Moving beyond Fear and Restriction to Promoting Adolescent Resilience and Intentional Technology Use

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Abbreviations:
AI: Artificial Intelligence
LGBTQ+: lesbian, gay, bisexual, transgender, queer, and others
UX: User Experience

Chapter Summary

We present a case for moving beyond fear-based restrictions for youth online safety to positive digital parenting practices that promote teen resilience and wellbeing through developmentally appropriate and teen-centric solutions.

Contributors Statement

Dr. Pamela Wisniewski organized a working group of co-authors who are all experts in the lived digital experiences of adolescents. She drafted the high-level outline of the key trends relevant to this domain and coordinated among co-authors regarding drafting their respective sections as described below.

Dr. Jinkyung Park contributed to the coordination among co-authors, overall framing of content, research questions, and recommendations sections related to adolescent online safety. She drafted sections of the manuscript, reviewed/edited the full manuscript, and managed references and formatting of the manuscript.

Dr. Karla Badillo-Urquiola contributed to the overall framing for moving beyond "one-size-fits-all" solutions as well as the overarching research questions and recommendations sections. She drafted sections of the manuscript and reviewed/edited the full manuscript.

Dr. Joy Gabrielli contributed to overarching research and policy recommendations as well as content specific to parental media mediation. She drafted sections of the manuscript and reviewed/edited the full manuscript.

Dr. Jen Doty contributed to the overall framing, the research, and policy recommendations as well as content specific to parental media mediation. She drafted sections of the manuscript and reviewed/edited the full manuscript.

Dr. Heidi Hartikainen contributed to the overall framing, the research, and policy recommendations as well as content specific to cultural factors. She drafted sections of the manuscript and reviewed/edited the full manuscript.

All authors approved the final manuscript as submitted and agreed to be accountable for all aspects of the work.

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Abstract

      In recent years, societal narratives around teens and screens have shifted significantly. First, high-profile media coverage has raised concerns over the negative impact of technology use on the mental health, well-being, and physical safety of adolescents. Consequently, this has led to restrictive approaches to implementing parental control software, age verification systems, artificial intelligence-based risk detection, and other safety mechanisms to protect teens from such harm. At the same time, recommendations regarding digital technology use have moved beyond imposing time limits to more advanced frameworks that consider active and intentional technology use. Additionally, research recommends shifting from restrictive parenting practices to include more developmentally appropriate and resilience-based approaches that empower teens as they prepare for adulthood. Yet, researchers have acknowledged that solutions towards digital inclusion cannot be "one-size-fits-all," as individual development, family differences, and cultural norms may influence youth outcomes. Finally, we have seen more tangible efforts through human-centered design and legislative policies targeted toward making digital platforms that engage teen users more accountable for their online safety. In this chapter, we discuss these trends and raise important questions and recommendations for setting a forward-thinking agenda for future socio-technical research and practice on promoting the digital well-being and safety of teens.

Keyword
adolescent online safety, digital well-being, adolescent resilience, active parental mediation, intentional technology use, teen-centered design

Introduction

      According to a Pew Research report, 97% of U.S. teens use the internet daily; 46% of them are online almost constantly. Most have access to digital devices, such as smartphones (95%), desktop or laptop computers (90%), and gaming consoles (80%).[1] Most teens report that being social online helps them feel connected, creative, and supported.[2] Yet, emerging evidence has linked excessive screen time, cyberbullying, exposure to mature media content, and problematic internet use with mental health problems and physical safety risks (e.g., sex trafficking).[3-4] Subsequently, news media and scholarly research have intensified parental fears by overemphasizing the need to protect teens through the use of restrictive interventions against unfettered access to technology. As a result, many parents report feeling overwhelmed and anxious

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about their teens' internet use, saying confrontations about screen time disrupt positive parent-child interactions.[5] In this chapter, we highlight trends that have emerged in the current literature and those seen in society-at-large. We then promote a more balanced narrative geared towards taking a developmentally appropriate and positive approach focused on active parental mediation, building resilience, and promoting digital wellbeing to empower both teens and parents.

