Strengthening support systems for online child safety

Learning brief | April 2025

Introduction

A multilayered approach to online child safety

The rapid evolution of digital technologies demands a comprehensive, multi-layered approach to safeguarding children and adolescents in online environments. As young people increasingly engage with digital platforms for education, entertainment, and social interaction, it's clear that individual interventions alone are insufficient. A holistic strategy is essential, one that recognizes the complex interplay of factors at various societal levels shaping a child's online experiences.

The socio-ecological model

This learning brief adopts the socio-ecological framework as a useful tool to examine the roles and responsibilities of various stakeholders in ensuring online child safety. Developed by psychologist Urie Bronfenbrenner in the 1970s, the socio-ecological model illustrates how multiple environmental systems—from immediate surroundings like family and school to broader societal influences—interact to shape human development. This model offers a valuable framework for understanding how different levels of external stakeholders interact to protect children and adolescents in the digital space. This model conceptualizes child safety as influenced by multiple, interconnected layers of environmental factors, including:
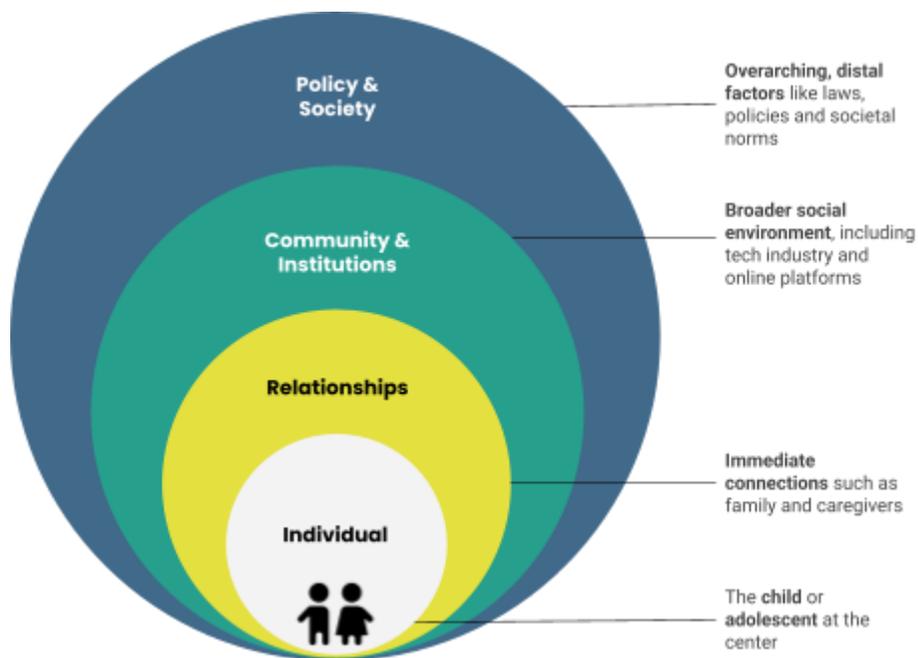
We will explore the contributions of different layers of the support system around adolescents, from **parents and caregivers** closest to the child, to **tech industry and content moderators** operating within the digital environment, and finally to the **broader legal and regulatory systems** that provide structural frameworks for online safety. By examining these interconnected levels, we aim to provide a comprehensive understanding of the challenges and opportunities in creating safer digital environments for young people.

This learning brief draws on the innovative research conducted by six of the **Tech Coalition Safe Online Research Fund** projects seen below.

ChildSafeNet's research used a mixed-method approach, including **a cross-sectional online survey of 900 parents of children** aged 6-17, alongside **10 FGDs with parents and 6 FGDs with children aged 13-17,** inclusive of queer children, children with disabilities, child club members and students from community schools. Additionally, **10 interviews were conducted with key stakeholders in child protection**. The study used participatory visual methods, such as mapping exercises, to actively engage parents and children.

