

Navigating Digital Rights: Balancing Advocacy and Basic Needs for Cambodian Children and Youth

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Abstract

This study addresses the multifaceted issue of digital rights education among children and young people in Southeast Asian developing countries, with specific case study in Cambodia. It aims to reframe the discourse beyond online platforms and digitization of services and sectors to encompass broader societal implications of how such digitization processes will impact children and young people's fundamental human rights and basic needs in low- and middle-income regions. Drawing from consultations and workshops conducted in both urban and rural areas in the country, this article challenges the misconception of digital rights solely pertaining to online behaviour and highlights the need for systematic, practical, and contextual approaches. The research, conducted with children and youth of Cambodia, aimed to explore the evolving landscape of digital technologies in their lives, examining both the opportunities and risks they pose to them—in their own words. The article outlines key gaps in digital rights knowledge and skills among children and youth and argues that digital rights education should be framed within the broader context of human rights. However, it emphasizes the need for a balanced approach that moves beyond—what one can argue—a Western consumer advocacy through a digital rights movement. The focus of this article is on raising awareness among Cambodian children and youth and promoting policy development that holds industries accountable for equitable and rights-respecting designs, both locally and across Southeast Asia.

Practitioner points

- Digital rights education should be integrated with broader human rights education. Practical scenarios through activities can be developed for children and youth to learn how their digital rights should be upheld and how to identify where these may be at risk.
- Develop communities of practice which can organize regular meetings to discuss and raise awareness around beneficial use of digital technologies, digital rights, skills, and competencies for children and youth.
- Develop material that aims to raise awareness and teach children and youth that digital platforms and applications should provide rights-respecting and age-appropriate designs.

Keywords: data privacy; digital literacy; educational technologies; safeguarding; social media

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1. Introduction

The rapid digital transformation in Cambodia, just as its adjacent neighbours in the Southeast Asian region, presents significant challenges and risks, particularly in children's personal lives and education (UNESCO 2023a). Despite being a low- and middle-income country with a youth literacy rate of 95.64 per cent (World Bank 2023), some statistics suggest that Cambodia faces a high learning poverty rate of 51 per cent (US Aid 2019). This article explores the digital landscape in Cambodia, focussing on the implications for children and youth.

The article is based on consultations and workshops held with children and youth from Phnom Penh and Preah Vihear Province in March 2024. The goals of these initiatives were to present the challenges of digital transformation, understand the risks and opportunities children face with digital technologies, identify gaps in their understanding of digital rights, and co-design strategies to address any issues identified from the research.

As children and youth in Cambodia increasingly interact online, they encounter both opportunities and significant risks from sexual and commercial exploitation, exposure to inappropriate content, disinformation, and the long-term impact of such risks on their development and well-being. Recognizing these concerns, the Royal Government of Cambodia, supported by international organizations, issued guidelines on child online protection in 2023 (UNICEF 2023). The guidelines emphasize the need for the digital industry to implement child safeguarding policies, prevent and respond to child sexual abuse material, and ensure the confidentiality of children's online data. However, despite these efforts, what the present research has found on the ground demands further action and systematic practical approaches.

Despite the rapid digital adoption of digital technologies, Cambodia faces significant challenges in ensuring a safe and equitable digital environment for children. While digital transformation offers new opportunities, issues such as fragmented governance around data privacy (UNESCO 2023b), gaps in child-specific safeguards with technology procurement, and limited access to digital services remain ongoing issues. Some argue that there is a pressing need to equip children and youth with critical digital rights skills and training (Vutha 2019) to safely navigate online spaces. These gaps between opportunities and risks raise urgent questions about how Cambodia's digital transformation impacts children and youth as well as what strategies can be developed to enhance their digital rights literacy and online safety. These issues have been both highlighted and addressed extensively in various contexts including in Europe (Eurochild 2024) and in various parts of the world (UNICEF 2019). Identifying children's and young people's awareness and knowledge of their digital rights in a context such as Cambodia are less known. The present research directly addresses this gap, taking a human rights-based approach in bringing evidence both about the risks and opportunities children and young people in Cambodia experience, and understand their knowledge and awareness of their digital rights.

Here, digital rights awareness and knowledge can be seen as part of the broader digital literacy framework. For instance, see the Digital Kids Asia-Pacific Framework developed by UNESCO (2019). That said, while this framework considers 'digital literacy' an umbrella term (UNICEF 2019) that is, it includes a variety of meanings including the ability to use digital devices and software, the capacity to consume and produce digital content meaningfully, and to be able to participate in digital communities (Alexander et al. 2016), in the present research, the focus is on the gauging awareness, and building knowledge and empowering children and young people around their digital rights.

More specifically, the present research aimed to provide evidence to two key questions. First, what are the main challenges and opportunities for children and youth in Cambodia's digital transformation? Second, how can strategies be developed to enhance children's digital rights literacy and online safety especially within the context of pre-existing child sexual abuse (Johnson 2024)? Taking a human rights-based approach—specifically the digital

rights framework which is seen as intrinsic human rights (see General Comment #25, United Nations [UNCRC 2021])—the research aimed to propose avenues for enhancing state and organizational accountability and foster conditions that support children's digital engagement in a manner that is safe and beneficial to them.

This research is situated within the broader human rights discourse and emphasizes the fundamental rights of children (United Nations General Assembly 1989), with particular emphasis on Article 3—best interests of the child, Article 16—right to privacy, Article 19—protection from violence, abuse, and neglect, Article 28—right to education, Article 17—access to information, and Article 31—the right to rest, leisure, and play.

