# Our Lives Online

## Use of social media by children and adolescents in East Asia
## - opportunities, risks and harms



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# Acknowledgements

*The views expressed in this report do not necessarily reflect the position of UNICEF.*

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# Foreword

One in three Internet users is a child and more than 175,000 children go online for the first time every day[1], according to the United Nations Children's Fund report State of the World's Children 2017: Children in a Digital World.[2] Children from all strata of life and backgrounds in East Asia have access to mobile devices and there is little difference in usage between girls and boys. As internet penetration and access to mobile devices grows, access to social media is no longer confined to children in high income families. Social media is now a significant part of children's lives in East Asia across economic groups.

While social media provides children with unparalleled opportunities to connect, to access and share information, and to access entertainment, it inevitably exposes them to risks and these risks are growing exponentially. Denying access to social media is neither effective nor a realistic strategy to protect children from risk and harm. Rather, in addition to understanding the risks children face online, we need to understand how children use social media, how they perceive the risks they face and whether and what steps they take to protect themselves from harm. It is also critical to identify the similarities and differences for children online, not only between under-18s in this region and the rest of the world, but also between boys and girls and amongst different groups. These insights are critical to get to interventions that are effectively tailored for children and young people in the region.

This study sought to capture the views and experiences of boys and girls in using social media in East Asia, with a focus on Cambodia, Indonesia, Malaysia and Thailand. It also captures the perspective of groups of children not usually covered in studies of this kind – lower income families, marginalized children, children with disabilities, street children and refugee children.

I am confident that this snap shot of children and adolescent's use of social media will contribute to shaping discussions and programming on child online protection in the region and to keeping children safe from abuse and exploitation.

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1   Safer Internet Day Press Release. UNICEF, New York, 6 February 2018, <www.unicef.org/media/media_102560.html>
2   United Nations Children's Fund, *State of the World's Children 2017: Children in a Digital World,* UNICEF, New York, 2017, <www.unicef.org/sowc2017/>

# Executive summary

## Introduction

Social media platforms are central to children's everyday lives in almost every part of the world, including East Asia. Understanding how children interact with social media, their perceptions of risk and the steps they take to mitigate these risks is essential to identifying and developing effective strategies and interventions to prevent and respond to online sexual abuse and exploitation.

This study is a snapshot of children's use of social media in East Asia, focusing on four countries: Cambodia, Indonesia, Malaysia and Thailand. The research incorporates the experiences of 301 children across the four countries, including 121 street children and refugees, collected through a series of focus group discussions and participatory exercises. The qualitative data collected was supplemented by a confidential anonymous self-administered 20-item questionnaire completed at the end of the focus group discussions.[3]

While more is arguably known about how children in middle- and high-income families use social media, those from lower income families, marginalized children, children with disabilities, street children and refugee children are often excluded from conversations on their use of social media and online safety. This study explicitly attempted to include the voices of children from these populations. These were supplemented by discussions with parents, grandparents, caregivers and frontline workers including social workers, counsellors, child psychiatrists and educators.

## How are children in East Asia using social media?[4]

*Children from all strata of life and backgrounds in East Asia have access to mobile devices and there is little difference in usage between girls and boys.*

- Children's phones are most often provided by parents and are frequently phones that are passed down from parents or caregivers, or from older siblings. Whether at school, on the streets or in shelters, or living with disabilities, technology is a central pillar of their everyday lives.

- Amongst those children using social media, there was little difference in *usage* between girls and boys, reflecting a narrowing of gendered differentials in use. This may be a result of the rapidly changing landscape and incremental gains in access, speed and provision of services, but it is important in that it marks a departure from previous studies that highlight the very gendered differentials in activities and use. An important caveat must be noted – the study design focused on social media users and did not allow for identification or analysis of gendered *access* to devices or apps.

- In the rare cases where children do not have their own devices, they have developed multiple strategies for accessing devices and content, such as sharing their parents' phones for access to WhatsApp. To protect their privacy, some report deleting their messages before they return the device to their parents.

- Many know the passwords to their parents' and siblings' phones and report setting up biometric profiles (their own thumbprint or face) on their parents' phones.

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3   If this were a quantitative study, the self-report questionnaire would need to be representative of elements such as geography, gender, socio-economic class, and education. It would also need to include a large enough number to be statistically significant. The present study is qualitative, and the survey was used for the purposes of allowing focus group participants to respond to more sensitive questions anonymously and provide researchers with an indication of their experiences.

4   The study follows the United Nations definition of the child, taken to be under the age of 18, while youth refers to young people 18 years and older, but under 34. Where reference is made to international literature where the term youth is used, the use of the term youth has been maintained.

***The use of social media apps was widespread across all the groups interviewed in all four countries.***

- While it may be expected that apps developed in the region were most common, children almost universally reported Instagram, WhatsApp, Facebook Messenger and Google as their most used apps. Line and Telegram, also messaging applications, were also used, as was WattPad, Tik Tok and others, although less commonly.

***The majority of children in the study use social media primarily for information-seeking, communication and entertainment.***

- Consistent with global research findings, the majority of children in the study post photos to Instagram and use social media primarily for information-seeking, communication and entertainment.[5], [6] Older children engage more actively in chat groups on WhatsApp and in games, and in the generation of content, including YouTube channels dedicated to dance moves (and lessons), guitar lessons, Qur'anic verse instruction, make-up, or gaming strategy, as well as, in several instances, selling goods online.

- Gaming was also popular amongst groups as diverse as upper-income international school students, and street children. Most popular are those games developed for mobile platforms such as PubG, Mobile Legends and Subway Surfer.

- For children with disabilities, their devices offer a means to meet others with similar disabilities, and form friendships and relationships, as well as share skills such as guitar playing. For refugee children, they offer the opportunity to stay in contact with families and friends in the diaspora and at home, but also to stay abreast of news.

- Teens have multiple accounts to engage multiple interests. They often have one account their boyfriend or girlfriend sees and maintain a separate account she or he does not have access to, and a third account for parents and relatives. Sharing passwords to their accounts with their romantic partner is construed as a sign of trust.

- Several groups of children report that some sites are blocked in their country, but that they have ways of navigating around this, using virtual private networks.

# Risks, harms and online protection

***Two out of five children in our focus groups reported having bad experiences they would not want to tell anyone about.***

- The risks children in East Asia are facing online are common to those faced by children in many other parts of the world, from South Africa to the United States.

- When asked to share their experiences confidentially through a self-report questionnaire, seven out of ten children shared they had experienced something online that had upset them over the past year. Two out of five reported they had bad experiences they would not want to share or talk to anyone about.

- Both girls and boys reported encountering some form of adverse experiences online with the majority of focus group participants, regardless of gender, reporting they had experienced something upsetting online.

- Across the study countries, teens reported being contacted online by strangers. Most had accepted friend requests, consistently accepting requests and messages from strangers that presented themselves as female. Requests from females were deemed safer than requests from males, at least by girls.

5    Livingstone, S., Kardefelt-Winther, D., Kanchev, P., Cabello, P., Claro, M., Burton, P.; Phyfer, J. 'Is there a ladder of children's online participation? Findings from three Global Kids Online Countries', UNICEF Office of Research – Innocenti, Florence, 2019, <www.unicef-irc.org/publications/1019-ladder-of-childrens-online-participation-findings-from-three-gko-countries.html>

6    Livingstone, Sonia and Helsper, Ellen, Gradations in digital inclusion: children, young people and the digital divide. *New media & society*, 9 (4). pp. 671-696, 2007.

***More than half of the teens participating in the focus groups had met someone in real life they had initially met online.***

- However, for the most part, these meetings were benign, someone their own age who went to a school in their area, or other peers.

- We asked children across the groups if, when they met a stranger they had first met online, they found it upsetting in any way. The most common response was it turned out disappointing because people didn't look like their profile picture.

***Both boys and girls reported receiving sexual messages and images on social media.***

- Boys and girls reported receiving photographs of strangers' genitals. While most immediately blocked the sender, some would send a response asking the stranger not to send them the image, or asking why they had sent it, which would typically result in a request that the teen send an image, or the stranger would send another image. A few reported the incident to their parents.

- A promising finding is the vast majority of children who had been asked for videos, images, or other information of a sexual nature, reported they did not share the requested information.

- When asked what upset them about social media use, in addition to obscene photos from strangers, teens mentioned violent videos, particularly school fights (a primary concern for teens in Cambodia), car accidents, and ghost videos (horror). Hoaxes and misinformation were a primary concern for teens in Indonesia, though mentioned by teens in all four countries. Bullying was rarely mentioned, and when it was, there was a further description of people using fake accounts to engage in bullying behaviour, or as part of a breakup.

***Frontline workers and parents perceive additional threats and risks for children on social media.***

- Self-harm amongst children was identified by frontline practitioners and also raised by a few focus group participants. Girls and boys described carving the name of an ex-boyfriend or girlfriend on their arm or leg when a relationship went wrong, which they then photographed and shared on social media.

- Counsellors and social workers in Malaysia, Cambodia, and Indonesia stated that LGBTQ children were at particular risk for peer-to-peer and family violence, as well as vulnerable to self-harm.

- The notion of 'screen time' was raised by frontline practitioners and parents as a key concern. Parent activists described screen time in terms of addiction – an addiction to playing games and chatting, or simply being glued to one's phones – while for teens it was more of a practical concern: staying up all night playing video games makes them tired for school.

- Psychologists and social workers noted the tension between the use of social media platforms isolating children in the online world but also providing a platform for support, particularly for marginalized groups who do not have as many opportunities for self-expression in the offline world.

## Understanding and awareness of data privacy[7]

- Questions about data privacy yielded the broadest differences in awareness and understanding. In one refugee school in Kuala Lumpur, teens were very aware of data sharing and privacy, and created lists of all their personal information collected by social media apps. This is consistent with the findings from a number of other countries.[8] When asked what the internet doesn't know, one 14-year-old girl said, "Google knows everything about us." Yet in another refugee school in Kuala Lumpur, girls had not thought about social media apps collecting information about them. When asked why they would collect information, they said for national security or their own safety.

- In terms of privacy and protection, there is a demonstrated lack of understanding by principals and educators.

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7    Children's approaches to data protection and privacy were explored drawing on – Stoilova, M., Livingstone, S., and Nandagiri, R., 'Children's data and privacy online: Growing up in a digital age', London School of Economics and Political Science, London, 2019.
8    See for example, Phyfer J, Burton P, and Leoschut, L., *South African Kids Online: A glimpse into South African children's internet use and online activities*. Technical Report, Centre for Justice and Crime Prevention, Cape Town, 2016.

- The use of mobile phones is strictly regulated within schools and other institutions, with many schools restricting children from bringing their phones to school entirely, while most restricted any use of phones during school hours. These restrictions are usually incorporated into school and information communications technology (ICT) codes of conduct, and are intended to ensure children are not 'distracted' from class activities and teaching.

# Recommendations

The recommendations of this report are framed within a broad socio-ecological approach, that locates the individual within the different spheres in which they live their lives – the family, school, community, and more broadly at a structural and macro level. The socio-ecological model can be used to support the individual child within these environments, promote protective factors and facilitate resilience, through a combination of primary, secondary and tertiary interventions. This is essential in ensuring that safety is not only a child's responsibility but is a combination of collective and individual responsibility.

The recommendations[9] include:

- **Ensure strategies and programmes to tackle online risks are aligned within broader national and regional violence against children frameworks**
- **Improve support for digital parenting, and parenting in a digital age.** This should be done in two ways:
  - Integrate technology and social media into parenting and caregiver programmes, and early childhood development programming. Many of the characteristics and skills that build children's resilience online are the same as those required to foster healthy, safe children generally, including self-efficacy, confidence, empathy, decision-making and conflict resolution skills. Rather than duplicating programming, digital parenting should be designed into existing evidence-based parenting programmes.
  - Build parents' and caregivers' digital literacy skills. Programming that enhances parents' knowledge, skills and expertise of technology – the fundamentals of digital literacy – is important and should form a measurable and discrete component of support to parents. This is particularly important in programmes that specifically target, or reach, mothers and female caregivers, where levels of digital literacy may be lower.

These approaches should recognize that most parenting programmes are targeted primarily towards mothers and female caregivers, and a concerted effort should be made to ensure integration into fatherhood and parenting programmes targeting male caregivers as well.

It should also be ensured that messages and responses by teachers and adults are based on evidence of patterns of use, and what works.

- **Foster online and offline resilience in children**

  An established body of evidence highlights that those children most vulnerable to violence online share common vulnerability factors to those vulnerable offline. Children who have been identified as vulnerable, with perhaps street children identified as the most vulnerable, are likely to be less resilient both online and offline.

  Resilient children – those equipped with skills in areas such as communication, conflict resolution and self-efficacy – are more likely to make appropriate choices when using social media, be better equipped to manage conflict that they may encounter through the technology platforms they use and

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9   The recommendations also draw on a slightly adapted INSPIRE model, developed by O'Neill et al, to address online risks and harms, and have particular relevance to three of the INSPIRE strategies: Parent and caregiver support, Education and life skills, and Safe environments. O'Neill, B., Burton, P., and Bulger, M., Protecting children from ICT-related violence, exploitation and abuse and promoting children's digital citizenship. A review of the evidence for effective programmes and policies, forthcoming, 2020.

take better measures to keep themselves safe online. It is thus important to foster resilience in broad terms, rather than focusing specifically on online or offline resilience.

- **Improve online safety – three steps for technology companies**.

  Technology companies require concise, practical and to-the-point recommendations together with a strong business case for keeping children safe on their platforms. There are **three steps that technology companies can take, quickly and easily**, that will have a direct bearing on the safety of children online:

  - Technology companies should make profiles private by default, with the option of making them public through settings.

  - The default options for new contacts is most commonly 'everyone'; this could be changed to for example, 'friends of friends.'

  - Social media apps can relatively easily be designed to block unsolicited photos sent by people outside contact lists.

- **Establish data systems to monitor progress and establish benchmarks**

  In the absence of nationally representative quantitative data relating to children's use of social media, risks, harms and protective factors, it is critical that national data systems be updated **to establish baseline data on children's internet use** and monitor progress on key measurements. Sometimes, this may simply involve ensuring that national data on internet usage is disaggregated by age.

  Another way is to adopt or introduce initiatives such as the Global Kids Online study[10]. However, in the interim and in the absence of adequate resources, the measurements can be integrated into existing or planned survey initiatives, including, where relevant, violence against children studies, multiple indicator cluster or demographic health surveys. The data should allow for disaggregation by gender, age, location and key socio-economic variables.

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10    http://globalkidsonline.net/

# 1. Introduction

According to the United Nations Children's Fund's report *State of the World's Children 2017: Children in a Digital World* ,[11] one in three Internet users is a child and every day more than 175,000 children go online for the first time.[12] Not often considered in these statistics is the diversity of children and their living conditions. An estimated 662 million of the world's children live in poverty.[13] Recent research finds that children, no matter how poor, are using mobile phones and social media.[14] In a 2019 study of 18 of the poorest rural schools in Malaysia, researchers found that a majority of participants "despite not getting nutritional or even sufficient food at home, own a personal mobile phone."[15] In a 2018 global assessment of refugee connectivity by the UN High Commissioner for Refugees, connectivity is "of paramount importance to refugees," to keep in touch with loved ones, for education and entertainment, as a protection tool, and to "earn a livelihood in refugee sites."[16]

Social media platforms are central to children's everyday lives in almost every part of the world. The use of social media has transformed the environment in which children grow and develop, with online technologies now embedded in the everyday, routine practices of young people in their communication, socialising and interactions with the world around them. Distinguishing between online and offline is no longer useful and is indeed an artificial distinction.[17]

The following report details the findings of a qualitative study into 301 children's use of social media in East Asia and associated risks and opportunities. Focus group interviews were conducted in Cambodia, Indonesia, Malaysia, and Thailand in 2019. A background summary of children's use of social media within each country and the region is presented, followed by a brief description of the methodology adopted in the study. The report then groups the findings of the research into three distinct themes: how children are using the internet; what are the opportunities and harms children encounter while using social media; and what child protection measures are taken online. These are followed by recommendations for enhancing child safety online in the region whilst promoting the opportunities presented by social media.[18]

# Internet penetration and social media use

Among internet users, Asia has the highest rates of child internet use globally. Yet, since the beginnings of the internet, Asian children have demonstrated one of the most stark dichotomies of digital access: middle to upper class users in large cities drive the most progressive uses of digital technologies, while poor children in rural areas are slower to gain access and skills. Outside of major cities, many communities have been using the internet for less than ten years.[19]

As shown in Table 1, internet use in the four countries in this study as a percentage of total population continues to be less than half in Indonesia and Cambodia, and below 60 per cent in Thailand, despite many of these countries being mobile-first (first internet access occurring via mobile phone rather than desktop). Thus, a significant proportion of the population of these countries remain excluded from the potential benefits and opportunities of digital engagement.

11    United Nations Children's Fund, *State of the World's Children 2017: Children in a Digital World,* UNICEF, New York, 2017, <www.unicef.org/sowc2017/>

12    Safer Internet Day Press Release. UNICEF, New York, 6 February 2018, <www.unicef.org/media/media_102560.html>

13    United Nations Development Programme, *Half of the world's poor are children,* UNDP, 2018, <www.undp.org/content/undp/en/home/news-centre/news/2018/half-of-world_s-poor-are-children.html>

14    UNICEF, *State of the World's Children 2017: Children in a Digital World.* UNICEF, New York, 2017, <www.unicef.org/sowc2017/>

15    Raj, Kenny & Kanavathi, '*A pilot project on the importance of nutrition for Malaysian underprivileged students', Malaysia Council for Child Welfare'*, Kuala Lumpur, forthcoming in 2020.

16    United Nations High Commissioner for Refugees, *Connecting Refugees,* UNHCR, Geneva, 2019, <www.unhcr.org/innovation/wp-content/uploads/2018/02/20160707-Connecting-Refugees-Web_with-signature.pdf>

17    Livingstone, S. and Bulger, M., *A Global Agenda for Children's Rights in the Digital Age: Recommendations for developing UNICEF's research strategy*, UNICEF Office of Research – Innocenti, Florence, 2013, <www.unicef-irc.org/publications/702-a-global-agenda-for-childrens-rights-in-the-digital-age-recommendations-for-developing.html>

18    It is recognised that in many contexts, the term 'adolescent' is often preferred when referring to older children aged 10–18, and the term 'youth' is often used to refer to the 15–24 age group, to reflect the agency of children as they become teenagers.

19    Samsudin, A.R. and Hasan, H.H., 'Digital engagement: A preliminary analysis of marginalized youth in the information society', *Social Science and Humanities 25,* 77-88, 2017.

| Country | Percentage of population |
|---------|--------------------------|
| **Cambodia** | 49.3% |
| **Indonesia** | 38.7% |
| **Malaysia** | 65.9% |
| **Thailand** | 55.5% |

*Source*: eMarketer, November 2017 for Indonesia, Malaysia, Thailand; Cambodia statistics from Internet World Stats.[20]

As shown in Table 2, smart phone ownership among internet users aged 16–24 has reached saturation in Indonesia, Malaysia and Thailand. Within these countries, differences in internet users by gender, income, or geography are negligible.

**TABLE 2:** Smart phone ownership and social media use among internet users aged 16–24[21]

| Country | Smart phone ownership | Social media use |
|---------|----------------------|------------------|
| **Cambodia** | 48% | 48% |
| **Indonesia** | 98.3% | 90.7% |
| **Malaysia** | 99.7% | 87.8% |
| **Thailand** | 98.7% | 90.1% |

*Source*: Global Media Intelligence Report 2018, eMarketer, New York; *Mobile Phones and Internet Use in Cambodia 2016,* Open Institute, USAID's Development Innovations, and the Asia Foundation.

