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**Strategic context**

End Violence works at the forefront of a global movement that is seeking to achieve Sustainable Development Goal (SDG) 16.2, to secure a future where every child grows up in a safe, secure and nurturing environment. To achieve this, End Violence’s Safe Online Initiative (Safe Online) invests in evidence, solutions, technologies, programmes and capacities across sectors to tackle online child sexual exploitation and abuse (CSEA) and associated digital harms in the context of other forms of violence against children. Safe Online contributes to developing a global evidence base along with advocacy and facilitating collective action across intersecting areas of digital harm such as cyberbullying, harassment, mental health, and the role of the internet in facilitating criminal activities.

Online CSEA is growing at an alarming rate, with the United States-based National Center for Missing and Exploited Children (NCMEC) receiving 32 million reports in 2022 (up from 29 million in 2021) of suspected child sexual abuse material (CSAM) from all over the world. Data from the Internet Watch Foundation (IWF) indicates that in 2022, nearly 200,000 webpages were confirmed as containing CSAM, having links to the imagery or advertising it (an increase of nine per cent compared to 2021). These grave trends are fuelled by increasing global internet access and accelerated by three intersecting challenges: i) constantly evolving technology and predatory and harmful behaviours; ii) the rise of sophisticated transnational criminal networks operating across jurisdictions and taking advantage of underregulated digital environments; and iii) inadequate child safety measures on most digital platforms.

Advances in technology and criminality, and changes in behaviours online, are outpacing the response of governments and tech companies across the vast majority of geographies, jurisdictions and digital platforms. Bad actors exploit technology advances such as encryption, live streaming, virtual private networks, peer-to-peer networks and the dark web to operate more freely from discovery, exposure and prosecution.

Children and adolescents’ behaviours online are also being influenced and shaped by their exposure and use of digital technologies and environments, with great opportunities for their development but also with important intersections that have yet to be fully understood for brain development, mental health and problematic behaviours including implications for peer-to-peer abuse or juvenile offending.

To address this global crime against children, from 2017 to 2022 Safe Online has invested US$70 million in 81 projects across 75 countries, focused on preventing and eliminating online CSEA at national, regional and global levels, integrated with existing child protection and violence prevention efforts. Safe Online supports the development of digital public goods – data, knowledge, resources, infrastructure and technology tools – that, once developed and piloted, can be adapted to multiple contexts. While Safe Online primarily focuses on combating online CSEA, its investments and efforts have a direct and concrete impact on related digital harms to children and the prevention and response to other forms of violence against children.

In 2022, Safe Online developed a new Strategy for the period 2023-2025, based on a Theory of Change (see Figure 1). The Strategy envisions four key goals, which are aligned with the ambitious agenda of the End Violence Partnership Strategy.
SAFE ONLINE: Theory of Change

Goal “A world in which every child can access and benefit from the digital world safe from harm.”

**Development Hypothesis**
‘If’ we invest in capacities, networks & systems, research & data, and technology solutions and learn, document, and use that evidence base for action and advocacy to combat CSEA, we will ‘then’ influence and shape global policy and practice towards building a future that is safe, secure and nurturing for all children.

**Key Assumptions**
Sustained interest and funding.
Political will translates to investment and action.
Collaborative interdisciplinary exchanges improve the technology landscape.
Ability to tap into diverse market solutions & explore new frontiers.
Evidence & children’s perspectives inform investment, advocacy, policy and practice.
Ability to demonstrate impact.
Capacity to reduce structural barriers.
Build incentives and trust with industry and other stakeholders.
Ability to build capacity of key players to shape global policy and practice.
Sustained engagement of children and communities.
Safe Online results

From 2016 till the end of 2022, Safe Online invested **US$70 million across 75 countries** to prevent and respond to online child sexual exploitation and abuse (CSEA). Safe Online investments have been critical in setting up the key building blocks for effective prevention and response to online CSEA at national, regional and global levels. This includes legislation, policies, strategies, institutional infrastructure, services and provision of skills across sectors. Building on those foundations and in view of the fast-changing technology landscape, Safe Online investments have created innovative, scalable and transferable technology tools to fight online CSEA; generated unique insights, data and evidence on digital harms and created multi-stakeholder platforms and networks to strengthen links, share knowledge and shape the global conversation on tackling online CSEA.

Through its investments, Safe Online has advanced the global fight against online CSEA and related harms in three important ways:

1. **Creating an Enabling Environment** for effective action at all levels and across sectors
2. **Strengthening the Supply of Services and Technologies** for prevention and response
3. **Increasing the Demand for Action**

Here is some of what Safe Online accomplished with the generous support of our donors.

1. **Enabling Environment**:

   **Topline results (2017-2022):**

   - **Advanced national legal, regulatory and policy frameworks in 70 countries.**
   - **Facilitated the convening of 39 multi-stakeholder bodies to coordinate cross-sector collaborations.**
   - **More than 5000 industry representatives have benefited from trainings or education activities on child online safety.**
   - **Over 1,500 industry partners have agreed to ICT standards to protect children from online violence.**

   As the only global fund dedicated to making investments and building capacities in this field, Safe Online’s efforts have been critical in catalysing positive changes in policies and regulations across regions and countries to create a safe online environment for children. Since 2017, through its investments, Safe Online **has advanced national legal, regulatory and policy frameworks in 70 countries.** These changes at the country level were essential for both national level action including prevention, prosecution, creation of services, financing and training of professionals, as well as international cooperation. Without adequate legislation aligned with key global frameworks and norms, countries cannot tackle this issue domestically nor can they benefit from the international networks and cooperation needed to move the needle on this issue. Notable examples include Kenya which based on Safe Online’s flagship research programme, Disrupting Harm, mandated to revise their Sexual Offenses Act to ensure it addresses online CSEA. In Albania, critical policy changes to the National Cybersecurity Strategy (2020-2025) and the Ministry of Interior Cybercrimes Action Plan were made possible thanks to two ground-breaking studies funded by Safe Online. In 2021, Armenia and Azerbaijan developed national strategies on child online safety informed by the ‘Gap Analysis of Legislation, Policies and Practices’ conducted in 2020 by the Council of Europe.

   Given Safe Online’s extensive investment portfolio, it is uniquely positioned to leverage the power of community and bring cross-sector stakeholders together to share unique insights, identify pressing needs and priorities on tackling online CSEA. Since 2017, **Safe Online has facilitated the convening of 39 multi-stakeholder bodies to coordinate cross-sector collaborations.** In Ethiopia, for instance, Safe Online facilitated the formation of a national-level Technical Working Group on Child Online Safety to foster a multi-stakeholder and cross-sectoral approach to addressing child online abuse in Ethiopia. The aim of this working group is to oversee all the programmes related to online CSEA, and make the different agencies understand the importance of taking action on online CSEA despite the perception of low levels of Internet connectivity in Ethiopia compared to other countries. The ASEAN Regional Plan of Action for Protection of Children from all forms of Online Exploitation and Abuse is an important step forward and Safe Online investments of nearly **US$20 million** in the region have been critical to push forward the implementation of the Plan and to set standards and best practices in the region. Safe Online continues to play a crucial role...
in bringing together government and industry representatives to work towards protecting children online as demonstrated during the first annual ASEAN-ICT Forum in Cambodia in 2022 which helped establish an industry working group to push the agenda on child online safety in the ASEAN region.

Industry has a crucial role to play in ensuring that children are safe online, and many grantees are piloting new approaches to facilitate their engagement. Since 2017, more than 5000 industry representatives have benefited from trainings or education activities on child online safety (with 400 in 2022). Over 1,500 industry partners have agreed to ICT standards to protect children from online violence since 2017.

2. Strengthening the Supply of Services and Technology Tools:

Topline results (2017-2022):

- Safe Online has supported 51 reporting mechanisms to identify and remove online CSAM.
- 46 countries have been supported to strengthen the capacities of their hotlines and helplines to effectively report online CSEA.
- Invested in design of 20 technology tools being rolled out in over 100 countries and improving efficiency of prevention and response efforts across law enforcement, industry, hotlines and helplines, youth and child focused organizations, etc.
- Established and supported specialised Law Enforcement units in 11 countries
- Supported law enforcement identify over 3200 perpetrators; identify 5,533 child victims of online CSEA; and refer over 2600 to rehabilitation services.

Safe Online supports a range of interventions to ensure that inclusive and appropriately resourced child-centered systems, services and technology tools are available at the global, regional, national and industry levels to prevent and tackle online CSEA and support survivors. Safe Online’s investments strengthen systems to report, investigate and prosecute cases of online CSEA through the establishment of child protection units, investigative tools, and reporting mechanisms across multiple countries. Since 2017, Safe Online has supported 51 reporting mechanisms to identify and remove online CSAM. In addition, capacities of hotlines and helplines were strengthened in 46 countries to effectively report online CSEA.

Safe Online’s investments supported the establishment and capacities of specialised Law Enforcement units in 11 countries. In Kenya, the establishment of the Anti-Human Trafficking and Child Protection Unit within the Directorate of Criminal Investigations in 2016 was an important milestone towards addressing online CSEA. The Unit is the first of its kind in Africa, and a satellite unit was established in Mombasa, with financial and technical support by the Safe Online grantee, UNICEF Kenya. Safe Online funding improves the accessibility and quality of survivor services by building capacity of practitioners and strengthening systems to respond to cases of online CSEA in a timely, child-friendly and gender-sensitive manner to ensure early identification, and recovery of child victims. As a result of Safe Online efforts, over 21,000 social service providers have been trained on handling online CSEA cases and over 26,000 law enforcement officials trained on investigating and prosecuting online CSEA cases.

However, effectiveness and efficiency of majority of these services in the digital age depends on their ability to deploy technology tools to deal with the mounting volume of cases of online CSEA, as well as use them for prevention. Safe Online is effectively tackling harms at scale by investing in innovative and scalable technology tools which strengthen the global online CSEA prevention and response ecosystem. From 2017 to 2022, Safe Online has invested in the design of 20 technology tools being rolled out in over 100 countries and improving efficiency of prevention and response efforts across law enforcement, industry, hotlines and helplines, youth and child focused organizations, among others. These tools address a range of issues including detection and removal of CSAM, identification of grooming, prevention of live-streaming of abuse, making the helpline ecosystem more efficient through open-source platforms; strengthening law enforcement investigative capacity which lead to shorter investigation times or an increase in the capacities for victim identification. So far, Safe Online investments in developing and strengthening ground-breaking technology tools and has helped law enforcement identify over 3200 perpetrators; identify 5,533 child victims of online CSEA; and refer over 2600 to rehabilitation services.

