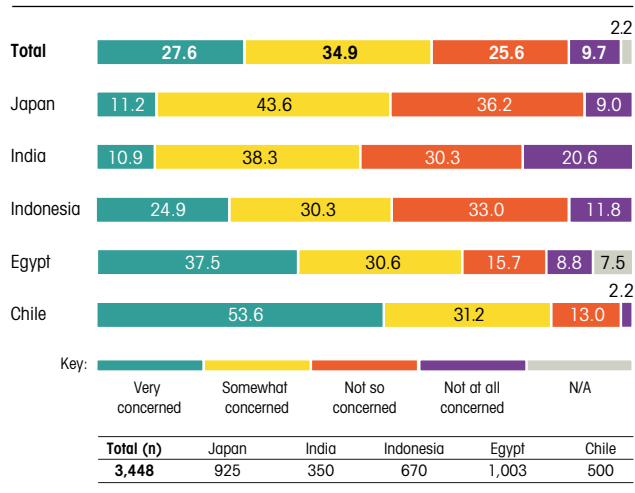
Table Appendix – TA6-3-1: Comparing level of parents' concern over child's privacy on mobile phones between boys and girls

Mann-Whitney U	1028816.5
Wilcoxon W	2063457.5
Z	-2.194
Prob > |t|	0.028
Total	**2,935**

Table Appendix – TA6-3-2: Comparing level of parents' concern over child's privacy on mobile phones between boys and girls, by age group

	ss	df	MS	F	Prob > F
Between groups	19.575	5	3.915	4.584	0.000
Within groups	2501.298672	2929	0.854		
Total	**2520.873595**	**2934**			

	Boy 8-9 year old	Boy 10-14 year old	Boy 15-18 year old	Girl 8-9 year old	Girl 10-14 year old	Girl 15-18 year old
Boy 8-9 year old	-	0.455	0.044	0.887	0.671	0.275
Boy 10-14 year old	0.455	-	0.208	0.999	0.982	0.991
Boy 15-18 year old	0.044	0.208	-	0.694	0.018	0.508
Girl 8-9 year old	0.887	0.999	0.694	-	1.000	0.982
Girl 10-14 year old	0.671	0.982	0.018	1.000	-	0.745
Girl 15-18 year old	0.275	0.991	0.508	0.982	0.745	-

Figure Appendix – FA6-4-1: Ratio of family setting rules of mobile phone use by children, by country

- Cost (limit of use)
- When and how long for the child may use the mobile phone
- Where the child may use the mobile phone
- Which functions of the mobile phone the child may use
- Whom the child may contact using the mobile phone
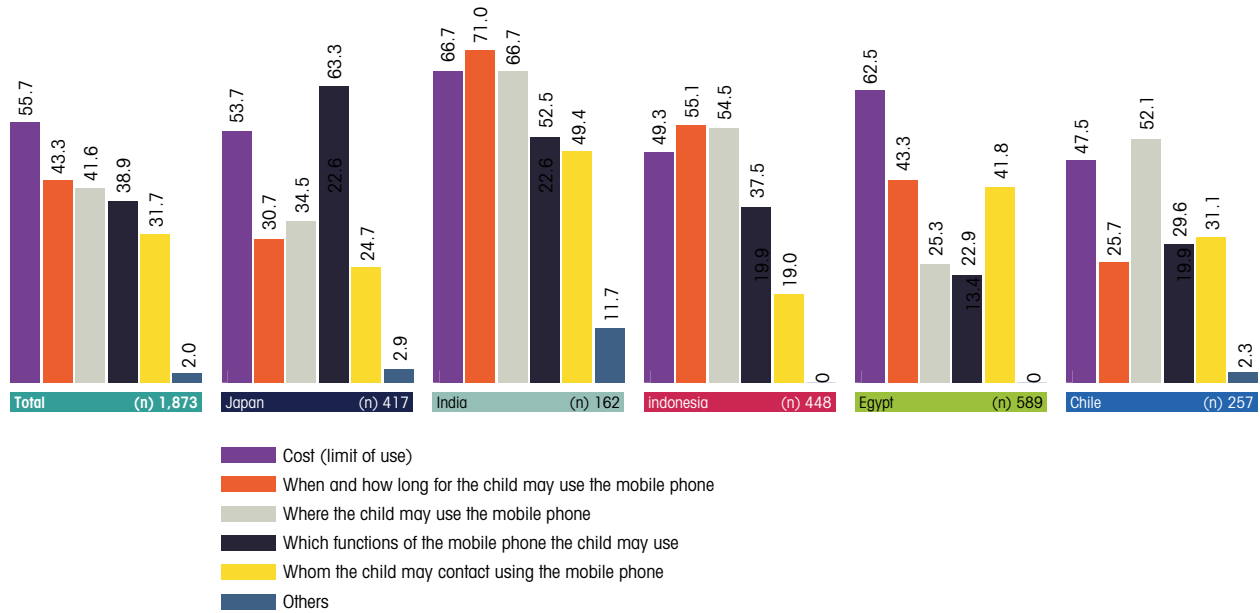- Others