Current State

The On-going Debate of the Negative vs. Positive Effects of Tech on Teens

In 2021, *Good Morning America* broke a story about a woman who, after posing as a child on Instagram, experienced the almost immediate and frequent unwanted barrage of sexual solicitations that children receive on the platform.[6] The scrutiny regarding the negative effects of social media use on teens heightened after *The Wall Street Journal* released internal reports (a.k.a. the "Facebook Files") from Facebook (now Meta). Findings from these reports suggested that Facebook was aware of the negative impacts of their platform on teens, including the spreading of false information, promoting anger-provoking posts, and pushing harmful content (e.g., anorexia and self-harm posts) due to the flawed algorithms embedded within the platform.[7] This media attention bolstered the efforts of U.S. Senators Blumenthal and Blackburn in proposing the "Kids Online Safety Act,"[8] to protect children from online dangers. While this legislation has positive aspects, advocacy groups such as those that support the rights of LGBTQ+ youth and freedom of speech have expressed concerns regarding the heavy use of digital surveillance impeding the privacy, safety, and access to information rights of youth.[9]

Scholarly research has also raised concerns that excessive screen time and social media use are negatively associated with the social and emotional well-being of teens, such as increases in depression, anxiety, and suicidal behaviors.[3] Yet, many believe these negative effects have been

overstated. Recent narrative reviews and meta-analyses found a weak or inconsistent linkage between teens' digital technology use and adolescents' social and emotional well-being,[3] though certain subgroups had heightened risk.[10] In contrast, other research highlights the positive effects of digital technology on youth, ranging from increased social communication, social support, and self-presentation to decreased depressive symptoms and loneliness, which were particularly salient during the global pandemic.[11]

Given the substantial disagreement within the literature on the net benefits or drawbacks of technology use on teens, this debate will likely remain ongoing in the coming years. Our stance, however, is that while internet use is not inherently positive or negative, the internet can amplify the experiences young people have, both good and bad. Positive and negative effects can co-exist without invalidating one another, as effects can vary across different contexts and individuals; some youth experience net positive effects, while others experience heightened risk for adverse outcomes, particularly younger teens during the transition to adolescence.[12] As such, further research evidence is needed for how to address mental health and digital wellbeing in online and technology-based environments, particularly during sensitive developmental periods of adolescence.

Fear and Restriction as a Motivation for New Digital Safety Technologies

In light of the on-going debate and fear, we have also seen a marked trend in several digital technologies deployed to protect youth online. For instance, a recent review highlighted the increased push towards age assurance and verification systems, as well as the use of parental controls.[13] The rationale behind such tools is to make sure that youth are engaging in age-appropriate ways online and are being sufficiently monitored by their parents when doing so. Social media platforms have also taken measures to protect youth – from preventing adults from

sending private messages to minors they are not connected with to sensitivity filters and advanced parental controls. Given the massive scale of online interactions and content generation, the implementation of automated risk detection tools is accelerating.[4] As such, there has been a push towards the use of Artificial Intelligence (AI) based tools to detect and eradicate harmful online content. Yet, limitations of these approaches include restriction of teens' access to valuable resources and support from people, particularly salient for vulnerable youth who do not have local support systems, with additional concerns related to digital privacy rights due to the use of digital surveillance.[14]

Moving beyond Restriction to Digital Inclusion and Intentional Use

Understanding the spectrum of digital connectivity has been discussed as fundamental for the development and implementation of digitally mediated support for young people. Research on teens' access to digital technology use and screen time has moved beyond simple binaries of access/no-access or use/non-use, shifting to capture the range, purpose, and quality of use, especially since the global pandemic shed light on the complexity of digital inequalities. By understanding the degree of digital inclusion, recent research highlights the need for providing online opportunities for digitally marginalized teens. Another shift in the discourse on teens and screens includes teens as passive users/consumers of digital technology to a focus on teens' active and intentional technology usage such as being content producers or participating in community activism online. While most people engage in passive online activities such as scrolling through others' feeds and liking others' posts, social media apps increasingly allow for more active content sharing and creation by teens. Together the current research emphasizes the need for teens to learn to be intentional about their internet use in order to minimize risks and maximize benefits.