Safe Online has contributed to the development and strengthening of new and existing technology tools to effectively prevent and tackle online CSEA and support survivors - from supporting law enforcement
to disrupt child sexual trafficking networks to creating multi stakeholder platforms dedicated to design of
tech tools for specialised officers across INTERPOL’s 195 Member States to fight online CSEA and share
knowledge and expertise. Safe Online has enabled industry platforms to use advanced online CSEA
detection tools including Thorn’s CSAM Classifier tool. In 2022, Thorn reported 147,096 classifier hits
through their industry tool called Safer (compared to 40,264 classifier hits over the same period in 2021)
- a machine learning based technology that is designed to help platforms detect, review, and report CSAM
at scale. Another Safe Online grantee, INHOPE is creating a common CSAM categorization schema which
will facilitate translation of various CSAM classification methods across jurisdiction and industry to accelerate
processing of CSAM reports by hotlines, law enforcement and industry.

Finally, Safe Online has invested in a range of education and prevention tools to help children learn to
recognise online risks and protect themselves including DeafKidz Defenders - a suite of animations and
games to educate deaf children on online safety.

3. Increasing Demand for Action

Topline results (2017-2022):

- Over a million children and more than 300,000 community participants engaged in digital education and
  awareness raising activities on child online safety.
- 42 million people have been reached via advocacy and information campaigns, news media outlets and
  publications and social media channels covering issues related to online CSEA.
- Safe Online has organized three in-person Network Forums, 12 Knowledge Exchange webinars with its
  grantees; and 17 other high-level events

Safe Online’s growing body of data, evidence and knowledge along with proactive advocacy is contributing
to an increasing awareness of online CSEA and other online harms and is driving forward a demand
for change. Leveraging its expertise and convening power, Safe Online has been instrumental in bringing
together key stakeholders including a growing network of grantees, partners, representatives from
government, industry, academics, researchers, and experts to build the momentum on addressing online
CSEA. Safe Online’s partnership with the Tech Coalition has resulted in ground-breaking, actionable
research that has the potential to enhance the tech industry’s understanding and knowledge on tackling
online CSEA and lead to transformative changes in their approach to designing platforms and services
for children.

Since the end of 2019, Safe Online has organized three in-person Network Forums gathering grantees
from across the world, 12 Knowledge Exchange webinars with its grantees; and 17 other high-level
events including the Data for Change event in 2022 organised in partnership with the European Union
Parliament and the WeProtect Global Alliance. In 2022 alone, Safe Online elevated the issue of child
online safety at over 40 public forums, events and technical meetings to influence key actors to prioritize
child online safety in their policies, regulations, budgets and business practices and spoke directly to
decision-makers at global, regional and national levels. Since 2017, with Safe Online support, over a million
children and more than 300,000 community participants have been engaged in digital education and
awareness raising activities on child online safety. Additionally, nearly 42 million people have been
reached via advocacy and information campaigns, news media outlets and publications and social media
channels covering issues related to online CSEA.
Safe Online progress in 2022

In 2022, Safe Online continued working towards the achievement of its four strategic goals as articulated in the new strategy, 1) Invest for impact; 2) Evidence and knowledge; 3) Advocacy and action; and 4) Measure change.

1. Invest for impact

Safe Online aims to measure and increase the individual and collective impact of our investments by investing strategically, adapting to incorporate new evidence, and prioritising inclusivity, expanding to new regions and areas of programmatic impact. To achieve this goal, Safe Online awarded four different Call for Proposals in 2022 for a total of US$28.6 million:

- **Systems Strengthening (US$10 million):** One Regional Open Call to support systems strengthening informed by data and evidence from the research project Disrupting Harm, in 13 countries across two regions (Southeast Asia, and Eastern and Southern Africa). Eleven grants were awarded in 2022 under this Call, for a total of US$10 million. New grantees are working to strengthen national efforts to end violence against children; and engage parents and caregivers to ensure a safe online experience for children.

- **Tech Solutions (US$5 million):** One Global Open Call focused on cutting-edge technologies for the global community. Seven grants have been awarded in 2023 to date, for a total of US$5 million. At the global level, projects selected focus on creating, adapting and scaling technologies to deter online violence against children. The technological solutions being developed incorporate artificial intelligence (AI) and machine learning (ML), among others, to detect, prevent and report online child CSEA and CSAM.

- **Disrupting Harm 2 (US$7.5 million):** One Targeted Call to continue to build the global evidence base on the scale of online CSEA in the context of other forms of violence against children, and to create tailored roadmaps for countries to tackle it. In 2022, three grants were awarded for a total amount of US$7.5 million to jointly implement, improve and expand Disrupting Harm in 12 countries across four regions (Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa, and South Asia).

- **Tech Coalition Safe Online Research Fund (US$0.85 million):** A second round of funding for a total value of US$850,000 across eight new grants, to expand knowledge and build the evidence base of effective measures the tech industry can implement to make the internet safe for children. Under this new call, eight new projects were awarded in December 2022 that will undertake innovative, actionable research for tackling online CSEA with a focus on applications for the tech industry. These new projects will explore novel applications to drive real impact for the tech industry over a range of topics – youth perceptions and participation, deterring offenders, peer-to-peer abuse, victim support services, and putting the voices of youth at the forefront of interventions.

- **Evidence Generation for Sustainable and Scalable Impact (US$5.3 million):** Aimed at evaluating and enhancing selected interventions of previously funded Safe Online projects. To achieve this, Safe Online established and convened the Safe Online Evaluation Advisory Group (EAG), followed by the launch of a targeted funding call focused on generating evidence on what works to tackle online CSEA. This call provides grants for high-impact and scalable projects of select grantees, along with funding to evaluate those interventions. Eight projects have been selected to scale up interventions around the globe and generate evidence through robust evaluations, starting in 2023, while ensuring a fair representation of different thematic interventions and geographic areas.

2. Evidence and knowledge

Safe Online is committed to grow its capacity to generate data and evidence on risks and threats to children in digital environments, and to translate evidence of what works in tackling online CSEA into action, through its investments and through an increased presence within the global conversation.

To achieve this, and in addition to current investments in this space (see section below ‘Highlights of the results achieved by Safe Online grantees in 2022 - Research and Data’), in 2022 Safe Online formed the Evaluation Advisory Group (EAG). The EAG, composed of experts, academics, donors and practitioners in
the field, will ensure that Safe Online can make a step change in its ability to generate robust evidence from its investments on what works and what doesn’t to tackle online CSEA and related harms. The EAG provided technical guidance on the selection of projects from the existing portfolio that have the biggest potential for impact, scale, and generation of knowledge on how to effectively tackle online CSEA. With this new body, Safe Online co-created the selection criteria for the projects to be shortlisted, from a portfolio of 80 projects, and invited to apply for funding as part of the investment round on Evidence Generation for Sustainable and Scalable Impact (see above). To support the selection of the projects, the EAG considered their maturity, potential for impact, geographical and programmatic diversity, and especially those that can be evaluated or included for in-depth case studies. Going forward, the EAG will provide technical guidance on the evaluation design of the selected projects and will meet two or three times in a year to review the implementation progress and evaluation deliverables. New evidence and learning generated through this funding round will help Safe Online’s joint global efforts to tackle online CSEA to become more efficient and effective, and guide future investments of Safe Online and other donors to where they have the potential to make the biggest impact.

In 2022, Safe Online convened its grantees, partners and expert organisations across sectors to discuss pressing issues and articulate needs and priorities to shape the wider ecosystem. This included active coordination for the design and implementation of programming aligned with evidence, to maximise synergies within the community of partners and organisations fighting online CSEA.

In November 2022, together with the European Parliament and the WeProtect Global Alliance, Safe Online organised the Safe Digital Futures for Children: Data for Change Event and an associated Technical Workshop to shine light upon and advocate for a more robust and comprehensive data ecosystem on online CSEA. These two events provided a platform for key actors and experts from relevant sectors, including government and the tech industry, to discuss the current data ecosystem and identify gaps, solutions and opportunities for collaborative efforts, with a particular focus on the European Union (EU) context and upcoming legislation on online CSEA. Both events saw over 100 stakeholders from governments, civil society and industry gather to discuss streamlining data to tackle online CSEA. Key high-level representatives joined the conversation on what can be done to generate data for safer digital futures – including David Lega, Member of the European Parliament and the Co-Chair, Intergroup on Children’s
Rights; Charlotte Caubel, State Secretary for Children, France; Cathy Li, Head of Media, Entertainment and Sport, World Economic Forum and Jacqueline Beauchere, Global Head of Platform Safety, Snapchat. Key highlights from the Workshop are outlined in the Data for Change briefing note.

Safe Online Director, Marija Manojlovic, presents in one of the sessions of the Safe Digital Futures for Children: Data for Change Event co-organised by the European Parliament, End Violence’s Safe Online Initiative and WeProtect Global Alliance, November 2022.

Safe Online continues its efforts to build a compelling and evidence-based narrative on child online safety in close collaboration with its strong network of partners. This was used by Safe Online and partners at multiple events and across communications channels, resulting in increased knowledge and understanding of actors across sectors. In close coordination with ECPAT International, INTERPOL and UNICEF Global Office of Research and Foresight - Innocenti, Safe Online supported and coordinated the production of infographics, short videos and a Data Insights Series to showcase the ground-breaking data and evidence generated by Disrupting Harm, the large-scale research project funded by Safe Online and implemented in 25 countries across six regions. Grounded in robust evidence, these products have fed directly into policy dialogues and programmatic decisions of policy makers and key professionals at various levels.

Safe Online Senior Monitoring, Evaluation and Learning Specialist, Manveen Kohli, delivers the opening remarks during the launch of the Cambodian Disrupting Harm national report at the Ministry of Social Affairs, Veterans and Youth Rehabilitation of the Royal Government of Cambodia, September 2022.
Safe Online also shares knowledge, raises awareness, and builds partnerships through various communication channels, such as the End Violence Monthly Newsletter that reaches around 10,500 people, the Safe Online webpage, webinars, articles to speak about latest developments and needs, and emails to the Safe Online grantees, comprising over 80 organisations implementing projects with impact in over 75 countries.

Significantly, during Safer Internet Day 2022, Safe Online engaged global communities through its media platforms to raise awareness, share resources and encourage everyone to take action to keep children safe online. As a result:

- **#SafeOnline hashtag** was widely used by partners and grantees, on Safer Internet Day 2022 it was mentioned in over 200 posts, in 24 countries, reaching 2.4M people
- **Website article** was viewed 2,566 times, with a 381% increase of website visits from average
- **#SafeOnline video** was viewed 20.3K times during the Safer Internet Day campaign and 38.2K overall
- **Best performing tweet** gained 67,526 impressions and 329 engagements, and over 160 new Twitter followers (during a 13-day period)

3. Advocacy and action

Stemming from our investments and learnings, Safe Online is developing a strategic approach to advocacy and collective action, working with partners, leveraging our expertise and reputation at a pivotal moment for building momentum around child online safety.

