

The virtual kidnapping of youth by social media advertising

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Abstract

The scholarly discourse presented in this document meticulously dissects the intricate phenomenon of “virtual kidnapping” orchestrated by social media advertising. Adolescents are metaphorically ensnared in the digital realm, distanced from genuine interactions and caught in a web of detrimental consequences spanning their mental well-being, social integration, and cognitive development. The evolution of media influence from conventional platforms to the digital domain has heralded a transformative shift toward tailored content dissemination, algorithmic advertising methodologies, and ethical dilemmas surrounding the delineation between manipulation and persuasion in targeting susceptible youth. This article expounds on the deleterious effects of excessive television and social media exposure on young individuals, accentuating its disruptions of sleep patterns, cognitive abilities, physical health, academic attainment, and interpersonal skills. The comparative analysis of marketing practices in television versus social media unveils regulatory disparities and challenges in shielding minors from precision-targeted marketing tactics prevalent in the digital sphere. Moreover, the profound impact of social media on adolescent mental health is rigorously scrutinized, attributing escalating rates of psychological distress, anxiety disorders, and suicidal behavior to constant digital connectivity, pervasive comparison culture, and exposure to unattainable body standards. This discourse underscores the need for heightened awareness, robust regulatory frameworks, and conscientious media consumption practices to fortify the comprehensive well-being of young individuals amidst the burgeoning digital landscape, advocating for a holistic reassessment of media’s pivotal role in shaping youth development.

Keywords

Social media advertising, smart phones, youth mental health, unethical practices, fragmented attention, children and adolescents.

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The evolution of media's influence on youth

The influence of media on youth has evolved significantly over time, shifting from platforms such as radio and television to the all-encompassing world of the Internet and social media [1]. This shift has had a wide range of reported effects on young people, both immediate and lasting. Although media has traditionally been a source of entertainment and information, the rise of digital platforms has ushered in a new era of extraordinary interactivity, diverse content, and modified approaches to advertising. This review delves into the detrimental effects of social media advertising on youth, painting a stark picture of how these platforms have effectively “kidnapped” young individuals, isolating them from genuine interactions and jeopardizing their present and future well-being [2]. This review also underscores the urgent need for a multidisciplinary examination of the harmful effects of social media advertising practices, emphasizing their profound impact on the mental health, social development, and cognitive growth of youth. As we navigate this evolving landscape of media influence on youth, it is imperative to acknowledge the complexities and nuances inherent in this relationship. Although social media has advantages not discussed in this document, our attention is directed toward the significance of social media advertising, which requires thorough scrutiny. By fostering awareness, advocating for responsible media consumption practices, and promoting regulatory measures, we can strive to mitigate the negative repercussions of media exposure on younger generations.

Contrasting characteristics of television and Internet media

Television and Internet media possess distinct characteristics that influence how individuals engage with content and information. Television

follows a linear schedule with set viewing times and content, whereas the Internet offers personalized, on-demand access to content tailored to individual preferences. The transition from scheduled programming to personalized content consumption led to a substantial transformation in media consumption. On television, viewers do not have the opportunity for immediate interaction or feedback unless there is some form of voting or live interaction. By contrast, the Internet allows for involvement through comments, shares, and discussions on social media, giving the viewer a sense of community and membership.

Television and Internet media are also subject to different regulations. Traditional TV programming adheres to established formats influenced by advertising revenue, potentially leading to content homogenization, scrutiny, and content removal. The Internet, on the other hand, offers user-generated content with fewer restrictions, allowing for a diverse range of programming and 24/7 instant availability of material that may not be age-appropriate, ethical, or socially acceptable [3].

Moreover, the evolution of media dynamics has shifted the original intent of media from informing and educating the public to prioritizing advertising revenue. Television advertising relies on commercial breaks to sway viewers, whereas Internet platforms utilize algorithms to personalize content and sustain user engagement as long as possible. Algorithms are structured methods or formulas used to complete tasks or solve problems. In social media, they curate content for users, deciding which posts, images, and advertisements appear in their feeds. These algorithms perform complicated computations considering users' behavior, preferences, and interactions to generate individualized networks of information, thus improving the distribution of effective content to users and advertisers [4].