Recent market research indicates that 90 per cent of internet users in South Asia aged 4–12 use social media.[22] eMarketer, a data research company that provides global internet usage statistics to major advertising platforms, reports that nearly 1.5 billion people in Asia visit social media sites monthly.[23]

According to an eMarketer 2018 report, digital video is surpassing social media use in many Asian countries. According to a regional study of 4–16-year-olds, 90 per cent of children who use the internet report playing games, watching movies and using social media in their spare time.[24] Findings related to teen use of social media in Asia mirror usage of teens globally, with teens in the United States, Europe, Brazil, Philippines and South Africa reporting spending similar amounts of time on gaming and other social media.[25]

While sharing similarities with children globally in terms of social media app use, research is relatively limited about *how* children who live in East Asia interact with technology and even more limited for children from specific groups. This gap is important to plug as the meaning that social media has in the lives of children may also differ amongst refugee communities, among children living with disabilities, and by gender and sexuality.

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20 Internet World Stats, most current data December 2017, <www.internetworldstats.com/asia.htm>
21 A number of indicators exist on internet penetration, access and use, across different countries. Data may be collected by national governments, using different definitions, methodologies, categorizations etc. For example, a national study conducted in 2018 by the Government of Indonesia showed that 64.8 per cent of the population of Indonesia were connected to the internet. However, for comparative purposes, a single study adopting standardized definitions across the region drawing on industry data is utilized to ensure reliable comparison.
22 Survey of children in Malaysia, Indonesia, Thailand, and Singapore conducted by advertising platform. Totally Awesome *APAC Kids Digital Insights*, Tokyo, October 2018, <www.totallyawesome.tv/blog/new-totallyawesome-study-shows-brands-must-shift-ad-spends-to-digital-to-reach-the-kids-and-teens-audience-effectively/#more-2064>
23 Global Media Intelligence Report 2018. eMarketer, New York.
24 Totally Awesome, *Kids Digital Insights 2018-2019*, confidential report shared with UNICEF East Asia Pacific Regional Office for this study, May 2019.
25 Anderson, M., Jiang, J., 'Teens, social media and technology 2018', Pew Research Center, Washington DC, 2018, <www.pewinternet.org/2018/05/31/teens-social-media-technology-2018>; Livingstone, S., Kardefelt-Winther, D., Kanchev, P, Cabello, P., Claro, M., Burton, P; Phyfer, J. 'Is there a ladder of children's online participation? Findings from three Global Kids Online Countries', UNICEF Office of Research – Innocenti, Florence, 2019, <www.unicef-irc.org/publications/1019-ladder-of-childrens-online-participation-findings-from-three-gko-countries.html>

The cultural contexts of Cambodia, Indonesia, Malaysia, and Thailand can provide insights into children's social media use in East Asia and in similar cultures. A 2016 study found that in Cambodia, four out of five adolescents report owning a mobile phone, yet only one in five own a smartphone. Access decreases for those living in plateaus or coastal cities. Adolescents in 3 of 10 Cambodian provinces (Kampong Speu, Kratie and Ratanakiri) reported no access to phones.[26] As of 2016, 77 per cent of child internet users in Cambodia had a social media account, and Facebook was the most visited website.[27] A 2017 study of 8,000 primary and secondary students in Malaysia found that social media use increases as children grow older, with 50 per cent of those aged 7–9, 68 per cent of those aged 10–12, and 92 per cent of students aged 13–17 reporting they had social media accounts.[28] Thai junior high students in a 2018 study reported spending an average of five hours per weekday and seven hours per weekend on social media, with Facebook, Line, and Instagram the most popular applications.[29]

# Who and what is influencing East Asian children on social media?

Studies find that family, friends, teachers and local community contacts remain primary influencers of children,[30] yet social media celebrities and the app platforms are a growing part of this equation. According to a 2018–2019 regional study by Totally Awesome, a marketing company, the most popular channels for kids aged 4–16 to watch were American channels such as YouTube and Disney, followed by Netflix, Cartoon Network, and Nickelodeon. Favourite YouTube/Instagram/Facebook celebrities were also primarily from the West: Ryan Toys Review,[31] PewDiePie,[32] Justin Bieber and Dan TDM.[33] With the exception of Ryan Toys, much of the content from popular YouTube celebrities is not directed toward a child audience and addresses mature themes such as relationships, sex, current events and violence, and can include language inappropriate for children.

The apps and platforms children use every day also influence how children form relationships, communicate and interact with technology. Before Facebook, 'likes' were not part of anyone's daily vocabulary. No one thought of 'followers' or 'retweeting.' Just as platforms have trained adults in how to think and behave, for example, posting pictures to boost number of likes, so are platforms such as Facebook (who own Instagram and WhatsApp, among other subsidiaries) and Google (who own YouTube, among other subsidiaries) training kids. A 2019 study of children in Australia found that "Facebook shapes the communicative practices of young people" and structures how they socialize. In particular, Facebook and other apps establish "habitual norms" for frequent logins and updates, "prominence of images to represent identity," and "the use of metrics (i.e., 'likes' and 'friends') to negotiate identities and relationships."[34] The very nature of how children form relationships, build self-confidence and learn about their world is structured and influenced by social media app platforms.

In terms of digital and media literacy, Asian children are navigating varying degrees of state-controlled news and media environments, which can impact their trust relationship with social media platforms. According to a global study by Pew Research, "Many who use social media say they regularly see false

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26   Indochina Ltd, *Adolescent engagement in Cambodia.* Report commissioned by UNICEF Cambodia, 2016. <www.unicef.org/cambodia/results_for_children_25887.html>

27   Ibid.

28   CyberSecurity Malaysia 2017, <https://theaseanpost.com/article/children-and-social-media>

29   Manwong, M., Lohsoonthorn, V., Booranasuksakul, T., and Chaikoolvatana, A., 'Effects of a group activity-based motivational enhancement therapy program on social media addictive behaviours among junior high school students in Thailand: a cluster randomized trial', *Psychology Research and Behaviour Management, 11*, 329-339, 2018, <www.ncbi.nlm.nih.gov/pmc/articles/PMC6124457/>

30   UNICEF, *State of the World's Children 2017: Children in a Digital World.* UNICEF, New York, 2017, <www.unicef.org/sowc2017/>

31   Ryan Kaji is seven years old as of 2019, resides in Los Angeles, California, and is the 8th highest paid YouTube entrepreneur, with over 21.1 million subscribers, Wikipedia, <https://en.wikipedia.org/wiki/Ryan_ToysReview>, accessed August 2019.

32   PewDiePie is a gaming commentator, aged 30 as of 2019, based in Sweden with 99 million YouTube subscribers. <https://en.wikipedia.org/wiki/PewDiePie>

33   Totally Awesome. *Kids Digital Insights 2018-2019*, confidential report shared with UNICEF East Asia Pacific Regional Office for this study, May 2019.

34   Pangrazio, L., 'Technologically situated: the tacit rules of platform participation', *Journal of Youth Studies,* 2019, <www.tandfonline.com/doi/abs/10.1080/13676261.2019.1575345>

or misleading content, but also view these platforms as offering new avenues for political engagement."[35] The media environment for children in these regions is complex and would benefit from the insights provided by focus group discussions and interviews with stakeholders to provide a holistic understanding of children's social media experiences.

News and other reports in the region remain mixed about the risks and benefits of social media use. News stories hype the promise of internet connectivity while simultaneously viewing violence and addiction risks as foregone conclusions.

# Protection of children online

Studies undertaken in the region in 2016 by the UNICEF East Asia and the Pacific Regional Office and UNICEF Regional Office for South Asia both report that availability of prevalence numbers for child online violence, abuse and exploitation were limited.[36] UNICEF sponsored a global poll of 18-year-olds in 2016 and found that Asian respondents were most uncertain about their ability to protect themselves from online harassment, compared with peers in other regions.[37]

Yet a 2015 survey of 18,000 schoolchildren from 14 Malaysian states found that children were developing digital resilience in response to cyberbullying, compared with results from 2013. Children reported awareness of how to identify cyberbullying and report and prevent negative online experiences.[38] A 2016 *Think Young*

survey of 2,600 children aged 9–18 in Indonesia, Japan, Republic of Korea, Taiwan and Australia identified ways in which children demonstrate 'digital resilience,' in setting their own boundaries in digital spaces and reporting problematic and upsetting experiences to those who can help them.[39] Compared with other Asia Pacific countries, children in Indonesia ranked highest in their preventative strategies online (e.g., modifying privacy settings) and communicating problematic interactions to a parent, sibling or peer. But Indonesian children ranked lowest in disengaging from upsetting situations.


Girls taking selfies on a Sunday afternoon in Jakarta. Photo credit: © Monica Bulger, 2019

The need to protect children from violence, exploitation and abuse on social media platforms is a priority recognized in full by the international community. It is a goal underpinned by international agreements, treaties and conventions, such as UN Convention on the Rights of the Child (1989), its Optional Protocol on the Sale of Children, Child Prostitution and Child Pornography (2000) and other international standards, in particular the Council of Europe Convention on the Protection of Children against Sexual Exploitation

35    Smith, A., Silver, L., Johnson, C., Taylor, K., and Jian, J., 'Publics in emerging economies worry social media sow division, even as they offer new chances for political engagement', Pew Research Center, Washington DC, 2019, <www.pewinternet.org/2019/05/13/publics-in-emerging-economies-worry-social-media-sow-division-even-as-they-offer-new-chances-for-political-engagement/>

36    UNICEF, *Child protection in the digital age: National responses to online child sexual abuse and exploitation in ASEAN Member States*, UNICEF East Asia Pacific Regional Office, Bangkok, 2016, <www.unicef.org/eap/reports/child-protection-digital-age>; UNICEF, *Victims are not virtual*, UNICEF Regional Office for South Asia, 2016, <www.unicef.org/rosa/reports/victims-are-not-virtual>

37    UNICEF, *Perils and possibilities: Growing up online*, 2016, <www.unicef.org/eap/sites/unicef.org.eap/files/2018-03/3_Report_UNICEF_Growing_up_online_FINAL.PDF>

38    Malaysian schoolkids getting savvier about cybersafety: survey, *Digital News Asia*, 26 November, 2015, <www.digitalnewsasia.com/malaysian-schoolkids-getting-savvier-about-cybersafety-survey>

39    Rimini, M., Howard, C., & Ghersengorin, A. (2016). *Digital Resilience: Empowering Youth Online*. Brussels: Think Young. <http://popsdev.org/briefing_room/digital-resilience-empowering-youth-online-phase-1-asia-pacific-apac/>.

and Sexual Abuse (2007) and the Budapest Convention on Cybercrime (2001).[40] General Comment No. 20 of the Committee on the Rights of the Child notes the evolving capacities of children through adolescence, and the importance of recognizing and understanding both the risks and the opportunities that the online space offers for children, and how integral these are to children's lives from a young age into adolescence.[41]

# Project scope and objectives

The aim of this study was to generate a snapshot of social media use among 11–18 year-olds in East Asia. Within this context, the Centre for Justice and Crime Prevention was contracted to develop a research paper on children's use of social media in East Asia, and on associated online risks and opportunities. Particular attention focused on risks of child sexual exploitation and abuse online, which includes child sexual abuse material, live streaming of child sexual abuse, grooming, sexual extortion and peer-to-peer abuse. The research is intended to provide UNICEF and all those working in the region with possible inroads for interventions to protect children from online abuse and exploitation, based on the identified patterns and trends of common use of social media; to link the challenges kids experience online with their offline lives; and provide practical insights for support and prevention.

Four countries were selected for the study – **Cambodia, Indonesia, Malaysia and Thailand** – in consultation with the UNICEF East Asia and Pacific Regional Office.

The study attempted to address a series of questions:

- How are children using social media apps?
- What are the risks for children in the online environment, and how do these relate to risks in the offline environment, and what are the protective factors that can reduce harm *(and foster resilience)?*
- What measures are being implemented in the region and each of the countries to reduce child sexual exploitation and abuse online?
- How might these measures infringe or impact children's other rights?
- What are the opportunities that children are accessing online and how do the apps that children are utilizing enhance these opportunities? Does the use of social media enhance access to offline opportunities?
- Drawing on the findings of the study, what are the recommendations to protect and promote children's rights online, when using social media?

# Methodology

The study comprised two discrete components: a comprehensive desk review undertaken prior to commencement of primary data collection; and in-country data collection, using a primarily qualitative approach.

## Desk review

The desk review was undertaken between January and April 2019 and included literature exploring the state of children's social media use in East Asia generally, with focus on particular trends in Cambodia, China, Indonesia, Malaysia and Thailand. A brief review of national and regional response frameworks was conducted addressing:

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40    The two Council of Europe Conventions; the Lanzarote Convention (Resolution 350 (2012)) and the Budapest Convention (EST No. 185), are open to ratification by countries outside of Europe. The Philippines is the only country in the ASEAN region to have ratified the Budapest Convention to date.

41    UN Committee on the Rights of the Child (CRC), *General comment No. 20 (2016) on the implementation of the rights of the child during adolescence*, 6 December 2016, CRC/C/GC/20, <www.refworld.org/docid/589dad3d4.html>.

- Digital literacy and digital citizenship;
- Children's online participation;
- Sexuality education; and
- Prevention of child sexual abuse, exploitation, violence and abuse

The desk review included peer-reviewed scholarly literature; administrative data generated by national governments, or international/regional bodies and institutions; sector expert reports and literature generated by civil society organizations. This was supplemented by additional documentation sourced during the field work.

## Field work

The selection of countries was informed by several factors including current and upcoming research studies within each, and the priority accorded to the subject by country offices. Within each country, the study concentrated on large cities and surrounding peri-urban communities and included Bangkok, Jakarta, Kuala Lumpur, and Phnom Penh. Fieldwork occurred during four weeks in April-May 2019, with follow-up interviews occurring through August 2019.

A primary goal of the work was to interview children usually excluded from this type of research. The focus was on urban poor and included children with disabilities, street children, refugees, juvenile offenders, children exploited in prostitution, and survivors of sex trafficking. Urban poor represented less than half of the interviews, as shown in Table 3. We conducted focus group discussions in shelters and other places of care, and in middle and secondary schools, both public and private. Originally, we aimed to interview 30–40 children in each country. We conducted 34 child focus groups with a total of 301 children aged 11–19 participating (163 girls and 138 boys). See Table 3 for the number of girl and boy participants from each country.

**TABLE 3:** Total participants, by country and gender

| Country | Girls | Boys | Total |
|---------|-------|------|-------|
| Malaysia | 69 | 58 | 127 |
| Indonesia | 55 | 22 | 77 |
| Cambodia | 22 | 39 | 61 |
| Thailand | 17 | 19 | 36 |
| Total | **163** | **138** | **301** |

**TABLE 4:** Number of street children, refugees, and other marginalized or excluded populations interviewed in each country

| Country | Street children and refugees |
|---------|------------------------------|
| Malaysia | 66 |
| Indonesia | 24 |
| Cambodia | 17 |
| Thailand | 14 |
| Total | **121** |

An important facet of the methodology was to involve youth leaders as focus group facilitators. In Kuala Lumpur and Jakarta, youth leaders engaged in digital citizenship initiatives facilitated interview discussions, acting as translators and engaging conversations.

Focus group discussions followed a protocol approved by an international ethics review board and was shared with each UNICEF country office as well as each participating organization prior to visits.

The protocol design built on the Global Kids Online methodology, as well as work conducted by



Youth leader facilitating discussion at high school in Klang, Kuala Lumpur. Photo credit: © PH Wong, 2019

Centre for Justice and Crime Prevention and University of Colorado, Boulder.[42],[43] The protocol is well-tested to be child-friendly, promote discussion and produce useful responses to questions around positive and negative experiences of internet use. The researchers adapted the protocol to focus specifically on social media, regional needs and particular experiences of refugee children and other urban poor.

The focus group discussions started with self-introductions and descriptions of daily app use. Introductions were followed by discussion of how they accessed apps, where and when. We talked about family and school rules around technology use. Groups were then given a large sheet of paper upon which a happy face was drawn and asked to write down their positive experiences of social media. A discussion followed to build upon their responses, e.g., "talk with friends" would be followed by "which friends?, do the friends live nearby?, did you meet them here or online?" and "which apps do you use to speak with friends?" Groups were then given a large sheet with a sad face drawn at the top and asked to write down negative experiences of social media, with a discussion following.

To explore understandings of digital privacy, we adapted a protocol from Sonia Livingstone, Mariya Stoilova and Rishita Nandagiri's recent child privacy study.[44] We distributed colourful post-it notes and asked children to write responses to "What does the internet know about me?" Children were then invited to add their post-it notes either to a whiteboard or a large sheet of paper. We then engaged in a larger discussion of their digital footprint and what information is collected by the apps they use. We followed the same process in response to the question, "What doesn't the internet know about you? (or what might it get wrong?)." Wrapping up this portion of the discussion, we asked children what advice they have for other children (perhaps a younger sibling) for protecting their privacy online. The discussion was intentionally open, so that children could also discuss protection strategies more generally. Responses were written either on post-it notes or directly onto the whiteboards or large sheets of paper.

The next activity was to respond to a 20-item self-report questionnaire. No identifiers were included on the questionnaire and the children sealed their form in an envelope before handing back to the facilitators to ensure complete confidentiality and anonymity. Here, children were asked more sensitive questions

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42    Phyfer J, Burton P, and Leoschut, L., *South African Kids Online: A glimpse into South African children's internet use and online activities,* Technical Report. Centre for Justice and Crime Prevention, Cape Town, 2016.

43    Roque, R. and Bulger, M. *Family conversations around school data privacy.* Future of Privacy Forum, Washington DC, forthcoming.

44    Livingstone, S., Stoilova, M. and Nandagiri, R., 'Talking to children about data and privacy online: research methodology supplement,' London School of Economics and Political Science, London, 2019, <www.lse.ac.uk/media-and-communications/assets/documents/research/projects/childrens-privacy-online/talking-to-children-about-data-and-privacy-online-methodology-supplement.pdf>.

about negative experiences online. They were asked about negative experiences that had happened to them and negative behaviours they had engaged in toward other people.[45]

In the final exercise, children worked in small groups to write down advice for technology companies, policymakers, their parents and schools for how to improve social media for kids. Discussion followed this activity, seeking clarification and digging deeper where necessary.

The socio-ecological approach, described in further detail in Chapter 6, considers interventions in terms of the community and systems in a child's life. Framing our methods within this approach, we interviewed frontline practitioners, parents, grandparents and policymakers during our fieldwork. Frontline practitioners included child psychologists and psychiatrists, social workers, counsellors, teachers, principals and youth activists working with children. We also interviewed UNICEF staff, and a limited number of government officials. No study of children's social media use would be complete without considering technology platforms' role, so we also interviewed local internet service providers, app developers and reached out to the large technology platforms (to date, only Google participated in interviews, although requests were made to Facebook, Line and gaming companies).

**TABLE 5:** Participation of frontline practitioners, by country

| Country | Frontline practitioners |
| --- | --- |
| Malaysia | 18 |
| Indonesia | 31 |
| Cambodia | 13 |
| Thailand | 12 |
| Total | **74** |

The entire protocol, including the self-report questionnaire, was translated into local languages and also available in English. Translators were always available, as well as either UNICEF staff or a trusted community member who worked with children, identified by UNICEF staff. Except where children (or adults in the case of in-depth interviews) indicated that their preference was English, all focus groups were conducted with the assistance of translators. All focus group discussions were audio recorded and photos were taken of responses written on post-it notes and poster paper.

## Ethical considerations

The research team took a number of steps to ensure that the well-being and safety of the children participating in the study was paramount at all times, and the study was subject to rigorous ethical standards. Ethical clearance for the study in all four countries was obtained prior to commencement of the fieldwork. The researchers worked closely with child protection agencies, UNICEF and other service providers in all four countries to ensure that protection measures were in place in-country for all child participants.

All children signed informed consent forms prior to commencement of the study, and informed consent was obtained from children's caregivers, where these were present in the home. In a number of instances, children were recruited through schools or shelters, and consent was obtained from the mandated guardians.

An information leaflet was provided to all children with details about the study, together with contact and referral numbers, within each country. Verbal instructions that repeated the information on the consent forms were given at the beginning of each focus group in the preferred language of the participants. Children were interviewed in a private, closed environment with no other adults present (beyond the facilitator and the translator). Where indicators of trauma presented, or harmful experiences were raised by children, these were contained by the

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45    Given the small sample size and sampling limitations, the data from the questionnaire is not disaggregated at country level in the analysis.

facilitator within the context of the group, and were further explored in private with the presence of a UNICEF child protection team member and/or a social worker, on completion of the group discussion.