In 2022 we continued to grow and strengthen our Safe Online Network of grantees as the primary vehicle for generating change and influencing key strategic moments and opportunities in the child online safety space globally. Aside from ongoing efforts to nurture this network, Safe Online organised a two-day Safe Online Network Forum (30-31 May 2022) attended by over 40 grantees, partners and donors to facilitate knowledge-sharing and partnerships. Critical discussions were held, for example on good practices to turn evidence into change, cross-sector collaborations, and the role of the tech industry and latest technologies to fight online CSEA. Over two days of networking and knowledge-sharing at the forum, critical discussions were held, including on good practices to turn evidence into change, cross-sector collaborations, and the role of industry and latest technologies. The community had an opportunity to hear from organisations doing ground-breaking work around the world to disrupt tech-related harm to children. Interviews with 21 grantees on how their projects are creating a safer digital future for children can be viewed online. Sessions focused on a range of topics – improving data on online CSEA; promising technology tools to make online platforms safer for children; good practices for strengthening capacities and systems at the national level; celebrating successes and achievements over the last year and translating evidence into advocacy efforts. The second day was forward-looking and focused on emerging trends and key priorities in the CSEA ecosystem and exploring more effective collaborative systems between the tech industry and civil society, non-governmental organisations (NGOs) and academic institutes. The Safe Online Network Forum Wrap Up can be viewed online.

The Network Forum was followed by ’Turning the Tide’, the WeProtect Global Summit, hosted by WeProtect Global Alliance and the European Commission, held on 1-2 June 2022 in Brussels. The Safe Online community was active during various sessions of the Summit, sharing insights and perspectives including the latest evidence and learnings on what works and what doesn’t, to prevent and respond to online CSEA.

In 2022, Safe Online elevated the issue of child online safety at over 40 public forums, events and technical meetings to influence key actors to prioritize child online safety in their policies, regulations, budgets and business practices. Event highlights included, among others:

- From January 2022, Safe Online participated in the convening of a group of technical organisations which led to better coordinated joint advocacy efforts around the new regulation on combating online CSEA proposed by the European Commission. In September 2022, Safe Online submitted inputs to the European Commission consultation: ‘Fighting CSEA via detection, removal and reporting of illegal content online.’
International Telecommunication Union (ITU) Council Working Group on Child Online Protection (January 2022) attended by around 100 participants, representing governments, private sector, civil society, academia, international and intergovernmental organizations. This Council Working Group supports ITU Global Programme providing technical support for the development and implementation of child online safety measures and policies to increase capacity and knowledge sharing between relevant stakeholders.

USAID-hosted Symposium on Protecting Children and Youth from Digital Harm (February 2022). This event brought together leaders in government, civil society, the private sector, and youth to discuss digital harm issues affecting children and youth. The Symposium explored topics ranging from digital inclusion and empowerment, to existing protection strategies, and the evolving roles of the technology sector and governments.

Launch of the ASEAN Regional Plan of Action for the Protection of Children from All Forms of Online Exploitation and Abuse (February 2022).

Online consultation on practical approaches to address CSEA, hosted by the UN Special Rapporteur on the Sale and Sexual Exploitation of children to inform the report presented at the 49th session of the United Nations Human Rights Council in March 2022.

Safe Online also spoke directly to decision makers, based on the Safe Online Policy Call designed in consultation with global experts, which builds on the latest frameworks, evidence and approaches as part of the Together to #ENDViolence campaign. For example, Safe Online:

- Spoke at the Investors Forum (January 2022) and at the Together to #ENDViolence Leaders event (June 2022) to advocate for the urgent need of financial and human resources to make the internet safe for children.
- Directly addressed decision makers across ministries and sectors in 11 countries (Cambodia, Ethiopia, Indonesia, Malaysia, Mozambique, Namibia, the Philippines, South Africa, Tanzania, Thailand, and Viet Nam) as part of the Disrupting Harm National Reports launches attended by representatives from government, civil society and international organisations.

Shared key insights from its investments with global leaders attending the WeProtect Global Alliance Summit in June 2022.

Organised a Donor Convening at the margins of the Safe Online Network Forum in Brussels (June 2022), in partnership with the WeProtect Global Alliance. This session highlighted the pathbreaking advances that the community has made over the last five years, as the Safe Online portfolio has grown and diversified with US$70 million in investments with impact in over 75 countries. Safe Online is actively investing funds, time and resources into building a diverse community of organisations that can work together at various levels and across sectors. To foster more meaningful cooperation and collaboration with donor governments, foundations and the private sector, the donor convening focused on understanding the key challenges, strategic efforts and who is best placed to do what, thus increasing the effectiveness of the community’s joint efforts and investments.
In 2022, Safe Online strategically integrated child online safety within broader initiatives and workstreams to ensure the safety of children is at the heart of policy debates on connectivity and safety, privacy vs. protection, and frontier tech and human rights. For example, Safe Online:

- Hosted a session on ‘Technology, safety and children’s rights: Advocating to keep children and young people safe online’ at the RightsCon Summit on Human Rights in the Digital Age (June 2022) with experts from the EU Parliament and tech industry to speak about effective strategies and messaging for raising awareness and providing tools to tackle online CSEA. The panel discussed the urgency for tackling online threats to children and challenges in raising awareness with different key stakeholders and providing tools to tackle this problem.

- Presented at Stanford Internet Observatory’s Trust and Safety Research Conference in September 2022 on younger users and child safety, specifically raising considerations of child participation and agency in efforts to tackle digital harms.

- A crucial development was the G7 Interior and Security Ministers’ Statement (18 November 2022) confirming commitments to taking forward the G7 Action Plan to combat CSEA announced in September 2021 through support for the End Violence Partnership.

- Shared critical insights on how to translate data and evidence into action for digital child rights at the Internet Governance Forum on a Resilient Internet for a Shared Sustainable and Common Future (November 2022).

- Submitted a pledge on child online safety to the Partner2Connect Digital Coalition that fosters meaningful connectivity and digital transformation globally, and shared key insights at the Coalition Annual Meeting in December 2022.
4. Measure change

Safe Online intends to pioneer a new monitoring, evaluation and learning (MEL) system, working with key partners in the ecosystem, to measure progress towards agreed intermediate outcomes for systems change at country, regional and global levels. In 2022, a new Results Framework was developed collaboratively by the Safe Online team to monitor and track results that are being achieved through Safe Online’s investment portfolio, as well as Safe Online’s key performance indicators (support provided to the grantees, network building, evidence and knowledge, advocacy and action), in line with Safe Online’s Strategy 2023-25. The new Results Framework also incorporates high level intermediate outcomes and indicators, which Safe Online, jointly with all partners, contributed to. An extensive consultation process was initiated with the wider End Violence team, the Safe Online Working Group, key partners, donors and stakeholders working in this field for feedback on the results framework and the indicators. The Results Framework with baseline and targets will be finalised in the next reporting period.

Concrete plans have also been developed for strengthening Safe Online grantees’ MEL capacity. Safe Online is currently developing a draft MEL plan that would provide guidance on best practices in MEL for Safe Online grantees. As Safe Online grantees are diverse and are at different points in their MEL knowledge and practices, a grantee capacity assessment tool will also be used to understand how and in what ways capacity for MEL is varied among the Safe Online grantees and identify areas in which grantees need specific support. Tailored learning clinics/webinars will subsequently be organised based on grantee needs.

Every half a second, a child makes their first click online. More than 800 million - are actively using social media. Their journey and safety in the digital world is everyone's business. RT if you want children to be SafeOnline bit.ly/SID_2022#SaferInternetDay

Safer Internet Day 2022 social media campaign.
Highlights of the results achieved by the Safe Online portfolio of grantees worldwide in 2022

By the end of 2022, the Safe Online investment portfolio included 81 grants for a total value of US$70 million, with impact in over 75 countries. Funded projects ranged from programmes supporting governments and other actors to build strong systems at country and regional level and large-scale research projects (e.g. Disrupting Harm), to technology tools that increase capabilities of industry and government stakeholders to tackle online CSEA. Figure 2 shows the geographical reach and coverage of Safe Online’s investments as of December 2022. For more information about Safe Online’s work, please visit the website here. Full descriptions of the investments are available here.

Figure 2: Safe Online Investment Portfolio Map

Results presented below are those achieved by the Safe Online portfolio from January to December 2022, covering the work of 56 projects active during 2022. It does not include results from grants that ended by December 2021 (25 projects), and from those organisations whose grants were awarded or started in 2023 (14 projects).

Results are presented across Safe Online’s three priority areas, as outlined in the Strategy and Theory of Change:

A. Networks and Systems
B. Research and Data
C. Technology Tools
<table>
<thead>
<tr>
<th>Country of implementation</th>
<th>Grantees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>Huddersfield University</td>
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<td>Dominican Republic</td>
<td>UNICEF Dominican Republic, Plan International</td>
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<td>DeafKidz International</td>
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<td>Middlesex University</td>
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<td>National Center for Missing &amp; Exploited Children</td>
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<td>Technology University of Dublin</td>
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<td>UNICEF Headquarters, Child Protection</td>
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<td>University of Kent</td>
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<td>World Health Organisation</td>
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</table>

*Safe Online Network Forum and Donor Convening, Brussels (Belgium) June 2022*
A. Networks and Systems

The Networks and Systems investment area builds foundations for strong systems to enable effective prevention and response to online CSEA, based on the latest data and evidence from the field and key relevant frameworks addressing digital harms to children. Safe Online employs a ‘whole systems’ approach by investing in coordinated and cross-sectoral work, promoting innovative approaches and prioritising under-served areas, addressing gender-based online CSEA including of boys, and the specific needs of survivors and the most vulnerable groups of children.

This section describes the work of Safe Online’s grantees in the following areas of systems strengthening: 1) Improve reporting, investigation and prosecution of online CSEA cases; 2) Expand and improve the quality of services for child victims of online CSEA; 3) Strengthen cooperation, policy development at national and regional levels; 4) Ensure child participation in combatting online CSEA; 5) Engage industry, media and technology solutions; and 6) Build resilience, enhance digital education and awareness raising, and address social norms.

1. Improve reporting, investigation and prosecution of online CSEA cases

Safe Online grantees contributed to strengthening systems to report, investigate and prosecute cases of online CSEA by supporting the establishment of child protection units, investigation tools, reporting mechanisms and capacity of key professionals across multiple countries. In 2022, new reporting mechanisms were established in two countries to identify and remove CSAM, which brings the total number of reporting mechanisms that Safe Online has supported to 51 (since 2017). In addition, nine countries strengthened the capacities of their hotlines and helplines to effectively report online CSEA (46 since 2017).