Paradigm Shift to Active Parental Mediation and Positive Digital Parenting

A primary developmental objective of adolescence is safe and successful growth towards independence and autonomy, both of which are known to be associated with adult health and wellbeing outcomes.[15-16] While restrictive media parenting practices (e.g., limits on screen time and content) inherently restrict both independence and autonomy, they are important during earlier stages of youth development (i.e., school-aged years through early adolescence) to prevent youth early exposure to mature media content, a known risk factor for adolescent health risk behaviors.[17] Active media mediation (e.g., having parent-child conversations about media) requires more parenting attention and may be more sensitive to other features of the parent-child relational dynamic. For example, parent-child connectedness is likely a critical component of effective active media mediation.[18] Active media mediation, in conjunction with a scaffolded approach to restrictive media mediation, allows for greater adolescent autonomy and the development of important skills within digital environments.[16] In today's digitally integrated world, youth need to gain competence to manage their digital footprints and understand how to protect their privacy online.[19] Positive digital parenting approaches like talking with teens about online risks, engaging in proactive co-use of digital technologies with teens, and supporting access to healthy online content, can advance youth development towards safe, autonomous use of digital technologies into adulthood.[20]

Active media parenting has also been associated with reduced media-related risks including aggression, substance use, and sleep deprivation.[21] A meta-analysis reported that both restrictive and active media parenting were associated with reduced time online. However, only active media parenting was associated with reduced media-related risks, while restrictive media parenting was not.[22] Both types of parental mediation were more effective for younger ages, while neither was

found to be effective overall as teens approached adulthood. Overall, autonomy-supportive parental monitoring is more effective than controlling approaches.[16,22]

More recent studies posit that social influences (e.g., peers, family, community) on youth can have a positive impact on adolescents' motivation and self-regulation.[23-24] Therefore, taking into account socio-ecological factors in digital parenting can be effective in promoting the digital well-being of adolescent while supporting their autonomy development. Our conceptual model (see Figure 1) combines the social ecologies of the adolescent resilience framework[23-25] with digital parenting practices across the adolescent lifespan to promote the shift from restrictive parental mediation approaches early in youth development to active and resilience-oriented approaches later in youth development.

Figure 1. A Social Ecological Approach to Digital Parenting Across the Adolescent Lifespan.
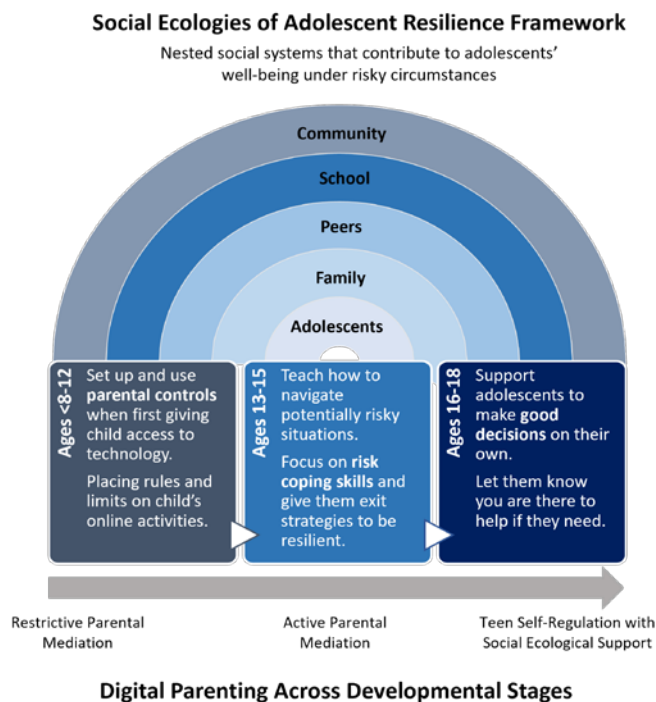
Cautioning against "One-Size-Fits-All" Solutions

While intentional technology use and active parental mediation are unequivocally positive trends toward promoting the digital wellbeing of teens, we also must acknowledge that age and other factors, such as family context and culture, must be considered when proposing a path forward.

Developmental considerations by age: Early on in youth development, children require extensive supervision/monitoring with clear restrictions around age-appropriate content and technological tools. In middle childhood, more active approaches with conversations about how to engage in healthy ways online while avoiding problematic or mature content/behavior are needed.[26] In later adolescence, youth need opportunities to explore autonomy in digital contexts that support their individuation from parents and also shore up their ability to problem-solve, seek help when needed, and gain confidence in their skills in digital spaces.[13,25]

Family context: Parent- and family-focused approaches to mediating teens' technology usage still assume a significant level of privilege. The teens most vulnerable to online risks (e.g., youth in foster care) are often the ones who do not have engaged parents who can actively participate in ensuring their online safety.[27] Furthermore, the adults responsible for these youth (e.g., foster parents and case managers) do not feel they have the authority to parent the child, often feeling hopeless and desperate for guidance.[24,27] Hence, scholars have called for new resilience-based solutions that move away from parental restriction and control toward helping adolescents self-manage their screen time and online risk.[25,27] Yet, few evidence-based interventions to empower adolescent self-regulation and online safety have been developed.[28]