## Limitations

The study is subject to several limitations. Every attempt was made by the researchers to eliminate and control for selection bias in the identification and recruitment of children into the study. Participants were selected by local NGOs, schools, and UNICEF country offices. This selection process potentially introduces the following biases:

- Children recruited from a population that is already receiving some intervention, or support, or services from a local service provider. This may introduce some level of social desirability bias from the outset or may de facto exclude those not in contact with any service provider or service agency.

- Partners – non-government organizations and UNICEF – were asked to recruit potential participants on the basis of some use, however limited or extensive, of social media. This is consistent with the objectives of the study to explore children's use of social media in the region. By doing so, any inequalities in access to technology on the basis of gender, income, or any other variables, were not assessed or controlled for.

Given the small sample size in relation to populations in each country, the self-administered questionnaire should not be taken to provide representative or statistically significant data. For the purposes of this study, the questionnaire was intended to yield the following benefits:

- Provide an important opportunity for children to safely – and with a guarantee of anonymity – share sensitive or upsetting experiences that they may not have felt comfortable sharing.

- Provide an *indication* of interaction with, exposure to, or generation of, sexual content, texts or other disturbing material that may not have been revealed through the focus group discussions.

- Support the value in including anonymous, self-report options for children at the end of other studies in the future.

# 2. Social media and opportunities for children in East Asia

Walking up a dark stairwell into a bright space in Chow Kit, former red light district in Kuala Lumpur, we are met by ten smiling teenagers sitting at desks arranged in perfect rows. As we work our way through introductions, immediately clear is the teens in this shelter use as many social media apps as the upper middle class teens in the United States, and in exactly the same ways.[46] Aside from Korean dramas and Line (a South Korean app with over 700 million users), they primarily use American apps, and regularly engage with other users in the United States, Canada and Europe. Urban poor, mostly refugees and street children, they rattle off the apps they'd used that week…Instagram is a top favourite, Facebook, Facebook Messenger, WhatsApp, YouTube. A four foot tall 14-year-old wearing a black and white checked button down shirt ducks his head and laughs when the other kids enthusiastically describe his YouTube dance moves. He refuses invitations to demonstrate, despite encouragement from the other kids.

When we started our research, we didn't expect urban poor kids to have their own YouTube channels, but they do.[47] Many of the teens we spoke with described opportunities[48] provided by social media apps for connecting with the larger world, meeting new people, sharing their talents, and earning money.[49] At an 800-student refugee school on the outskirts of Kuala Lumpur, a 17-year-old Rohingya refugee with flawless skin and jaw length hair shares make-up stories on Instagram. In Phnom Penh, a boy with vision impairment enthusiastically shares his popular singing videos and guitar show, boasting 4,800 followers on TikTok, a Chinese-owned video sharing app.

At a rural after school programme for underprivileged children outside Jakarta, a 16-year-old describes her online store. She uses WhatsApp and Line to promote the dresses she sells. She saw her older sister making money online, so started selling clothing too. She steps us through how to use WhatsApp stories as a promotional tool. Her story is similar to a teen in Cambodia who uses WhatsApp to sell hairclips. A 16-year-old boy at a Pesantren Islamic boarding school in rural Jakarta develops and sells lessons in Qur'anic verse.

Back at the refugee school near Kuala Lumpur, several of the teens trade their gaming skills for in-game money. The topic of gaming raises issues of access. Talking about the popular app Fortnite, a 14-year-old refugee from Afghanistan says, "Fortnite you can't play on these phones, you need a very good phone." He grins, "I'll play it in the future maybe, it's in the planning."

When we talk about creating stuff through social media, a few classmates nod toward a tall boy sitting near the head of the table. He says he used to have a YouTube channel for gaming strategies. "Used to," he says again, quietly, and changes the subject. "He's really good," two of his classmates say. Later, he and his friend explain that for now, they only play games on their phones and lack the equipment they used to have. While the teens don't dwell on specifics, our conversation often touches on the many things they had to leave behind as refugees. We don't speak

Girls using mobile phones during focus group discussions at an NGO that educates underprivileged children in rural Jakarta. Photo credit: © Monica Bulger, 2019

46    Anderson, M., and Jiang, J., *Teens, Social Media & Technology 2018,* Pew Internet Research, Washington D.C., 2018, <www.pewinternet.org/2018/05/31/teens-technology-acknowledgements/>
47    UNICEF, *State of the World's Children 2017: Children in a Digital World.* UNICEF, New York. <www.unicef.org/sowc2017/>
48    Livingstone, S., Kardefelt-Winther, D., Hussein, M., *Global Kids Online Comparative Report,* UNICEF Office of Research – Innocenti, Florence, 2019, <www.unicef-irc.org/publications/1059-global-kids-online-comparative-report.html>
49    UN High Commissioner for Refugees, *Connecting refugees: how internet and mobile connectivity can improve refugee wellbeing and transform humanitarian action*, 2016, <www.unhcr.org/innovation/wp-content/uploads/2018/02/20160707-Connecting-Refugees-Web_with-signature.pdf>

about their journey, but social workers share the difficulties these children have faced in leaving behind their homes, their communities.[50] None of the children have desktop computers, or laptops or Xboxes. While their families are allowed to live in Malaysia, their parents cannot work, no one can access social services.[51] The school they attend is a private Christian school and is filled to capacity with refugee children.

Another girl shares her drawing online, sometimes responding to online challenges to draw something within a minute, 15 minutes, an hour. In a Jakarta classroom, teens share the ways they use Growtopia,[52] a world building game similar to Minecraft but with a farming focus, to buy and sell items in game. One girl shakes her head, saying she also loses money in the games and this experience seems universal for her classmates.

Leaning against a vivid green wall in her middle school's auditorium, a 14-year-old in Kuala Lumpur gleefully describes sharing her fiction within the online writing community of WattPad.[53] When asked what kind of fiction she writes, she grins, straightening her glasses, and says, "romance, of course." Her classmates giggle. We're sitting under a bright Hindu mural, in the Indian section of Kuala



Teenage boys play mobile games while waiting for the mall to open in Jakarta.
Photo credit: © Monica Bulger, 2019

Lumpur, all of the girls wearing white shirts and blue pinafores. None of the other girls in the group create things online, which is typical,[54] not just in Malaysia, but globally. A majority of internet users engage in the entertainment and communication dimensions of social media: game play, connecting with people, and looking up information. Referred to as the 'ladder of opportunities,' fewer users move up the higher rungs, creating videos, writing original material, creating art, or leveraging social media to engage in local political or social events.[55]

In all four countries, teens speak of learning English across their social media apps, especially through game chat, YouTube and Netflix videos. Many use language instruction apps like Duolingo[56] as well. In the refugee schools, English is the language of instruction and social media use helps the teens practice and learn.

At the refugee school in Kuala Lumpur, teen refugees from Afghanistan and Pakistan talk about watching science videos. Across the table, another boy excitedly says, "NASA!" and then they launch into a loud discussion of planets and space travel. At the other end of the table, a girl kicks her feet in the air beneath her seat as she talks about the drawing videos

50    UN High Commissioner for Refugees, *Connecting refugees: how internet and mobile connectivity can improve refugee well-being and transform humanitarian action*, 2016, <www.unhcr.org/innovation/wp-content/uploads/2018/02/20160707-Connecting-Refugees-Web_with-signature.pdf>
51    R.AGE, *How Malaysia treats its refugees,* R.AGE youth investigative journalism, Malaysia. 2018, <www.youtube.com/watch?v=t6Bv3LfOua4>
52    For more information about Growtopia, see https://en.wikipedia.org/wiki/Growtopia.
53    For more information about Wattpad, see https://en.wikipedia.org/wiki/Wattpad.
54    Livingstone, S., 'Children's Rights and Resilience in the Digital World', Global Kids Online Blog, 2019, <http://globalkidsonline.net/childrens-rights-and-resilience/>
55    Livingstone, S., Kardefelt-Winther, D., Kanchev, P., Cabello, P., Claro, M., Burton, P.; Phyfer, J., 'Is there a ladder of children's online participation? Findings from three Global Kids Online Countries', UNICEF Office of Research – Innocenti, Florence, 2019, <www.unicef-irc.org/publications/1019-ladder-of-childrens-online-participation-findings-from-three-gko-countries.html>
56    For more information about Duolingo see https://en.wikipedia.org/wiki/Duolingo.

she watches, another describes cooking shows, "You know what is happening all over the world, even though you're not there. For example, Instagram, people will post all over the world, like here is good food, and you can check it out."

# How and what are children in East Asia doing online?

Global reports confirm an ever-growing likelihood that children – regardless of social class, economics, or geography – are using smartphones.[57], [58] The same is clearly evident in the countries included in this study. With the exception of a few boys at a shelter in Bangkok, none of the children interviewed mentioned using an Internet café. While Internet cafes served as primary access points mere years ago, the assumption that kids use Internet cafés because they don't have access to smartphones appears to no longer be the case. Whether speaking with middle class children in public schools, refugee children in private schools, or street children in shelters, all reported using smartphones. The majority had their own smartphones, while others reported sharing. Sharing phones was not always an indicator of socio-economic background. A discussion at a middle school in Kuala Lumpur echoed an earlier discussion with children in a low income housing complex with children in both places bemoaning inheriting older siblings' or their parents' smartphones. "My phone is a passed down phone," one girl said, explaining that she tries to convince her parents that it doesn't have the necessary features she needs.

**IT IS NOT UNCOMMON FOR CHILDREN TO FIGURE OUT THEIR PARENTS' PASSWORDS.**

In Malaysia, some form of identification is required for a SIM card, so many children use their own smartphones, utilizing Wi-Fi hotspots at home, schools and in other public locations for most features and their parents' phones for WhatsApp, a Facebook-owned app that allows chatting via text, phone and video and is based on a mobile phone number. Children employ a range of strategies when using their parents' phones, such as erasing their messages when they're finished. It is not uncommon for children to figure out their parents' passwords. A few technically savvy children explained how they created a separate profile on their parents' phones that required biometric (fingerprint) access. The children could then login to the phone without alerting their parents and bypass any password changes. "We stalk her," one girl light-heartedly said, and described how she and her brothers read their mom's text messages and emails. Children did not seem aware of any monitoring of their own phones beyond parents looking through their texts and messages – software that allows parents to track their children's activity online was not discussed.



Boys play mobile games during recess at middle school in Phnom Penh. Photo credit: © Patrick Burton, 2019

The students in the study countries were all mobile first, meaning that for most of them, their first access to the internet was via mobile phone. Very few students mentioned owning a laptop or desktop. A few mentioned gaming consoles, but this was also very limited. Exceptions included an affluent group of students at an international school in Bangkok who all reported using multiple devices, and one child at a shelter for street children in Kuala Lumpur who mentioned using Xbox.

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57    UNICEF, *State of the World's Children 2017: Children in a Digital World.* UNICEF, New York. <www.unicef.org/sowc2017/>
58    UN High Commissioner for Refugees, *Connecting refugees: how internet and mobile connectivity can improve refugee well-being and transform humanitarian action*, 2016, <www.unhcr.org/innovation/wp-content/uploads/2018/02/20160707-Connecting-Refugees-Web_with_signature.pdf>

In the study countries, high speed broadband access was relatively inexpensive, around $1 for 1G, compared with $15–20 per 1G in the United States, so most children seemed to rely on 4G. Although these prices are among the lowest in the world, children still mentioned the cost of data plans as a major concern. Not all children had broadband access, but were resourceful in accessing Wi-Fi. In a school of Somali refugees in Kuala Lumpur, girls would use a hot spot created by one of their classmates to go online. In a rural school in Jakarta, where children were not allowed to bring their phones to school, they would rush home after school to grab their phones and return to sit outside and use the school's fast Wi-Fi, which benefited from close proximity to a technology campus. Even on a weekend, kids were sitting on benches outside the school accessing the Wi-Fi on their phones. It was unclear whether the school's Wi-Fi was open or somehow the children obtained the Wi-Fi password even though they are not allowed to have phones at school. In discussing concerns about costs of data plans, a Liberian refugee in Kuala Lumpur explained that mobile games were often too data intensive for his data plan. Several of his classmates confirmed that games presented difficulties in terms of cost, and also added that advertisements could be highly data intensive and they wish companies considered this impact. Despite the *relative* affordability of data in the region, this cost of data as a barrier or inhibitor to social media use reflects similar findings elsewhere in the world.[59] While identified by children mostly as a concern with regards gaming, this could potentially have a negative impact on a range of uses that reflect and promote children's agency, the opportunities offered for educational and learning purposes, and in some instances, income generation, as reflected in the earlier discussion. This impact on data availability and cost is even more significant in resource-constrained households and communities.

## What apps do East Asian teens use?

Similar to studies of children in the United States and Europe[60], children in Cambodia, Indonesia, Malaysia and Thailand primarily use Instagram, WhatsApp, YouTube, Facebook and Facebook Messenger, as well as gaming apps PubG and Mobile Legends. To a lesser extent, they use Spotify, Joox, Snapchat, Tik Tok[61], Line[62], Bigo Live[63], Telegram[64] and Viber[65] along with an assortment of gaming apps. An exception to the dominance of Instagram and WhatsApp in children's lives was found in Phnom Penh. Among the middle school girls interviewed, Facebook was used by all and Instagram by 4 out of 10 girls. Likewise, in a shelter for street children in Phnom Penh, Facebook and TikTok were the dominant apps, and only one child reported using Instagram. Overall, the most popular apps among the East Asian children interviewed are American apps in English language. Facebook-owned and Google-owned apps take precedence in influencing and shaping East Asian children's engagement with social media.

> **THE MOST POPULAR APPS AMONG EAST ASIAN CHILDREN ARE AMERICAN APPS IN ENGLISH LANGUAGE.**

Many children in this study reported managing **multiple accounts**, and did so for a variety of reasons. They may have an account that their parents are aware of and another one that parents are not aware of, or they may have an account with a login they share with a boyfriend/girlfriend to show trust in their partner. Multiple accounts also serve to provide privacy – for example on Instagram, some report having an account they share with limited contacts around a particular hobby, and then another account that is more public, or in Wattpad, an account where they share fiction publicly and another that they use as a

59    Phyfer J, Burton P, and Leoschut, L., *South African Kids Online: A glimpse into South African children's internet use and online activities,* Technical Report, Centre for Justice and Crime Prevention, Cape Town, 2016, <www.cjcp.org.za/uploads/2/7/8/4/27845461/south_african_kids_online_technical_report.pdf>

60    Anderson, M., and Jiang, J., *Teens, Social Media, & Technology 2018 ,* Pew Internet Research, Washington D.C., 2018, <www.pewinternet.org/2018/05/31/teens-technology-acknowledgements/>; Livingstone, S., Kardefelt-Winther, D., Hussein, M., *Global Kids Online Comparative Report,* UNICEF Office of Research – Innocenti, Florence, 2019, <www.unicef-irc.org/publications/1059-global-kids-online-comparative-report.html>

61    Tik Tok is a popular Chinese short video app, touted as the most downloaded app in 2018, though not especially popular among the children we interviewed. For more information, see <www.cnbc.com/2018/09/19/short-video-apps-like-douyin-tiktok-are-dominating-chinese-screens.html>

62    Line is a popular South Korean social media app with over 700 million users owned by Naver, based in Japan.

63    A live-streaming platform owned by Chinese social media company YY.

64    Telegram is a social media app that offers chat, voice, video capabilities as well as stickers and 'secret chat.' Developed by Russians, it is unclear where Telegram resides, though it is registered as an limited liability company in the United Kingdom and United States, with headquarters in Dubai. See its Wikipedia entry for more information: <https://en.wikipedia.org/wiki/Telegram_(software)>.

65    Viber is a Japanese voice and messaging app with over a billion registered users.

diary. Another reason for multiple accounts might be because they forgot their login. Some children also mentioned changing accounts if they had been bullied or had a negative experience.

Children report using different apps for communication, entertainment and education. A frequent refrain was "each app has a purpose," so one app might be used for image sharing, another for livestream videos, and another for video chat. Especially for refugee children, social media apps allow an inexpensive and always available connection with friends and family in their home country, referenced frequently as vital for well-being. Meeting new people and learning about different lifestyles was frequently cited as a benefit of social media use and a main activity. Phones were often pulled out of pockets and bags to demonstrate something, and are always close at hand, even when prohibited by the schools or shelters.

**Gaming apps and video apps** like YouTube were primary sources of entertainment. Gaming was prevalent among all children and was not distinguished by gender, income level or geography. The most popular game by far was PubG, followed by Mobile Legends and Subway Surfers (for individual stories, see Chapter 3). Likewise, YouTube was a clear favourite among children, providing entertainment as well as education. Children described watching videos to learn dance moves, to 'stalk' their favourite celebrities (e.g., Kylie Jenner and Justin Bieber), to learn to cook, and to learn more about science or crafts.

As described in Chapter 2, a few children also **created their own content online**. Children described creating their own videos sharing dance moves, singing, guitar playing, drawing and instruction in Qur'anic verse. In Malaysia and Indonesia, some children, mostly girls, spoke about using Wattpad to publish stories and poetry.

> **CHILDREN WITH VISUAL OR HEARING IMPAIRMENT AT A SHELTER IN CAMBODIA WERE AMONG THE HEAVIEST USERS OF SOCIAL MEDIA, WITH THE HIGHEST DIVERSITY OF APP USE.**

In Indonesia, children frequently spoke about using social media to **generate an income**, buying and reselling clothes online, as well as making trinkets and selling them through apps such as Instagram and Facebook. In a Pesantren[66] in Jakarta, a young boy described how he sold dresses online, and one of the girls in the same group proudly volunteered that she had bought a dress from him she had seen on his Facebook page.

Children also use social media apps for **education**. They describe 'general education' as the ways they learn more about their world (e.g., dance, cooking, craft videos). They also use apps to complete homework. At an international school in Bangkok, students use chat in a variety of apps, including Discord, gaming apps and WhatsApp to respond to school assignments and organize homework groups. For some, Facebook is the Internet, which corresponds with global findings.[67] Google is a favourite first stop for research, and many

> **STUDENTS USE CHAT IN A VARIETY OF APPS, INCLUDING GAMING APPS, FOR HOMEWORK.**

mentioned using Google Translate to read international news or to translate phrases in videos. Some of the children proudly explained that social media was the reason that their English was so good, and that they learned a lot of English by watching YouTube videos.

The children interviewed for the study used smartphones and apps in mostly the same ways as middle class children interviewed during the same time period in Boulder, Colorado,[68] suggesting that globally, young social media users are engaging in similar activities and facing similar risks. In fact, parents and social workers interviewed in East Asia echoed concerns voiced by parents in the United States that their children were up all night playing video games with people on the other side of the world.

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66   Islamic boarding school
67   Silver, L. and Smith, A., 'In some countries, many use the Internet without realizing it', Pew Research Center, Washington DC, 2019, <www.pewresearch.org/fact-tank/2019/05/02/in-some-countries-many-use-the-internet-without-realizing-it/>, accessed 2 May 2019.
68   Bulger, M. and Roque, R. *Family conversations around school data privacy,* Future of Privacy Forum, Washington DC, forthcoming in 2020

The focus group discussions consistently revealed the many ways social **media enables marginalized children to access the larger world**. Children with visual or hearing impairment at a school in Cambodia were among the heaviest users of social media, with the highest diversity of app use. They also mentioned meeting boyfriends and girlfriends online first and then meeting up in person. As one child with hearing impairment explained, "it lets us meet other people like us." This offers a critical insight into the importance of social media and technology to children with disabilities, who as a collective are often excluded from both research and targeted interventions promoting technology use, digital literacy and online safety. The practice of meeting romantic partners online was reflected across groups, a practice very common among all of the teens who participated in this study.