<table>
<thead>
<tr>
<th>Safe Online Portfolio Results</th>
<th>2022</th>
<th>2017-2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>National CSAM reporting portals</td>
<td>2</td>
<td>51</td>
</tr>
<tr>
<td>Online CSEA cases reported</td>
<td>883</td>
<td>7,005</td>
</tr>
<tr>
<td>Child victims of online CSEA identified</td>
<td>146</td>
<td>5,533</td>
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<tr>
<td>Child victims of online CSEA referred to services</td>
<td>137</td>
<td>2,601</td>
</tr>
<tr>
<td>Perpetrators identified</td>
<td>40</td>
<td>3,241</td>
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</tbody>
</table>

Highlights

- In Cambodia, national level partners such as Child Helpline Cambodia, the Partnership Programme for the Protection of Children and UNICEF worked together to provide services to child victims of violence, including online CSEA. In 2022, 39 cases of online CSEA (125 since the start of the project in 2021) were reported to the hotline run by the NGO APLE (part of INHOPE’s network of hotlines). Relevant ministries were also supported to map the existing helplines and hotlines to coordinate and harmonize the response and quality of services provided.

- The Te Guío helpline was launched in Colombia in October 2022 by Red PaPaz, through social networks, WhatsApp (+57 314 821 0435), free phone number (+018005190690) and a chat on the website www.teguiocolombia.org. Te Guío is also powered by Tech Matters’ Aselo, a helpline platform also supported by Safe Online. From October to December 2022, Te Guío received 15 requests for information about sexual behaviour.

- In Kenya, the establishment of the Anti-Human Trafficking and Child Protection Unit within the Directorate of Criminal Investigations in 2016 was an important milestone towards addressing online CSEA. The Unit is the first of its kind in Africa, and a satellite unit was established in Mombasa, with financial and technical support by the Safe Online grantee, UNICEF Kenya. The Unit is linked to the NCMEC database and receives CyberTips of images and videos when the perpetrators are in Kenya, to initiate investigation.

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1 The Partnership Programme for the Protection of Children is a child protection network and programme implemented by Friends International, UNICEF, and the Cambodian Ministry of Social Affairs, Veterans and Youth Rehabilitation.
and apprehension of the suspects. The Unit is also linked to the Interpol International Child Sexual Exploitation database, a platform that brings on board investigators from across the globe to collaborate and increase the number of victims identified. From April 2019 when the Unit became operational, to February 2022, a total of 23,082 CyberTips have been received, out of which 1,109 met the threshold for prosecution of the suspect in light of the evidence collected. From 2019 to December 2022, nine cases of online CSEA have been presented in court, and 11 cases are under investigation. At the time of writing, one of these cases has been convicted.

- In 2022, 29 child protection professionals from Viet Nam and Namibia completed the Click: Path to Protection training delivered virtually by the Marie Collins Foundation and were accredited to cascade the training to other professionals in their respective countries. The trainings were delivered in Namibia by social workers from Lifeline/Childline and in Viet Nam by officials at ChildFund. Subsequently, 447 professionals, including police officers, youth workers, counsellors, social workers, and helpline workers received the training from the accredited trainers. After the training sessions, helpline professionals in both countries reported feeling greater confidence in being able to handle and manage cases of online CSEA.

2. Expand and improve the quality of services for child victims

Safe Online aims to strengthen systems and equip practitioners with the necessary tools and skills to respond to cases of online CSEA in a timely, child-friendly and gender-sensitive manner to ensure early identification, and recovery of child victims while supporting their families. In 2022, Safe Online-supported trainings to law enforcement helped strengthen national capacities to report, investigate and prosecute online CSEA cases (over 170 law enforcement officials were trained in 2022, around 26,000 since 2017). More than 9,000 service providers were engaged in capacity building activities in 2022, bringing the total number since 2017 to over 21,000.

<table>
<thead>
<tr>
<th>Safe Online Portfolio Results</th>
<th>2022</th>
<th>2017-2022</th>
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<tbody>
<tr>
<td>Law enforcement officials trained</td>
<td>178</td>
<td>26,341</td>
</tr>
<tr>
<td>Social service providers engaged in capacity development</td>
<td>9,411</td>
<td>21,007</td>
</tr>
</tbody>
</table>

**Highlights**

- In Colombia, national protocols were developed by Red PaPaz for the referral of online CSEA cases to Te Protejo hotline, by national partners including the Colombian Institute of Family Welfare, the National Police, and local health entities. A manual aimed at clarifying the steps to be taken for each of the reporting categories dealt with by the Te Protejo hotline was also produced.
The Kenya National Online Child Protection Technical Working Group drafted a gender-sensitive National Online Child Protection Manual to help social service providers understand, prevent, and respond to online CSEA. Forty-one members of the working group contributed to the design of the manual, and the process was facilitated by the Directorate of Children Services and the Safe Online grantee ChildFund International via a series of workshops. In addition, 45 ChildLine Kenya counsellors were trained on online CSEA victim identification and support in October 2022, strengthening their capacity to identify online CSEA cases reported through the national child helpline 116.

In Mongolia, a roundtable brought together 30 professionals, including law enforcement officials, academics, practitioners, justice officials and policymakers to address policy, legislation, prevention, and awareness, working together to strengthen the national legislation on CSEA. As part of the grant received by Safe Online, UNICEF Mongolia Country Office also continued its advocacy efforts to demand for a strong legal framework to protect children online. A total of 123 public officials have been reached through these activities since the start of the project in 2018.

In Uganda, online CSEA is being integrated into the national child protection system. At the Uganda Child Helpline and on UNICEF-implemented U-Report platforms, data on children experiencing online CSEA is reported, counsellors provide advice, and cases referred to case workers and law enforcement for support. A total of 116 counsellors were trained to provide advice, counselling and referrals for victims of online abuse.

In Zimbabwe, 38 helpline agents were trained by Childline Zimbabwe in case management and referral support services, as well as psychological first aid to assist callers. Helpline agents and social workers were also provided training in sign language and disability management, to be able to respond effectively to callers with disabilities. Further improving accessibility and inclusion, a safe and confidential video reporting facility was established in Bulawayo.

285 professionals across more than 30 countries are active members of the Global Protection Online Network Platform by Marie Collins Foundation, where they can collaborate, connect, and share knowledge and best practices on responding to online CSEA. In addition, 15 social workers in Viet Nam received training on engaging children and adolescents in formal group learning around CSEA, and 14 child protection investigators in Zimbabwe received bespoke training on case management.

Elsewhere, an e-Learning course on Action to End CSEA was developed and launched to expand access to evidence-based global guidance and tools and build capacity of social providers and professionals. The course, developed by the Child Protection Programme division at UNICEF headquarters, is available in English, French and Spanish. At the end of May 2022, 8,470 people were enrolled in the course, of which 97 per cent were not UNICEF-affiliated. Almost 4,000 people have completed the course to date.
3. Strengthen cooperation, policy development nationally and regionally

Safe Online’s leadership and investments continue to prioritise national and regional engagement and cooperation to tackle online violence against children. This is particularly important because child online safety is often not a high political priority in most countries and requires significant cross-country cooperation. In various countries, multi-stakeholder bodies have been convened to coordinate cross-sector collaborations, and Safe Online grantees continue to play a crucial role in bringing together government and industry representatives to work towards protecting children online.

Safe Online uses knowledge and evidence on online CSEA to inform and influence policies and practices of governments and other key stakeholders. In 2022, grantees continued to carry out reviews of legal frameworks, policies and regulations to assess countries’ capabilities and inform legal and policy reform, amounting to a total of 19 reviews of legal and policy frameworks and gap analysis (80 since 2017).

Highlights

- The first ASEAN Regional ICT Forum on Child Online Protection took place in November 2022 in Phnom Penh, under the leadership of the Royal Government of Cambodia with support from UNICEF Cambodia Country Office, Australia’s eSafety Commissioner and the Attorney-General’s Department (Australia). It was a hybrid event with active engagement opportunities for both in-person attendees in Cambodia, and online participants from all over the ASEAN region. About 400 participants from government bodies, member state representatives, private sector companies, civil society organisations, UN entities, academia, media, technical experts, and children and young people attended over the two days and discussed the critical role of the private sector in internet safety. A main outcome of the Forum was the Call to Action from Children and Young People to the Private Sector. In this Call to Action, children and young people asked companies to develop child-centred features and functions, establish effective feedback mechanisms, provide guidance on digital literacy and digital safety, and ensure data protection. Expert speakers also stressed that private sector companies should engage children and young people in the design, implementation, and evaluation of strategies to safeguard them online. Following the Forum, an industry working group was established to continue to push the needle on child online safety. The event was an important opportunity to build momentum for greater private sector collaboration in Cambodia, especially with the Ministry of Post and Telecommunications to develop child protection guidelines for the information and communications technology (ICT) sector.

- In Ethiopia, a national-level Technical Working Group on Child Online Safety was formed to foster a multi-stakeholder and cross-sectoral approach to addressing child online abuse in Ethiopia, especially important since programmes on online CSEA are relatively new in Ethiopia. The group brings together government agencies, internet service providers and civil society organisations, including the Ministry of Justice (Chair), Ministry of Women and Social Affairs (Secretary), Ministry of Education, Ministry of Innovation and Technology, Information Network Security Association, Federal Supreme Court, Federal Police-Cybercrime Unit, Addis Ababa Police, INTERPOL National Crime Bureau, and Ethiopia Communication Authority. Internet service providers participating include Ethio Telecom and Safaricom, and civil society organisations include Emmanuel Development Association, Terre des Hommes-Netherlands, Save the Children and World Vision International.

- The Disrupting Harm study found that most children who suffer protection issues in the digital space are often exposed to violence in person at the same time. Based on this premise, in Kenya, the national committee mandated to revise the Sexual Offenses Act to ensure it addresses online CSEA. Further, the government continues streamlining the implementation of two national plans (the National Prevention and Response Plan on Violence against Children, 2019-2023; and the National Plan of Action to address Online Child Sexual Exploitation and Abuse, 2022-2026) with support from UNICEF Kenya Country Office. Data collection and reporting tools were also updated to support the monitoring of implementation of these plans. Significantly, the enactment of the Children Act 2022 will enhance legal safeguarding of Kenyan children and provide for online protection.

- The release of the Disrupting Harm study report in Tanzania catalysed reviews of several policy documents, including the Cybercrimes Act (2015), and the Law of the Child Act (Chapter 13). The suggested amendments are pending approval from Parliament. Additionally, online CSEA was incorporated into the National Standardized Child Protection Training Module for the Department of
Social Welfare, as well as in the Standard Operating Procedures for the national prosecution services, cybercrime unit and the Police Gender and Children’s Desks, with support from UNICEF Tanzania Country Office. These resources are being used to equip frontline professionals with knowledge and skills to prevent and respond to online CSEA. In addition, the Tanzania Police Force cybercrime unit has procured equipment for the central digital forensic and cybercrime forensic laboratory, which will significantly improve the quality of evidence for prosecution and management of online CSEA cases.