By framing digital rights as intrinsic human rights (UNCRC 2021), this work aligns with international human rights frameworks, advocating for the protection and empowerment of children online. This perspective not only highlights the importance of safeguarding children from risks of harm stemming from the digital environment but also emphasizes their right to benefit from the opportunities that digital technologies offer (access to education, social connections, creative explorations, and so on), thereby fostering a holistic approach to children's rights in the digital era. This work aimed to highlight the cultural context in this regard by acknowledging some critical literature toward the consumer advocacy drive through the digital rights discourse (Postigo 2012)—a digital rights advocacy that may ultimately maintain a neoliberal market status quo of consumerism. Indeed, the paper positioned its main arguments in defence of children's digital rights to be an approach that aims to empower individuals and communities to have more control over their digital lives and not just be consumers of digital media.

Crucially, the article demonstrated fieldwork which prioritized human rights practices with children, youth, and stakeholder communities caring for these more vulnerable members of society, to enquire what contextual and meaningful efforts can be scaled to foster learning around digital rights and online safety.

This article is divided into three parts. First, a research rationale and methodological approach are briefly presented. The subsequent section provides an overview of Cambodia's digital transformation, introduces the research's rationale, and outlines the methodology used for consultations and workshops with children and youth in Phnom Penh and the remote rural province of Preah Vihear. Section three presents the findings and identifies gaps in current digital rights and literacies among children and youth locally, emphasizing the need for additional research to develop effective, contextual, and meaningful mechanisms for enhancing digital rights literacy and online safety measures. Lastly, the article offers practical approaches and recommendations in the form of provocations for national but also regional (within the Southeast Asian context) stakeholders to set up research agendas and collaborative measures around digital rights literacy and support for children and youth moving forward towards safe and meaningful digital media use and experiences.

2. Research rationale and mixed method participatory approach

The research consultation with the children and youth had several objectives. First, it aimed to gauge the present knowledge, awareness, policies, and practices that exist around digital rights and skills among children and youth in Cambodia. It aimed to raise awareness and understanding of the global integration of digital media technologies in everyday life and the resulting risks and opportunities, and how digital technology providers should adhere to and respect children's fundamental human rights. While the UN Convention on the Rights of the Child has 54 articles, this study simplified key digital rights considerations into nine principles, as outlined by Pothong and Livingstone (2023), to make them more accessible to participants. These included the right to privacy, ensuring children's personal data is protected in digital spaces; the right to health, education, and justice, which emphasizes the role of digital technologies in supporting children's well-being and access

to essential services; the right to participate, enabling children to engage meaningfully in online communities and discussions; the right to information, ensuring children can access reliable and age-appropriate content, as well as the right to play and rest, recognizing that digital environments should support recreational and creative experiences rather than solely focussing on productivity or consumption; the right to be safe and the right not to be exploited, both highlighting the need for robust protections against online harms, including abuse, commercial exploitation, and misinformation. Finally, children's right to be heard and the right to be themselves were central to the discussions, reinforcing the importance of digital spaces where young people can express their identities freely and without fear of discrimination or exclusion.

By structuring the consultation around these principles, the research enabled children to reflect on their own experiences, imagine potential risks and opportunities, and deepen their understanding of digital rights in a way that was meaningful and relevant to their lives.

The consultations and workshops were conducted in March 2024 in two regions of Cambodia. Drawing from previous research methodology consulting children (Ofcom 2023; Pothong and Livingstone 2023), the present methodology comprised mixed methods including an online survey, instant live polls, and co-design participatory workshops. Similarly, addressing the need to research *with* children (Hillman 2019) rather than *about* them, this research considered the elements of design-appropriate and playful experiences (Bekker et al. 2014) as a conducive environment to engage children in sharing their thoughts, experiences, and ideas. This meant that, while materials were provided for all participants regardless of their ages (e.g. presentations, pens, posters, colour sticks, and so on), the goal was to maintain a semi-structured approach which allowed room for improvisation or where participants chose to lead the conversation or articulate their thoughts visually (differently from verbal articulation).

Before the consultations and workshops, an online survey was sent to registered participants to gather information about basic demographics as well as their interests, expectations, and their knowledge about digital rights.

The consultation featured a series of presentations and then the actual workshop with activities. The presentations aimed to provide an introductory educational material related to digital rights, digital and educational technologies, data privacy, online risks, and opportunities. Topics ranged from fundamental human rights principles, as outlined in the United Nations Convention on the Rights of the Child, to complex but realistic scenarios requiring participants to make decisions and reflect on digital rights and data privacy.

2.1. Ethics and doing research with children

Ethical approval was prepared with Open Development Cambodia (ODC), 'a multi-stakeholder platform committed to democratizing ICTs and leveraging their full potential while ensuring that the digital revolution benefits all citizens' (<https://camidf.net/about>), and approved by all participant parties. These included: the Cambodia Academy of Digital Technology (CADT), the Institute for Science and Technology of Cambodia (ISTC), a public university based in Preah Vihear province in Cambodia, and Prayuters Library—an ODC library initiative for children. Each party was provided with a thorough description and rationale of the objectives and methodology of all activities children and young people were going to be engaged in. Translated also in the Khmer language, consent forms were provided which explained the objectives of the consultation, workshop, and activities. The consent forms clearly described data privacy and management of the collected data, that no identifiable information will be collected about the participants, and that they could withdraw at any time of the activities. Only the older students' consent forms included the possibility to take pictures of the participants during some of the activities, without including their faces and only focus on the activities they were taking part in. The consent forms

were sent at least 3 weeks prior to the intended research and the participants, guardians, and their institutions had time to read in full, ask questions, and respond to the invitations. Subsequently, the consent forms were signed from all participants. On the day of the activities, the participants were again informed about the activities and if they had changed their mind in participating. After their full approval, work commenced with the intended methodological design.