**The term 'stranger'** was a poor fit when speaking with children about their social media contacts. People they meet online are just people, and are only described as a 'stranger' when they do something creepy or threatening. Participation within the apps, particularly within games, seems to confer a degree of trustworthiness and also familiarity. A majority of children would immediately accept a friend request from a woman, which increased risks of harms (further described in Chapter 6). A 16-year-old male refugee from Liberia joked, "If a girl texts you first, block HIM," reflecting a healthy suspicion of unknown contacts as well as experience with people intentionally misrepresenting themselves in social media. Additionally, this differing notion of stranger is important in conceptualizing how to design messages and interventions for online safety, many of which include the message to not speak to strangers online.

Apart from unwanted sexual messages and images, children across the four countries were relatively consistent in describing **normal versus creepy behaviour** in everyday interactions. Connecting with someone and sharing a message is okay, as is commenting on a post or two. One type of abnormal behaviour is to comment or like *everything* on a person's page. One Malaysian teen described opening an app and seeing a list of a single person liking or commenting on his posts: "Block," he said grinning, while his friend added that she tries to limit what that person could then see moving forward.

The two friends then shared that the boy often comments on all of her posts, but that was ok, because it was funny, and she reciprocated. "He comments on every picture because he knows me…"said the 16-year-old girl, "for us, even though it's mean…" Another girl adds, "it's fake…" "I understand it's my friend…" said the girl, glancing over at the boy, "but if someone from outside were to come and read the comments…" she rolls her eyes, smiling, and shakes her head.

Others in the room nodded and laughed, agreeing and adding that their own strategies were similar. **'Stalking'** was often referred to jokingly, with girls in Cambodia giggling as they spoke of stalking their favourite KPOP stars.[69] In fact, stalking KPOP stars was a near universal practice among teenage girls and boys across countries. Children also stalked classmates they were romantically interested in at school. Here, the behavioural norms were to look at the object of interest's various social media profiles and interact sparingly, or not at all, lurking instead of liking. A group of 14-year-old girls shared that they would post photos of themselves kissing someone else to make a boy they liked jealous. Unclear, and beyond the scope of this research, was whether this strategy was effective. Many children shared that they stalked their parents' or siblings' social media profiles. A girl in Jakarta read her mother's WhatsApp messages to learn about the man her mother was dating and eventually married. A Malaysian teen said she and her brothers liked to know what their mom was doing, a girl beside her agreed and shared that it was usually boring stuff like "food shopping." For the most part, stalking had a humorous or harmless connotation when speaking of everyday interactions.

Boys also spoke of **playing pranks** on each other. One boy described how he pretended to be a girl interested in another classmate. While the classmate claims to have known his friend was pranking him, they did admit to hours of chats to try and outsmart each other. Pranking seemed a common practice with girls also pretending to be someone interested in a friend.

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69    KPOP refers to a genre of popular music in the Republic of Korea.

Children also reported applying this creativity to more serious pursuits. Several groups of children report that **some sites are blocked** in their country, either for moral/religious or political reasons. Older teens explained there are ways of navigating this, specifically using virtual private networks (VPNs). In Malaysia, Cambodia and Indonesia, children report using VPNs to access sites such as Reddit, and some international news sites that they otherwise do not have access to. Children reporting the use of VPNs tend to be older teens, reflecting more technical skills amongst older children as discussed in Livingstone et al.'s (2019) findings related to the 'ladder of opportunities'.[70]

A group of affluent 14-year-olds in Bangkok reported accessing the dark web when their fathers left the Tor browser[71] open, leading to exposure to content they had heard about, but did not believe existed. The girls seemed visibly shaken as they described the violent, illegal and sexual content they encountered. The possibilities for social media apps and broader internet use to be a space for carefree exploration but also dangerous and scary experiences reflects what a 14-year-old boy in Phnom Penh said, **"Ultimately, the internet is good and bad, it depends on what you use it for."**

> **PEOPLE ARE ONLY DESCRIBED AS A 'STRANGER' WHEN THEY DO SOMETHING CREEPY OR THREATENING.**

## SUMMARY

Children from all strata of life and backgrounds in East Asia have access to mobile devices. Their phones are most often provided by parents and are frequently phones that are passed down from parents or caregivers, or from older siblings. Whether at school, on the streets or in shelters, or living with disabilities, technology is a central pillar of their everyday lives, and the use of social media is ubiquitous.

Children are using social media for entertainment, communication and gaming. Some are generating income through the sale and resale of goods, or through content generation – videos, the sale of instruction on Qur'anic verse – while some are using it explicitly to meet friends and potential boyfriends and girlfriends.

Children have created multiple strategies for getting around constraints that might be imposed by data costs, or parental supervision, from making use of Wi-Fi at school and public hotspots, or piggy-backing off their friends phones' hotspots, or erasing messages from and setting their own passwords on their parents' phones.

Instagram, Facebook, YouTube, WhatsApp and mobile games PubG and Mobile Legends are most popular. There is little difference between boys' and girls' use of social media and gaming apps.

Children manage multiple accounts, keeping some private and some public. Multiple accounts are kept for different groups of people, families, friends, fellow gamers or those who have common interests.

Children are also adept at blocking those they did not want to speak to, and commonly report that they blocked strangers who contacted them, when they were made to feel uncomfortable. Critically, however, the default for children is to accept chat and friend requests from strangers, particularly women, and only block them when the conversation was steered in a direction that the child did not like.

Older teenagers in Cambodia, Malaysia and Indonesia reported using virtual private networks (VPNs) to access sites or material that might be banned in their country.

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70    Livingstone, S., Kardefelt-Winther, D., Kanchev, P., Cabello, P., Claro, M., Burton, P., Phyfer, J., 'Is there a ladder of children's online participation? Findings from three Global Kids Online countries', *Innocenti Research Briefs* no. 2019-02, UNICEF Office of Research – Innocenti, Florence, 2019.

71    The dark web is a collection of websites that cannot be accessed by regular internet browsers. The Tor Project created a browser initially designed to enable journalists and political dissidents to access material that might be censored by their country. The browser provides anonymity that can be exploited for harmful purposes. The girls described content covered in this *Washington Post* piece: <www.washingtonpost.com/news/the-intersect/wp/2015/09/02/in-search-of-the-darkest-most-disturbing-content-on-the-internet>.

# 3. We play with the world: Teen gaming in East Asia

Playing online video games, Philippines © UNICEF/Joshua Estey/ 2016

We move unwieldy desks into a semi-circle. The room is hot, temperature says 94 degrees, but at that point numbers do not really matter. There are no fans and only some of the windows are open to curb the bugs flying in. It's a Saturday in rural Jakarta. The 11 students sitting in their crisp white and navy uniforms have come to school especially for our interviews.

We go around the room introducing ourselves, giggling with the teens when translation seems a challenge. We talk about what apps they're using, how they access, and then we talk about gaming. "We play with the world," one 14-year-old says, while her classmates lean in and murmur agreement. They play with their brothers and sisters in the same room and with local friends too.


Focus group discussion in Jakarta, Indonesia. Photo credit: © Monica Bulger, 2019

Often they stay up all night playing games. "We chat," a girl offers and then there's clarification – most of the time it's about the game, but it isn't always. Most of the people they play with are strangers, but they don't see them that way. The teens describe people they meet simply as people. They don't know their ages, but figure many are their age. Two girls describe meeting another girl who goes to school in the same region. "I thought I was meeting someone new and then realized we knew each other on Mobile Legends."

Days before, in another semi-circle miles away in an upstairs classroom in a shelter for street children in Kuala Lumpur, a 13-year-old boy tips his desk forward as he describes using Instagram and WhatsApp to promote the gaming trophies he has won. His classmates roll their eyes and laugh. "This is a game, not ice breaking," he responds vehemently when asked if he chats with people during games. "We say go here, go there, find people, shoot shoot shoot. Someone asked me, where are you from? And I'm angry, this is a game, so just shhhh and go play."

**MOST OF THE PEOPLE THEY PLAY WITH ARE STRANGERS, BUT THEY DON'T SEE THEM THAT WAY.**

While interviewing teens in Kuala Lumpur, Jakarta, Phnom Penh and Bangkok, we learn that games are inherently social, and everyone is chatting. At a prep school in Bangkok, 14-year-old girls share that they use gaming chat apps like Discord as spaces to discuss homework assignments. "Even our teachers are in the group," one girl says, and others chuckle in agreement. Chat rooms for the most part seem like fun spaces, kids in all the countries we visit share anecdotes about meeting someone in a game who goes to school nearby and they've met in person. Even the Malaysian boy who said "no ice breaking" concedes he's open to friendship if they're "good at the game. High scorers only."

Of course, as with all things online, there's a darker side. Paediatric psychologists interviewed in Malaysia share that Asian children in particular are vulnerable to Western-style encouragement in gaming. "In Asian families, they don't give compliments," one counsellor says, "so games are giving gratification, 'well done' or 'you're a winner' that they aren't getting at home."

At the prep school in Bangkok, administrators were working to unravel a puzzling case in which one of their female students met a boy on the gaming app PubG whom her father suspects is a paedophile in the UK. As the girl describes the tensions between her father and her online friend, she says "he doesn't want to give his address and I don't think he should have to, but my father is angry." She fiddles with a scarf the online friend has sent her, curling it around her fingers and touching it to her lips as she talks. Her classmates agree that it would be uncomfortable if the parent of someone they met online demanded their address. The girls move around the room as they discuss, alternately perching on the tables of each other's desks. One girl questions whether the boy is actually a boy and not an older man, and the first girl says she's Facetimed with him. Another points out that the Facetiming happened with someone, **but online "you're never sure who you're talking to."** Finally, one classmate leans forward, grasping the first girl's hands, saying, **"but in the future, you know, maybe be more careful, because we don't really know who he is, and we don't want to lose you."**

Wrapped within the fun of games, even the game of meeting people online, is an underlying awareness of the risks. While many of the teens we interviewed took precautions to protect their home address, they also felt that privacy was a losing battle. Strategies were endless, starting with multiple accounts and multiple screen names, but these were mostly to protect against parents or boyfriends/girlfriends finding info teens didn't want to share. Consistent with recent studies of children's understanding of privacy in digital spaces, teens focused on contextual privacy from those in their immediate sphere.[72]

When asked about protecting themselves from what the platforms collect and share, the majority were at a loss. A refugee in Malaysia shrugged and said, "Google knows everything about us," and her classmates agreed. A 14-year-old Eritrean refugee at another school in Kuala Lumpur went further, saying that if Instagram, or WhatsApp, or Facebook truly cared about their privacy and well-being, "hackers wouldn't be able to hack us," and strangers wouldn't be able to contact them. Even when they know the risks, **most teens took minimal precautions to protect their identity in games, applying their privacy strategies elsewhere,** in Instagram, WhatsApp, and Facebook Messenger.[73]

One Sunday afternoon, we meet with a small group of parents, grandparents and teens in Kuala Lumpur. We sit in a colourful toy library in the midst of a massive low-income housing complex. Grandparents share that iPads and phones are used as 'babysitters' by many. One parent observes that gaming is a gateway to social media. "It's the first place she talked to strangers," one parent says, and the discussion turns to **gaming as an entry point, as a place where talking to strangers becomes normalized.** There are precautions, choosing games where there are not multiple players, playing offline, but eventually, kids graduate to the more 'fun' games that they can play with friends.

> **"IT'S THE FIRST PLACE SHE TALKED TO STRANGERS."**
> **Parent in Kuala Lumpur speaking of her daughter playing games**

Back in the classroom in rural Jakarta, the heat is forgotten as we chat about Mobile Legends as a place to pass time, chat with friends, and play together. Distinctions between 'online' and 'real life' no longer hold. Gaming is where life happens. Like life, there are sometimes scary things to navigate, but there's also opportunities.[74] For the teens we spoke with, gaming has the highs and lows of normal teenage life and they're figuring it out as they go.[75]

72    Livingstone, S. and Stoilova, M. (2018) Conceptualising privacy online: what do, and what should, children understand?, London: London School of Economics and Political Science <https://blogs.lse.ac.uk/medialse/2018/09/07/conceptualising-privacy-online-what-do-and-what-should-children-understand/>
73    Kusyanti, A., Puspitasari, D. R., Catherina, H. P. A., & Sari, Y. A. L. (2017). Information privacy concerns on teens as facebook users in Indonesia. *Procedia Computer Science, 124*, 632–638 <www.sciencedirect.com/science/article/pii/S1877050917329678>
74    Livingstone, S., Kardefelt-Winther, D., Hussein, M., *Global Kids Online Comparative Report,* UNICEF Office of Research – Innocenti, Florence, 2019, <www.unicef-irc.org/publications/1059-global-kids-online-comparative-report.html>
75    A balanced online life, 2019, <www.thelancet.com/journals/lanchi/article/PIIS2352-4642(19)30354-2/fulltext>

Community focus group discussion inside toy library located within project housing in Kuala Lumpur. Photo credit: © Monica Bulger, 2019

# Is gaming safe?

Clearly, **perspectives on gaming are diverse**. Children's descriptions focus on the entertainment and communicative aspects of gaming. They share concerns only when prompted and these concerns focus on the practicalities of gaming, such as costs of data and older smartphones not being compatible with newer versions of games. While not speaking of themselves, they do acknowledge that in general gaming can interfere with sleep, and not getting enough sleep can interfere with schooling. An interesting outcome of the focus group discussions is that across the countries and socio-economic classes, we did not have any teens say they wished they could spend more time on social media apps. A few said they would like to spend less time but did not express concern that they were addicted or excessive in their use. Not finding their own use excessive does not necessarily mean it is not, yet for the children, gaming was primarily a positive experience. Gaming is what they do to unwind, to connect with friends, and meet new people. No one described it as isolating or something they felt they could not control.

> **NO TEENS SAID THEY WISHED THEY COULD SPEND MORE TIME ON SOCIAL MEDIA APPS.**

A very divergent perception of gaming was evident amongst the adults. The views of children contrast starkly with the views expressed by many adults, who saw gaming explicitly as either having a negative impact on children and their behaviour, or as a product of deficiencies or vulnerabilities that may exist in the children's lives. Some adults would cite news headlines about gaming and addiction, pointing to children staying up late playing games as evidence. Yet a solid evidence base shows a biological reason for adolescents' later bedtimes.[76] Research on later start times for schools shows that a more natural time for teens to fall asleep is around 11 p.m. In the Seattle School District in the United States, experiments in starting school an hour later resulted in improved attendance and grades.[77] Many of the adolescent

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76    Links to research studies provided in Kyla Wahlstrom's article: "Sleepy teenage brains need school to start later in the morning." *The Conversation*, <https://theconversation.com/sleepy-teenage-brains-need-school-to-start-later-in-the-morning-82484>, 12 September 12, 2017.

77    Dunster, G.P., de la Iglesia, L., Ben-Hamo, M., Nave, C., Fleischer, J.G., Panda, S., de la Iglesia, H., Sleepmore in Seattle: Later school start times are associated with more sleep and better performance in high school students, *Science 4* (12), 2018, <https://advances.sciencemag.org/content/4/12/eaau6200>

sleep studies date back to the 1980s,[78] when gaming was limited to household consoles that did not connect to global players in multiple time zones, indicating that staying up late might be a normal part of adolescence that has long been a concern. It can certainly be exacerbated by social media, but not necessarily caused by it.[79]

In the digital world, so much is unknown for parents and those working with children, such as experiential knowledge of the games children play, time spent in chat, use of WhatsApp or Instagram. Newspaper headlines often serve as the sole educational tool for understanding children's app use. The danger here is that some risks may be exaggerated at the expense of ignoring true harms.

For gaming, paediatric psychologists expressed concerns about the compelling nature of Western-style affirmation for children whose culture does not indulge in regular praise of children. In this sense, the psychologists said that games can be addictive. Children on the spectrum, with Asperger syndrome or autism, were particularly vulnerable to praise that they may not receive in everyday life. The psychologists and social workers described cases where patients said the game was where they felt most accepted. They described other cases where children would become violent if the parent tried to restrict use of the device or physically remove it.

These observations raise important considerations in the nature of support and interventions that may be offered to parents and caregivers, and the manner in which these interventions promote positive parenting, affirmation and support of resilient children. It also emphasizes the importance of locating the concept of digital parenting within a broader paradigm of positive parenting, and ensuring that support to parents does not focus exclusively or predominantly on digital literacy and skills, or in how to manage children's use of technology and devices.

Psychologists and social workers were also concerned about children's (in)ability to distinguish fantasy from reality. A psychologist in Malaysia shared a case where a boy described suicide as a 'reset.' In games, the boy explained, when your avatar dies, you get a fresh chance to play again. Counselling him after he survived a suicide attempt, the psychologist said their focus was on distinguishing between the game and real life.

**A BOY DESCRIBED SUICIDE AS A 'RESET': WHEN YOUR AVATAR DIES, YOU GET A FRESH CHANCE TO PLAY.**

These confused notions of reality may be reinforced by support groups, those found in game chats and also through other social media apps. These support groups were viewed as unhealthy by some psychologists who warned that children who are feeling depressed might meet others who feel the same: "Instead of getting understanding, they're getting reinforcement and we see most of these conversations moving toward suicide." Determining the appropriate intervention for these kinds of support groups is challenging. Another counsellor mentioned that children who are not fitting in offline, might find a community that accepts them, as one of her autistic patients confided, "These are the only people I can make friends with."

*In a shelter for urban poor in Phnom Penh, three out of the eight children in our focus group cannot write. Aged 14–18, they have clearly developed strategies for masking illiteracy. Two boys sit at the corner of a table, one boy writing answers on post-it notes, handing them to a girl across the table who re-writes and hands to second boy. Under the table, the first boy hands the second boy his phone, where a game is in progress. The second boy, who is unable to read or respond to our questionnaire and relies on the first boy to write responses on the post-it notes, plays the game under the table. The first boy checks in every once in a while, points to the screen and smiles. Here, gaming is currency and allows one boy to seek help from another. In speaking with social workers at the shelter, the women describe very open communication with the children. They share that some children ask for their help when using new apps because they sometimes have trouble understanding the multiple choice responses. The social workers encourage the children to share what they're doing online. "Kids advise the staff, they teach teachers how to play," one social worker says. Another says she advises children to take control of their experience, "if you're not happy, you can block people," she tells them, "we do it, too."*

78    See Wahlstrom, cited above.
79    Odgers, C.L. and Jensen, M.R., Adolescent mental health in the digital age: Facts, fears, and future directions, *Journal of Child Psychology and Psychiatry*, 2020, <https://onlinelibrary.wiley.com/doi/full/10.1111/jcpp.13190>
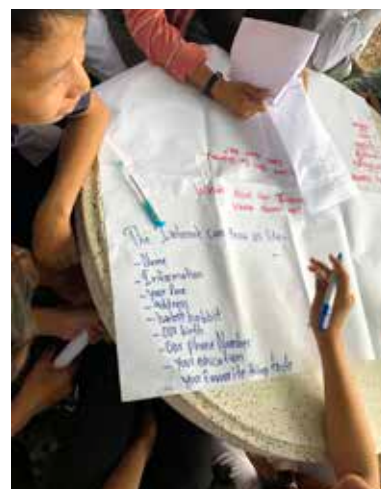
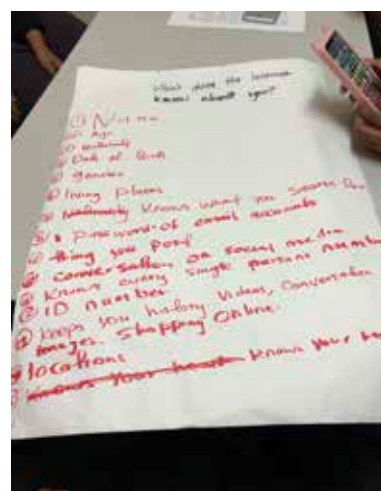# 4. Apps know everything: Discussions of data privacy in East Asia

At a school in Phnom Penh, ten kids squeeze around a single round table. We're in the large schoolyard and about 200 younger children play around us, calling to each other, running around, climbing on tables beside us, and tossing a ball that seems roughly half their size. Midday is sweltering and we sit under one of the few clusters of trees. When we speak about apps they use, conversation is lively, with many children speaking at once. But when we ask what social media apps might know about them, conversation stalls. "What do you mean?" one girl asks, leaning forward, pressed between two classmates. We clarify, asking what information they might have given the apps when they signed up. "Name," one answers, "telephone number," another volunteers. We spread out two large white sheets of paper and ask them to write down other things apps might collect about them. "Location, friends, likes/hobbies," makes the list and then they stop. When we repeat this exercise with other groups from the same school, it is apparent that most had not thought about what apps might collect about them. When asked why apps might collect information, a boy volunteers, "To check our age," and "To remind us of old posts."