- The Child Online Safety toolkit has been developed and made accessible on two websites (Child Online Safety Toolkit, 5Rights Foundation), and translated into seven languages. The Toolkit has been endorsed by international organisations, presented to the UN Committee on the Rights of the Child, included in the WeProtect Global Alliance Members Library, and incorporated in ITU’s child safety guidelines and training materials. It was developed through a wide consultation process with global experts and country representatives to reflect a diversity of perspectives and strengthen applicability. View the launch video and read the media report, featuring Prince Harry, Duke of Sussex.

4. Ensure child participation in combatting online CSEA

Safe Online grantees work to ensure that children have opportunities to share their experiences and express their opinions and needs, and that these are considered by relevant stakeholders so that policies and programming can be informed by real life practices. This is achieved by taking children’s views and perspectives into consideration when designing programmes and interventions, by supporting and enabling children to become champions for online safety in schools, policy forums and other settings, as well as through initiatives where children lead on the design of policy and awareness raising materials/tools.

Highlights

- Thirty-six boys and young men aged 14-18 years in Londrina and Brasilia regions, Brazil, participated in focus groups and interviews that contributed to the development of Emilio, a computer game designed to enable youth to engage in safe and respectful online behaviours. Additionally, culturally specific educational materials have been produced, including a game manual and facilitator guide. The project team, at the None in Three Research Centre, are currently working on trialling and promoting the game.

May and Bay, a game developed by the University of Kent, has been built based on research and incorporating views from nearly 300 children and young people in Cambodia and Thailand. The game and associated resources, such as a training pack, has been translated into Khmer and Thai, and country-specific details are included within the games, such as helplines in each country and culturally relevant scenes and characters. The game has been used to train approximately 3,000 children (of which 55 per cent were boys and 45 per cent girls) and young people in 2022, along with 260 teachers, social service providers and other professionals across both countries.
The provincial government in Central Java, Indonesia and the national-level Children’s Forum worked together with UNICEF Indonesia Country Office to develop a web-based platform known as Jogo Konco which means ‘caring for a friend’ in Bahasa Indonesia. On Jogo Konco, children and adolescents can access information on child online safety, and interactive features allow them to share their experiences and/or report any incidents they may witness or experience safely and confidentially. Twenty-eight children from the Central Java Children’s Forum were involved in the process of developing Jogo Konco.

In Madagascar, 41 youth peer educators were trained to lead life skills sessions in schools, along with 153 teachers in 2022, all with the support of UNICEF. In turn, they have reached 14,831 children (8,290 girls and 6,541 boys) with information and knowledge about the prevention of online sexual abuse and exploitation, and reporting mechanisms. Transformative strategies included positive and non-violent masculinity education sessions.

In 2022, over two million youth were reached through a youth-led Radio Foundation programme in Cape Town, South Africa with support from UNICEF South Africa Country Office. Youth presenters conducted interviews and led discussions on online safety and risks and connectivity challenges, with the aim of helping other young people to navigate the internet safely. Additionally, 59 adolescents from Gauteng province in South Africa provided views and reactions to the Aselo technology developed by the Safe Online grantee Tech Matters as well as a prototype chatbot. They liked the idea of being able to ask a chatbot questions on a wide variety of topics, largely in the mental health area, and reaffirmed how important anonymity is to young people when reaching out to a helpline.

A hackathon was conducted in November 2022 in Zimbabwe by Childline Zimbabwe, hosting 38 young people (of which 13 were female, and 25 male) from different tertiary institutions to innovate around game-based learning for children. In addition, over 200 children (60 per cent female) participated in school-based online safety symposiums.

### 5. Engage industry, media and technology solutions

Industry and the media have a critical role to play to ensure children are safe online, and many grantees are piloting new approaches to facilitate their engagement. In 2022, over 400 industry representatives benefited from trainings or education activities on child online safety (more than 5,000 since 2017).

#### Highlights

The Welsh Government has made changes to their child online protection policy, based on the advocacy work and support from different organisations, such as Swansea University and their Lived Experience work conducted as part of the DRAGON-S project. For instance, DRAGON-S is included in the Welsh Government’s Action Plan for Digital Resilience in Education, and is mentioned in the All Wales Practice Guide: Safeguarding children from online abuse. Swansea University’s Dragon-S project team has conducted engagement and advocacy work at events such as the Wales Internet Safety Partnership in October 2022 and the Ofcom Online Safety Event in November 2022. The team has also engaged bilaterally with key stakeholders. As a result, the project is also referred to in the Welsh Government’s digital resilience in education programme. Engagement with technology regulators such as Ofcom in the United Kingdom has also resulted in fruitful discussions on the role of regulators in protecting children against online harm.
In Uganda, the Ministry of Education and Sports, the National Information Technology Authority, Uganda Communications Commission, UNHCR and UNICEF Uganda Country Office have jointly developed a roadmap to facilitate the scaling of digital learning and skilling through Kolibri, an open-source learning platform and tool kit designed for low resource communities who need supplementary/alternative learning materials for children. Kolibri is deployed to provide supplementary/remedial learning for especially vulnerable adolescents in public secondary schools and inclusive primary schools with computer facilities, and as an alternative learning pathway for out-of-school adolescents, through youth-friendly centres in refugee hosting districts and underdeveloped communities. By the end of 2022, Kolibri was deployed in 50 schools in Uganda, with 405 teachers and 17,500 (of which 49 per cent were female) students taught to use the platform and navigate content. Kolibri has over 37 digital resources and topics related to violence against children, internet safety and online CSEA. By the end of 2022, 7,805 users (of which approximately 31 per cent were female and 69 per cent male) were registered on Kolibri. There were 322 (of which about 60 per cent were male and 40 per cent female) new registered users on the platform in 2022.

6. Build resilience, enhance digital education and awareness raising, and address social norms

In 2022, with Safe Online support, over 55,000 children and over 70,000 community participants (inclusive of caregivers, educators, and other members of the community) were engaged in digital education and awareness raising activities on child online safety. Since 2017, over a million children and more than 300,000 community participants have been engaged in similar activities. Additionally, over eight million people (nearly 42 million people since 2017) were reached via advocacy and information campaigns, news media outlets and publications and social media channels covering issues related to online CSEA.

### Safe Online Portfolio Results

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<thead>
<tr>
<th>Category</th>
<th>2022</th>
<th>2017-2022</th>
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<tbody>
<tr>
<td>Children engaged in education activities on online safety</td>
<td>55,356</td>
<td>1,038,460</td>
</tr>
<tr>
<td>Community participants (parents, educators, child service providers) engaged in education activities on online safety for children</td>
<td>70,402</td>
<td>303,813</td>
</tr>
<tr>
<td>Individuals reached through mass media, information/advocacy campaigns</td>
<td>More than 8.5 million</td>
<td>Almost 42 million</td>
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### Highlights

- In the Dominican Republic, an awareness-raising campaign on prevention of online violence against children reached 2.1 million people, mostly on Instagram and Twitter, using the hashtag #AprendeteLaClave. Since the start of the Safe Online grant in 2018, UNICEF Dominican Republic Country Office has reached nearly 8.5 million individuals through four national media campaigns.

- The Ministry of Education in Ethiopia integrated online risks and child online safety messages into the information rolled out to schools on sexual and gender-based violence, supported by UNICEF Ethiopia Country Office. Sixty-four education officials across the country learned about online risks and safety measures. These officials will subsequently roll out the newly developed school code of conduct on sexual and gender-based violence.

- In Indonesia, more than two million persons were reached on social media platforms with messages on child online safety, including 172,134 adolescents who viewed, ‘liked’, and/or provided comments online during National Children’s Day and the 7th ASEAN Children’s Forum in July and August 2022. Child online safety messages were also integrated in a back-to-school campaign developed by UNICEF Indonesia Country Office, that reached more than 3.6 million through Instagram and Facebook. Thirty-eight community facilitators were trained on online risks and protection, with focus on online CSEA. These community facilitators supported the dissemination of key messages to the community, through various platforms such as during community health meetings, religious gatherings and through specific outreach activities to households. Over 1,000 community members and caregivers were reached with these efforts.
In Namibia, awareness-raising meetings on child online safety were held in 19 schools in Omusati, Kunene, Kavango West and Khomas regions with the support of UNICEF Namibia Country office, reaching 1,300 children aged 12-17 years (58 per cent of which were girls, and 42 per cent boys). Two radio segments covering information on child online safety were recorded and broadcasted on national radio, reaching over 500,000 listeners.

In Viet Nam, ‘Linh and Danh’s Online Adventure’, a comic strip and animation for children aged 6-8 years developed by the Marie Collins Foundation was introduced in schools and organisations throughout the country in 2022 by local organisations, including Saigon Children, Blue Dragon, and ChildFund Viet Nam. Other resources include lesson plans for children, and teacher and parental guidance to accompany the comic strip and animation. Physical copies of the comic have reached over 50,000 children across nine provinces. Through this comic, more children and teachers are now aware of the national helpline 111, as evidenced by responses to a survey distributed to children and teachers to assess the impact of the resources. Moreover, the Ministry of Education and Training developed guidelines for teachers and school staff on child online safety with support of UNICEF Viet Nam Country Office, to equip them with the knowledge and understanding of online threats to children, and how to support them to interact safely in the digital space. Once endorsed, the guidelines will be rolled out to teachers and school staff nationwide.

Almost 20,000 children from Harare, Masvingo and Mutare cities in Zimbabwe were reached by Childline Zimbabwe with online safety information during school assemblies and school-based interactive sessions. Awareness-raising sessions resulted in 43 child online violence cases being reported by children and handled by social workers.
B. Research and Data

Safe Online aims to generate evidence on the threats and emerging trends related to online CSEA, offenders’ behaviour, prevention strategies, children’s experiences in the digital world, and solutions which will serve to guide Safe Online’s work, that of its grantees and partners, and the wider ecosystem.

Safe Online has renewed a US$7.5 million commitment to Disrupting Harm in 2022, expanding the scope of the study to include 12 additional countries across four new regions (Europe and Central Asia, Latin America and the Caribbean, Middle East and Northern Africa, and South Asia). Disrupting Harm is a large-scale research project designed by Safe Online with three leading organisations ECPAT International, INTERPOL and UNICEF Global Office of Research and Foresight – Innocenti that worked closely together to generate unique insights on how online CSEA is manifesting in 13 countries in Southeast Asia and Eastern and Southern Africa, and provide tailored roadmaps for countries to strengthen their prevention and response systems.

The Tech Coalition and Safe Online teamed up in 2021 to establish the Tech Coalition Safe Online Research Fund as part of Tech Coalition’s Project Protect. This Fund has awarded grants to 13 organisations by the end of 2022 (eight of them starting their projects in 2023), conducting innovative and actionable research that will inform digital products and policy development to make the internet safe for children. Specifically, research will help inform the tech industry’s approach to combating online CSEA by increasing understanding and tools for grooming detection, supply-side offending, offender help-seeking behaviour and support to content moderators in the first year of the Fund. From the five projects with activities ongoing in 2022, three have a global reach, one focuses on the Philippines, and the last targets Colombia and Latin America.