2.2. Recruiting participants

Workshops and consultations with children and youth took place in two locations in Cambodia. The first was held at the CADT in Phnom Penh during the ODC camp (CamIDF), which was held and hosted at the academy. Cambodia Academy of Digital Technology students who attended the camp were invited to take part in the workshop and consultation described here. A total of 24 participants, aged between 18 and 23 (addressed in this work as ‘participants’, ‘students’, or ‘youth’ interchangeably) took part in the workshop and consultation (see Table 1). Some studied for a degree in science and technology, law and administration, agriculture, and rural development. Given the academic advantage of the participants being students and studying at a higher educational institution, the workshop aimed to first identify common understandings of digitization and datafication—what they were already familiar with, interested in, and concerned about—and then engaged them to co-design ideas for incorporating digital rights and privacy.

The second and third sessions were held in Preah Vihear, a historically rich but economically deprived rural province. A total of 72 students took part in the session, with 44 of them being female. These participants were aged between 19 and 20. They all studied at the local ISTC in Preah Vihear. These students were engaged in both consultation and workshop again, like the participants in Phnom Penh.

The third workshop was held at the Prayuters Library Program in Preah Vihear with younger participants. These children, aged 6–14, joined workshops focussed on digital rights and media literacy regarding how they were typically using their parents’ devices.

Table 1. Overview of participant groups, engagement types, and demographics in the digital rights workshops and consultations

Participant group	Activity type	Number and age range	Location	Region	Description of engagement
Students (Phnom Penh)	Workshop and consultation	N = 24 Age: 18-23 (16 females, 8 males)	Cambodia Academy of Digital Technology (CADT)	Phnom Penh	Participated in a workshop and consultation to identify common understandings of digitization and digital rights.
Children (Preah Vihear)	Workshop on digital rights and media literacy	N = 10 Age: 6-14 (4 boys and 6 girls)	Prayuters Library Program (Preah Vihear)	Preah Vihear	Engaged in workshops that covered digital rights, risks, and online safety, using their parents’ devices.
Students (Preah Vihear)	Workshop and consultation	N = 72 Age: 19-20 (44 females, 28 males)	Preah Vihear The Institute of Science and Technology, Cambodia (ISTC)	Preah Vihear	Participated in a workshop and consultation to identify common understandings of digitization and digital rights.

The workshops and consultations were distinct in their format and purpose. Workshops primarily involved participatory co-design activities, where participants engaged in group discussions and activities to design ideas for integrating digital rights into their everyday digital practices. The consultations were structured to gather insights into participants' experiences with digital technologies, and the workshop was designed to be both interactive with a series of activities and open discussions where participants shared concerns and ideas related to their digital experiences.

The participatory co-design workshops involved small groups, with each group consisting of 6–10 participants. These workshops were structured around hypothetical scenarios that participants were invited to respond to, allowing them to reflect on and discuss how digital rights intersect with their daily lives. The group dynamics were carefully managed by facilitators to ensure balanced participation, with activities designed to ensure that every voice was heard. Facilitators also took measures to maintain a supportive and open environment, supported with translation where some aspects of the discussions were unclear, and aimed to encourage participants to freely express their ideas and concerns. On that last point, additional material was provided such as colour pens, paper, and sticky notes to ensure that whoever preferred to draw or write their answer could do so and feel included to participate through a different modal expression.

Despite diverse economic, social, and educational backgrounds, all participants shared similar experiences with digital technologies, facing risks like inappropriate content and disinformation. But equally, they also shared different needs and interests, with younger participants engaging more in video content for entertainment (e.g. accessing TikTok or other content on Facebook via their parents' phones), while older participants highlighted needs such as having the convenience of paying their bills online, using banking services, and accessing health and educational information.

The unique context of Preah Vihear, with its cultural richness and economic challenges (see [International Fund for Agricultural Development \[IFAD\] no date](#)), provided valuable insights into the intersection of digital technology and local traditions, as well as the impact of economic deprivation on digital access and rights.

The activities with older students at CADT in Phnom Penh were conducted in English, with Khmer translation provided where necessary. Language barrier sometimes hindered deeper conversations, with the younger participants. To address this, additional materials in Khmer were disseminated post-event to the participants, the ODC network, and volunteers working with children, specifically in the Prayuters Library Program.

The data gathered through these consultations and workshops were analysed qualitatively. Responses were categorized into thematic areas based on recurring patterns and issues raised by all the participants. Grounded theory approach was used to identify the main challenges and opportunities children and youth face in relation to digital rights and safety in Cambodia. However, a limitation of the methodology was the variability in participants' prior knowledge and experiences with digital technologies, which may have influenced their responses. Additionally, the small sample size, especially among younger participants in Preah Vihear, limited the generalizability of the findings.