This study on online sexual exploitation and abuse of children and young adults with intellectual disabilities **in Kenya collected qualitative data from 88 children (aged 14-22 with mild to moderate intellectual disabilities), 48 parents or caregivers, 10 experts**, and various government and community stakeholders. Conducted in schools and community settings in Nairobi and Kiambu counties, the research focused on urban and peri-urban areas with higher connectivity.

This study, conducted in collaboration with Tigo Colombia and Aulas en Paz, used a stratified, two-stage cluster sampling method to collect data from a representative sample of **5,718 students, 990 parents and caregivers, and 616 teachers across six regions in Colombia**. Data was gathered using an adapted version of the **Global Kids Online questionnaire** to assess children's online experiences and the role of adults in mitigating risks and enhancing opportunities.

Middlesex University began with **in-depth interviews (March–July 2022) with 11 content moderators and 4 trust and safety experts**, thematically analyzing their experiences and coping mechanisms. Findings from these interviews informed **a quantitative online survey** (August–December 2022) of 213 content moderators, with **167 completing it fully** (79% response rate). 45% of respondents were based in Europe and had spent an average of 51 months in their roles.

The Federation of the Women Associations of Türkiye (TKDF) conducted **FGDs with the Bar Associations of İzmir, Antalya, Gaziantep, Sinop, İstanbul, Edirne and Hakkari, engaging over 50 lawyers** from the Rights of the Child Centers. These gathered insights from legal and regulatory stakeholders with diverse experiences in handling online child sexual abuse material cases, to collate a wide-ranging view of the challenges and potential solutions in tackling online CSAM.

Justice and Care and Dublin City University's Philippines-based research involved analysis of 36 **case file records of convicted online CSEA facilitators, and interviews with 23 incarcerated individuals** to develop insights on online CSEA facilitation, its disruption and prevention. **In-depth interviews were also conducted with 47** Key Informants, both in the Philippines and internationally, including representatives from law enforcement, government, NGOs, financial services, internet service providers, and telecoms and local caseworkers.

Parents and caregivers

Parental perceptions of online safety

Many parents view the internet as a fundamentally unsafe space for children, reflecting deep concerns about online risks. According to ChildSafeNet's research, **81% of parents recognized at least one form of online harm, reinforcing the perception that digital environments pose significant dangers to children.**

However, despite this general awareness, many parents lacked specific knowledge about the risks that contribute to online child sexual exploitation and abuse (CSEA). In fact, **70% admitted they did not know which online behaviors and risk factors could lead to online CSEA**. Among those who identified potential risks, only 21% mentioned sharing personal information, and 19% cited visiting adult websites—revealing important knowledge gaps that could undermine their protective role.

These gaps are further complicated by **intergenerational differences**. Parents tend to see **a clear boundary between online and offline worlds**, whereas young people often view digital interactions as an integrated part of daily life. For example, while parents—especially those of adolescents aged 13–17—often cited exposure to strangers online as one of their greatest fears, many adolescents viewed these same interactions as exciting opportunities to make new friends.

This disconnect mirrors findings from the [Research Fund's learning brief on children's experiences](#), where children voiced frustration that adults often hold an overwhelmingly negative view of the internet. While parental concerns focus heavily on potential dangers, young people feel that this emphasis overshadows the many benefits and opportunities digital platforms offer.

Parental supervision and control

Parental supervision and control strategies vary, with some methods proving more common than others. 38% of parents reported setting digital rules in the household, though **these rules decreased as children grew older**, **reflecting the challenges of enforcing restrictions on adolescents** (ChildSafeNet). This highlights the importance of other effective strategies that will work for older adolescents beyond just supervision or imposing rules, recognising that adolescents have evolving capacities and autonomies as they grow older.