**Highlights**

**Disrupting Harm research project**

The first phase of Disrupting Harm, the large-scale, multi-country research project generating evidence to understand the scale and nature of online CSEA was first initiated in 2019 with a US$7 million investment from Safe Online and implemented in 13 countries across Eastern and Southern Africa and Southeast Asia, by ECPAT International, INTERPOL, and UNICEF Global Office of Research and Foresight – Innocenti. The first phase of the project revealed crucial findings on the issue, and on how national child protection systems are responding to this fast-growing crime against children. A set of videos with these findings can be accessed here.

In 2022, 11 country reports were published (Cambodia, Ethiopia, Indonesia, Malaysia, Mozambique, Namibia, the Philippines, South Africa, Tanzania, Thailand and Viet Nam), in addition to the two country reports published in 2021 (Kenya and Uganda).
Key findings from Disrupting Harm, Phase 1:

- Data collected through the study estimate that millions of children were subjected to online CSEA across the 13 countries involved in Disrupting Harm in 2020 alone. The proportions of children subjected to online CSEA varied from one per cent in Viet Nam to 20 per cent of children in the Philippines. In line with other research on violence against children, these estimates are expected to be under-reported.

- In almost all of the 13 countries in the study, online CSEA offenders were more likely to be someone the child already knows in person (accounting for an estimated 60 per cent of cases).

- Approximately one in three children did not disclose their abuse to anyone. Nearly half of those children said it was because they did not know where to go or who to tell.

- Children are not reporting their experiences of online CSEA through formal channels. On average, only 3 per cent of online CSEA victims across the 13 countries called a helpline for support. Similarly, only 3 per cent contacted the police.

- Most children who experience online CSEA have also experienced sexual violence in-person.

- Whether or not a child has experienced in-person violence, experiencing online CSEA further increases the risk of mental health problems.

A Data Insights Series was also produced in 2022, which enabled unique and critical cross-country analysis to identify common trends and patterns to better understand how the phenomenon of online CSEA manifests and evolves across national borders and regions, and what countries’ need to do to better protect children online including preventing the abuse before it happens. The study has yielded clear outlines of children’s experiences of online sexual abuse, and insights into disclosure, experiences with law enforcement, justice systems, and more. The complete list of Data Insights published in 2022 are:

- Children’s experiences of online CSEA
- Children’s disclosures of online CSEA
- Access to justice and legal remedies for children subjected to online CSEA
- Legislation addressing online CSEA
- Promising government interventions Responding to online CSEA
- The relationship between online CSEA and in-person child sexual abuse and exploitation

Country-level data and evidence generated through Disrupting Harm allows key actors to make informed decisions about strengthening their national prevention and response strategies to combat online CSEA. It also provides a roadmap specific to each country, for national actors to follow and strengthen their investments and actions to tackle the issue. Safe Online continues to leverage the impact and findings of the Disrupting Harm study, by for example awarding 11 grants (a total of US$10 million) across Southeast Asia and Eastern and Southern Africa in 2022, for projects designed to support countries based on the findings from Disrupting Harm.

Findings from the Disrupting Harm study have been used at regional level, to inspire new and inform ongoing processes led by different regional organisations working to tackle online CSEA. For instance, ECPAT International used the findings to inform joint messaging and coordinated advocacy by civil society organisations around the legislation to prevent and combat child sexual abuse online proposed by the European Commission. ECPAT International also organised a Day of General Discussion on children’s rights in the digital world with the African Committee of Experts on the Rights and Welfare of the Child (ACERWC), where Disrupting Harm findings were shared with representatives of African Union member states. The findings were also used in the development of the ASEAN Regional Plan of Action on online CSEA.
Building global evidence

An evidence review on Ending Online Child Sexual Exploitation and Abuse in 29 Low- and Middle-Income Countries – Lessons Learned and promising practices in low- and middle-income countries was published by the Child Protection Programme division at UNICEF in January 2022. The report provides rich data from 29 countries, and points to significant progress across low- and middle-income countries as well as similar systemic challenges. It includes an action framework and is available in seven languages (English, French, Spanish, Arabic, Russian, Portuguese and Chinese). A global learning webinar was convened in February 2022 to present key findings from the evidence review, with 221 participants from 59 countries. Albania, Dominican Republic, Ghana, Jordan, Namibia, and the Philippines presented case studies. This research also fed into the global report, Framing the Future – How the Model National Response framework is supporting national efforts to end child sexual exploitation and abuse online, launched at the WeProtect Global Alliance Summit in June 2022 with 400 leaders from government, industry, civil society and international organisations in attendance.

The global review What works to prevent online violence against children? provides a unique overview of best practices to prevent online violence against children including evidence from the work to prevent other forms of violence. The report produced by the World Health Organisation recommends implementing school-based educational programmes that have multiple sessions, promoting interaction among youth and engaging parents. It highlights the need for improvements in several areas including the need for more violence prevention programmes that integrate content about online dangers with other forms of violence, given the overlap of these crimes and their common approaches to prevention; less emphasis on stranger danger as strangers are not the sole or even the predominant offenders; more emphasis on acquaintance and peers, who are responsible for a majority of offenses; and more attention to healthy relationship skills, since romance and intimacy-seeking are major sources of vulnerability to online violence. Collaboration for this project was vast as it involved dozens of interviews with survivors, experts and programme implementers working at global, regional and country levels. Partners included the Coalition for Good Schools, Queensland University of Technology, Save the Children, UNESCO, UNICEF, University of New Hampshire, and the WeProtect Global Alliance.

Tech Coalition Safe Online Research Fund

A research project in the Philippines aims to understand traffickers and their pathways to offending. Implemented by Justice and Care with the support of relevant industry partners like Pathfinder Labs (New Zealand) and relevant organisations like the Australian Institute of Criminology, the project is building evidence to help the detection and prevention of online sexual exploitation of children. Some preliminary findings have been presented in “Behind the Screen International Conference on Online Sexual Abuse and
Exploitation of Children”, an international conference held in Quezon City, Philippines, in November 2022. The conference was attended by more than 50 academics, practitioners, authorities, and other relevant stakeholders from organisations working on online CSEA. Justice and Care also held two workshops in Manila in November 2022, attended by 20 participants, including online CSEA survivors, international representatives as well as Filipino government officials from the Cybercrime Division, the Taguig City Police, the Philippines Department of Social Welfare and Development, Taguig City’s Barangay Council for the Protection of Children, Taguig City’s Social Welfare and Development Office, Taguig City’s Pantawid Pamilyang Pilipino Programme, the Taguig City Prosecutor, and judges of the Taguig City Regional Trial Court.

Middlesex University is investigating the psychological effects of content moderation on content moderators exposed to child sexual abuse material as part of their work, with the aim of developing interventions that technology industry partners globally may be able to use to reduce the negative impacts of content moderation and improve employee wellbeing. In 2022, some of this work was used to build a wellbeing programme organised by INHOPE in Thailand for almost 2,000 content moderators across Asia. Their research led to the publication of an article entitled ‘Invisible workers, hidden dangers’.2

The University of Kent has undertaken a double-pronged research project aiming to understand help-seeking behaviour by people at risk of engaging in online sexual harm involving children, and what can motivate help-seeking or deterrence. Approximately 10,000 people to date have participated in three completed studies in Strand I, which aims to build knowledge on the factors underpinning help-seeking by people at risk of engaging in online sexual harm involving children. Strand II tested over 4,000 participants in three completed studies to date, building evidence on the effectiveness of different message types in motivating help-seeking or deterrence from child sexual abuse material. Using the research findings, the research team has developed a working model of predictors of inclination to seek help and has demonstrated that existing illegality-framed warning messages are unlikely to be optimum for encouraging help-seeking. Instead, messages inspired by the research empirical model and related theory are perceived as more effective to encourage help-seeking.

Two of the Tech Coalition Safe Online Research Fund grantees are focusing on the use of AI tools to detect and prevent risks to children online:

- **Universidad de los Andes** is developing AI tools to provide an alert and warning system, and to optimize report processing by Te Protejo, a CSEA reporting portal in Colombia and Mexico. The team have also developed a self-care protocol for researchers: a data, time and self-care management protocol to support their researchers’ mental health and wellbeing. This protocol ranges from engineering procedures (e.g., how the data is handled), to developing a toolbox and psychological support.

- **Technological University Dublin’s N-Light project** aims to use AI techniques to detect CSAM, for example by generating datasets from posts and activity on child grooming forums on the dark web. Four supervised machine learning/deep learning models were developed for identifying CSAM posts in English. In 2022, over 352,000 posts from eight dark web forums were analysed, of which approximately 221,000 were in English. Across these eight forums, the N-Light models detected around 63,000 English-language CSAM posts (representing approximately 28.4 per cent of total posts). The N-Light models achieved impressive test results in detecting CSAM on the dark web, with high recall/precision/accuracy rates (89 per cent, 92.3 per cent, and 87.6 per cent, respectively), and are also fast, thus opening possibilities for integrating the models into social network websites or edge devices for real-time CSAM detection. Analysis also revealed some important insights, e.g., that there are 110 platforms used to distribute CSAM on the dark web, with some well-known social media sites hosting a relatively high proportion of CSAM posts compared to the total number of CSAM posts.

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C. Technology Tools

Safe Online aims to seed and grow innovative solutions that leverage existing and new technologies to improve prevention, detection and response to online CSEA. Safe Online invests in solutions that use technology in innovative and ground-breaking ways, and that are scalable, to address areas such as detection and removal of CSAM and grooming, prevention of live streaming of abuse, age-appropriate design, open-source platforms to make the helpline ecosystem more efficient, law enforcement investigative tools (e.g., leading to shorter investigation times, or increase in the capacities for victim identification), deterrence of offenders, and education and prevention tools to help children learn to recognise online risks and protect themselves, among others. Funded technological solutions usually include:

- design of a proof of concept that demonstrates an innovative use of technology to address a specific challenge with clear plans for further research and testing;
- development of new prototypes or products – including hardware/software/content components – or of new features within existing products or tools; and,
- adaptation or combination of existing tools to address current gaps, increase efficacy and/or effectiveness, or apply to new use cases.

By the end of 2022, Safe Online had invested **US$15 million** in **22 projects** by grantees working to develop or scale up technology tools in the realms of AI/ML, data science and open-source software, among others, aimed at preventing and responding to online CSEA and complementing previous investments to strengthen the global architecture to protect children online.