Despite the relatively small sample size, this study was designed as a case study to provide in-depth insights into the digital rights experiences of children and youth in Cambodia, particularly in the context of developing nations in Southeast Asia. By focussing on two distinct groups—older students in Phnom Penh and younger children in the rural province of Preah Vihear—the research sought to capture a range of perspectives on the challenges and opportunities posed by digital technologies in their lives. This case study approach allowed for a more nuanced understanding of the unique risks children face in these different contexts, as well as the varying levels of awareness and engagement with digital rights. As outlined in the abstract and introduction, the study aimed to address the gaps in digital rights education and raise awareness among Cambodian children and youth, while also

fostering policy development that supports equitable, rights-respecting designs in the digital landscape. While the findings are not broadly generalizable due to the small sample size, they provide valuable insights that can inform future research and initiatives in Cambodia and similar contexts within Southeast Asia.

2.3. Children's rights in the digital environment

Digital technologies offer significant opportunities for children to play, learn, develop, connect, and build relationships. However, the design and operation of many technologies flooding Cambodia can present risks to children's safety, privacy, well-being, basic freedoms, and needs. Children's rights are as applicable in the digital rights as they are in the physical world, as outlined in the United Nations Committee on the Rights of the Child's (UNCRC) General Comment No.25. This includes the obligation to consult children on matters affecting them in the digital context (Article 12, UNCRC). Others in the UK context have proposed methods of eliciting children's feedback (Pothong and Livingstone 2023), whose methodology has prioritized children's voices in a matter of not only use and experiences but also (re)designing technologies that serve children's interests and needs. To harness these experiences from the child's rights perspective, it has been considered essential to use methods that genuinely capture these voices in ways that are both conducive but also do not fatigue children (Klein 2022).

2.4. Consultation questions

The presentations were grouped into two main themes. The first theme addressed digital technologies' opportunities for education, civic participation, personal creativity, and development. All participants in the three settings (the capital city, the institute, and the library) were shown the various applications and platforms that allow them to learn, access information, create things, and connect with others.

The second theme presented some of the evidence around data collection and the negative impact, for example, of digitizing education but also simply being online on a daily basis for communicating, socializing, making financial or other transactions, sharing personal information, and accessing online content. Based on the two themes of the presentations, the following were the main consultation questions navigating the workshop activities:

- What are children's and young people's understanding of digital rights, risks, and opportunities from using digital media technologies?
- What individual digital rights are children and youth identifying based on their typical digital use?
- Which of these digital rights are identified as potentially being disrespected by the applications they are using?
- What can be done differently to ensure that children's and youths' rights are respected?

An additional question was also asked around the positive use of digital technologies such as for learning or creating things. An example was given of how children and youth can learn things from various applications and the internet in general. This question fostered a lively discussion and further curiosity. More on the findings follow next.

3. Research findings

Both children and youth were highly engaged with digital technologies and mainly using social media as a daily activity to connect with others and obtain daily snippets of information (Fig. 1 shows the range of apps young people used typically). The most used apps among all participants were TikTok, Telegram, Instagram, Facebook, YouTube and to a lesser extent others like Spotify, Heyday, Reddit, and WhatsApp.

