

Position Paper on Multi-Stakeholder Cooperation in Managing Safe Online Experiences for Teens

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Abstract

Ensuring a safe online environment for teenagers requires a multi-stakeholder approach involving the public sector, industry, academia, and non-governmental organisations (NGOs). Each of these stakeholders play a crucial role in fostering digital safety through policy development, technological implementation, research contributions, and grassroots engagement. This paper highlights the necessity of collaboration among these key players to create holistic and sustainable online safety solutions. Using case studies such as Cyber Youth Singapore's Surf Safe Campaign and the Technical University of Munich's partnership with Apple on digital child safety, this paper underscores the effectiveness of joint initiatives in addressing digital threats. A model for ideal collaboration is proposed, integrating policy frameworks, industry best practices, research insights, and youth engagement strategies. The findings suggest that stronger cooperation across sectors is essential for the continuous advancement of online safety measures tailored for teens.

Keywords

Online Safety, Multi-Stakeholder Collaboration, Digital Literacy, Cyber Policy, Youth Engagement

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1 Introduction

The digital world presents both opportunities and challenges for young people. As teenagers spend increasing amounts of time online, issues such as cyberbullying, data privacy, misinformation, and online exploitation become pressing concerns. Addressing these challenges requires a collaborative approach involving multiple stakeholders. The four key players in ensuring online safety for teens are the public sector, industry, academia, and non-governmental organisations (NGOs). Effective online safety for children and youth requires multi-stakeholder collaboration involving governments, educators, digital firms, and international

organizations to develop comprehensive, regulatory, and educational frameworks, as emphasized by Jang and Ko [6].

- **Public Sector:** Governments set policies and regulations that define the legal framework for online safety. They act as mediators, balancing the restrictiveness of policies with the rights and interests of companies and digital users [2]. Governments also provide public funding for initiatives that protect young users and enforce laws against threats in the cyber space [5].
- **Industry:** Tech companies develop and implement digital platforms, control user data, and influence digital experiences. They also have significant financial resources to support online safety initiatives and fund research and NGOs working in this space [4].
- **Academia:** Researchers contribute to knowledge discovery, especially in emerging digital safety concerns [1]. Universities play a crucial role in studying online risks, developing new technologies for safer interactions, and informing policies and industry practices [8].
- **NGOs:** NGOs operate at the grassroots level, serving as a bridge between governments, industry, and academia. They often provide community-based interventions, direct education, and advocacy for youth-friendly policies [7]. Youth-led NGOs, in particular, offer relatable and flexible approaches to digital safety.

2 Case Studies

2.1 Cyber Youth Singapore (CYS) and the Surf Safe Campaign

Cyber Youth Singapore (CYS) exemplifies the impact of NGOs in addressing online safety. As a youth-led national movement, CYS empowers young Singaporeans with digital skills and knowledge to navigate the digital world. The *Surf Safe Campaign*, a two-year outreach and education initiative, assisted secondary school students in navigating the rapid digitalisation accelerated by COVID-19. Covering topics such as cyberbullying, media literacy, and data protection, the campaign reached 58 schools and nearly 40,000 students by the end of 2023 [3].

CYS's effectiveness lies in its **collaborative approach**. It partners with both the public and private sectors to design and implement targeted initiatives, ensuring that programmes are directly relevant to young users. Through partnerships with government agencies and private industry players, CYS has been able to expand its reach and impact.

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2.2 TUM Think Tank's Frontiers in Digital Child Safety

A strong example of academia-industry collaboration is the Frontiers in Digital Child Safety initiative led by the Technical University of Munich (TUM) in partnership with Apple. This project, funded by Apple with a commitment of \$500,000, brings together scholars from TUM, Harvard University, and the University of Zurich to tackle emerging challenges in digital child safety [9].

This initiative highlights the importance of academia in researching cutting-edge safety solutions and the industry's role in providing resources and technical expertise. By fostering a global research community, the project explores innovative technological, educational, and policy-based solutions for digital child protection.

3 The Importance of Multi-Stakeholder Collaboration

Each stakeholder plays a crucial role in ensuring online safety for teens:

- **NGOs** provide community-driven, adaptable solutions and serve as a direct point of contact with young people.
- **Public Sector** establishes frameworks and mediates between the interests of different stakeholders.
- **Academia** contributes research, technological development, and evidence-based policy recommendations.
- **Industry** implements safety features, enforces policies, and funds initiatives that promote safer online environments.

3.1 The Need for a Holistic and Unified Approach

Multi-stakeholder collaboration ensures that online safety efforts are not siloed but instead form a **cohesive, multi-layered defence mechanism** against digital threats. The complexities of the online ecosystem require expertise from different domains to develop well-rounded solutions. By fostering cross-sector partnerships, organisations can **leverage each other's strengths, pool resources, and create scalable solutions** that have lasting impact.

3.2 Effective Information Sharing and Best Practice

When stakeholders collaborate, they can **share valuable insights and best practices**. Governments and NGOs benefit from industry data on online risks, while academia provides research-backed strategies for intervention. Likewise, industry leaders can refine their safety tools based on policy frameworks and user insights from NGOs. This continuous exchange of information ensures that **solutions remain relevant, effective, and adaptable**.

3.3 Policy Development and Implementation

Public sector involvement ensures that digital safety measures are **institutionalised** through regulations that apply uniformly across industries. Policies informed by research and industry expertise result in balanced, practical, and enforceable guidelines. Moreover, NGOs provide a **youth-centric perspective**, ensuring that policies do not alienate or restrict young users but instead support their digital engagement in safe and constructive ways.

3.4 Collaborative Technology Development

Academia and industry collaboration leads to the **development of advanced trust and safety technologies**. Industry players implement safeguards into platforms, while universities contribute research on issues such as AI-driven content moderation, user privacy, and digital literacy tools. By aligning efforts, stakeholders can push the boundaries of innovation in online safety.

3.5 Grassroots Engagement and Awareness Campaigns

NGOs play a key role in **bridging the gap between policy and practice** by conducting digital literacy workshops, awareness campaigns, and direct outreach to teens and parents. With support from governments and industry, these initiatives can be expanded in scale and effectiveness, ensuring that young users are equipped with the knowledge and skills to navigate the digital world safely.

3.6 An Ideal Collaboration Model

If all four stakeholders worked together seamlessly, the online safety landscape for teens would be significantly strengthened. In this ideal model:

- **Governments** set comprehensive online safety policies informed by academic research and industry insights.
- **Tech companies** implement rigorous safety measures and provide transparency about data practices.
- **NGOs** ensure that these measures are community-oriented and meet the real needs of young people.
- **Universities** conduct research that directly informs policy and product development.

For instance, a joint initiative between these players could create an adaptive online safety curriculum, integrating policy guidelines, academic findings, industry best practices, and NGO-led youth engagement strategies. Such an initiative could be piloted in multiple regions, refined based on research feedback, and scaled globally.

4 Conclusion

Ensuring a safe online environment for teenagers is a shared responsibility that cannot be achieved by any one entity alone. The collaboration between governments, industry, academia, and NGOs is crucial to developing holistic, effective, and sustainable digital safety solutions. Case studies like Cyber Youth Singapore's Surf Safe Campaign and TUM Think Tank's partnership with Apple exemplify the positive impact of multi-stakeholder engagement. Moving forward, fostering stronger cooperation between these key players will be essential to protecting and empowering the next generation of digital users.

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