An overview of results and highlights of these investments in 2022 are presented below, across four main areas of work:

1. Detect, remove and report images and videos with sexual content or acts involving children
2. Block adults’ access to children on digital platforms intended to sexually abuse them
3. Stop live streaming of child sexual abuse performed in front of a camera
4. Prevent online CSEA before it happens, including prevention and solutions that directly target online child sex offenders and adults with a sexual interest in children
1. Detect, remove and report images and videos with sexual content or acts involving children

In 2022, Safe Online grantees worked to improve the detection, removal and reporting of images and videos with sexual content involving children (child sexual abuse material, or CSAM) to enable victim identification and assistance at global, regional and national levels by leveraging the latest technologies in this area. This was also facilitated through the provision of capacity building programmes for law enforcement and other key stakeholders to deploy frontier technologies to detect, remove and report CSAM both on the open web and on the dark web.

**Highlights**

In **Brazil**, SaferNet is working with the Federal Public Ministry to strengthen the National Report System, which is the in-house system powering the National Hotline. The project team collaborated with the Federal Public Ministry to develop a content classification filter used by report analysts, generating an automatic classification of reports by type. This allows for easier filtering of reports for public action; and enables the automatic grouping of reported URLs that belong to the same user profile in social media, thus enabling public officers to more easily identify accounts that have multiple reports on human rights violations.

SaferNet Brazil has also started developing an API with security and data protection by Design Frameworks.

In **India**, Katalyst is the first of its kind, all-inclusive, open-source platform developed by Project VIC International, designed from the ground up and tailored to meet a country’s needs in fighting child abuse crimes. It provides end-to-end solutions for CSAM investigations through an Investigative Package (bespoke tools) and a KATALYST Server (purpose-built hardware). It is designed for countries building dedicated online CSEA units and enables countries to establish their own media library and hash database. It can ingest data from any system, enabling greater collaboration with local and international law enforcement agencies. Katalyst helps automate and refine the detection and classification of CSAM by facilitating the sharing of hash sets based on globally agreed categorisations/classifications, enhancing investigations and case management processes and workflows, and improving victim identification capability. Katalyst has been successfully deployed at the Countering Child Sexual Exploitation (CCSE) Centre in Kerala, India. Since 2019, the volume of CSAM seized by the CCSE Centre has increased eightfold, from 50 GB in 2019, to 330 GB in 2020 and 437 GB in 2021. Katalyst improves the efficiency of categorisation of this material. In August 2022, for example, 55 per cent of media ingested was pre-categorised by Katalyst, and 12 unique cameras utilized by offenders were identified through metadata. Nine CCSE Centre officers were trained on mass categorisation for images and videos, using the Katalyst dashboard and workflow processes, and advanced victim identification techniques.

In 2022, the CCSE Centre sent over 3,000 Internet Protocol Detail Report requests to internet service providers (ISPs) and 760 case requests to platforms such as Facebook, Gmail and WhatsApp. Over 7,000 case requests were sent during 2021 and 2022, combined. A case request is a legal document requesting the service provider to supply one or more pieces of data and information back to the requesting law enforcement agency. This can include, but is not limited to, basic subscriber information, email, chat, location, and/or account, for website takedowns.

Project Arachnid is a set of tools that focuses on the detection and removal of CSAM, developed by the Canadian Centre for Child Protection (C3P). Supported by Safe Online, the Targeted Platform Module (TPM) component of Project Arachnid uses a set of custom scrapers to detect and subsequently remove both known and unknown CSAM on services where offenders trade this material. From September 2020 to March 2022, almost 2.5 million pieces of media were found on TPM targets and classified by analysts, of which 34 per cent were classified as CSAM and 43 per cent as possible CSAM. Over five million pieces of media collected by the TPM are still awaiting classification by human analysts. Further, during the last six months of 2022, over 900,000 images have been detected, with over 150,000 classified as CSAM and removal notices sent. TPM data has benefited law enforcement agencies, by providing a much larger pool of search data for law enforcement agencies to search for ‘sightings’ of similar media that they have investigative interest in.
C3P also built a high-performance matching service called Pastry\(^3\) that can be quickly deployed in different cloud infrastructures around the world. In initial testing, the Pastry service is showing significant performance improvement over the legacy Arachnid Shield matching service. An in-depth performance analysis showed a 60 per cent improvement in requests per second as well as a 60 per cent reduction in latency for the 99 per cent of requests.

C3P continues to work on implementing a Global Notification System (GNS) as part of Project Arachnid that aims to streamline notifications of relevant parties such as tiplines and law enforcement agencies, when CSAM is detected. C3P’s GNS was developed in 2022 based on an existing and tested prototype that has been used by their Cybertip.ca tipline for more than a decade. Once the GNS is fully operational, more than 1,200 electronic service providers will receive notices from the system.

INHOPE is the leading global network combatting online CSAM worldwide. The network consists of 50 hotlines in 46 countries (as of March 2023) that provide the public with a way to anonymously report illegal content online with a focus on CSAM. Safe Online’s support to INHOPE’s ESCAPE project – which aims to expand INHOPE’s network in countries where there is no hotline presence, as well as to develop automation and intelligence tools for faster classification of CSAM reporting to facilitate the work of hotline analysts and law enforcement – has facilitated the full membership of Serbia and Albania’s hotlines (Net Patrola and iSIGURT, respectively) in 2022. Both countries are connected to INHOPE’s ‘I see child abuse material’ (ICCAM) system, and 38 reports with suspected CSAM were received for Serbia and 27 for Albania in 2022. INHOPE supports organisations to set up national hotlines through training, outreach, and ensuring staff welfare. Four well-attended webinars were held in each quarter of 2022, on ‘How to set up a hotline’, to raise awareness among interested hotline operators and national stakeholders. A total of 163 participants from 41 countries participated in these webinars.

INHOPE’s Global Standard project focuses on establishing a Global Standard for common CSAM classification. Usually, reports are reviewed by content analysts who classify the illegality of the material. Illegal material is shared with local law enforcement agencies, and the relevant ISP will receive a notice and takedown order. The Global Standard project aims to make this process more efficient by creating a common ontology to facilitate automated translation to categorisation schemas. In 2022, two focus groups were held with participants from key hotlines, law enforcement agencies, industry, and other partners. Subsequently, four working sub-groups were created, to work on ontology, technology, law and policy, and outreach, respectively. To date, the ontology sub-group members have identified the minimum necessary classification elements, label groups and labels for the universal ontology for classification of CSAM that would address different national legislations and classifications worldwide.

Thorn’s CSAM detection, removal, and reporting tool for industry— the CSAM Classifier — screened over 1.9 billion files and detected over 300,000 potential CSAM images via Safer (Thorn’s product that allows organisations to find CSAM in their platforms and remove it at scale) in 2022. The CSAM Classifier is currently available to 26 companies via Safer, 150 law enforcement agencies via Thorn tools, and is directly shared with approximately 27 NGOs, law enforcement, and technology partners. The CSAM Classifier has been instrumental in helping identify and rescue at least two children (known cases) who may not otherwise have been rescued.

Thorn continued their labelling focused on self-generated CSAM in 2022. Their analysts labelled almost 15,000 images with over 52,000 CSAM labels. The images were provided by INTERPOL according to specific criteria, enabling the labellers to focus on relevant material. Thorn also focused on the development of their CSAM video classifier in 2022. As part of this work, the existing labelling tool was updated to also allow for video labelling. Their CSAM image classifier is also being refined to allow for more granular labels. Two additional classifiers have been developed, the cartoon classifier and the self-generated classifier. Both classifiers achieve high levels of recall (90 and 99 per cent, respectively) at a 99 per cent level of precision. In 2022, Thorn reported 147,096 classifier hits through Safer (compared to 40,264 classifier hits over the same period in 2021). This is because of an increase in customers’ usage of Safer, an increase in customers adopting classifiers, and more customers maturing their CSAM workflows and policies.

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\(^3\) C3P is developing several perceptual hash technologies that will be employed to match incoming images and video against its known CSAM media database.
Thorn is working to align with the INHOPE-led Global Standard Project, also a Safe Online grantee, with the vision of creating an ecosystem where a common set of high-level labels for characteristics found in CSAM can be easily applied via Thorn’s machine-learning classifiers so that the categorisation of material takes a fraction of the current time. Well defined characteristics will more efficiently map to individual country legislation or user defined use-cases. The resulting hash sets will be larger, more easily shared, and consistently high quality.

2. Block adults’ access to children on digital platforms who intend to sexually abuse them

In 2022, Safe Online grantees facilitated the blocking of adults’ access to children on digital platforms for sexual abuse and exploitation purposes (i.e., online sexual grooming or solicitation), using cutting-edge technologies such as AI or ML, as well as conducting research in this area of work.

Highlights

In Cambodia and Thailand, May and Bay is a game developed by the University of Kent based on evidence and research about sexual abuse online and within communities. Designed to be culturally relevant to children and young people in those two countries, the game allows children to explore various online scenarios, teaching them how to spot the signs of online grooming and recognise the tactics that abusers and traffickers employ. Research from the Disrupting Harm study showed that online sexual exploitation and abuse is complex and nuanced and can involve various linkages between online and in-person harm. As Southeast Asia is one of the most significant destinations for travelling child sex offenders, May and Bay represents an innovative means to keeping children safe both online and offline. Approximately 3,000 children and young people have been reached since 2020 using the game in schools and camps (of which 1,279 were reached in 2022), and 260 professionals have also been trained (of which 59 were trained in 2022).

A suite of animations and games, DeafKidz Defenders, was designed to educate deaf children on online safety. Designed by DeafKidz International, this resource consisted of seven short animations, training games and real-world scenarios. From 2017 to 2022, the project reached 218 deaf children in Pakistan and 302 in South Africa (approximately 54 per cent were boys and 46 percent were girls). Ninety-one per cent of children assessed had increased their knowledge after completing DeafKidz Defenders. More than 56
per cent had doubled their initial assessment score and it was estimated that children were seven times more likely to recognise abuse, say no, and/or get help. The evaluation also found indications of changes in children’s behaviours online, suggesting improvements in their knowledge might lead to increased protective behaviours.

Project DRAGON-S (Developing Resistance Against Grooming Online – Spot and Shield), developed by the University of Swansea, has successfully achieved the ethical development, and rigorous user experience testing, of two cutting-edge tools: DRAGON-Spotter, an AI-linguistics powered detection tool, and DRAGON-Shield, a linguistics research-informed training tool to strengthen the abilities of child safeguarding professionals to detect and recognise online child grooming behaviour. Beta testing of the fully trained DRAGON-Spotter tool took place in October-December 2022 with three police forces. DRAGON-Shield has been tested with participants from five countries in 2022, and final amendments based on user feedback are planned for completion in early 2023. As part of DRAGON-Shield development, a children and young people’s consultation was conducted, and a Lived Experience Expert Group (LEEG) convened, with the result being that the voices and perspectives of children and those with lived experience are captured in DRAGON-Shield content.

During the process of developing and testing this technology, the DRAGON-S project team has collaborated with approximately 250 individuals from over 30 organisations globally, in the process creating a community of learning that drives best practice. The Welsh Government has also committed to fund the translation of animations into Welsh, for dissemination through Welsh Government communication channels, in particular Hwb – the system utilised by education and safeguarding professionals, as well as parents, in Wales.