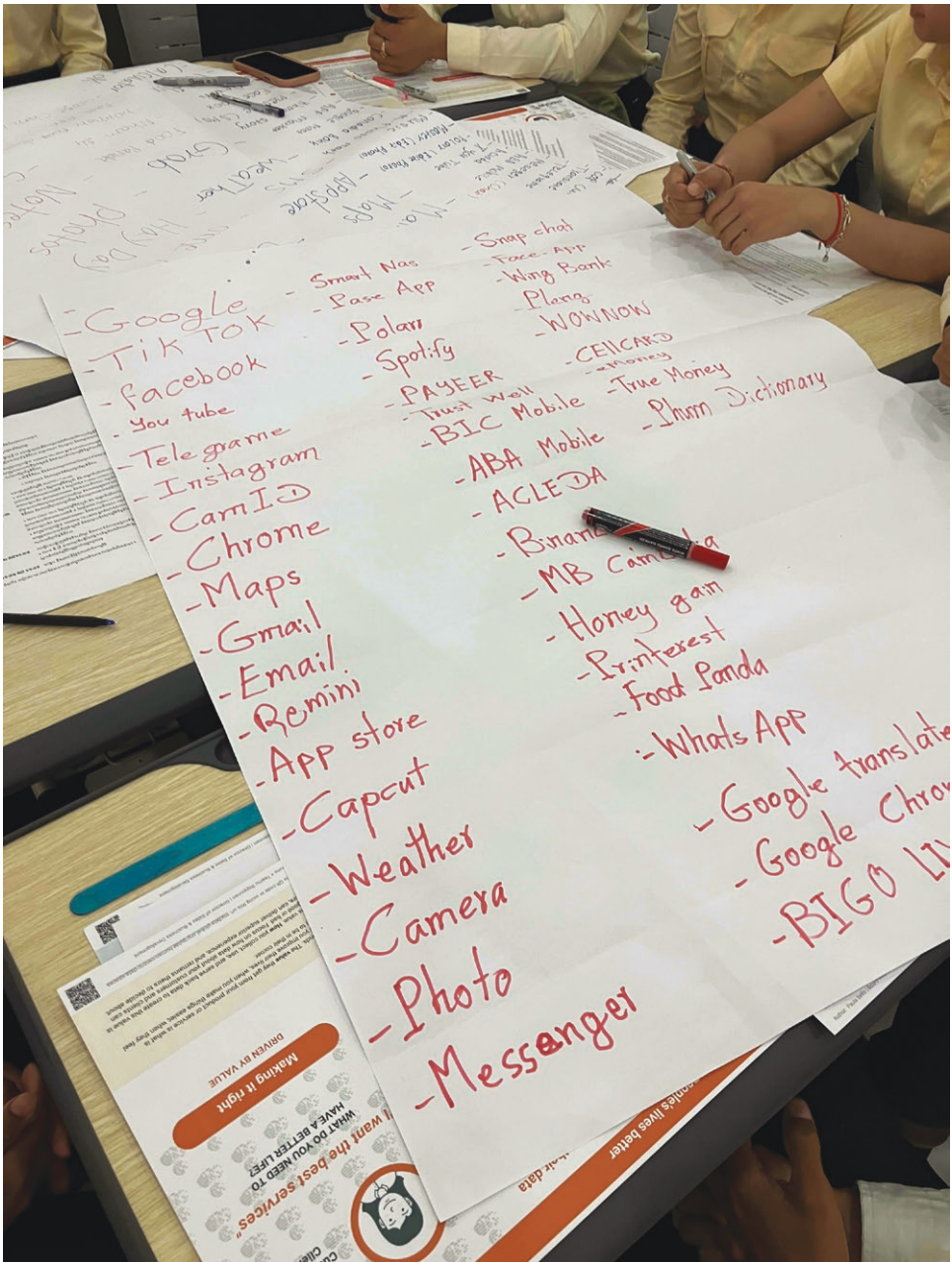


Figure 1. The ISTC students listed many apps they typically used. Then they were asked to identify and mark which ones they felt safe to share various types of their data, and which ones they distrusted.

3.1. When technologies feel invisible, so do the problems they generate

The use of social media, especially among the younger participants, raised significant concerns for children's privacy and agency in the digital environment. Children as young as seven are already interacting with TikTok and Facebook, mainly through their parents' devices. It is important to mention that both these platforms are not designed with children

in mind; their users must be 13 years and over.¹ TikTok is a short-form video-sharing platform that allows users to create, edit, and engage with content, often featuring trends, challenges, and algorithm-driven recommendations. While it aims to engage users in creative and social interaction, it has also raised a range of concerns from data privacy to screen time, and exposure to inappropriate content (see [U.S. Federal Trade Commission 2019](#); [Shin and Jitkajornwanich 2024](#)). Facebook, on the other hand, is a social networking site that enables users to connect, share posts, and engage with a wide range of media and online communities. Though widely used for communication and information-sharing, Facebook has also been unethical in many of their data practices and has allowed a range of risks including exposure to misinformation and privacy breaches ([Pelley 2021](#)). These platforms shape children's online experiences from an early age; influence their digital behaviours, social interactions, and access to information (see [Christakis and Hale 2025](#)).

The ubiquity of these technologies is making them invisible which leads to the tendency to mask their own limitations, biases, and potential harms. Moreover, their status as ubiquitous—even invisible—can potentially prevent young people from viewing them with a critical eye, resist or demand better quality, rights-respecting designs, and ethical practices from the developers and vendors of these technologies.

The blurred lines between apps, platforms, and devices complicated the understanding of platformization issues. Platformization refers to the digital apps, websites, and services increasingly operating within a few large and powerful platforms that control access to content, services, and user data ([Poell et al. 2019](#)). The concentration of power among a few dominant commercial platforms (e.g. Google, Microsoft, Meta, Alibaba, Tencent, and others) enables them to extract user data and control access to content and services in ways that undermine users' privacy rights, as outlined in Article 16 of the UNCRD. This lack of diverse digital alternatives restricts users' freedoms and diminishes their agency, making it more difficult for them to demand ethical, rights-respecting designs and services.

Discussions around data journeys (how one's data or personal information travels and who has access to it), the potential risks emanating from data extraction from commercial digital providers ([OECD 2021](#)), and how digital rights may be infringed in one's typical digital engagements, revealed that participants, both older and younger, found it challenging to identify due to the deep integration of convenient services like financial apps (mainly for older respondents) and social media (both younger and older respondents) in their lives. In a word, it was hard to question the integrity of the digital providers that had become part of one's daily life. [Figure 2](#) illustrates participants' mixed feelings about data sharing with digital apps/platforms, using green, yellow, and red sticks to signify the level of willingness to share personal information with apps they considered trustworthy.

Nevertheless, young people still shared their preferences. Some preferred certain apps over others based on their country of origin (e.g. Russian, Chinese, or American). This meant that their concerns about data privacy could be influenced by geopolitical considerations. Essentially, they were deciding whether to compromise their data privacy for one geopolitical power over another (e.g. China, Russia, the USA), rather than questioning any data privacy loss or holding all companies accountable to privacy and design standards regardless of their origin. See [Fig. 2a](#) and [b](#) for the list of common apps participants mentioned.

3.2. Everyone has seen nasty content, but children just scroll on

Children aged 7 to 12 have already encountered inappropriate online content at similar rates to older youth. Both groups seemed to lack awareness of how to respond, typically just moving on without taking action. For instance, an 11-year-old mentioned only telling a friend when she saw something disturbing on TikTok. This highlights the gaps in online

1 Under the GDPR, businesses must obtain parental consent before processing data from children under the age of 16 (Article 8), and they must make efforts to ensure that privacy notices are easily accessible and understandable for children ([European Parliament and Council of the European Union 2016](#)).

what I have done in the past and I've shared things about my past...I can't really change that, but I know it's going to affect what people think of me.