While a relatively high percentage of parents limit screen time through enforcing a digital time-limit or restricting the use of phones, these measures often lack complementary digital safety mechanisms. As can be seen on the right, **in contrast to parents limiting screen times, fewer parents had used parental controls or privacy settings to protect their children.**

Parents' strategies (from ChildSafeNet study)
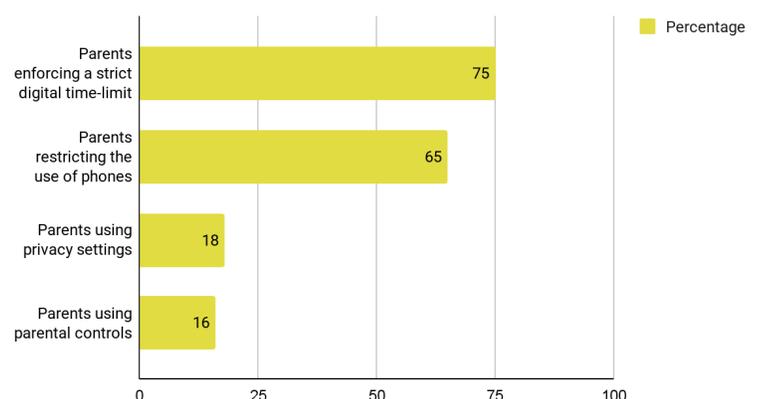
This gap is echoed by findings from ZanaAfrica, where discussions with educators and key informants in Kenya revealed that **most parents lack awareness of available monitoring applications or how to use them**. As a result, many children with intellectual disabilities access online platforms with little or no supervision. Further, the University of Los Andes (Universidad de Los Andes, Tigo Colombia and Aulas en Paz) found that

nearly **30% of families in Colombia were unaware of essential digital safety strategies**, and many did not implement parental controls either due to a lack of knowledge or because they had simply never considered them.

Many parents rely on traditional strategies such as enforcing rules but lack awareness or access to digital tools that could complement their efforts.

Caregiver behaviors on online safety reflect broader parental, gender and sexuality norms
(based on ChildSafeNet's study)

Parenting styles	Gendered roles	Stigma around queerness
Caregiver strategies for online safety often mirror their discipline style. Some parents favor dialogue-based strategies, engaging children in discussions about online risks and behaviors, while others adopt authoritarian approaches, emphasizing rules and restrictions. These methods are often **an extension of how parents manage other aspects of family life.**	Fathers showed **higher levels of digital engagement,** with some learning games or platforms to better guide their children. However, traditional gender roles often **create emotional distance**, with fathers less involved in day-to-day online activities—especially in low- and middle-income households where they are present only in the evenings due to work schedules.	Queer children face additional challenges in seeking support from caregivers about their online lives. In one focus group discussion, participants expressed reluctance to involve their parents on online safety matters, fearing **judgment or misunderstanding due to their sexual or gender identity**. This is particularly relevant as many queer children turn to online communities and platforms for social support and connection.

Parental engagement with children

Despite the importance of digital safety discussions, **only 15% of parents reported discussing online CSEA with their children** (ChildSafeNet). Conversations about online safety were more common with older adolescents (14-17 years) than with younger children, which may reflect **parental uncertainty about how to approach these discussions at earlier ages.**

Among the 85% of parents who did not discuss these topics, the most cited barriers were:

Concerns about **age-appropriateness**	Lack of knowledge on **how to start the conversation**
Discomfort discussing **sensitive topics**	The belief that **schools**, not parents, should handle these discussions

These concerns highlight the need for better culturally sensitive guidance for parents on how to discuss online safety at different developmental stages, tailored to children's evolving capacities.

Findings from Colombia further illustrate this gap, showing that only **8.77% of caregivers engaged in active parental mediation** (e.g., participating in online activities with their children), and just **5.83% engaged in security mediation** (e.g., discussing online issues or coping strategies with them) (Universidad de Los Andes, Tigo Colombia, and Aulas en Paz).