3. Stop live streaming of child sexual abuse performed in front of a camera

In 2022, Safe Online grantees continued working to stop live streaming of CSAM by supporting development of digital forensic and evidencing tools that can support the work of law enforcement in the digital environments where the abuse takes place, as well as by building their capacity to conduct video analysis through AI-based technologies.

Highlights

In Southeast Asia, the iCOP 2.0 project by the University of Bristol aims to deploy artificial intelligence software to flag new or previously unknown CSAM including live streaming. In 2022, 1,592 CSAM-related keywords have been added to the existing list of 691 keywords shared by INTERPOL during the iCOP1 project. This will enable improved detection of CSAM material using linguistic clues and specialised vocabulary used by Southeast Asian offenders. The team has also published academic papers, with two now on arXiv related to the video analysis module of the tool, and which will be presented at international conferences in 2023.

INTERPOL’s DevOps Group aims to co-create new tools, develop proofs-of-concept, identify new technologies and concepts, and share ideas, to support law enforcement agencies in the investigation and prevention of online child sexual exploitation and abuse. A Working Group meeting was held in June 2022, with over 50 participants, from 15 countries, representing 28 entities (including law enforcement agencies, civil society organisations, and the private sector). The meeting focused on self-generated media (including live streaming), age detection, geolocation of media, and Connect.the.Dots maintenance and improvements (see below for further details on Connect.the.Dots). Meeting outputs are made available, free of charge, to law enforcement seeking to use or further develop those outputs for the purpose of preventing or investigating online CSEA.

Additionally, Safe Online funding has supported the development and dissemination of the beta version of Connect.the.Dots, a meta-search engine dedicated to searches in the context of investigations on crime against children. By 2022, 29 countries were using Connect.the.Dots, with over 200 users having access to Connect.the.Dots across platforms. Real-life examples of Connect.the.Dots in use include, in Brazil, the case of an abuser who advertised on the dark web that he had an 11-year-old ‘girlfriend’ and access to many pre-adolescent girls. Connect.the.Dots was a crucial tool enabling investigators to make the link between the abuser’s nickname and his real e-mail address and home address.
4. Prevent online CSEA before it happens, including prevention and solutions that directly target online child sex offenders and adults with a sexual interest in children

In 2022, Safe Online grantees worked to prevent online CSEA by setting up innovative programmes specifically targeting offenders in different contexts, supporting the development of new and streamlined hotline and helpline tools in different countries, and deepening research on behaviours and motivations driving offenders and potential offenders.

Highlights

In 2022, Protect Children Finland’s ReDirection self-help programme survey for offenders on the dark web was translated into an additional four languages (Czech, Danish, Chinese, Hindi). At the time of writing, there have been over 70,000 visits to the ReDirection Self-Help Programme since it was launched in September 2021. Nearly half of the visitors have accessed the programme via the dark web. Seventy-one per cent of the respondents said that the part of the programme they found most helpful was reflecting on their own thoughts, feelings and behaviours. Further, seventy-three per cent of the respondents to a survey conducted on the ReDirection self-help programme said that their use of CSAM has decreased or completely stopped since starting the ReDirection programme. More findings of this survey and additional information on their programme can be accessed on their website: The ReDirection Self-Help Programme – protecting children before the crime occurs.

Aselo is a cloud-based, open-source, contact centre platform developed by Tech Matters for helplines that connects people with the help they need via voice calls, SMS, or webchat and messaging on their preferred social media channels. Initially deployed in South Africa and Zambia in 2021, Aselo was also powering child helplines or internet harm helplines supported by Safe Online in Chile, India, Jamaica, Thailand and Zimbabwe by the end of 2022. In India, Aselo has been deployed at Meri Trustline (run by the RATI Foundation), which received close to 500 contacts during the second half of 2022. Meri Trustline focused on online child safety, with 117 reported cases involving cyberbullying and 31 cases involving loss of control over intimate content. Of all their contacts, 77 per cent identified as female and 68 per cent were over 18, with the majority of at-risk victims between the ages of 16 and 25. Other helplines running Aselo in 2022, supported by Safe Online, handled nearly 13,000 contacts. Thirty per cent of the calls were from girls; 39 per cent from boys, and the remainder unknown (less than 1 per cent reported as nonbinary or other). Prior to Aselo going live, the executive director of RATI Foundation stated that, “If this actually works...this is really going to change the face of how we do case management and record keeping, not only within our organisation, RATI, but outside the organisation for the sector and potentially scale it up with some of the government stakeholders that we work with.” Tech Matters has also been working on a pilot project with Meri Trustline and the Internet Watch Foundation to develop a tool that enables children to submit images of self-generated content for proactive hashing and adding into industry databases. This tool is planned to go live in the second quarter of 2023.
In **India**, SnehAI, a chatbot developed by **Population Foundation of India** providing information on online CSEA and sexual and reproductive health was launched on Facebook in April 2022, and on WhatsApp in October 2022. The chatbot included integrated helpline numbers to assist users needing further help. Nine **animated films** related to this chatbot have also been developed, finalised, and are running on the bot and website. In 2022, there was over **2.1 million** user interactions with the bot (cumulative **10.8 million**), and the digital safety campaign to launch and promote the bot has reached over **22 million** people online. Fifty-two per cent of the user interactions were from returning users. There were over 65,000 users of the bot, of which **43,000** interacted with the bot on WhatsApp.

In the **United Kingdom and Ireland**, the **reThink chatbot**, developed by the **Internet Watch Foundation** in partnership with the Lucy Faithfull Foundation, engages with adult pornography users attempting to search for sexual imagery of children online. First piloted on the adult website PornHub, the chatbot will engage the users in a conversation and signpost them to Stop It Now! UK and Ireland, where they will receive help and support to address their behaviour. The aim is for the chatbot to deter potential offenders before they commit a criminal offence. In the first 30 days of operation following the introduction of the chatbot on the PornHub website in March 2022, **158** conversations reached the point where the user indicated that they wanted to see a list of services offered by the Lucy Faithfull Foundation. The PornHub UK website is a MindGeek property, and this collaboration is part of a larger effort aimed at combining technical and engineering expertise of partners to scope and develop solutions which will assist with the detection, disruption, and removal of CSAM online.

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**Safe Online Donors**

A very big thank you to all Safe Online Donors for their continued support in making the Internet safe for children in 2022.
Looking forward

Despite competing global challenges, 2023 marks a moment when the issue of child online safety and protection from harm has never been higher on the global agenda – as evidenced by legislative developments such as the UK’s Online Safety Bill, Australia’s Online Safety Act, and EU proposed legislation; as well as G7 leaders’ commitments on CSEA, the Brave Movement and other survivor movements. Nevertheless, online CSEA and related digital harms continue to grow along with advances in technology and criminality, posing new risks to child safety both online and in person. The need is greater than ever to invest in technical knowledge, mobilise financial resources and catalyse political will necessary to combat online CSEA now.

Thanks to its existing donors (UK Home Office, Oak Foundation and Technology Coalition) and its fiscal sponsor (UNICEF), Safe Online will continue to prevent and respond to digital harms to children, especially the worst forms of abuse – online CSEA.

Safe Online remains the only global initiative solely focused on making investments and building capacities in this field. To leverage the increased political will of this moment and its unique position, Safe Online will continue to scale up its investments to empower a global network of practitioners, researchers, decision-makers, young people and technologists who can deliver change at scale, and to use evidence from the most impactful interventions to develop transformative programming. At the same time, Safe Online will continue to manage a broad and diverse portfolio of grants, with commitments to grantees, partners and donors extending into 2027 and beyond.

While doubling down on efforts to implement the Safe Online Strategy 2023-2025 and grow its portfolio to an estimated US$120 million, Safe Online will put additional efforts into:

- Keeping abreast of the emerging technology and policy developments that impact issues surrounding child online safety: generative AI, age-assurance tools, live streaming of child abuse, end-to-end encryption, decentralized web, virtual reality (VR)/augmented reality (AR), and new legislative and policy proposals on technology and digital platforms.

- Strengthening the data and evidence ecosystem on online CSEA and other digital harms to children with a view to increasing the efficiencies and impact of existing efforts, but also to inform the critical debates around privacy and safety online and create practical venues for collaboration in that space. This will help ensure that the right data and evidence is being delivered to the right stakeholders at the right time.

- Building connections with intersecting digital agendas – digitisation and connectivity, cybersecurity, tech-facilitated gender-based violence – to ensure we can build new partnerships, capitalise on joint efforts, ensure alignment, and avoid siloes.

- Expanding and diversifying the donor base of the Safe Online pooled fund, to ensure that it has a truly multi-national and multi-sectoral perspective and the longevity it needs to make the biggest impact in this fast-evolving field.

- Ensuring that its efforts are contributing to and aligning with the work of other key partners in the most complementary way.

These efforts will allow Safe Online to remain agile and continue to shape and curate a global evidence base of best practices, innovative technologies, and scalable and transferable solutions. Ultimately, this will allow Safe Online to play a more proactive role in advocacy and collective action, and, together with key partners, influence the global policy agenda, a vital battleground in combatting online CSEA and securing digital environments where every child, anywhere in the world, feels safe and protected.
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<th>Abbreviation</th>
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<tr>
<td>AI</td>
<td>Artificial intelligence</td>
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<td>AR</td>
<td>Augmented reality</td>
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<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
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<td>C3P</td>
<td>Canadian Centre for Child Protection</td>
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<td>CCSE</td>
<td>Countering Child Sexual Exploitation Centre (Kerala, India)</td>
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<td>CSAM</td>
<td>Child sexual abuse material</td>
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<td>CSEA</td>
<td>Child sexual exploitation and abuse</td>
</tr>
<tr>
<td>EAG</td>
<td>Evaluation Advisory Group</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and communications technology</td>
</tr>
<tr>
<td>ISP</td>
<td>Internet service provider</td>
</tr>
<tr>
<td>IWF</td>
<td>Internet Watch Foundation</td>
</tr>
<tr>
<td>MEL</td>
<td>Monitoring, evaluation and learning</td>
</tr>
<tr>
<td>ML</td>
<td>Machine learning</td>
</tr>
<tr>
<td>NCMEC</td>
<td>National Center for Missing and Exploited Children</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental organisation</td>
</tr>
<tr>
<td>Ofcom</td>
<td>Office of Communications (United Kingdom)</td>
</tr>
<tr>
<td>SDG</td>
<td>Sustainable Development Goal</td>
</tr>
<tr>
<td>TPM</td>
<td>Targeted platform module</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UNHCR</td>
<td>United Nations High Commissioner for Refugees</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>URL</td>
<td>Uniform resource locator (web address)</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>VR</td>
<td>Virtual reality</td>
</tr>
</tbody>
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