This reflects the right to freely develop one's personhood and character (see Article 7 of the UNCRC), which can be significantly impacted by the so-called chilling effect (Büchi et al. 2022). This refers to the alteration of one's behaviour due to the awareness of being observed or judged, also in the digital realm. As a result, chilling effects can lead to self-censorship, where individuals modify their behaviour, refrain from expressing their thoughts (and thus also infringe on one's right to free expression, Article 13 of the UNCRC), or avoid certain activities online to prevent negative judgements and attacks. The respondent acknowledged that his past, once shared, is beyond his control but still enjoyed sharing personal information despite the potential negative impacts this could lead to. This further acknowledged the paradox young people may experience by enjoying sharing personal information despite knowing that once shared, it is beyond their control.

On a slightly different notion, in relation to one's privacy, security, and safety, most participants also assumed that password-protected apps provided automatic safety. For example, an 18-year-old said he typically sent files via Telegram Messenger. Many 18-year-olds already had their own personal bank app, commonly using ABA Bank (owned by Bank of Canada) in Cambodia, though they could not explain why they considered some apps safer than others.

3.4. Scams online are a common threat

Students in Phnom Penh and Preah Vihear frequently asked how to avoid online scams, reflecting a common concern. They wanted practical advice on detecting and blocking scams, protecting against hackers, understanding 'dangerous cookies', and interpreting app terms and agreements, as highlighted by one participant's mention of 'deadly hacking cases' (see Fig. 3). This was a recurring theme in the consultations, with participants asking for practical strategies to safeguard personal data. For instance, one participant wanted to know how to distinguish between 'dangerous cookies'; another shared a specific concern with a relative who received a phishing email (to which many reacted knowingly about such cases). Scams were truly common; many shared examples that they have seen spammy emails. In fact, a unique concern surfaced during the discussions which was confirmed in Western literature—hundreds of thousands of Cambodians, among others, are lured (and subsequently forced) to work for the very online scamming operations (Ng 2023).

What would you like to learn more about from today's workshop?

16 responses

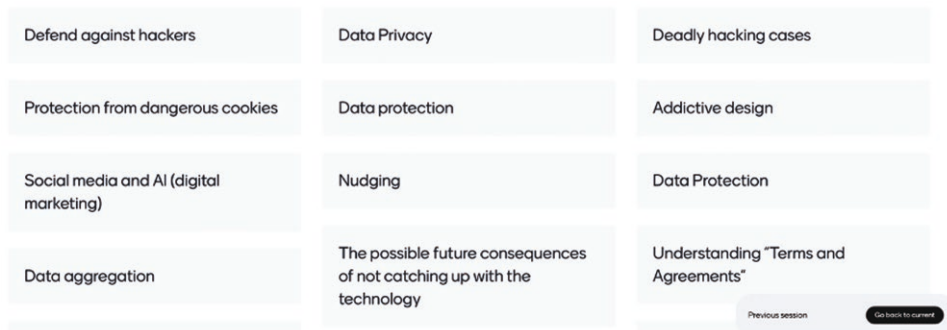


Figure 3. Participants' responses to the question 'What would you like to learn more about from today's workshop?' These can be seen as future research topics and consultation workshops.

Participants' concerns about online scams also intersect with their broader desires for more guidance on topics such as privacy settings, data protection, and understanding the ethical implications of social media. These concerns echo the responses seen in section 3.3, where participants were mindful of the risks associated with overshadowing personal information online. While older participants were aware of the potential dangers of oversharing, the younger cohort, especially in rural areas like Preah Vihear often lacked the tools and knowledge to make informed decisions about their digital behaviour. This lack of awareness may leave them even more vulnerable to not only scams but also to more insidious risks. As highlighted in Fig. 3, participants expressed interest in learning more about a variety of topics related to digital security, such as protection from hackers, understanding social media algorithms, and digital marketing. These concerns reflect a broader desire for education about how digital platforms and technologies function, how personal data are used, and the long-term consequences of not being digitally literate.

3.5. Understanding rights-(dis)respecting app designs

During the presentation, participants were shown key digital technology terms to gauge their familiarity in understanding them, such as 'app designer', 'nudging', and 'hyper-nudging'. These were unfamiliar to most respondents across the Preah Vihear province. Designing digital apps and platforms is very much at the core of the problems that ensued in the digital world children inhabit and many scholars, advocates, and expert organizations (see Radesky et al. 2022; 5Rights Foundation 2021) in Western contexts have been vociferous highlighting the need to design digital technologies with children's rights, needs, and well-being as a priority.

Many apps are free for users and respondents acknowledged that. Yet, these apps cannot be equated to the status of a public service or utility. The 'free' to use leads to a misconception, which could be especially confusing to the youngest users who may not question what sustains the status of a business to offer a product or service for 'free'. Free digital products differ significantly from traditional public services offered for free, such as libraries for example. Unlike public services that are designed for societies' benefit without direct profit motives (see van Dijck et al. 2023), apps provided by commercial entities like Google, Facebook, TikTok, and so on, operate primarily for profit which is deeply and opaquely embedded into their designs. This distinction in the digital businesses' underlying motivations and value propositions can lead to misunderstandings among young users about the true nature and implications of using these digital services. They have every right to know that their own use makes commercial sense to the businesses that give away some of their services seemingly freely. Engagements such as sharing information, (re)posting content, engaging with others by liking their picture or video, and so on—are all part of the business models of these products (Pelley 2021; Richards and Hartzog 2024).