While parents play a crucial role in ensuring online safety, they cannot shoulder this responsibility alone. There are indeed important limitations to parental oversight, as discussed below.

The limitations of parental oversight

Caregiver burden

Particularly in many low- and middle-income countries, caregivers often work multiple jobs, leaving them with limited time and energy to engage with their children's digital activities. ZanaAfrica's research highlights that many parents struggle to control what their children do online, not due to a lack of concern, but because of **competing work and household responsibilities**. Similarly, ChildSafeNet found that **single mothers** often felt compelled to give their children access to phones out of necessity, as there was **no one else to assist with daily work and chores**—illustrating how structural and caregiving pressures shape digital access and supervision.

This underscores the need for **a broader ecosystem of support**, where stakeholders share responsibility in protecting children online. At the same time, **parental guidance must be realistic and practical, integrating into caregivers' existing routines** without requiring extensive time or digital expertise. Approaches with **a low entry barrier** can help parents incorporate digital safety measures into daily life without adding to their already significant burden.

Parents and caregivers as perpetrators

While parents and caregivers are often seen as key protectors of children in digital spaces, they can also contribute to online harm. Research from the Federation of the Women Associations of Türkiye (TKDF) highlights cases of financial exploitation by parents on online platforms, where **caregivers create and distribute content featuring their children for financial gain.**

This pattern is echoed in research from the Philippines conducted by Dublin City University (DCU), which found that in most cases of convicted facilitators of online CSEA, the perpetrators were parents or caregivers of the victims. These cases invariably involved **financial exploitation**, with caregivers acting as intermediaries to monetize abuse.

These findings underscore the need for safeguarding mechanisms that **account for the possibility of intra-familial harm**, and for interventions that **do not assume all caregivers are inherently protective figures**. Child protection strategies must be designed to identify and respond to such dynamics, especially in contexts where economic vulnerability can drive exploitative behavior.

Tech industry and content moderators

The tech industry plays a proximal and powerful role in shaping children's online experiences, from platform design to content regulation. Within this ecosystem, **content moderators serve as frontline responders** to online risks, ensuring harmful content is identified and removed. Despite their crucial role, they often work under distressing conditions with limited support. The Research Fund is supporting studies by Middlesex University and University of Los Andes to explore these challenges and their impact on child safety, and their findings will be the focus of this section.

Content moderators' well-being

Approximately 40% of content moderators (CMs) surveyed reported encountering distressing content daily (Middlesex University). Exposure to such material was strongly correlated with psychological distress and secondary trauma, with over **a third of moderators scoring in the moderate to severe range for psychological distress, and over a quarter reporting low well-being**.

Many CMs experience **post-traumatic stress symptoms** such as intrusive thoughts, avoidance behaviors, and hypervigilance, particularly in relation to children (Middlesex University). The Los Andes study further underscores that prolonged exposure and its accumulation over time increase the risk of post-traumatic stress, vicarious trauma, and compassion fatigue.

A key concern is **desensitization through repeated exposure**, as this may create a numbing effect, making it harder to process the emotional toll of their work. Moderators frequently report feeling emotionally and physically drained, struggling with disrupted sleep patterns and unhealthy coping mechanisms (Middlesex University).

Factors affecting well-being

Factor	Effect on well-being (based on Middlesex University's study)
Colleagues and management	**Supportive colleagues** help moderators process emotions, normalize reactions, and cope with stress. However, talking to people outside of work had no measurable impact on well-being. **Feeling able to talk to management** reduced psychological distress, even if moderators didn't actually do so. CMs note that a good manager advocates for moderators and supports them in their role, while a bad manager focuses only on targets, lacks empathy, and misunderstands the nature of moderation work.
Receiving feedback	CMs who received feedback on the importance of their work reported lower psychological distress and trauma levels. **Recognition of their role's value** had a significant positive impact.
Taking breaks	The ability to take breaks when needed and **in a way that felt comfortable** helped moderators manage stress and maintain well-being.
Technical tools	Features such as **minimizing screens, muting audio, and immediately ceasing viewing** once content is confirmed as abusive reduced exposure to harmful material. However, moderators working in languages other than English, particularly Spanish in Latin America, faced additional burdens, as **existing moderation tools were not well-adapted to their linguistic and cultural context** (Los Andes).