A school for Somali refugees in Kuala Lumpur frequently changes location. Whether this instability is due to prejudice the children and their families endure, or whether because of limited finances is unclear. We visit during a sudden rainstorm, the street slick with water outside the second floor school. In a narrow room with ten girls dressed in black hijabs, we talk about what information social media apps might collect about them. First responses mirror those of all of our groups: name, age, gender, password. Then the girls start looking at their phones and debating what else is collected. Location is discussed, maybe some places but not everywhere? Do the apps know their home address if they haven't provided it? A 14-year-old Eritrean refugee writes, "anything you post on social media, every single person's number, it keeps your history, videos, conversations, images, shopping online."



Middle school students in Phnom Penh discuss what information is collected about them online. Photo credit: © Monica Bulger, 2019

Asked why social media apps might collect information about them, a 17-year-old confidently answers, "For national security." Another responds, "For our protection." My facial expression must give it away, because the first girl says, "It's not?" The girls start talking, and there is confusion. They assumed the apps were acting in their best interest and any information they gave was for an altruistic purpose.[80] "Why would they want to know these things about me?" the 17-year-old asks. I suggest for commercial purposes and the conversation stops. We shift to talking about what social media apps do not know about them. The same girl says, "That I am Muslim," she says she's never posted anything about her religion online. I look at her hijab, smiling wryly, and ask if she's posted photos of herself. She puts her hand to her head, returning the smile, and nods.



Teen Somali refugees write about what the internet knows about them during focus group discussion in Kuala Lumpur. Photo credit: © Monica Bulger, 2019

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80    Canares, M. Online privacy: Will they care?, Teenagers' use of social media and their understanding of privacy issues in developing countries, World Wide Web Foundation, London. 2018, <http://webfoundation.org/docs/2018/08/WebFoundationSocialMediaPrivacyReport_Screen.pdf>
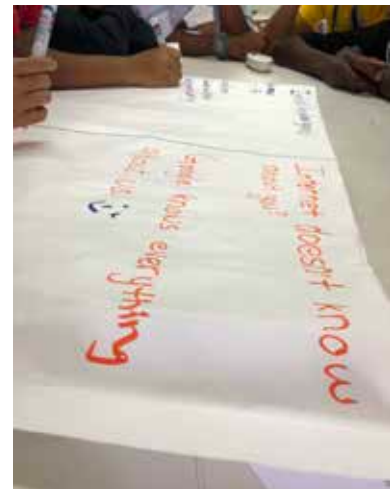
As a group, we take this new knowledge and turn it over. Is it dangerous for the apps to know so much? Probably not. They reflect on all of the reasons they enjoy social media, with staying in touch with friends and family in their home country the primary positive, followed by meeting new friends. The girls enjoy learning new things through watching videos about cooking, painting, crafts, gardening and fitness. A few of the girls describe thinking the apps cared about them to provide all of these wonderful opportunities for free.

At a larger refugee school elsewhere in Kuala Lumpur, the teens have a much more sophisticated understanding of data privacy. "Everything," one girl says, "Google knows everything about us." A boy beside her leans forward and adds, "On your phone, they save all your data. You're in the hospital? Google knows already." Another boy asks, "You know Facebook owns WhatsApp and Instagram?" as his classmates nod, he repeats the *refrain,* "everything, they know everything." Another boy says he changes the date and month of his birthday, but shrugs about whether this makes a difference, "Doesn't know exact age, but almost same." Another boy responds, "You can do that, but they already know the truth. They just let you fake it." Speaking over each other, the group calls out all that is known about them by their apps: "Relationships, it can discover if you're single," "Location, what school you go to… your high school," "Where you work, your occupation." A 16-year-old boy clarifies, "Most people lie about their occupation on Facebook, I told them I work at Facebook." His classmates stop their writing to laugh together.

Their list of what data is collected about them rivals any expert's list. Their list of potential negative experiences encountered online might even surpass most adults' understanding.

This level of understanding is not the norm.81 There is a spectrum of awareness around what information is collected and for what purposes.82 In our focus group discussions, understanding does not seem related to socio-economic status or even level of use. In most cases, older children were more knowledgeable, but not always.



"Google knows everything about us" response from teenage refugees in Kuala Lumpur. Photo credit: © Monica Bulger, 2019
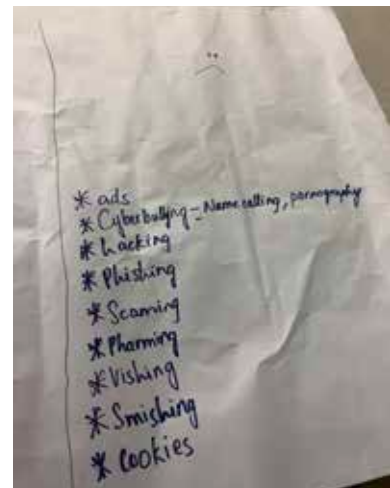


Response from teen refugees to "what most concerns you?" in terms of privacy dangers on social media apps. Christian high school for refugees in Kuala Lumpur. Photo credit: © Monica Bulger, 2019

The teens have advice for promoting privacy but are not optimistic. A 17-year-old avid gamer and Pakistani refugee explains, "For Google and other websites, if you don't log in with your email, they can't save much about you. Most of the information that is collected is usually linked to your email, so that's how they know who you are. Usually, you have to use your email for most things." Before he finishes his advice, his classmates respond,

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81    Livingstone, S., Stoilova, M., Nandagiri, R. 'Conceptualising privacy online: what do, and what should, children understand?' [Blog] London: London School of Economics and Political Science. <https://blogs.lse.ac.uk/parenting4digitalfuture/2018/09/06/theorising-privacy-how-do-and-how-should-children-know/>

82    Kumar, P, Naik, S.M., Devkar, U.R., Chetty, M., Clegg, T.L., and Vitak, J., 'No telling passcodes out because they're private: Understanding children's mental models of privacy and security online', *PACM on Human-Computer Interaction 9* (64). 64:1-64:21, 2017, <https://pearl.umd.edu/wp-content/uploads/2017/08/kumar-etal-2018-CSCW-Online-First.pdf>

"My Instagram email and my Facebook email are different." "Do you know how many emails I have? Not just two!" "I think I have 5!" "I have two phone numbers, one I use for everything, one nobody knows!"

When asked what advice they would give to a younger sibling about protecting their privacy, a 16-year-old Liberian refugee says, "Honestly? I think if you expose them earlier and show them how they're using it…if you teach them how to use it, there's a lower chance of them experiencing problems." A 16-year-old Rohingya refugee adds, "Sometimes they learn stuff. From YouTube, you can learn a lot of things." A 17-year-old Afghani refugee adds, "It has to be monitored by parents, so they can go and check what the kids are doing." A 15-year-old girl sitting across the table nods, saying, "You can use it, but the parents just need to be involved."

## Who is responsible for children's data privacy?

Caught amidst global platforms with limited to no protections for vulnerable young users, and in national contexts where the rule of law is weak, **there is an expectation of individual responsibility for data privacy without any actual transparency or ability to control social media platforms' data privacy practices**. Most of the children participating in the focus groups, like their counterparts in the United States and UK, had internalized messaging from technology companies and governments that limit the liability of companies and expect the individual to protect their privacy, even though the platforms make information public by default and are opaque about their data use practices.[83]

**CHILDREN USE PRIVACY SETTINGS TO REFLECT THEIR INTEREST IN POTENTIAL BOYFRIENDS OR GIRLFRIENDS.**

The awareness of various strategies to both protect oneself, and to manipulate and avoid steps that adults might take to monitor or restrict online activities was also widely apparent across the countries and different groups. Usually, when asked for videos, images or personal information about themselves from strangers, children did not share, and, if the request made them feel uncomfortable, would block the person.

## A focus on contextual privacy rather than data privacy

**Children were skilled at utilizing privacy settings across platforms to create the illusion of openness with parents and other adults, while managing to keep certain aspects of their lives private.** Other than blocking unwanted communication and requests from strangers, new acquaintances and friends or romantic partners where a falling out might have occurred, children most often utilized multiple accounts across Instagram and Facebook, with different privacy settings, for different audiences. These were not always as straightforward as a public account for anyone, and a private account for friends and families. Some children had accounts for different open audiences, such as an Instagram accounts for gaming friends, and another one for particular hobbies, such as an interest in motorbikes, and a third that was just for friends and family. When children spoke about having accounts that were open only to family and friends, most reported that their family, and parents specifically, were not aware that they had other private accounts, and for them this became a way of keeping parents appraised of areas of their life they felt comfortable sharing with them, but also allowed them some privacy in other areas of their life. In some instances, the mechanism that children had established to keep information from their parents were acknowledged explicitly.

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83    Stoilova, M., Livingstone, S., and Nandagiri, R., 'Children's data and privacy online: Growing up in a digital age', London School of Economics and Political Science, London. 2019.; Cranor, L., Durity, A., Marsh, A., Ur, B., Parents and teens' perspectives on privacy in a technology-filled world. *Symposium on Usable Privacy and Security,* July 9-11, Menlo Park, CA. 2014, <www.usenix.org/conference/soups2014/proceedings/presentation/cranor>

The management of privacy settings on accounts was also used as a way of manipulating or managing romantic relationships. One girl spoke about how when she got annoyed with her boyfriend or wanted to break up with him, she would block him on her Facebook account. However, if she decided she 'liked' him again, she might try to become friends with him again, but he in turn might have unfriended and blocked her from his account, and so she would create a new profile page from which she could 'friend" him again. This process would be reciprocated by partners, and so children ended up with multiple active and dormant accounts. Of interest here is not only how children use privacy settings and friend status to reflect their interest or non-interest in a partner, but also in how central the platform becomes in communicating and forging or otherwise, relationships, outside of which open communication seems much more difficult. Several girls in Indonesia also spoke about how they used privacy settings to demonstrate trust in their boyfriends, reflecting that being open indicated trust. This went a step further though, with some girls sharing the passwords of their Instagram or Facebook accounts with their boyfriends to prove their trust. When relationships broke down, the girls simply created a new account or changed their password so that their boyfriends no longer had access. Others recounted how they had Facebook accounts that they shared their password with their boyfriends, and other private Facebook pages that they kept hidden from their boyfriends.

# 5. Protection, risks and harms

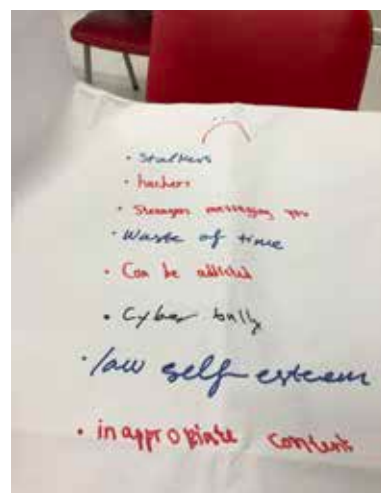# The dark side of social media: child trafficking in East Asia

We meet in a juvenile shelter that houses in separate buildings victims of abuse, young offenders and recently returned refugee child soldiers. The few windows in the room are covered with bars, the chairs comfortable though the air is stale. Ten teens ranging in age from 14 to 19 sit around a large table in the staff conference room. Two boys are juvenile offenders but can't be told apart from the victims of abuse. Apart from one boy who remains cowered and quiet, the teens seem relatively relaxed. Despite the juxtaposition of offenders and victims sharing space, they speak comfortably with each other, like any other group of teens.

They sit comfortably, wearing the same school uniform, a non-descript green jersey over white blouses for the girls; the boys wearing green sweaters despite the heat, with grey trousers and white shirts. We first discuss their app use. Residents of the shelter are not permitted to use mobile phones, so the teens first speak of what they used before. The girls lead the conversation, describing their use of Facebook and Instagram, every once in a while prompting the boys to agree or add their own anecdotes.

As the teens speak to each other, it is clear that despite the prohibition on mobile phones, their current use of social media has not changed in terms of the risky behaviour that they engaged in before they joined the shelter. We do not ask for details about how they access social media apps. One teen shares that she uses the internet to meet people, creating multiple accounts so that she can "tease" those she meets, but keep herself safe. Others nod in agreement, sharing that they create fake accounts and pretend to be other people, using fake pictures. Aside from the higher risks, these teens could be any teens, speaking about using social media to chat with friends, to meet people, to play games.

One girl stands out as being more confident than the others, speaking emphatically of her experiences. She initially speaks in broad terms of other people's experiences, explaining that contacts online might pose as other people and give misinformation. As the questions progress, however, she offers her own example. She speaks without hesitation, intent on sharing her story. A few months before, she'd arranged to meet with someone who didn't turn out to be who they said they were. This recalls other lighter moments speaking with students in schools where they express disappointment that people they meet don't look as good as their pictures. In this room, however, the tone turns serious: this type of unexpected meeting seemed common for the others.



Responses to "what most concerns you?" in terms of privacy dangers on social media apps from girls at an international school in Bangkok. Photo credit: © Monica Bulger, 2019

As she talks more about her experience, she shares that she'd been trafficked. In a private conversation with counsellors following the group discussion, she confidently provides details, hoping her story will prevent the same from happening to others. She'd moved from her home island to Jakarta so that she could work and send money to her family. She started work as a waitress and posted to Facebook that she was interested in additional work. A woman contacted her and offered work in another restaurant. They agreed to meet to discuss the employment. When the girl arrived at the job interview,

the woman was accompanied by a man she referred to as her partner, who was waiting in a car. At this point, the meeting became confusing for the girl, she couldn't recall why she agreed to get into their car. She was taken to a house where she was locked up, the following day she was taken to another island where she was locked up again and told she was going to be flown out of Indonesia. While at the airport, she managed to ask someone to borrow their phone and called for help.

Her recollection of the rescue is muddled, she knows she did not board the plane and was eventually taken to the shelter. She continues to use social media in much the same way as before, she has multiple accounts and talks to strangers online. Like other teens, she sees risk as part of using social media. Unclear is whether her experience has reduced her amount of risk taking online. The shelter restricts mobile phone use, but does not offer digital literacy training, which seems dangerous for the teens. The youth offenders and victims describe continuing their social media use much in the same way as they did before.

In a later focus group, eleven counsellors, teachers and the deputy headmistress from the shelter squeeze around the table, bringing an additional two chairs. For most of the hour, details are vague, translation is slow, and the discussion focuses on social media as a huge problem, lacking examples. In the final 10 minutes, one social worker shares problems she's observed at her child's school, and this prompts a few more serious examples from her colleagues. One counsellor shares the case of one of their offenders, who at age 13 connected with a 16-year-old boy on Facebook, met offline, and then killed him. No details are provided. The question of why a younger child would kill an older one, particularly when the older one initiated the meeting, goes unasked. Another counsellor shares that one of the victims in residence was 14 when she met someone on Facebook who invited her and her boyfriend (who was 24 and with Downs syndrome) to meet up. They were subsequently kidnapped for three days and both were raped. Eventually a friend of the girl's family saw the girl and reported the crime to the police. Others in the room nod, aware of the story.

The mood in the room has become solemn, stories shared briefly and clinically. One 12-year-old resident met a 30-year-old man on Facebook who invited her to meet him at a bus station. At their last meeting, the man brought her to a room and raped her. After the girl became pregnant, the case was reported to police and the girl placed in the shelter. The last case the counsellors share is that of a 16-year-old girl who was caught as part of a police sting when her aunt was trafficking her. Prevention is not discussed, and counsellors seem overwhelmed by the added dimension presented by social media.

# Exploited children in East Asia

The emergency assistance centre in Bangkok is cool in the middle of a sweltering day. Downstairs, the ceilings are high, the cool floor tiles sparkle white in the dim room. Teens are sleeping on mats on the edges of the room, many of the boys in a pile in the darker corners. We quietly go upstairs to prepare an interview space. As we are arranging chairs, a pile of blankets between two couches starts to move and a teen boy pops his head out, smiling blearily. A social worker chastises him for being upstairs, and he shakes his head sleepily and moves to curl up on one of the couches. In this upstairs space, there is a drum set in a corner, a large conference table in the middle of the room and doorways opening to smaller rooms with comfortable chairs for counselling sessions. After a few minutes, the teens file in slowly, languidly, rubbing their eyes, but smiling at us. They tease each other and nudge shoulders as they find spaces on the upstairs couches. We divide the group, those who identify as male stay in the large conference room, those who identify as female claim couches in one of the counselling rooms.

The girls range in age from 14 to 26. We begin by discussing app use, and their descriptions are consistent with the other teens we have interviewed in Malaysia, Cambodia and Indonesia. A 14-year-old speaks of a dating simulation app for "romantic stories…flirting," she adds shyly, a small smile as she describes, "a boy likes a girl and they flirt." The other teens giggle. When we talk about things that bother them on the internet, the same girl describes animal torture, shivering as she describes happening upon a video of an abused dog. The other girls nod grimly.

Absent are the examples their social workers shared with us in interviews a day earlier. The centre provides assistance for children in need, most of whom live on the street, many are sexually exploited, commercially or otherwise. The centre provides space for the teens to sleep during the day, classes and job training, counselling and a consistent safe space as they transition toward safer work options. The location of the centre was strategic, chosen when social workers saw kids regularly sleeping during the day in public spaces in the area.

The social workers are all young women. They tell us that all of the children have dropped out of school, and most have experienced abuse at home. **These teens experience various forms of abuse, and risks that often translate into measurable harms, across several social media applications.** For the children in prostitution, social workers describe clients sending videos to the teens' phones to 'train' them in what they like. Social workers also report that the teens themselves research pornography online to please customers and make more money. One strategy is to create a Facebook group with a name that is a code for clients. They use livestream video on Facebook for the sexual act, so members of the group can look, but can't save it. When social workers report these behaviours to Facebook, the account might be shut down, but there is no known law enforcement follow up. Similarly, teens tell the social workers they use Line to live stream sexual acts. Despite many attempts by social workers, no one from Line has responded to reports. One social worker says, "Any secret you want to share with your friends or family, you better use Line." In their experience, Line will not work with police, even in cases of child safety, and even when screenshot documentation is provided: "Police say they can't do anything if it's Line." Children exploited in prostitution are also contacted via chat rooms in games. People set up challenges, one example the social workers shared was, "if you lose this game, you have to have sex with [number varies] of men" and the girl's contact information is provided prior to the start of the challenge. Dating simulation games and dating apps are used to locate young girls, chat and arrange hotel location and hourly charges.

At the shelter, a pregnant 18-year-old nestles confidently into the couch arm as she pronounces, "Don't sell drugs on Facebook." A few of the girls repeat, "on Facebook," and there's giggles. We ask for details, and she explains that her first time trying to sell drugs on Facebook, she immediately had a buyer, a policeman – she rolls her eyes at this – and when she went to meet him, she was caught in a police sting. "So don't sell drugs on Facebook," she concludes.

One girl shares that Middle Eastern and Indian guys text, asking for a video call, "I call and he's already naked. I wasn't expecting. I thought he wanted to say hi." The girls also describe men sending them videos of a woman masturbating. One says a man contacted her through Line: "he said if I sent him a video like that, I could get paid." Earlier that week, social workers mentioned finding a 9-year-old girl had created a video in response to a similar request on Tik Tok. An 18-year-old refers to "sex phone" where men call through Facebook and ask to hear her voice while they masturbate. A 21-year-old joins the discussion and says she wants Facebook to not allow kids who are still underage to be able to use it. She sees a lot of posts about drugs online and she doesn't want bad things to happen to other kids.