After a brief introduction to these models, students were asked to check on their phones the social media apps they used and identify some of the mentioned functionalities such as 'like', 'share', and others to immediately connect to what was just explained. Realizing that these functions are what influenced their further engagement with the apps evoked lively reactions and more questions. Many students started talking about how addictive these apps were and how they could connect this to the functions feeding this 'addictive' behaviour. Students who spent time late at night on their devices were asked to raise their hands. As expected, the majority lifted their hands and became even more animated admitting to the power of these manipulative designs. All this led to conclude that much more is needed in terms of communicating with young people and navigating with them through the complexities of the digital commercial world of apps and platforms their lives were increasingly intertwined with.

They all expressed the desire for more reliable information online but also educational opportunities such as the workshops provided. This aligns well with both Articles 17 and

28 of the UNCRC which affirms a child's right to access (truthful/good quality) information that promotes their well-being, including education and health resources.

3.6. Data privacy threats are mainly perceived as physical risks of harm

Students generally understood the concept of data privacy but defining it in relation to personal privacy was more challenging. They recognized names, addresses, and phone numbers as sensitive data, mainly associating the risks with physical harm, like child abduction. However, they did not view the manipulation of beliefs and opinions through data, such as social media engagement, as a privacy threat. Younger children also saw data privacy risks more as physical threats rather than threats to their own behaviour or beliefs being manipulated through manipulated content they could be exposed to in subtle and subliminal ways. This indicated a need to educate both children and young people about the broader risks of data privacy loss—relating to intangible harms—including online tracking and exposure to manipulative information.

3.7. Methodological challenges: ethical considerations in engaging children and youth with contextual sensitivity and child-led approaches

Drawing from existing research consultations with children (Ofcom 2023; Pothong and Livingstone 2023), some concerns emerged in that what might work in one socio-economic and cultural context may not translate immediately in others. Concepts like agency can be contentious (Cavazzoni et al. 2021) and culturally sensitive. The research process must recognize the diverse experiences of children, particularly in low- and middle-income regions, where basic needs such as access to clean water, education, and reliable internet connectivity remain pressing concerns. In these settings, the need for child-led, context-sensitive approaches becomes even more apparent.

Although children and youth grasp the importance of respecting and safeguarding fundamental rights and freedoms online, the present research identified that explaining these rights requires adequate and careful preparation considering the varying contexts and bare necessities (e.g. from clean water to internet connectivity [UNICEF 2024]). It is essential to avoid assuming a dominant logic, not about what universally should be seen as one's rights in the digital world, but as what universally should be seen as a pressing problem (UN 2023). By framing digital issues as global problems, there is a risk of detracting from the much-needed work (and funding) to protect and fulfil millions of children's basic rights and needs in the physical world as much as in the digital where the digital indeed is even present.

Following introductory presentations on digital rights and existing research from Western contexts (Pothong and Livingstone 2023), concerns emerged about the applicability of these methods across unique cultural settings. While the children who took part in this research generally understand the importance of online rights, explaining these requires careful considerations in non-Western contexts, the language barrier, and the cultural uniqueness of the settings in which these methodologies are used. During the research preparation, a local team member emphasized that children might view the refusal to participate or comply with requests from a senior individual (such as the research team) as impolite. Despite participants being informed of their right to refuse to take part in the workshop activities, and that there are no right or wrong answers in the discussions, cultural norms must be acknowledged. Such cultural norms are particularly relevant especially when discussing online safety.

Furthermore, considering the contrasting socio-economic realities in regions considered of 'low and middle-income', careful balance should be made through systematic pedagogical approaches for children and young people, within the context of Cambodia, in which they are introduced to the subject of digital rights while respecting other more urgent needs and basic conditions.

4. Discussions and further research for practical applications of human rights approaches

In discussions and further research for practical applications of human rights approaches, several key themes emerged from this study that address immediate actions and future efforts in digital rights and literacies.

4.1. Digital rights and literacies

First, this research highlights the need for expanded investigations into technology adoption, including educational platforms and applications, across diverse socio-economic contexts in Cambodia and even in the wider Southeast Asian region. Children and young people have shown a keen interest in understanding app design, its influences, and its impact on their well-being and prospects. Further research is needed to explore digital skills (Vutha 2019), competencies, and educational uses across different age groups and socio-economic backgrounds in Cambodia, and to help inform the development of effective educational programs and resource allocation strategies.

Young people expressed curiosity about the business models of social media, artificial intelligence (AI) (particularly in digital marketing), potential future consequences of falling behind in technology adoption, manipulative techniques, and strategies to counteract addictive app designs. There was great enthusiasm for delving deeper into these subjects beyond the current research activities and introductions that engaged all participants. This led to practical proposals for further investigation and the development of more systematic ways of engaging children and young people to attend equally to their needs as well as interests. See Table 2.

4.2. Online safety and security

It is crucial to translate practical approaches into comprehensive strategies aimed at protecting children in the digital realm. Johnson (2024) emphasizes the need for practitioners to advocate for holistic strategies on both local and global scales. The human rights framework, as highlighted by Johnson (2024), serves as a tool that can enhance accountability among states and organizations, particularly in safeguarding children from sexual abuse online. For instance, strategies should encompass educational efforts to empower children with digital literacy skills and awareness. However, for these to be effective, there should be systematic assessment of impact and accountability measures set up to ensure that the digital sector is equally educated, monitored, and forced to adhere to digital rights and principles respecting and protecting children and young people online. There is a critical need for measures that would hold companies accountable for their role in protecting children online (as is for instance with the European Union's General Data Protection Regulation (European Parliament and Council of the European Union 2016), which has concrete provisions addressing the protection of children's personal data² or the EU's Digital Services Act which requires that platforms take action against harmful content, such as illegal activities, and to ensure that users, including children, are not exposed to content such as hate speech or disinformation (European Parliament and Council of the European Union 2022)). Other accountability measures can be expressed through the forthcoming Cambodian legislature (ODC 2023) that is yet to be seen how it will impose obligations to the digital companies that are increasingly integrating in the lives of Cambodian children and young people. For that, further research like the one described here is also important to carry out and understand both on the side of industry—how the legal requirements are met—and on the side of users, children specifically—how the new legislation ensures they can enjoy the benefits of the digital world in a safe and trusted way.

