

Research Proposal: Understanding Adolescents' Online Safety During Times of Crises

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Abstract

The increasing use of technology by adolescents exposes them to a wide range of benefits and risks. While previous research has explored these risks, the context in which they occur can significantly affect their nature, making some risks more prominent and potentially severe than others. In this proposed study, we aim to identify the main online risks adolescents face during times of crisis, specifically during wartime. Additionally, we will investigate the strategies used by adolescents and their support network, including parents and teachers, to mitigate these risks and how they were informed about these practices. To this end, we will use two methodologies: 1) interview-based study, in which we will interview parents and adolescents about their online experiences and protective practices in an ongoing war; and 2) social media content-analysis study, to learn about the practices people used to mitigate online risks as were suggested in SM discussions during the early stages to the war.

1 Background

In the US, nearly half of teens (46%) are consistently online, using various apps like Instagram, TikTok, and WhatsApp to connect and consume content [23]. While this extensive digital engagement offers social and educational advantages, it also exposes adolescents to risks such as unsafe behavior, sexual violence, and misinformation [8]. Given technology's increasing role in young people's lives, ongoing research is crucial to comprehend the challenges they face, particularly

in balancing social media use with safety concerns. In this proposal, we focus on adolescents aged 8 to 18 years.

When exploring adolescents' online safety, researchers aim to gain a fundamental understanding of the relationships between adolescents and technology and the context of these relationships. Scholars have delved into specific areas like social media platforms such as Instagram [2] or during events like the COVID-19 pandemic [18]. In this project, we aim to explore adolescents' online safety in a relatively unexplored context – wars, in particular as related to the ongoing Israel-Hamas War.

“Online risks” include different types of threats that are digitally-mediated, such as misinformation and exposure to harassment [12, 20]. The Israel-Hamas war has a significant presence online, exposing adolescents to online risks. Israeli adolescents may face online conflicts, both internal (between different populations in Israel) and external (from outside of Israel), possibly leading to hate speech [17]. The risk of exposure to extremely violent content increases as well, with videos from the first days of the war being widely distributed, known in Israel as “horror videos” [22]. As a response to these and other risks, suggestions on how parents can protect their children were distributed through several communication channels, both traditional media and social media. For example, parents were encouraged to prevent their children from viewing these violent videos to avoid the risk of PTSD (e.g., [10]). In the early days of the war, parents were suggested, for example, to forbid their children from using certain social media platforms, such as TikTok and Telegram.

The war context brings new online risks and renders existing risks more salient and thus requires a separate exploration. Accordingly, so are the practices used to mitigate these risks. Related research explored online safety during the COVID-19 pandemic [18], which was similar to a war in terms of the crisis-related risks it engendered, or adolescents' use of technology during the Russia-Ukraine war [13]. While these studies have contributed to our understanding, either their context was not war or their focus was not online safety. In this study, we aim to narrow this gap and increase our under-

standing of adolescents' online risks and practices to mitigate them in a war context.

2 Related work

2.1 Online Safety

Adolescents are exposed to online risk at all times, whether or not a crisis is occurring. Their lives are seamlessly integrated with technology, bringing benefits and risks. Benefits include, for example, rich social lives and the ability to explore their identities and interests [4, 8]. Online risks have been classified into four categories (4Cs): 1) exposure to harmful online *content* (e.g., racism), 2) unhealthy and dangerous *contact* (e.g., ideological persuasion), 3) inappropriate *conduct* (e.g., gambling, cyberbullying), and 4) unsafe *contract* (e.g., financial fraud) [12]. These risks can lead to a broad range of physical and mental harm of varying severity, including anxiety, depression, self-harm, and suicide. While anyone can be exposed to online risks, adolescents are more vulnerable because of their established tendency to engage in risk-seeking behavior [11] and their limited understanding of the possible consequences of taking these risks [25].

To mitigate online risks, adolescents and adults use different strategies [8]. These strategies include managing the use of technologies (e.g., preventing their use at school) and monitoring and restricting adolescents' access to risky content and applications. Adolescents, however, use different tactics to bypass restrictions, such as re-loading deleted applications and manipulating their phone's clock to circumvent time-limiting software. Not all strategies exemplify the "arms race." Adolescents use strategies of their own, such as implementing privacy protections and blocking contacts or turning to friends or social media as a source of support [8]. In addition, among young children, a desire for close parental supervision was reported [3]. More broadly, Wisniewski referred to the role of parents in managing adolescents' online safety [25]. She suggested strengthening adolescents' online self-regulation –progressing toward "risk-resilient teens" – and reducing parents' one-sided control – where the focus is on "risk prevention." An increase in teens' resilience to online risks can also reduce conflicts between parents and adolescents, in which adolescents are concerned about privacy violations perpetrated by their parents [8] and desire more autonomy in their online interactions [25].