Table Appendix – TA6-4-1: Correlation coefficient between the use of parental control services on child's mobile phone and parent's concern about child's mobile phone use

	Overuse	Cost of the bills	Viewing inappropriate sites	Not being able to keep track	Negative impact on health	Having trouble with friends	Disclosing his/her own personal information
Pearson's coefficient of correlation	0.06**	0.075**	0.052**	0.091**	0.089**	0.098**	0.095**
Significance probability	0.001	0.000	0.005	0.000	0.000	0.000	0.000

*Significant at the 1% level   **Total 2,887**

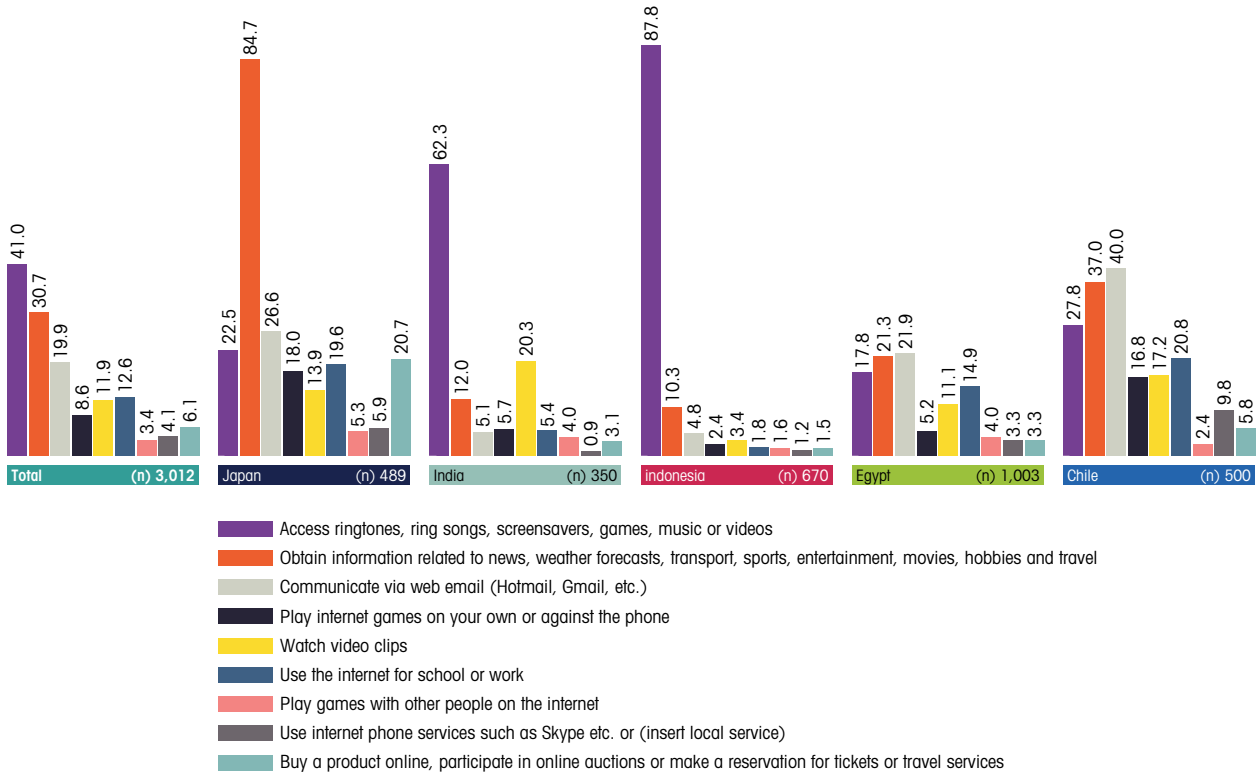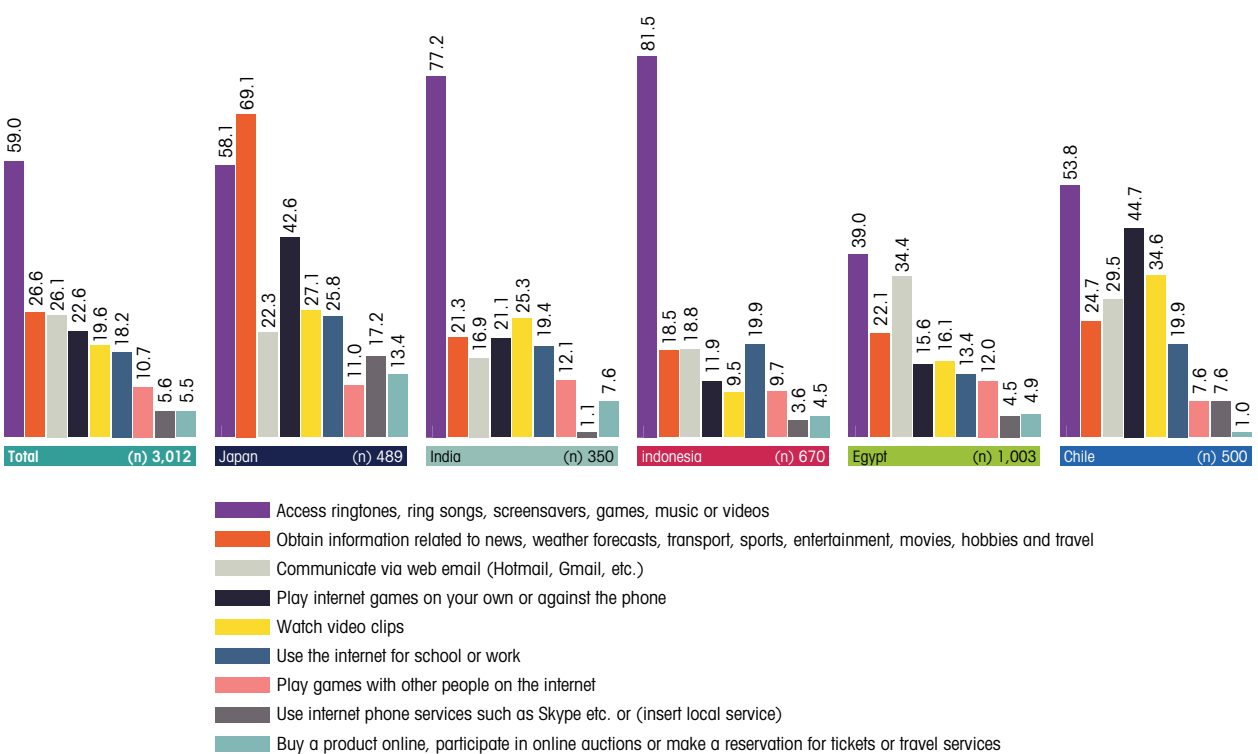**Figure Appendix – FA6-5-1: Parents' use of internet services via mobile phone, by country**

- Access ringtones, ring songs, screensavers, games, music or videos
- Obtain information related to news, weather forecasts, transport, sports, entertainment, movies, hobbies and travel
- Communicate via web email (Hotmail, Gmail, etc.)
- Play internet games on your own or against the phone
- Watch video clips
- Use the internet for school or work
- Play games with other people on the internet
- Use internet phone services such as Skype etc. or (insert local service)
- Buy a product online, participate in online auctions or make a reservation for tickets or travel services

Figure Appendix – FA6-5-2: Children's use of internet services via mobile phone, by country

- Access ringtones, ring songs, screensavers, games, music or videos
- Obtain information related to news, weather forecasts, transport, sports, entertainment, movies, hobbies and travel
- Communicate via web email (Hotmail, Gmail, etc.)
- Play internet games on your own or against the phone
- Watch video clips
- Use the internet for school or work
- Play games with other people on the internet
- Use internet phone services such as Skype etc. or (insert local service)
- Buy a product online, participate in online auctions or make a reservation for tickets or travel services

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