² According to the platform's terms and conditions, a 'teen must be at least 13 years of age (or 14 in Indonesia, Quebec, and South Korea) to use TikTok'. See here: <https://support.tiktok.com/en/safety-hc/account-and-user-safety/underage-appeals-on-tiktok>

Table 2. Summary of practical proposals in support of digital rights support and education

#	Type of proposal
1.	Conduct further research and investigations into the digital skills, competencies, and digital use for learning across diverse age groups and socio-economic strata in Cambodia. Similar research to the one presented in this paper is necessary to develop adequate educational programs and allocate resources in a meaningful and effective manner. Similar practical approach with children and young people should be conducted systematically across various age groups and geographic areas.
2.	Conduct nationwide research to identify gaps and challenges around digital use, online safety, and digital rights among children and young people. Such research will help relevant authorities, institutions, and stakeholders develop meaningful and appropriate programs, interventions, and strategies to ensure safe and beneficial use of digital technologies.
3.	Organize regular multi-stakeholder meetings to discuss and raise awareness around the beneficial use of digital technologies, digital rights, skills, and competencies.
4.	Develop digital education strategies and consider the fast-evolving technologies (e.g. AI, recommendation, and automation systems) to support vulnerable communities and people in Cambodia.
5.	Design and disseminate accessible support resources for various communities as well as practitioners and volunteers working with children (such as the community members of the Preah Vihear library). ^a
6.	Provide systematic evaluation and improvement of educational programs that aim to teach data privacy, digital rights, and skills to children and young people.

^a *What are your digital rights?* This is a child-friendly video, translated into the Khmer language explaining the digital rights of children based on the UNCRC comment #25 was created to be used for the research discussed in this paper: <https://www.youtube.com/watch?v=zZb4PIr2VTQ>

5. Provocations

It should be acknowledged that much of the discussions during this research in both the capital city and the province addressed more ‘basic’ aspects in relation to children’s digital rights—such as basic access to reliable connection and devices, distinguishing between reliable sources and age-appropriate apps and platforms. The fast-changing digital disruption and technological innovation—such as AI and algorithmic manipulation and recommender systems and the concentration of large and powerful platforms (Srnicek 2017)—present new challenges where even basic needs related to digital rights are not fully met. The risks stemming from such technologies should also be introduced as soon as possible and in a more systematic way (integrated in educational programs). The practical approach of the research design used and described in this paper was met with great enthusiasm and interest from all participants. They clearly wanted to learn so much more.

Conducting more regular consultations combined with educational programs would certainly require funding not only in setting up such practical approaches to skill building around digital rights but also to measure the impact and effectiveness of these efforts. Therefore, key stakeholders both locally and in the broader Southeast Asian context should consider identifying funding opportunities to develop material and coursework and ensure that even the most remote and vulnerable communities have access to training and support.

Despite the digital advancements in non-Western, low- and middle-income communities, it is crucial for businesses offering digital services to prioritize appropriate designs and strictly adhere to data privacy regulations. Most of all, governments in these regions should enforce strict conditions and oversight rather than accept that children and young people can navigate digital rights independently even if the educational support around digital rights is provided. In other words, industry has a role to play, and governments should ensure that a robust system of oversight is in place to ensure that the digital sector meets appropriate designs and standards that respect children’s rights and best interests.

Accessible support resources should be created but also simple online courses could be organized for students, practitioners, and volunteers working with children (such as in the Prayutera Library Program) to support the most vulnerable. Parents and guardians, too, should also be included in these efforts on teaching and training and about the importance of monitoring their children's online activities, providing guidance and support when needed.

Methodologically, a balance should be made through systematic pedagogical approaches for children and young people, within the context of Cambodia, in which they are introduced to the subject of digital rights while respecting other more urgent needs and basic conditions in which they may live and be just as exposed to risks. As this research identified, cultural contexts play a significant role in both ensuring children's safety and raising awareness among them about potential online risks. This research acknowledged that the most urgent issues in children's lives differ greatly across contexts, and that children's participation in decisions about their digital experiences should reflect their own lived realities. By framing digital issues as global problems, there is a risk of overlooking the more immediate, pressing needs in the physical world—one's unique individual context—which, in many cases, should not be undermined.

Those 18 years and older were also interested in learning more about social media and AI (specifically digital marketing), 'possible future consequences of not catching up with technologies', manipulative techniques, and how to deal with them and overall addictive designs. There was significant interest in exploring these topics in much greater depth, which was beyond the scope of the present research. However, it is important to note that young people have a strong desire to engage with and learn more about these subjects.

And any discourse—policy, academic, or advocacy (especially coming from the West/Anglo-American perspective)—should seek to balance the debates around digital rights to ensure that those most basic rights and needs are not undermined or overshadowed.

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