2.2 Digitally-mediated Crises and Mitigation of Crises Trauma

Technology and Crises. Prior studies found significant differences between war exposure levels and their impact on mental health symptoms, showing that the effect of direct exposure on symptoms is stronger than that of media exposure [21]. Nevertheless, media exposure was also found to

affect adolescents' mental health problems significantly, stimulating PTSD and stress. Age differences were also observed, with older children perceiving greater threats when exposed to war-related media, possibly because they understand the full scope of the situation [6].

Crises other than war are also digitally related and mediated, with the recent COVID-19 pandemic being a prominent example. Some aspects of technology use among adolescents during the pandemic were beneficial, such as its capacity to help them cope with loneliness [14] and decrease their anxiety associated with online social connection. However, other aspects were harmful and had the opposite effect. For example, findings showed increased anxiety associated with greater technology use [7] and increased depression associated with several factors, such as difficulties in online learning [16] and body image concerns [5]. Furthermore, as in the case of war media exposure, prior studies found that anxiety and depression were associated with greater consumption of COVID-19-related content [19].

Mitigating Crisis Trauma. Technology offers another resource for teens to help them escape life's stressors and satisfy their need for socialization. Studies that examined adolescents in difficult situations reported on the role of technology in coping with these situations. For example, texting others improved distressed adolescents' well-being, war survivors who became refugees were able to connect with others globally and start processing their trauma [24], and other war survivors referred to social media and gaming as a source of distraction [13]. Studies also explored ways to use technology to assist adolescents, such as through developing supportive voice conversational agents [15], and technologies to support anxiety self-regulation.

3 Research Objectives

The main objective of the suggested project is to understand adolescents' online safety – the risks and means of mitigating them – in the context of crises. To this end, we will specifically explore adolescents' and parents' perspectives on online safety in the context of the ongoing Israel-Hamas war. Such understanding can serve as a starting point for mitigating online risks. To attain the study objective, we need to understand the broad context in which the risks exist and the people affected by them. Accordingly, the key research objectives (ROs) of this proposal are as follows:

RO1 Identification of the most prominent online risks during crises threatening adolescents. Building on prior online safety research, we aim to understand and characterize the online risks that adolescents experience in war situations. Furthermore, we aim to understand the differences between social media use in "normal" times

and times of crises and, accordingly, the difference in rising risks under such situations in particular.

Identification of the online risks that adolescents experience encompasses several sub-objectives, including the exploration of both adolescents and parents' perspectives, learning how they were exposed to the risks, comparison of the risks of the different wars, and exploration of the war context in these risks, such as whether it was related to the conflict directly (e.g., content), or, for example, as a result of a new situation (e.g., displacement and transferring to online learning).

RO2 Identification of the strategies that adolescents and parents used to mitigate adolescents' online risks during and after crises. Continuing RO1 and building on online safety prior research, in particular studies that explored privacy and safety interventions, we aim to learn from the two populations about the strategies they used to mitigate online risks.

4 Methodology

In this study, we aim to answer two main questions, and through two sub-studies, we will gain the desired knowledge. The first main question will concern the identity of the prominent *online risks* to adolescents that are unique during a war or of the existing risks that are made more prominent during a war. Other related topics will also be explored, such as the perceived severity of the risks and the contextual factors influencing them, including war exposure, the influence of friends and family, and the technological aspects through which the risks are manifested. The second main question will concern the *strategies* people use to mitigate the risks they encounter. Here, too, we are interested in exploring sub-topics, including the behavioral and digital aspects of the strategies, the reasons for using them, the ways people learned about them, how they were evaluated, and whether their use has changed over time. Furthermore, we want to explore related variables including contextual (e.g., war exposure) and individual (demographics, such as age). To answer these questions, we will conduct two qualitative sub-studies: 1) interviews and 2) social media content analysis.

Sub-study 1. The study is aimed to explore online safety in the context of the Israel-Hamas war, and accordingly, the data collection will occur in Israel. In this sub-study, we will conduct an interviews-based study, an appropriate methodology for gathering comprehensive insights derived from various individuals' personal experiences. We will interview both adolescents and adults since, while both share the willingness to protect adolescents from online risks [1], their perceptions differ [26]. Similarly, following the differences in online safety perceptions of younger and older adolescents [9], we will recruit adolescents between 8 and 18 years-old. "Adults" will

include parents and children's broader care-giving network, such as teachers. We will recruit Jewish and non-Jewish participants to explore the cultural aspect. Finally, to explore the possible effect of war exposure on online safety risks, we will recruit people with different types of war exposure, such as direct exposure (i.e., exposure to missile attacks, knowing someone who was wounded or killed), proximity exposure (i.e., measures of fear), and media exposure.