In the larger room, the boys sprawl around an immense conference table. One boy is more animated than the others, hair dyed blue, talking about the lifestyle his work affords. He speaks of meeting people on Facebook and Line and traveling with them, sometimes they pay for hotels, sometimes they pay for cabs. Most of his clients are European, both men and women. The boys' conversation focuses on status and popularity, strategies for self-promotion. On Facebook and Line, teens can charge for livestream stripping videos. Following the livestream, viewers are given an option to pay more to go into a private room for cybersex or to meet for sex. The boys say most of the people who pay to watch work in local companies.

The conversation shifts into music apps they use, dating apps to meet girlfriends and boyfriends. It's surreal that **the same devices used for exploitation are part of everyday living, communicating with friends, finding information, playing games.**

# Frontline practitioners – child safety concerns

Like elsewhere in the world, children's rapid take-up of technology and the growth of social media in East Asia has been accompanied by growing concern about online risks faced by children, particularly those relating to online child sexual exploitation and child sexual abuse material.

The same concerns emerged across all four countries included in the study, with social workers, educators and other frontline professionals all expressing concerns regarding sexual images, pornography and potential dangers associated with engagement with strangers, as well as the risks associated with what was reported as excessive screen time and exposure to extreme violence online, both through gaming and through videos. One activist in Jakarta noted children's perceived obsession with online gaming and pornography.

Both social workers and educators worried that excessive use of social media, gaming and broad attachment to online activities might generate bad posture, health problems resulting from low oxygen flows to the brain, and the inability to form good habits. Such perceptions are commonly identified by adults, although there is little evidence to support such claims, and indeed there is a growing recognition that such outcomes have been over-stated

Counsellors and social workers, in particular, voiced concerns about the dangers attached to exposure to online child sexual abuse material, and the risks of child and sex trafficking. As the experience detailed in this study illustrates, these concerns are not unfounded.

Psychologists and paediatricians in a specialized hospital unit in Kuala Lumpur recounted several cases that had been bought to their attention: a young girl who attempted suicide by drinking Clorox, and a second time by hanging, after she shared a naked picture of herself with a man she met on WhatsApp, who then threatened to post the photo publicly if she did not have sex with him; a boy who attempted suicide after his school instituted disciplinary procedures against him for fighting back when being bullied over his sexual identity, and the school then posted the disciplinary process to the school's WhatsApp group, publicly humiliating him.

It is worth noting that while in both of the above instances, social media played a pivotal role enabling or facilitating the trauma experienced by the child, there is also an important distinction between the two. In the first case, the girl encountered the risk online, and the situation evolved online; in the second, the boy's experience originated offline, through schoolyard bullying, and it was through the school's action of disseminating sensitive and personal information publicly that led to the harm to the child. These cases point to the plurality of risks and the ever-blurring distinctions between offline and online worlds/experiences.

Yet, while the above experiences point to the importance of both improving the prevention and response systems to keep children safe online, and that everyone we interviewed had heard of extreme cases, either via news media or viral social media stories, it was also noted that there are a limited number of

actual clinical cases that have been directly linked to social media, and that have been bought to the attention of the frontline practitioners and adults interviewed during the data collection.

In both Cambodia and Thailand, helpline and hotline staffers reported that there were very limited numbers of reports of harm annually, and in fact the number of reports over the past three years had been declining, although there was no evidence as to why this might be. As with any form of reporting of violence, declining numbers may reflect an actual decline in the number of reportable offences or occurrences, or could reflect changing patterns in help-seeking behaviour.

These contrasting findings highlight an important point. As with the experience of children of risks and harms in other countries, there are significantly fewer reports of children experiencing physical or psychological harms as a result of the risks they encounter; where these harms do occur, however, the harms are serious and often extreme in nature.[84; 85]

Extreme cases such as those above often dominate the common narrative surrounding risks and potential harms that exist to children online. Children's own experiences are somewhat more nuanced, and reflect the everyday risks that may be encountered, and most commonly managed, by children themselves. These usually encompass the full range of adverse experiences that children may encounter online, from misuse of data, invasion of privacy, bullying and encountering unwanted attention or sexual content.

IN THE FEW CLINICAL CASES OF HARM THAT WERE CITED BY FRONTLINE PRACTITIONERS AND ADULTS, TECHNOLOGY PLAYED A **FACILITATING ROLE**, TO ENABLE OR AMPLIFY UNDERLYING ABUSIVE AND UNDESIRABLE BEHAVIOUR. THIS HIGHLIGHTS THE NEED TO FOCUS ON UNDERLYING BEHAVIOURS, ATTITUDES AND NORMS AS A DEPARTURE FOR PREVENTING ONLINE HARMS AND MITIGATING RISKS.

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84   Wolak, J., & Finkelhor, D., 'Are crimes by online predators different from crimes by sex offenders who know youth in-person?', *Journal of Adolescent Health***,** 53(6):736-41. 2013, doi: 10.1016.
85   Slavtcheva-Petkova V., Nash V.J., & Bulger M., 'Evidence on the extent of harms experienced by children as a result of online risks: implications for policy and research', *Information, Communication & Society*, 18:1, 48-62, 2015, <https://www.tandfonline.com/eprint/JfAt7c4gXsHRr8Z9mPbP/full >

**BOX 1:** Children's self-reported online experiences in the past year
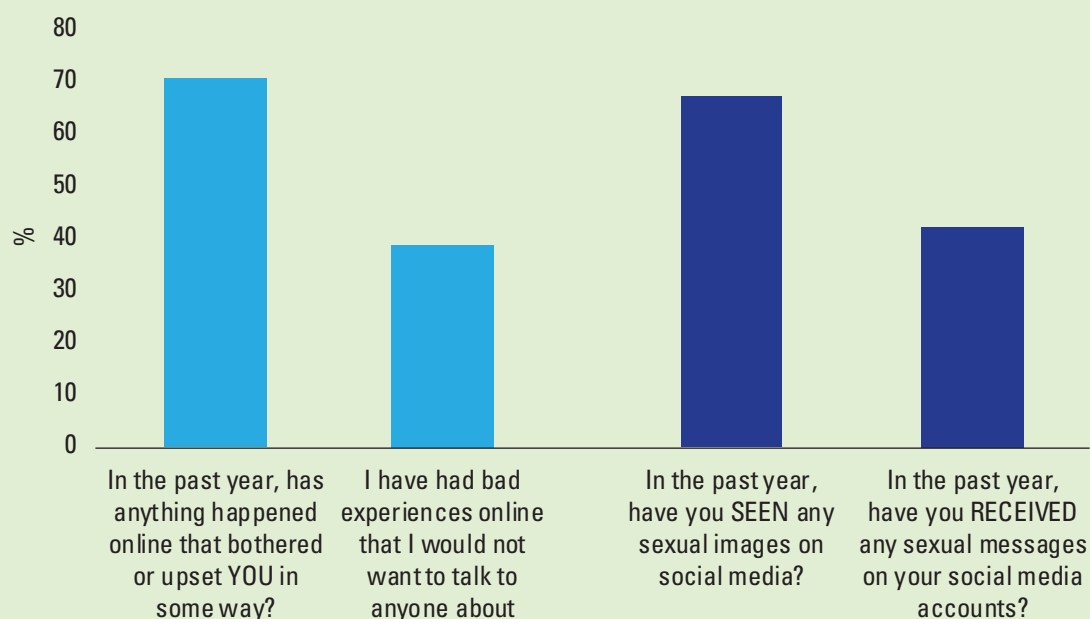


When asked to share their experiences confidentially through a self-report questionnaire, seven out of ten children who responded had experienced something online that had upset them over the past year, while two out of five participants reported that they had bad experiences that they would not want to share or talk to anyone about. Having an informal or formal support network through which children can share and navigate their way through what they see online, and upsetting experiences, is an important mechanism to fostering resilience and positive coping mechanisms. The lack of such networks, whether peer or adult, is an important area where interventions can be targeted.

The concerns raised by children in the discussions on encountering sexual images was also reflected in the self-report questionnaire, with fractionally more than two out of three children reporting they had seen sexual images on social media, while a little over two out of five had received sexual images through their social media accounts that they may or may not have requested.

Source: Self-report questionnaire

# Risks and harms

## Engaging in online risky behavior

Engaging in risky behaviour online, and exposure to online risks, are common across the full range of populations included in the study, from children of high-income backgrounds, to street children, although some differences in how open children are to acknowledging and discussing these behaviours was clearly evident. Girls in a high-income international school in Thailand, for example, openly shared experiences of actively and knowingly engaging in risky behaviour through social media with men that they did not know, engaging in a level of brinkmanship. Experiences served almost as a sign of status.

Elsewhere, others were happy to talk about both their own, and their friends' experiences, chatting to strangers online, and in several instances, meeting a boyfriend, or a girlfriend in person, that they had met through WhatsApp, or a gaming platform. A 14-year-old girl in Malaysia spoke about how she had met a boy but said she was ashamed to speak any more about it.

Boys, too, exhibited varying degrees of openness in speaking about their experiences. In the same international school, boys mentioned how they had encountered sexual images online, but were likewise too embarrassed, or otherwise reluctant, to share their experiences.

The one risk that all children were almost universal in their openness to share, was that of **encountering pornographic images online**. While this is perhaps surprising within a cultural context that is highly conservative and regulated to varying degrees across the four countries, pornographic material was defined somewhat differently by the children to how it might be understood in the United States, for example, or the UK.

When discussing what images children considered pornographic, it emerged that children in Muslim countries were referring to risqué underwear or lingerie adverts, or salacious adverts for a film. Most often these were encountered through pop-ups, or through click-bait from websites that the children were visiting. While these should be preventable through the security and safety settings on most web browsers, including mobile browsers, it appeared that children were not aware of how to make these changes in their settings. Further, the degree to which it is the responsibility of children themselves to take steps to protect themselves from undesirable content should be considered, and more emphasis should be placed on the role of the platform developers and owners themselves to ensure that privacy and safety measures are designed into their apps as default.

Many of the children had also **received unsolicited images** from men online, from both boys of a similar age, and from strangers that they may or may not have met online. While this was more common amongst the girls, many boys recounted also being sent pictures unsolicited, or being asked for pictures of themselves. Most commonly, children tended not to know the person who was approaching them for images. Being sent images, or having images requested, was also often accompanied by requests to chat:

> "They don't know me, my background…but they ask me to be their girlfriend." 14-year-old girl, Kuala Lumpur

> "Someone from another country followed my friend and she followed him back. He sent a message to my friend and she replied. He sent her a picture of his private parts; my friend sent a picture of her breasts. She is 15 and goes to night clubs." Teenage girl, rural Jakarta

> "A stranger with a woman's name asked my friend for a video call and she did the call and he was a man and showed her his thing. My friend turned it off. The man kept asking her for more calls. She told her mom and her mom messaged the man saying, 'don't contact my daughter again,' and he stopped. My friend is 12." Teenage girl, rural Jakarta
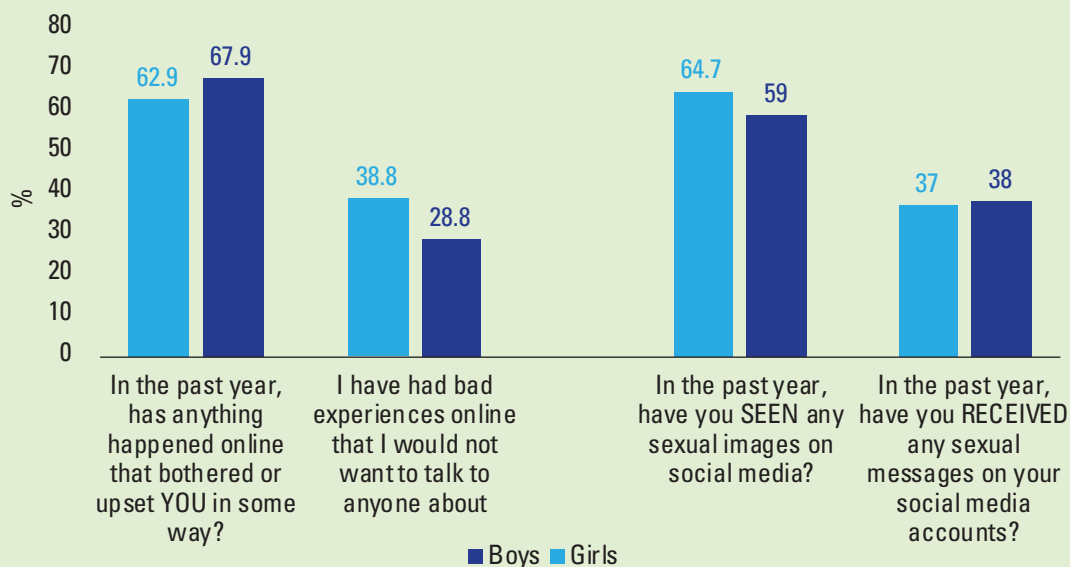
It is important to note that of the children who completed the self-report questionnaire, there is little difference in the experiences of boys and girls in encountering adverse experiences online. There were no statistically significant differences between the number of girls and boys participating in our focus groups who had received sexual messages on their account. While this alone is not wholly adequate as a proxy for measuring online risk of unwanted sexual contact, this is somewhat different from the common narrative that places emphasis ONLY on girls as victims. These findings align with empirical data from elsewhere in the world that is increasingly drawing attention to the fact that boys are exposed to higher levels of risks associated with online sexual content than previously considered. (see for example, Artz L, Burton P, Leoschut L, Ward C, and Le Mottee C. ,'Optimus Study South Africa: Technical Report. Sexual victimization of children in South Africa', Centre for Justice and Crime Prevention, Cape Town, 2016.)

Source: Self-report questionnaire

While this experience was almost universal, so was the response taken by the majority of the children. **Almost all the children reported ignoring and blocking requests from strangers**, although at times this only occurred once a request for photos had been made. Children might chat to strangers, but the stranger was blocked as soon as they asked for or sent a photo. Only a few reported the experience to their parents, peers or other trusted adults

This suggests that the children are aware of the inappropriateness of such requests, and realise the risks attached, but this knowledge does not always stop them from chatting to strangers in the first place. This too is not unique to the region; the attraction of speaking to strangers, to people beyond the immediate world, is an innate attraction of social media and access to the internet more broadly.[86], [87] It exposes children to worlds beyond their own. Therefore while children might be aware of the risks attached to speaking to people they do not know, there is still a high likelihood that they will, to the point where the person perhaps

**"HE SAID, YOU'RE GOING TO DIE TONIGHT, SO I WENT PRIVATE."**

**14-year-old boy describing experience on Instagram, Jakarta**

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86    See for example, Phyfer J, Burton P, and Leoschut, L., *South African Kids Online: A glimpse into South African children's internet use and online activities.* Technical Report, Centre for Justice and Crime Prevention, Cape Town, 2016, <http://www.cjcp.org.za/uploads/2/7/8/4/27845461/south_african_kids_online_technical_report.pdf>

87    Livingstone, S., Kardefelt-Winther, D., Hussein, M., *Global Kids Online Comparative Report,* UNICEF Office of Research – Innocenti, Florence, 2019, <www.unicef-irc.org/publications/1059-global-kids-online-comparative-report.html>

engages in behaviour that may be perceived as threatening, intrusive, or inappropriate by the child, at which point the child may choose to block the stranger.

In fact, blocking is the default response across the range of negative experiences that children encountered online. Children across all four countries reported that they were often bothered by scary videos, and in Thailand and Cambodia, boys spoke about how their friends would often send scary messages and videos via WhatsApp, or on Instagram, particularly when they were about to go to sleep. When sent by people they did not know, or peers that they might not be familiar with, they would also block them.

One important exception to this emerged in Thailand, in a group discussion with young boys who lived on the street, several of whom were exploited in prostitution. Here, boys indicated that social media played an important role in the initiation of contacts with potential clients. Of particular importance is the fact that this contact most commonly occurred, according to the boys, through their Facebook accounts despite the strict policies Facebook has in place to prevent online solicitation. Several boys recounted how they made contact with, usually, women through Facebook, and would be paid to accompany them for meals or travel. Implicit in the discussion was the intended outcome of sex with the minors through this engagement. Here, blocking was not even considered as an option.

**BOX 3:** Children's self-reported experiences of sexual contact or content on social media



| | % |
|---|---|
| I have seen or received a sexual message, image or video about someone else that I did not want | 51.7 |
| I have been asked to talk about sexual acts with someone on the internet when I did not want to | 22.8 |
| I have been asked on social media for a photo or video showing my private parts when I did not want to | 17.6 |
| I have been asked for sexual information about myself (like what my body looks like without clothes on or sexual… | 15 |
| I have sent someone a photo or video showing my private parts when I did not want to | 6.7 |
| I have done something sexual on the internet when I did not want to | 5.7 |
| I sent sexual information about myself even though I did not want to | 4.3 |

Significantly more children across all four countries reported receiving unwanted sexual contact or content, than actively sharing content. However, several children in all four countries reported that they had shared either images or videos with someone when they did not want to. Approximately one in 20 (6.7 per cent) focus group participants reported that they had sent a photo or video showing their private parts when they did not want to, while a similar number reported they had done something sexual online when they did not want to. While clearly cause for concern, what is more important here is the fact that the vast majority of children who had been asked for information, videos, images, or other information of a sexual nature, did not share. More than one in five focus group participants had been asked to talk about sexual acts, while slightly fewer (17.6 per cent) had been asked for photos or videos of their private parts, through their social media accounts.

Source: Self-report questionnaire

While the experiences shared by Thai children exploited in prostitution speaks to the explicit intentionality of using social media to meet people unknown to them offline, there is little to suggest from conversations with other groups of children that this was an explicit motivation in social media use. Yet the possibility of meeting people beyond the child's immediate environment, and/or a romantic partner, is often one of the biggest attractions of social media.[88] Once they have added someone to their network, children in the focus groups do not consider them 'strangers' and thus offline meetings do not carry the weight of parent fears around stranger danger. Children, often aware of the undesirability of such encounters on the part of adults, demonstrate reticence to speak openly about their experiences, when they have occurred. One of the greatest fears often shaping the public narrative of children's use of social media is arguably the concept of stranger danger, the potential risks attached to meeting strangers online and offline.[89, 90]

Several children from diverse backgrounds spoke openly about experiences of meeting online strangers (whom they mostly describe as friends) offline, experiences of either their own, or their friends. In Cambodia, two boys, one hearing-impaired, the other vision-impaired, at a school for children with disabilities, spoke openly about meeting their girlfriends online, and then meeting them offline. In one instance, the girlfriend was from the same school; in the other, the girl was a complete stranger from another school. At an international school in Thailand, boys spoke with much bravado and one-upmanship about having met girls online, but were less willing to share any details. In Kuala Lumpur, a boy at an after-school care centre for street children and children of sex-workers recounted that he used Google to look for girlfriends he could meet.

**THE POSSIBILITY OF MEETING PEOPLE BEYOND THEIR IMMEDIATE ENVIRONMENT, AND/OR A ROMANTIC PARTNER, IS OFTEN ONE OF THE BIGGEST ATTRACTIONS TO CHATTING ONLINE.**

In Cambodia, however, a group of school girls were more reluctant to speak about their experiences, and indeed an element of shame was attached to speaking with boys online. While girls tended to acknowledge that either they or their friends had done this, there was more shame attached to the experience than for most boys interviewed. In a school in Kuala Lumpur, one girl shared that she had met a boyfriend offline but said she was embarrassed about it and did not want to talk about it. While in itself this may be a reflection of the stigma, cultural taboos and knowing risk that may be attached to such activities, a greater reticence to speak about such experiences on the part of girls may also be related to negative experiences or some sense of trauma, suggesting that the meeting did not go as planned.

Yet care should be taken in making such assumptions. When asked how the experiences of meeting people offline that had first been met on social media, children at a school in Jakarta unexpectedly replied that they were generally disappointed and most bothered by the fact that the person did not look as good as they did in their profile picture.