Legal and regulatory systems

Ensuring children's safety online requires strong alignment between the tech industry and legal systems. However, research highlights significant gaps in how legal frameworks interact with digital platforms, from insufficient digital literacy among legal professionals to barriers in evidence collection and evolving forms of online child abuse. Addressing these gaps is not just a legal issue but a tech industry challenge, as ineffective legal responses can leave platforms vulnerable to abuse, regulatory scrutiny, and reputational damage.

Digital literacy gap among legal professionals

Research from TKDF found that lawyers across multiple Turkish provinces struggled with **digital literacy**, making effective legal action more difficult. The **lack of clear regulations and legal loopholes** exploited by perpetrators further hinders judicial processes, highlighting the urgent need for **specialized digital law training** for legal professionals. Training programs provided to bar associations have started to raise awareness but must be scaled up to ensure lawyers are equipped to handle evolving digital crimes.

Challenges in digital evidence and court proceedings

A major obstacle in prosecuting online child abuse cases is the **difficulty in preserving and presenting digital evidence**. TKDF's research found that lost or deleted messages on certain platforms frequently undermine cases, with courts often rejecting screenshots as insufficient proof. Additionally, judges and legal professionals are often unaware that platform policies may change, creating further **inconsistencies in accountability**.

Similar challenges emerged in Nepal, where ChildSafeNet's research highlighted that many cases are dismissed due to **lack of forensic evidence**, which remains underutilised by police. Police officials also noted that **limited penalties, combined with gaps in coordination with tech companies, the cross-border nature of many cases, and the involvement of foreign nationals,** further delay justice. These legal complexities—along with fear and lengthy court processes—often discourage victims from pursuing their cases, pointing to the urgent need for stronger digital evidence protocols and better cooperation between industry and legal systems.

The evolving nature of online CSEA

Online CSEA is constantly evolving, requiring legal systems to adapt quickly. For instance, research from Dublin City University (DCU) found that before the COVID-19 pandemic, online CSEA crimes in the Philippines were more commonly facilitated through physical locations, such as internet cafes with audio-visual setups (as illustrated by the quote on the right). However, post-pandemic, these **crimes have become more decentralized and harder to track**, emphasizing the need for agile legal responses based on real-time evidence. Legal frameworks must keep pace with these shifts, ensuring that both local enablers and foreign perpetrators can be effectively intercepted and prosecuted.

> "So five years ago, when we were dealing with this pre-COVID.... The modus operandi for the crime was quite different, where you would have, you know, corner shop, internet cafes... With rooms and audio-visual, and you would have sort of more traditional trafficking or things going on."
>
> Key informant, DCU study

How do we strengthen support systems?

While the tech industry operates within a broader ecosystem of child protection, it holds a **unique position to influence and strengthen the system** as a whole. Effective online child safety online depends on **coordinated action** across parents and caregivers, tech platforms, legal systems, and beyond. Industry can play a pivotal role not only by improving its own policies and practices but also by empowering other key actors in the ecosystem, either through direct support or strengthened coordination with other sectors.

By understanding the broader ecosystem and engaging with other stakeholders, the tech industry can drive meaningful improvements in child safety, not only within its own platforms but across the entire digital environment. The following recommendations are based on findings from six studies; if you're interested in applying these findings or exploring them further, we encourage you to reach out to the grantees directly to discuss potential applications, ask questions, or continue the conversation.

