Digital Boundaries: Understanding the Risks to Youth in Extended Reality

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ABSTRACT

As technology use has become an integral part of teenagers' lives, it is also being used as a tool of abuse in teenagers' interpersonal relationships [1]. Protecting youth from digital risks and harms has been identified as a critical issue [2, 3]. As a result, there is a concerning lack of information about the ways in which technology may, or may not, impact youth interpersonal relationships in the context of abuse. Consistent access and exposure to media, including content posted by peers, has raised concerns regarding increased exposure to inappropriate content, online harassment, sexual coercion, and cyberbullying [4-6]. Further compounding these challenges is that there is a significant gap in the fundamental understanding of how augmented reality (AR) and virtual reality (VR) are used as a tool of abuse in youth interpersonal relationships. In this statement of interest and position paper, I describe how this research on AR and VR builds upon my prior work on intimate partner violence and youth interpersonal violence.

CCS CONCEPTS

• **Human-centered computing**→*Empirical studies in HCI; Security and privacy → Social aspects of security and privacy.*

KEYWORDS

HCI, youth, Computer security and privacy, interpersonal violence, augmented reality, virtual reality

ACM Reference format:

Diana Freed. 2022. Digital Boundaries: Understanding the Risks to Youth in Extended Reality. In *CHI Conference on Human Factors in Computing Systems (CHI '22), April 29-May 05, 2022, New Orleans, LA, USA. ACM, New York, NY, USA, 2 pages.*

1 Introduction

My research focuses on the intersection of technology and society, with an emphasis on security and privacy, human-computer interaction, privacy decision-making, as well as design considerations to improve online safety and well-being for diverse populations. My work has focused on advancing the current understanding of how digital technologies are used as tools of abuse in adult [7-11] and youth interpersonal relationships. Digital technologies, such as mobile devices, and social networks, play an increasingly significant role in perpetrating harm to vulnerable populations, including survivors of domestic abuse and image-based sexual abuse. The types of technology-facilitated abuse are expanding to increasingly include IoT devices (internet of things). These devices which include doorbells, thermostats, TVs, fitness equipment and trackers, home surveillance cameras, car apps, and a range of other technologies are used by abusers to track, monitor, and surveil intimate partner violence (IPV) survivors. In these situations, survivors' behaviors are being both passively monitored and actively controlled as abusers may change temperature controls, the volume on smart devices, or take other actions on IoT devices to intimidate survivors. Given the complexity of these technologies, survivors often struggle to understand what is happening and how to mitigate this abuse.

Through my research on IPV, I became very interested in the complexities involved with youth entanglements in the context of IPV tech-facilitated abuse. I transitioned my research to focus on youth digital risks and harms. This work focuses on the role of digital technologies in youth interpersonal abuse and the psychological sequala that arises from the digital and real-world trauma that coincides.

2 Motivation of Interest

Through my current research with youth and young adults I have increasingly found that digital abuses and exposure to harmful content manifests in AR and VR spaces. Understanding how these spaces enable perpetrators to groom and manipulate youth is imperative. My research investigates how these online spaces create unsafe environments, often in the safe environment of children's homes. Additionally, there is a need to understand how these virtual experiences should be moderated and designed so that there are clear digital boundaries. My research focuses on developing tools and technologies to design, detect and mitigate technology-facilitated abuse [1-5]. A key challenge is ensuring that

people with low tech literacy can use the tools effectively, understand information flows, and effectively manage their privacy and safety.

3 Conclusion

I am very interested in attending this workshop as it aligns with my research interests. I will contribute to the workshop by sharing my knowledge of youth digital risks and harms as they extend to augmented and virtual reality.

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