## Mental health and self-harming behavior

Social media has been linked both positively and negatively to a number of mental health outcomes and self-harming behaviour, including body dysmorphia, eating disorders (anorexia, bulimia) and self-mutilation (cutting), as well as in extreme forms, suicides. There is also an increasing body of evidence linking adverse online experiences to substance abuse and other risk-taking sexual behaviour.[91] This emerged as an important theme amongst both children and adults in several of the countries included

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88   Stoilova, M., Livingstone, S., and Nandagiri, R., 'Children's data and privacy online: Growing up in a digital age', London School of Economics and Political Science, London, 2019.

89   Wolak, J., Finkelhor, D., Mitchell, L., and Ybara, M.L., 'Online predators: Myths, realities, and their implications for prevention and treatment', *American Psychologist.* 83(2) pp 111-128, 2008.

90   Byrne, J., Kardefelt-Winther, D., Livingstone, S., Stoilova, M., Global Kids Online Research Synthesis, 2015–2016, UNICEF Office of Research – Innocenti and London School of Economics and Political Science, 2016, <www.unicef-irc.org/research/270/>

91   Reed, E.,Salazar, M., Behar, A.I., Agah, N., Silverman, J.G., Minnis, A.M., Rusch, M.L.A., Raj, A., 'Cyber sexual harassment: Prevalence and associations with substance abuse, poor mental health, and STI history, among sexual adolescent girls', *Journal of Adolescent Health,* 75, August 2019, pp 53-62, 2019.

in this study. At a refugee school in Malaysia, children spoke about friends who would cut themselves following a break-up with their girlfriend or boyfriend, and share a photo of the wound through their Instagram account, or on Facebook; others reported the name of their girlfriend being carved into their arm and shared. This did not seem to be necessarily attached to a traumatic incident such as the ending of a relationship only, but occurred throughout the course of a relationship as well. When children discussed cutting, they did not necessarily perceive it as a risk or a harm, but simply a characteristic of the relationship, something that occurred, and social media was used to disseminate the experiences.

Similar stories emerged in Cambodia, Thailand and Indonesia. This form of self-mutilation was seen to be very much contextualized within child and teen relationships, by both children and counsellors. Indeed, one social worker noted that:

However, the behaviour was also associated with child abductions and child sexual abuse, with a family counsellor in Phnom Penh relating how children sometimes met a stranger online, then disappeared, and returned after some time with scars from cutting. It is unclear whether these are results of

**"OFFLINE SELF-HARM IS RELATED TO DRUGS, ONLINE RELATED TO LOVE"**

**- Social worker, Phnom Penh**

self-inflicted acts, or inflicted by the third party (or whether these strangers are adults or young people themselves). Describing such cases disturbingly as 'love relationships', family counsellors recounted that the returning girls would lock themselves in their rooms on their return, isolating themselves and in some instances threatening suicide if their parents tries to intervene. While it is unclear the degree to which technology is a driver or an instrument in such cases, it is clear that social media plays a role in establishing those initial contacts, communicating and facilitating physical contact between the child and the other party.

## Political risks

An additional fear that was raised by a group of secondary schoolboys in Phnom Penh was that of political persecution from the State should they engage in any political discussions, and/or dissent through their social media. While this is not conventionally considered as a mainstream risk that children face online, this emerged as a very real concern for these boys as reading international news online is one of the major activities of this group. This fear tended to mediate their commentaries, chats and communications on Facebook, WhatsApp and Instagram. Such concerns were not necessarily insurmountable. In a school in Kuala Lumpur, children spoke openly about their use of virtual private networks to access banned sites in their country, or to which they might otherwise not have access. These were specifically used in relation to Reddit[92], with a young boy sharing how he used a virtual private network to access Reddit, which is banned in the country.

## Fake news and hoaxes

While not often considered a risk, children in Malaysia, Indonesia and, to a lesser degree, Cambodia, often cited hoaxes as one of the most troublesome things they face online. Hoaxes refer to false news or other stories they may encounter online or via chat apps. While political news were the most common hoaxes, children also referenced false product claims like a particular drink would make you taller or fake contest messages. Children said that they were often debunking hoaxes for their parents or grandparents.

**"YOU CAN WIN NIKE SHOES! MY DAD SENT IT TO ME AND I'M LIKE, IT'S FAKE!"**

**Refugee child, Kuala Lumpur**

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92   Reddit is a website comprising user-generated content – including photos, videos, links, and text-based posts – and discussions of this content in what is essentially a bulletin board system.

## Cyberbullying

Of note is that the issue of bullying, or cyberbullying specifically, was not often raised by children as a major concern in their online encounters. While some spoke about the fact that they were upset when they saw bullying happening online, it was usually in relation to peers rather than themselves. They described bullying online as negative comments on a post, bad language or the posting of videos of fights at school. Three notable exceptions stand out. In Kuala Lumpur, a Somali refugee described facing prejudice daily due to his skin colour. He reported that people would throw objects at him from cars and hurl insults. The school he attended for Somali refugees moved frequently for safety purposes and possibly financial instability. In Malaysia, refugees are allowed into the country but not legally allowed to work or access social services, including schooling and health. Despite shared religious practices, he was treated as an outsider.

Paediatric psychologists shared another stark example. In Malaysia and in parts of Indonesia, homosexuality is illegal and LGBT couples face harsh discrimination. Frontline practitioners we spoke with highlighted LGBT teens at particular risk for violence, bullying, self-harm and suicide. In one case, a teenage boy was bullied at school for his sexuality. When he defended himself against a physical attack, the school punished him, rather than his assailants. He was suspended from school. Unfortunately, in what appeared to be an effort to further humiliate him, one of the teachers posted notice of his suspension to a school WhatsApp group. The boy attempted to hang himself.

In Thailand, a boy new to the school spoke about being targeted online by fellow classmates. The teen, a 16-year-old boy, had moved to Thailand from India, where he had also been bullied online, and where his girlfriend, at the time, had taken her own life as a result of being cyberbullied. In his new school in Thailand, classmates teased him for being different, for not performing as well at school, and mocked him for being an outsider. He reported feeling isolated and helpless to protect himself against his classmates' behaviour. Of note in all these cases is the fact that it was boys, not girls, who shared experiences of being bullied and cyberbullied. While the sample is too small to reach any reliable conclusion on the gendered dynamics of cyberbullying in the region, this is somewhat different from the dominant narrative which assumes that girls are bullied more than boys online and offline.

## How do educators, care workers, parents and children respond to online risks children take?

Educators in one school in Cambodia take away the phones and ask their IT department to hack the phones so they can monitor what is being said. In one shelter in Indonesia, as well as in most schools, children who had their phones on them would have them confiscated for periods ranging from a day to a semester. The response thus emerged as restricting access, rather than having conversations with children as to responsible usage, behaviour and discussing problems and online activities. This approach also risks depriving children of the potential benefits that their phones, and social media, offer.

> **"PARENTS ARE THE FIRST AND MOST IMPORTANT EDUCATORS."**
>
> **Adult activist, Indonesia**

Parents play a more passive role in mediating children's online use. As one child noted, "they are happy for me to stay in my room upstairs on my phone all night, because they know that I am safe." These trends also tend to reflect experiences often observed in Europe and North America and elsewhere in emerging and developing economies.[93] In contrast, in a 2018 Internet users survey in Malaysia, when asked about action they had taken to ensure the safety of their child online, 75.5 per cent of Malaysian parents reported they set their own rules and limits of Internet usage to the child. They also closely monitor their child's Internet usage by staying near the child when he or she used the Internet (75.4 per cent). Educating and discussing with their child about safe Internet use were also common among parents (71.1 per cent). Just over half of parents

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93    Livingstone, S., Kardefelt-Winther, D., Hussein, M., *Global Kids Online Comparative Report,* UNICEF Office of Research – Innocenti, Florence, 2019, <www.unicef-irc.org/publications/1059-global-kids-online-comparative-report.html>

checked their child's social media account or browser history (57.7 per cent).[94] The importance of the role of parents and caregivers in keeping children safe online was recognized by caregivers, and educators, across the countries included in the study.

The experience of the trafficking survivor in Indonesia outlined above has particular resonance. As the survivor had met and communicated with the traffickers through Facebook, the concerns regarding the use of social media are clearly apparent and understood amongst those placed in positions of care. As with all the survivors of abuse, as well as the offenders living in the shelter, no access to phones is permitted in the regulations. Yet it was clear from discussions with the children that they negotiated other ways to access smartphones, and to continue with their usual activities.


Girls at a vocational high school in Jakarta discuss what information is collected about them online. Photo credit: © Patrick Burton, 2019

This included the trafficking survivor who described ongoing conversations online with people she knew, and strangers, while in the facility. Indeed, several in the group told of ongoing and knowing risk-taking online. Caregivers and adults should use these experiences to work with children to positively engage around risk-taking behaviour, enhance protection measures, and safe online engagement rather than lose the opportunity by restricting access to technology and social media.

Such control of technology also prevents the benefits and opportunities that social media potentially present to survivors through the establishment of wide support networks and the various ways that social media can be used to foster resilience amongst survivors of online child sexual abuse and trafficking.[95] While most of the focus on the role of social media and technology in relation to child sex trafficking is on facilitating the crime, there is far less emphasis on how these tools can be used productively in treatment and recovery for victims. This gap contributes to restrictive responses that are perceived as being wholly in the best interest of the survivor.

While there is less information about how parents and caregivers are responding to, or addressing the risks that children might face online, some important observations did emerge from discussions in Kuala Lumpur and Jakarta that reflect a positive empowering stance on the part of adults. Most caregivers we spoke with believed that social media use can often be harmful and in fact access should be controlled or restricted. Yet a grandmother of a six-year-old girl in Kuala Lumpur spoke about the need to recognize some level of agency in children, and that, as adults, they need to have some trust in their children. This trust goes along with a recognition of the agency that children have, and the importance of fostering resilience that translates into the online space. By fostering such trust, accompanied with support, guidance, responsibility and open communication, children are less likely to resort to the behaviour described by a 19-year-old girl Malaysian youth activist, "The strictest parents create the sneakiest children."

> ## "WE HAVE TO HAVE SOME TRUST IN THEM."
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> **Grandmother of 6-year-old girl, Kuala Lumpur**

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94    Malaysia Communications and Multimedia Commission, Internet Users Survey 2018: Statistical Brief Number Twenty-Three, 2018.

95    See Polaris, On-ramps, intersections and exit routes: A roadmap for systems and industries to prevent and disrupt human trafficking, 2018, < https://polarisproject.org/resources/on-ramps-intersections-and-exit-routes-a-roadmap-for-systems-and-industries-to-prevent-and-disrupt-human-trafficking/ >. See also <https://polarisproject.org/blog/2019/03/06/recruitment-resilience-trafficking-survivors-find-support-social-media>

## SUMMARY

**Risks encountered by children in East Asia are common across countries, and reflect the same risks faced by children elsewhere**, whether high or low income, children with disabilities, or street children. The concerns raised by children primarily reflect exposure to unwanted sexual content, most often manifest through risqué advertising and films, unwanted contact from strangers, and being sent unsolicited images or videos. One emergent concern not frequently encountered elsewhere is that hoaxes, or false information and stories online, in the news or other pages. Meeting people offline that they have first met online is not uncommon, and primarily seems to happen within the context of an anticipated romantic relationship.

One additional risk, however, was the fear of political persecution or dissent in Cambodia, and the explicit risk of sexual exploitation and abuse attached to children in prostitution in Thailand (the latter not unique but emerged explicitly within the Thai context).

There is, however, a hesitancy commonly observed amongst young girls to speak about actual offline meetings resulting from online contacts. This reluctance to share may be attached to constructs and cultures that attach a great deal of shame and embarrassment to such relationships and have implications for both prevention and response interventions (particularly a need for safe spaces to report or share these experiences).

The narrative, particularly amongst adults, is primarily focused on, and shaped by the notion of 'harms' rather than specific risks, or adverse outcomes. This narrative tends to conflate all harms into an amorphous category, with little differentiation made between addiction, for example, or child sexual abuse material, or negative mental health outcomes, presenting a challenge for interventions.

Children in East Asia are adopting the same strategies seen throughout the world to both protect themselves, as they perceive it, online, but also to manage and manipulate relationships and privacy. The most common steps taken by children to keep themselves safe online is keeping accounts and profiles private and blocking unsolicited messages and images from strangers. However, most often children only block such solicitations when they feel uncomfortable, rather than blocking such conversations as a default.

Several challenges were noted facing parents and educators in relation to the best strategies for keeping children safe online, with the default being to monitor and restrict, although this did not always play out in practice, and children frequently devised strategies to bypass restrictions.

# 6. Recommendations

Across the four countries studied, three consistent themes emerged:

1. A lack of technology skills and digital literacy amongst parents and caregivers;
2. Restrictive responses by adults to perceived transgressions in children's technology use (predominantly informed by awareness of online risks, rather than the opportunities); and
3. A broad lack of research and evidence-informed approaches into what works in keeping children safe online and policies or strategies that facilitate safe online environments.

Six recommendations based on these themes as well as emerging research in the prevention of child violence and sexual exploitation are outlined below.[96] These are presented within the broad framework of the INSPIRE strategies. INSPIRE, subtitled 'Seven Strategies for Ending Violence against Children,' is an evidence-based resource to help countries and communities develop their response to violence against children and adolescents. The INSPIRE strategies included **I**mplementation and enforcement of laws; **N**orms and values; **S**afe environments; **P**arent and caregiver support; **I**ncome and economic strengthening; **R**esponse and support services; and **E**ducation and life skills.[97] By focusing on targeted interventions and change within each of these strategic areas, the evidence shows that countries will strengthen both prevention and response systems to address violence against children.

While the INSPIRE strategies are not designed explicitly for addressing *online* violence, exploitation and abuse, our research and global studies of child internet use find that the distinction between online and offline has blurred nearly to the point of irrelevance.[98] A 2016 study in South Asia argues that survivors of abuse are physically located, regardless of whether the abuse occurred online or offline, and therefore require a local response.[99] Thus, an adapted INSPIRE framework and policies for addressing online risks can be aligned with those for addressing offline risks, and inform the development of appropriate interventions, building on a shared evidence base.[100] Indeed, this approach builds on the emerging evidence that points to the intersection of online risk and resilience, and the importance of locating systemic responses within a broader socio-ecological model.

Each of the elements within the overall strategy contributes towards tackling the different dimensions of ICT-related violence and harm experienced by children and at the same time contribute towards fostering safer environments and cultures of positive digital participation. This inclusive response framework that incorporates system-wide actors including parents, educators, technology companies, government agencies and others, as well as the individual, reflects the responsibility of the collective community in prevention and response to child exploitation rather than placing the responsibility solely on the child.

Importantly, the strategy also encompasses cross-cutting activities of multi-sectoral coordination as well as monitoring and evaluation to ensure effective implementation and an evidence-based approach to assessing progress.[101]

96   See for example Kardefelt-Winther, D., Maternowska, C., Addressing violence against children online and offline. *Nature Human Behaviour,* 2019.
97   World Health Organization, *INSPIRE: Seven Strategies for Ending Violence Against Children*, July 2016, <www.refworld.org/docid/57878f5e4. html>, accessed 12 August 2019.
98   Livingstone, S., Kardefelt-Winther, D., Hussein, M., *Global Kids Online Comparative Report,* UNICEF Office of Research – Innocenti, Florence, 2019, <www.unicef-irc.org/publications/1059-global-kids-online-comparative-report.html>
99   UNICEF Regional Office for South Asia, 'Victims are not virtual: Situation assessment of online child sexual exploitation in South Asia', 2016, <www.unicef.org/rosa/reports/victims-are-not-virtual>
100  O'Neill, B., Burton, P., and Bulger, M., 'Protecting children from ICT-related violence, exploitation and abuse and promoting children's digital citizenship. A review of the evidence for effective programmes and policies', UNICEF, New York, forthcoming 2020.
101  Ibid.
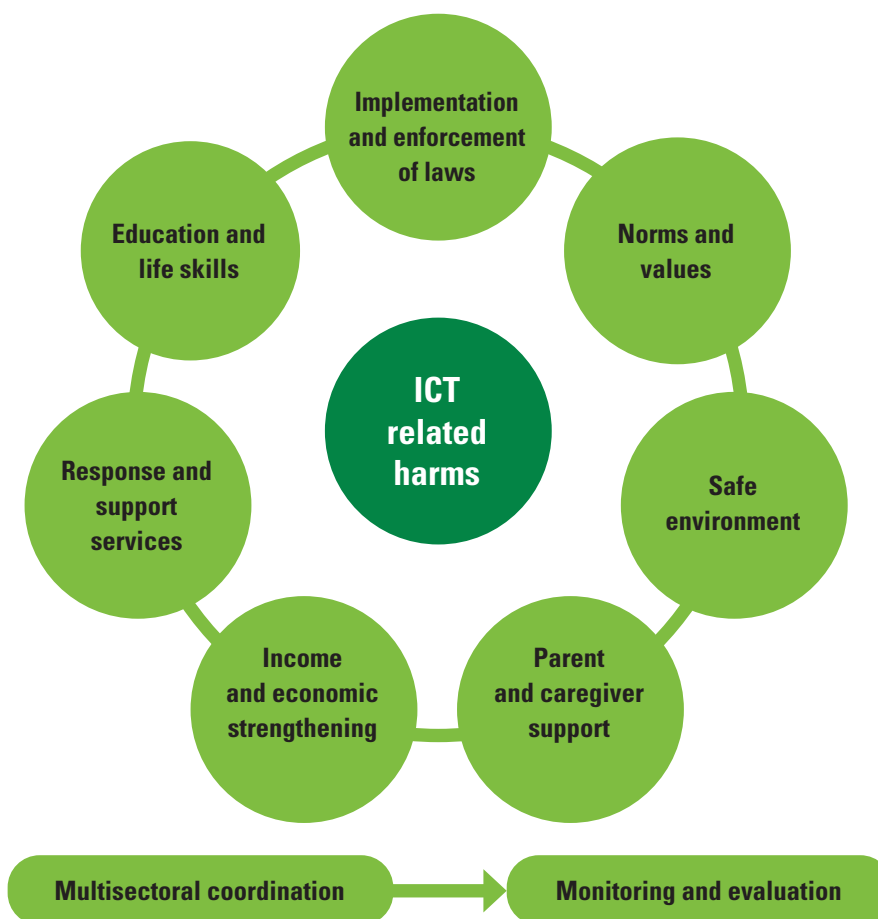
The following proposed recommendations have particular relevance to three of the seven INSPIRE strategies: Parent and caregiver support, Education and life skills; and Safe environments.

# Integrate social media and technology into parenting and early childhood development programmes

This recommendation and strategies are aligned with INSPIRE's Parent and caregiver support strategy. First, the findings point to a lack of technology skills amongst parents. As in many other developing countries and regions of the world, children have leapfrogged over their parents when it comes to familiarity with technology and emerging technology skills. There is an important, if nuanced, distinction to be made within the notion of digital parenting between how parents engage with children and their use of technology, and parenting in a digital age; and that of parent's own technical knowledge of and expertise of both rapidly changing hardware and different software platforms. The latter, while arguably not a prerequisite, aids and facilitates positive and supportive digital parenting. Indeed, as argued by O'Neill et al[102], strategies that incorporate technological and application-focused intervention often show some levels of success in preventing violence, and there is high likelihood that this effect is applicable to the development of parenting skills as well. Thus, **programmes that enhances parents' knowledge, skills and expertise of technology – the fundamentals of digital literacy – is important and should form a measurable and discrete component of support to parents.**

Further to this, programmes should enhance parents' and caregivers' understanding of the role that technology, the Internet and social media can and does play in their children's lives, and opportunities

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102   Ibid.

and potential benefits that it presents. This is particularly important in communities where households and children may experience hardship, have limited immediate opportunities or constraints on resources. The potential of technology to assist in overcoming restraints and challenges should be emphasized. The majority of parents' attitudes and responses to their children's use of social media is informed predominantly by narratives of fear, risks and harms. This may impact negatively on the support and opportunities to enhance children's resilience that is required to maximise the potential benefits of the online world (discussed further below).