On parents and caregivers

- Platforms should offer clear, practical advice on **how parents can guide children in navigating online interactions with people within their social circles as well as strangers,** including recognizing warning signs, indicators of risk and setting boundaries. Warning signs and indicators should be as concrete as possible, with explicit examples provided.
- Create **step-by-step**, **platform-specific guidance** to help parents effectively use parental control tools.
- Parents also expressed a need for guidance on how to respond if their child experiences online CSEA. This includes how to **emotionally support** their child, information on **reporting mechanisms**, relevant **laws and regulations**, and **referral contacts** for specialized support services.
- **Tailor strategies for different age groups:**
  - **For older children** – Provide guidance on strategies beyond supervision, recognizing that teens have increasing autonomy. Encourage **active parental mediation** (e.g., participating in online activities with their children) and **security mediation** (e.g., discussing online issues and coping strategies).
  - **For younger children** – Offer age-appropriate, culturally sensitive guidance on approaching online safety conversations based on maturity level.
- **Design guidance that aligns with diverse parenting styles** – Recognize that knowledge and technical skills alone may not be sufficient; effective guidance should also address underlying values and principles, helping parents move beyond control-focused approaches toward more open, engaged relationships.
- **Tailor guidance to acknowledge gendered caregiving dynamics** – Fathers and mothers may adopt different approaches to digital parenting. Guidance can leverage fathers' higher digital engagement as an entry point for deeper involvement in their children's lives, while also encouraging more balanced caregiving roles across parents.
- **Make guidance practical and easy to apply** – Offer examples of **conversation starters** and suggest **entry points** for discussing online safety.
- **Ensure guidance is realistic and low-barrier** – Parental guidance should integrate into caregivers' existing routines without requiring extensive time or technical knowledge. Simple, actionable advice framed as "Easy ways to keep your children safe online" can increase uptake.

On content moderators

- Establish **structured mental health programs**, including regular access to counseling, trauma debriefing sessions, and peer support to help moderators process distressing content and manage secondary trauma. Help moderators recognize and address signs of desensitization and emotional numbing.
  - Research Fund grantees such as Middlesex University and Los Andes have developed **practical tools to support content moderators' mental health and well-being**. Middlesex University created an online mental health support package that assesses moderators' common issues, provides tailored tips and techniques, and offers a reflection space to track progress and adjust strategies. Los Andes developed a self-care toolkit combining personalized self-care plans, general well-being strategies,

group discussions for sharing best practices, and access to individual sessions with a clinical psychologist for targeted support.

- **Train managers** to understand the psychological toll of moderation work and how to provide meaningful support. Encourage managers to advocate for moderators' well-being and focus on balancing performance targets with emotional health.
- Provide **regular, meaningful feedback** to moderators on the impact of their work to reduce feelings of isolation and improve motivation and well-being. Make intentional efforts to recognize and reinforce the value of content moderation work, both within content moderator teams and externally.
- **Continuously improve technical tools** that allow moderators to minimize screens, mute audio, and cease viewing immediately upon confirming harmful content. Ensure that moderation tools are linguistically and culturally adaptable to better support moderators working in non-English contexts.
- Establish clear policies that allow moderators to **take breaks when needed** without penalty, and provide designated quiet spaces or decompression areas to help them reset.
- Encourage team-based debriefing and peer support sessions to help moderators process difficult experiences collectively. Promote a culture where they feel **safe to voice concerns** without fear of retaliation.