Preparing our IRB application, we consider the study topic, which may be triggering during the interview. We will take several steps to minimize the risks to our participants. For example, interviewers will be trained by a licensed child psychologist to recognize signs of distress and respond appropriately. We will employ age-appropriate language throughout all interactions, ensuring clear communication with child participants. Other preparations include assembling a list of support services to share with the participants and their parents.

Sub-study 2. To explore people's reactions during the early stage of the war, we will conduct social media content analysis. In Israel, parents were warned about the risks of adolescents viewing very disturbing videos from the beginning of the war. These warnings were discussed on social media platforms, such as Facebook, Instagram, and WhatsApp, and we will analyze these discussions.

5 Expected Contributions

The expected outcome of the project is a better understanding of adolescents' online risks under war situations. Ultimately, it will provide a baseline to support them and mitigate those risks. The project will explore adolescents' and parents' perspectives from Israel, exploring online safety related to the ongoing Israel-Hamas war. However, findings from the study are expected to contribute more generally, presenting new knowledge about online safety during wars and crises. The content to which adolescents are exposed is not limited to adolescents from the Middle East, where the conflict occurs physically, since the digital war occurs globally. Therefore, also adolescents outside the conflict are at risk of being exposed to violent content.

6 Preliminary Results

Our preliminary results include an initial content analysis of public discussions and pages on Facebook and Instagram. Through discussions between parents and the content published on public pages that are mainly aimed at adults, we were able to identify the risks about which parents were concerned and the ways suggested to mitigate them. The discussions we analyzed were between members of a public Facebook group dedicated to parents. As for the public pages, we chose pages that are relevant to our purposes and include

commercial pages, such as parenting and digital life consultants, and governmental pages, such as “105 - Child Online Protection Bureau” and “Israel National Cyber Directorate.” This preliminary content analysis is limited to public discussions and pages and refers to parents’ perspectives. However, in the proposed project we will conduct a deeper investigation, including semi-public discussions (e.g., those between members of large and closed groups) and content published on TikTok to capture the adolescents’ perspective.

Identified risks. The most discussed online risk we observed is adolescents’ exposure to extremely violent content. This topic was observed in the parents’ discussions and in the analyzed pages. For example, as presented in Figure 1, this warning was published on “105 - Child Online Protection Bureau” Facebook page (Published on November 9, 2023):

“Message to the public - Exposure to hard-to-watch videos.

In the shade of the “Iron Swords” war, the ongoing exposure to difficult content from the Black Saturday of October 7th on the media and social networks abrades the soul.

Children and teenagers are exposed to images, videos, and extremely disturbing content to which that they are not supposed to be exposed and is inappropriate for their age.

The public diplomacy video that was edited by the IDF Spokesperson’s Unit (termed “Horror video” in the media) contains very difficult graphic images and descriptions and might cause mental health problems for those who are viewing it. The video is not intended to be viewed by the general public, and, for sure, is inappropriate.. ”

While the parents’ discussions focused on the risk of exposure to disturbing content, other risks were observed on the analyzed pages. These risks include fake news, messages sent from unknown numbers through WhatsApp to cause panic, and compromised social media accounts.

Suggested strategies to mitigate online risks. Both parents and professionals suggested ways to mitigate online risks. Several means of avoiding exposure to violent content or steps to take if adolescents were exposed were suggested. For example, parents suggested filtering content on YouTube or forbidding children to search on YouTube without parental supervision. These two strategies are demonstrated below (the post was published on October 29, 2023) :

Original post: *“Is there a way to filter content on YouTube beyond toddlers? 11-year-old girl, who individually searches art tutorials on YouTube ... I trust her, but I am afraid that YouTube will recommend follow-up*



Figure 1: Example of a post published on the Facebook page of “105 - Child Online Protection Bureau” that warns about exposure to hard-to-watch videos. A translation appears under “Identified risks.”

videos that can accidentally lead to inappropriate content for her age.”

Comment: *“This isn’t the time to let go... on the contrary, there is a shocking and indigestible wave of terrible horrors, and it is your duty to reduce it for her and act as a wall as much as you can. At her age it’s not hermetically possible in any way, [so] I wouldn’t allow YouTube to be searched alone in the near future.”*

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