A second strategy relates to more concrete parenting skills within the digital age. These refer to **the integration of technology into fundamental, universal and targeted parenting programmes**. A common perception exists that digital parenting requires advanced knowledge of technology, thus masking the more fundamental aspects of communication, engagement, support, social skills, positive discipline, cognitive development and health, all of which intersect with the digital space. The importance of including parents in interventions has been noted in several systematic reviews conducted on other forms of online violence, such as cyberbullying.[103] The integration of digital literacy into existing and emerging evidence-based parenting programmes will further facilitate the creation of environments within the home that provide positive encouragement and support for children to develop their own digital literacy skills and foster resilience both online and offline.[104] It is important to note that in many countries, levels of digital literacy and technology skills may be lower amongst women, and so more targeted technology and digital literacy components in these programmes may be required. However, the major focus is on developing fundamental parenting skills in the context of technology and the digital arena, in order to enhance protective factors and resilience within young people.

**It is important to note that several of the countries in the region, such as Cambodia and Thailand, already have national parenting strategies. The integration of digital parenting into these existing strategies, and policies where they exist, offers an important national framework within which implementation plans and programming can be delivered.** Similarly, evidence-based parenting interventions are being tested in both Malaysia and Thailand by UNICEF and Parenting for Lifelong Health, and while these programmes do not currently include components on digital technology and skills, a module is in development. The current design and testing phases offer an important opportunity to integrate this aspect and allow for local testing and evaluation of these components.

This should happen concurrent with the development and integration of digital skills and literacy into existing and new digital parenting interventions, rather than be seen as consecutive and a prerequisite for interventions to happen. An important aspect of these programmes should address data sharing and privacy. Across all countries included in the study, children routinely have multiple Facebook, Instagram and other social media identities, and both knowingly and unknowingly share private data across these platforms. While the modalities for intentional sharing of data, such as promoting friends through WhatsApp contacts, may be considered a safe practice, this opened up several risks and negative experiences.



Family travelling via motorbike in rural Jakarta. Photo credit: © Patrick Burton, 2019

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103   See for example Hutson et al. 2018; and National Academies of Science, Engineering and Medicine, 2016.
104   Kardefelt-Winther, D., 'How does the time children spend using digital technology impact their mental well-being, social relationships and physical activity? An evidence-focused literature review', Innocenti Discussion Paper 2018-2, 2017, <www.unicef-irc.org/publications/pdf/Children-digital-technology-wellbeing.pdf>

Children commonly reported receiving unwanted friend and contact requests from people they did not know, across platforms including WhatsApp.

Finally, several examples of **the integration of digital parenting into early childhood development programmes** were identified during the course of the research. While these have not yet been evaluated, the integration of technology into child development from the earliest years is increasingly being recognized, and as children access technology and go online from younger ages, so issues of how technology can be utilized to stimulate cognitive development, communication and fine motor skills are being considered. At the same time, support needs to be provided to parents and caregivers on how best to regulate screen time (promoting positive time spent online at such a young age), and regulate activities that may not foster age-appropriate skills. Existing and new digital parenting strategies and interventions should consider how best to integrate technology and digital skills development within early childhood development programmes at both a universal and targeted level.

# Foster online and offline resilience in children[105]

There has been an increasing focus in violence prevention over the last decade by supporting the development of resilience within children. Resilience can be defined as: *"A dynamic process in which psychological, social, environmental and biological factors interact to enable an individual at any stage of life to develop, maintain or regain their mental health despite exposure to adversity."*[106]

There is also a growing body of evidence that highlights the shared vulnerabilities that exist to violence offline and online, with those children most vulnerable to violence online sharing common vulnerability factors to those vulnerable offline; indeed, children who have been identified as vulnerable are likely to be less resilient both online and offline.[107] The notion of resilience in preventing violence within childhood translates into the online domain, encompassing developmental skills such as empathy, social skills, communication, conflict resolution and coping skills. Each of these have formed critical components of evidence-based interventions to prevent online violence.[108] Resilient children – those equipped with these skills – are more likely to make appropriate choices when using social media, be better equipped to manage conflict that they may encounter through the platforms that they use (and more broadly online), and take better measures to keep themselves safe online. Children who have high levels of self-efficacy, for example, are more likely to use active coping mechanisms when dealing with online conflict and harassment, than those with lower levels of self-efficacy.[109] Children who have the capacity to effectively and healthily manage conflict are better able to manage conflict in relationships that may otherwise translate into harms such as self-harming, raised so commonly in Malaysia and other countries included in this study. Further, they are more likely to communicate with parents and adults about their experiences, and less likely to engage in harmful online behaviour themselves.

As resilience is being incorporated at both a policy and a programmatic level in all the countries included in this study, an important opportunity exists to integrate resilience into the online space, and specifically into the use of social media. This is likely to require specific targeting of interventions that support resilience in the online space, however, Livingstone et al (2017) note that although digital skills increase as children grow older, there is little evidence to suggest that digital skills and resilience is improving over time, suggesting **the need for specific programming that develops and fosters those skills that contribute to resilience both online and offline**.[110]

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105    This recommendation is aligned with INSPIRE's Education and life skills, and Parent and caregiver support strategies.
106    Wathen, C.N., MacGregor, J., Hammerton, J., Coben, J.H., Herrman, H., Stewart, D.E,. MacMillan, H.L., (for PreVAiL network) (2013) Priorities for research in child maltreatment, intimate partner violence and resilience to violence exposures: Results of an international Delphi consensus development process. *BMC Public Health 12,* 684. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3490760>
107    Ibid.
108    Hutson, E., Kelly, S., Militello, LK. (2017). Systematic review of cyberbullying interventions for youth and parents with implications for evidence-based practice. *World Views on Evidence-Based Nursing 15,* 72-79. <https://sigmapubs.onlinelibrary.wiley.com/doi/full/10.1111/wvn.12257>
109    d'Haenens, L., Vandoninck, S., & Donoso, V., 'How to cope and build online resilience', 2013, <http://eprints.lse.ac.uk/48115/1/How%20to%20cope%20and%20build%20online%20resilience%20(lsero).pdf>, accessed 24 October 2019.
110    Livingstone, S., Davidson, J., Bryce J., 'Children's Online Activities, Risk and Safety. A literature review by the UKCIS Evidence Group', 2017

# Ensure that messaging and responses by teachers and adults are based on evidence of patterns of use and what works

In each of the countries included in this study, examples were provided of responses by adults and, in particular, schools and educators, that revolved around restrictive practices, in an attempt to keep children safe online. These ranged from caregivers confiscating phones or limiting screen time, to schools limiting access to any mobile phones and technology during school hours, or preventing online access. While these limitations imposed by educators are done so in the perceived best interest of the child, **there is no evidence to support the notion that restricting access to technology promotes online safety or achieves any positive outcomes in keeping children safer online**. Indeed, there is a growing body of evidence that points to unintended outcomes of such an approach in reducing both the breadth of online activities in which children engage and, in many countries, their online skills.[111]

Further, such practices are likely to disrupt or impede the promotion of more evidence-based approaches promoting digital literacy and digital resilience. It is thus important that greater emphasis is placed on evidence-based approaches within schools, and in homes, that equip children with the skills required to keep themselves safe online, to promote appropriate and positive decision-making skills, and that concurrently promote the opportunities that present through an increase in digital skills. This is particularly important in countries such as Thailand where the digital economy and incubator environment is rapidly developing, and national strategies promote the development of technology hubs.

While there is limited evidence on what works within the local context of each of the four countries, the focus on promoting evidence-informed strategies for educators and caregivers should comprise several **messaging** aspects:

- Promotion of the opportunities available to children through responsible social media access;
- The limitations of restrictive practices;
- That children have the capacity (realised to differing degrees, and potential) to protect themselves online and need to be supported rather than restricted in their online practices and use of social media; and
- Perceived harms such as poor concentration resulting from staying up late playing games or using social media may reflect adolescent sleep cycles and be addressed through restructured school-hours or the design and timing of school-based activities and classroom learning.

These approaches could also draw on evidence-based strategies that have achieved success in other fields, such as sexual and reproductive health, and life orientation.

They should also include the development of **specific interventions** that promote:

- Standardized protocols and regulations for the management of mobile phones and technology within schools at a national and provincial level;
- Knowledge and awareness of the ways in which personal data is collected by applications and platforms, and measures to protect one's data and privacy, incorporating both conceptual and technical components;
- Promote help-seeking behaviour and communication within and outside of the school environment. This is particularly important given the frequency with which children reported exposure to upsetting behaviour (fights, upsetting content, self-harm) on social media platforms was identified in Malaysia, Cambodia and Indonesia;

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111 See for example, Livingstone, S., Kardefelt-Winther, D., Hussein, M., *Global Kids Online Comparative Report,* UNICEF Office of Research – Innocenti, Florence, 2019, <www.unicef-irc.org/publications/1059-global-kids-online-comparative-report.html>; Livingstone, S, and Haddon, L, 'EU Kids Online: Final report', LSE, EU Kids Online, London, 2009.

- Training, across countries, for educators in how to manage and promote healthy and resilient online safety practices, and how to positively engage with children in the classroom around their use of social media; and

- Related to this, is the adoption of evidence-informed educational material into the formal school curriculum. These materials should address sexuality education,[112] digital citizenship and media literacy. These materials should equip children with the tools they need not only to make appropriate and safe decisions regarding their relationships and behaviours, but also how to understand and critique what they may encounter online.

At the same time, the development of local and regional evidence of effective strategies and interventions is essential.

These interventions can be formulated as both primary and secondary interventions. Universal interventions promoting digital literacy, social skills and other evidence-based approaches can be incorporated into school curriculums and teacher training curriculums, as well as through state or provincial-wide programmes.[113] More targeted interventions can be designed to focus on children identified as at risk, through the health, social welfare and the education systems. This is more complex in that it entails engagement with and buy-in to evidence-based approaches of social workers, healthcare workers and educators, for example, but is important in ensuring that children who might be identified through various systems as vulnerable receive more targeted interventions that foster resilience. This does not need to entail 'reinventing the wheel' but rather leveraging existing and planned interventions offered by different service providers and departments to incorporate specific modules or components promoting digital citizenship and the skills detailed above. In many instances this may simply require the incorporation of specific examples relating to social media or technology into existing programming.

# Incorporate strategies within a socio-ecological model aligned with violence against children frameworks

The above discussion has already implied the importance of adopting a more public health approach to online safety and promoting the safe use of social media by children. The design and delivery of programming within a socio-ecological model, aligned within broader national and regional violence against children frameworks is pivotal in promoting and supporting the healthy use of social media and children's resilience across the four countries.

The socio-ecological model considers the full context of a person's life, and locates the individual in relation to their relationships, community, and the society in which they live. It recognizes that violence results from a series of factors that interact with one another at the individual, relationship, community and societal levels, and that each level is associated with a different set of risks and protections that influence a person's behaviour.[114] Risks can be identified at an individual level, a relationship, community and societal level, and appropriate interventions that foster protective or resilience factors can be developed within each of these spheres. The model recognizes that these spheres do not function in isolation from each other, but that experiences at the family level interact and are formed by individual and community factors; similarly family, community and societal levels interact on individual level factors.

Interventions to promote online safety and children's responsible use of social media should be formed within the same model and, where possible, aligned to existing national violence prevention strategies. Where new national plans of action or strategies are being formulated, online safety and children's use of social media should be explicitly addressed and integrated. These should detail interventions within each domain of the socio-ecological model.

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112   See, for example: Kanavathi, S., *Comprehensive sexuality education for Malaysian adolescents: How far have we come?* Federation of Reproductive Health Associations, Kuala Lumpur, Malaysia, 2019.

113   O'Neil et al (forthcoming, 2019)

114   World Health Organization, *World report on violence and health*, WHO, Geneva, 2002; See also Kieselbach, B., & Butchart, A., *Preventing youth violence: an overview of the evidence,* World Health Organization, Geneva, 2015; Livingstone, S., Mascheroni, G., and Staksrud, E., 'Developing a framework for researching children's online risks and opportunities in Europe', EU Kids Online, 2015, <http://eprints.lse.ac.uk/64470/>

For example, interventions at an individual level should include the inclusion of conflict resolution and social skills for children, with specific and illustrative components focusing on social media and the online space. Examples of interventions at a family level could include digital literacy and digital parenting support programmes for parents and caregivers (including young and elderly caregivers). At a community level, the promotion and provision of enabling and supportive psycho-social services, for children exposed to harmful or disturbing content (the importance of the enabling approach, rather than restrictive cannot be over-emphasized). Children must be confident that reporting adverse experiences will not result in their access being restricted. Related to this, campaigns promoting help-seeking behaviour and options could be implemented, with the support of industry actors.

# Three easy steps for technology companies to improve safety

Industry have a critical role and responsibility in promoting children's safe use of social media in East Asia. The research shows that many of the safety measures that are integrated into social media apps and platforms are not used by children or, in some instances, are used but children still develop either work-arounds and make conscious decisions to take what they perceive as measured and calculated risks. This leads to several concrete and easy-to-implement measures that the technology companies can take in order to ensure that social media is safer for young users, or at least, to responsibly promote the safe use of their platforms:

- **Privacy settings on profiles should be set to private rather than public as a default**, and regular confirmation prompts when not set to private, provided;

- **Contact options should be set to 'Friends only' as a default**, and regular confirmation prompts should be set when contacts are set to 'Everyone'. For example, Twitter does not allow non-contacts to direct message by default and this practice on other social media apps would improve child safety;

- **Social media apps should restrict the sharing or receipt of images and video to those within the user's contact lists.** Currently, media can be sent from strangers to children or any users, and this poses a risk, as evidenced in the narratives provided by children in the focus group discussions.

These three proposals are relatively easy adaptations across all the existing social media applications that children commonly reported using. They would set important and effective baseline measures in place to increase protection and privacy, requiring the active consideration and decision by children to change the settings and potentially increase risk. Evidence shows that digital skills increase as children get older, and so younger children in particular may not have the technical skills to change such settings. These changes by industry would be enhanced by the recommendations promoting digital literacy, skills and resilience, allowing more informed decision-making when choosing to alter profile settings to a more public state.

Importantly, industry actors included in the study indicated the importance of making a solid business case outlining the need for these measures using a simple (brief) argument to justify investment. For example, one internet service provider referred to research that shows children who are more digitally literate also more actively use social media.115 For him, this is a compelling case for internet service providers to support digital literacy initiatives. The implication is that industry is willing to support initiatives to keep children safer but require a simple case to be made as to what they need to do, and why this would pay off for them in the longer term. As UNICEF and other international organizations engage with the large social media platforms around child safety and well-being, they should include gaming platforms, particularly those that are popular in particular regions, such as PubG and Mobile Legends. These recommendations are aligned with the Safe (digital) environment strategy in the INSPIRE framework.

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115  Livingstone, S., Kardefelt-Winther, D., Hussein, M., *Global Kids Online Comparative Report*, UNICEF Office of Research – Innocenti, Florence 2019, <www.unicef-irc.org/publications/1059-global-kids-online-comparative-report.html>

# Establish data systems to monitor progress and establish frameworks

In the absence of nationally representative quantitative data relating to children's use of social media, risks, harms and protective factors across the four countries, it is critical that national data systems be established to build baseline data and monitor progress on key measurements including access, utilization, risks and resilience indicators. Ideally, this should be through the adoption or introduction of initiatives such as the Global Kids Online[116] study. Such initiatives are required not only to determine an accurate picture of how children are utilizing social media and devices, adverse experiences or opportunities that are being leveraged but also to enable valuable regional and international comparisons and benchmarking.

However, in the interim and in the absence of adequate resources, these can be integrated into existing or planned survey initiatives, such as national violence against children surveys, supported by UNICEF, Together for Girls and the US Centers for Disease Control and Prevention other violence against children studies, multiple indicator cluster surveys or demographic health surveys. This data should be disaggregated by gender, age, location and key socio-economic variables.

## RECOMMENDATIONS – SUMMARY

This report makes a number of recommendations framed within a broad socio-ecological approach that locates the individual within the different spheres in which they live their lives – the family, school, community and more broadly at a structural and macro level. The recommendations also recognize the commonality and intersection between online and offline risks, vulnerability and, conversely, protective and resilience factors.

The socio-ecological model can be used to support the individual child within their environment, promote protective factors, and facilitate resilience, through a combination of primary, secondary, and tertiary interventions. This is essential in ensuring prevention and response to harm online is the responsibility of the collective community, rather than placing the responsibility solely on the child.

The recommendations draw on a slightly adapted INSPIRE model to address online risks and harms.[117] INSPIRE is an evidence-based package to help countries and communities develop their response to violence against children and adolescents. Three of the INSPIRE strategies: Parent and caregiver support, Education and life skills, and Safe environments are particularly relevant. By adopting an adapted INSPIRE framework, policies and interventions for addressing online risks can be aligned with those for addressing offline risks, and lead to the development of appropriate interventions, building on a shared evidence base.

**Recommendations**

**1. Improve support for digital parenting, and parenting in a digital age**

Provide support to parents and caregivers (including elderly caregivers) on digital parenting, and parenting in a digital age: This should be done in two ways:

a. Integrate technology and social media into parenting and caregiver programmes and early childhood development programming. Many of the characteristics and skills that build children's resilience online are the same as those required to foster healthy, safe children generally and include self-efficacy, confidence, empathy, decision-making and conflict resolution skills. Rather than duplicating programming, digital parenting should be included into evidence-based parenting programmes. This should take into account differing levels of digital literacy amongst female and male caregivers, as well as differing levels of access to technology.

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116   <http://globalkidsonline.net/>
117   World Health Organization, *INSPIRE: Seven strategies for ending violence against children*, 2016, <www.refworld.org/docid/57878f5e4.html>, accessed 12 August 2019.

b. Build parent and caregiver digital literacy skills. Programming that enhances parents' knowledge, skills and technology expertise – the fundamentals of digital literacy – is important and should form a measurable and discrete component of support to parents. This is particularly important in programmes that specifically target, or reach, mothers and female caregivers in regions, where levels of digital literacy may be lower.

## 2. Foster online and offline resilience in children

Children who have been identified as vulnerable are likely to be less resilient both online and offline. Resilient children – those equipped with skills in areas such as communication, conflict resolution and self-efficacy – are more likely to make appropriate choices when using social media, be better equipped to manage conflict that they may encounter through the platforms that they use (and more broadly online), and take better measures to keep themselves safe online.

## 3. Ensure that messaging and responses by teachers and adults are based on evidence of patterns of use, and what works

Greater emphasis must be placed on evidence-based approaches within schools, and in homes, that equip children with the skills required to keep themselves safe online, to promote appropriate and positive decision-making skills, and that concurrently promote the opportunities that present through an increase in digital skills.

## 4. Incorporate strategies within a socio-ecological model aligned with violence against children frameworks

The socio-ecological model considers the full context of a person's life, and locates the individual in relation to their relationships, community, and the society in which they live. It recognizes that violence results from a series of factors that interact with one another at the individual, relationship, community and societal levels, and that each level is associated with a different set of risks and protections that influence a person's behaviour.

## 5. Improve online safety – three steps for technology companies

Technology companies require concise, practical and to-the-point recommendations, together with a strong business case, on keeping children safe on their platforms. There are a number of steps that technology companies can take, quickly and easily, that will have a direct bearing on the safety of children online:

a. Technology companies should make profiles private by default, with the option of making them public through settings.

b. The default options for new contacts is most commonly 'everyone'; this could be changed to 'friends of friends.'

c. Finally, social media apps can relatively easily be designed to block photos being sent by people outside contact lists.

## 6. Establish data systems to monitor progress and establish benchmarks

In the absence of nationally representative quantitative data relating to children's use of social media, risks, harms and protective factors, it is critical to establish national data systems to build baseline data and monitor progress on key measurements including access, utilization, risks and resilience indicators. Ideally, this should be through the adoption or introduction of initiatives such as the Global Kids Online study. However, in the interim and in the absence of adequate resources, the measurements can be integrated into existing or planned survey initiatives, including, where relevant, violence against children studies, multiple indicator cluster or demographic health surveys. This data should allow for disaggregation by gender, age, location and key socio-economic variables.

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