Cultural factors: Within the US, factors such as parents' socioeconomic and cultural resources are known to play a significant role in how they approach digital mediation (e.g., parents with higher

digital skills are more likely to use restrictive mediation).[29] While much of the discourse around online safety currently emerges from the Global North (e.g., countries in North America, Europe, East Asia), there is increasing evidence showing cultural factors may contribute to different parental mediation strategies.[30-32] For example, Western European parents take more protective approaches, even if it might cost the children online opportunities, while parents of Nordic and northern European countries favor children's rights and freedoms in online environments, even if this may put children at risk.[33] The effectiveness of parental mediation strategies is also different among cultures. For example, active mediation has been seen to be less effective with children from Western European countries than from Eastern countries.[22] In general, in Europe, the focus of parental strategies is moving away from setting rules and restrictions towards guiding children in their internet use.[34]

Empowering Teens through Teen-Centered Design and Policies

One way to account for these important contextual differences is through human-centered design – an approach that recognizes teens as a primary stakeholder with authority over their lived digital experiences. As such, researchers have begun engaging teens more directly in the design of solutions that center teens as the authority of their online experiences and promote collaboration, rather than conflict, with their parents.[28,35] By shifting the power dynamic from catering to the needs and perspectives of parents and adult researchers, amplifying youth voices can empower them to learn how to self-regulate their online habits in ways that promote resilience, autonomy, and their online safety.[36] Such approaches also shift away from restrictive parental controls to technology-based solutions that promote positive family values, such as trust, transparency, and communication.[37] Further, engaging teens as co-designers and researchers can lead to novel design patterns and solutions that will transform the current technology landscape into one that promotes

the digital inclusion of youth, as well as moves towards a paradigm of "safety by design," where the digital wellbeing of our teens is held paramount in both the platforms in which they engage and the policies put forth to protect them online.[28,38-40]

Future Research

When it comes to solutions for tomorrow, one size certainly does not fit all. Therefore, we must take a nuanced approach towards setting a research agenda for the future. The questions for future research include:

- *How can we move beyond the current global debate about whether technology has a positive or negative effect on teens and focus our research on more nuanced, productive, and developmentally oriented considerations such as identifying which technology interventions are effective and for whom when it comes to mitigating risks and promoting digital well-being?*

- *What are the longitudinal, developmentally sensitive, bidirectional relationships between media parenting approaches and youth outcomes, and how do these vary based on youth, parent, and contextual characteristics?*

- *How can positive media parenting interventions inform causal pathways to healthy/adaptive online technology use among youth?*

- *How do socio-ecological factors (e.g., cultural norms, family context) influence adolescent media use and their online risk experience? How can technology solutions be designed to go beyond a one-size-fits-all approach to online safety?*

- *How can we design "teen-centered" online safety solutions that empower youth by increasing their sense of autonomy and promoting awareness and self-regulation?*

Recommendations

     We need coordinated efforts amongst researchers, technologists, clinicians, educators, policy makers, and concerned citizens to promote health and wellness in the digital lives of teens through positive media parenting and teen-centric approaches. We provide the following human-centered recommendations to promote teen resilience and digital wellbeing.

- *Researchers, Developers, and Other Technologists*: As we strive to meet the challenges of children's rights in the digital environment, we must incorporate adult guidance and youth self-regulation into the design of future technology interventions that promote trust between family members and youth. Technologies with evidence-based and inclusive privacy solutions should be informed directly by youth as a way to effectively translate academic research into impactful solutions.[41]

- *Clinicians, Providers, and Educators:* There should be an active dialogue between the youth and these supportive systems (e.g., parents and teachers) concerning technology use. Clinicians, educators, and other service providers should engage with youth and families in regular conversations about developmentally appropriate parental involvement in youth engagement with media and technology with an eye toward the development of youth autonomy and resilience in the digital realm.

- *Policy Makers:* Legal frameworks to promote teen digital resilience and wellbeing within the US are lacking since COPPA does not apply to adolescents over 13. Proper legislation and policy should be discussed with various stakeholders including parents and teens as part of a larger agenda. Additionally, teen privacy needs to be protected as a right, and robust data protection laws tailored for youth should be enacted. More

importantly, there should be efforts to ensure these rights and laws are translated from

policy into practice.[12]

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