On legal systems

- Support **specialized digital literacy training** for lawyers and judges on platform functionalities, forensic evidence handling, and emerging online criminal tactics. Partner with legal associations to scale up training and improve legal understanding of digital platforms and online abuse patterns.
- Improve **cross-sector cooperation on evidence handling**, working with legal authorities to ensure that platform policies on data retention and evidence sharing are transparent and consistently applied across jurisdictions.
- Support the development of agile legal responses that can adapt to the changing nature of online CSEA. Encourage collaboration between legal authorities and tech companies to **identify emerging trends and close regulatory loopholes.**
- Establish formal mechanisms for **ongoing dialogue between tech companies and judicial authorities** to address platform-specific challenges, such as encryption, data deletion, and evidence handling.
- Ensure internal **legal and Trust and Safety (T&S) teams are equipped to engage with legal systems**. For instance, strengthening training for tech companies' T&S and legal teams can ensure they understand the legal requirements and processes for handling digital evidence and facilitating enforcement. This includes awareness of how platform policies on content moderation and evidence sharing affect legal outcomes.
- Given the cross-border nature of online CSEA, advocate for **stronger alignment of legal standards and data-sharing protocols across jurisdictions** to improve accountability of foreign perpetrators.

On the whole ecosystem

- Encourage the development of **cross-sector standards** on issues like digital evidence handling, moderation guidelines, and privacy safeguards. Aligning these practices across sectors can reduce friction, improve enforcement, and create a more consistent approach to child safety.
- Develop **systems that enable faster cross-sector coordination** in response to emerging threats, such as spikes in harmful content or new exploitation tactics. Industry can support this by facilitating direct communication channels with legal systems and child protection organizations.
  - A potential application of this coordination is intercepting and disrupting payments between foreign demand-side perpetrators and local facilitators of online CSEA, which is crucial for better detection and interception, as shown by DCU's research. This could enhance efforts to detect, disrupt and report suspicious transactions on financial services and products used to transact payments for online CSEA crimes and strengthen regulatory response in this regard.
- Promote **knowledge-sharing and capacity-building**. Industry can support programs and resources that strengthen the capacity of caregivers, legal professionals, and moderators. This includes improving digital literacy, raising awareness of online risks, and enhancing understanding of platform policies and features.
- Encourage platforms, regulators, and legal systems to **create shared transparency reports and accountability frameworks** that track progress and identify gaps in the child protection ecosystem.

Sources

This learning brief is based on emerging evidence from six research projects. More information on each grantee's research is available below.

Publications:
Currently in development

Contact: Anil Raghuvanshi
(anil.raghuvanshi@childsafenet.org);

Sulav Ratna Bajracharya
(sulavb@childsafenet.org);

Tulasha Khadka
(tulashak@childsafenet.org)

Publications:
Currently in development

Contact: Beatrice Jane
(beatrice.jane@zanaafrica.org);

Alice Onsarigo
(alice.onsarigo@zanaafrica.org)

Publications:
https://bit.ly/3FH4ZTR

Contact: Lina Saldarriaga
(l.saldarriaga@aulasenpaz.org);

Diana Maria Agudelo
(m.agudelo932@uniandes.edu.co);

Viviana Quintero
(v.quintero@aulasenpaz.org)

Publications:

[The psychological impacts of content moderation on content moderators: A qualitative study](#)

[Content moderators' strategies for coping with the stress of moderating content online](#)

[Content moderator coping strategies: associations with psychological distress, secondary trauma and wellbeing](#)

Contact: Elena Martellozzo (e.martellozzo@mdx.ac.uk);

Ruth Spence (r.spence@mdx.ac.uk)

Publications:
Currently in development

Contact: Canan Gullu (cgullu@gmail.com)

Publications:
[Facilitation of Online Sexual Abuse and Exploitation of Children (OSAEC) in the Philippines - Justice and Care](#)

Contact: Maggie Brennan (maggie.brennan@dcu.ie);

Elaine Byrnes (elaine.byrnes@dcu.ie)

The Tech Coalition Safe Online Research Fund is investing in knowledge and research to end online child sexual exploitation and abuse (CSEA). The Tech Coalition and Safe Online joined hands in 2020 to collectively work to support knowledge and research towards ending digital harms against children. The Fund is continuing its focus on innovative research that produces actionable insights to impact product and policy development, with a priority given to research that can help inform the technology industry's approach to combating online child sexual exploitation and abuse.