This transformation has fundamentally changed media consumption patterns, with social media platforms playing a pivotal role in shaping user experiences and driving advertising practices from TV programming only a few hours a day to day-and-night availability. The product with more views, often dictated by algorithms instead of educational value or morality, becomes a revenue generator and will lead to similar products that prioritize commercial interests over public service, raising ethical concerns about the role of media in society. The intent of this practice – persuasion versus manipulation – is under scrutiny. The “search engine manipulation effect” [5], refers to the ability

of search engines to influence users' beliefs and behaviors based on their search result rankings. The manipulation effect can lead to biased information dissemination, impacting public opinion and decision-making processes. Scholars such as Safiya Umoja Noble [6] have emphasized how algorithms can perpetuate existing social inequalities by reinforcing biases based on race and gender. Her report states how search engines, often perceived as neutral tools, actually serve to reinforce systemic biases and discriminatory practices by prioritizing certain types of content over others, thereby shaping public perceptions and reinforcing stereotypes about marginalized communities. This capitalism-regulated manipulation of what young people can see and learn from has a strong impact on their education, beliefs, practices, and future leadership [7-9]. The propagation of selective ideas and negative stereotypes by the media, or the deliberate dissemination of misinformation to the public, risks creating false beliefs and misconceptions, especially among vulnerable youth.

Effects of excessive television use on youth

The effects of excessive television use on youth have been extensively researched and documented, revealing significant impacts on both their short- and long-term well-being. Studies have highlighted the associations between media exposure and various health concerns, prompting regulatory actions in areas such as advertising. For instance, restrictions on tobacco and alcohol advertising have been implemented to address youth morbidity and mortality, reflecting a growing public consensus on the need for comprehensive advertising bans [10, 11].

Other studies have elucidated the influence of television viewing on children's sleep patterns, attributing disruptions to prolonged screen time [12-15]. Factors such as sedentary activities, exposure to stimulating content, and unsupervised viewing have also been linked to poor sleep quality among children and adolescents. Furthermore, research has underscored television's effect on executive function in youth, impacting their ability to concentrate [16] and sustain attention across tasks [17, 18].

Obesity has become a public health issue as a non-infectious pandemic [19] and has been attributed to a lack of physical activity and poor eating habits [20] as a result of media consumption and exposure to marketing advertisements [21]. The correlation between television viewing and obesity, particularly

among specific populations, such as Indigenous and low-income children, has been a subject of concern [22, 23]. Sedentary behaviors associated with excessive screen time have been identified as factors contributing to the obesity epidemic among Canadian and USA youth, highlighting the role of media consumption in shaping lifestyle habits [24-26].

Several publications have warned that television viewing is associated with increased attention and learning difficulties in adolescents with poor academic performance, negative attitudes toward school, long-term academic failure [27], and social development, at least short term [28]. However, the relationship between attention and television viewing was challenged by longitudinal studies indicating that attention deficits are only present at very high levels of viewing and can be caused by confounding factors [29].

Parents significantly shape their children's television viewing habits [30] through their own behaviors, attitudes, and mediation strategies [31]. An obesogenic environment where families tend to watch more television and consume more unhealthy snacks can contribute to a higher body mass index in children, suggesting that parents who model sedentary behaviors may inadvertently encourage similar habits in their children [32]. Parental limits on screen viewing time corresponded with an increase in physical activity among children and adolescents [33].

Marketing practices: television versus social media

Marketing practices in the digital age are influenced by the evolving regulatory landscape and ethical considerations that shape consumer interactions. Television advertising operates within a well-established regulatory framework, with many countries imposing specific restrictions on advertising content and manipulative practices, especially those targeting children during programming. By contrast, Internet advertising, particularly on social media platforms, faces less stringent regulation due to the borderless nature of the online environment. This disparity in regulatory oversight raises concerns about children's vulnerability to targeted marketing strategies that use personal information to customize advertisements, potentially leading to overspending and online fraud. By creating a sense of urgency and fear of missing out, social media facilitates impulsive

spending through targeted advertising and influencer marketing that encourages immediate purchases. As a result, young people are more likely to make hasty financial decisions without fully considering the consequences. Overspending can also be exacerbated by the normalization of consumerism on social media. Young users often feel pressured to conform to the lifestyles and spending habits of their peers through social comparison.

In addition to encouraging overspending, social media is also a platform for various forms of online fraud. The anonymity and reach of social media make it attractive to scammers who target vulnerable youth. For example, scams involving counterfeit products, phishing schemes and fraudulent investment opportunities are prevalent on these platforms. Adolescents are often exposed to risky content online, which makes them more vulnerable to gambling and other risky behaviors, including falling victim to fraud due to their lack of experience and critical skills [34, 35]. The constant accessibility of online content further complicates efforts to monitor children's exposure to marketing messages, highlighting the need for enhanced safeguards in the digital realm. Proliferation of social media platforms has led to new marketing avenues that are less regulated and challenging to monitor. Despite some social media platforms, such as Facebook and YouTube, decreasing marketing to children, other platforms have increased marketing. These platforms frequently use indirectly paid influencers to promote products, complicating the identification of marketing content and making it more difficult for parents to supervise their children's exposure. The constant availability of content poses challenges for oversight of advertising strategies intended to attract all viewers but inadvertently reaching vulnerable children.

Interested parties have called attention to the potential exploitation of individuals, especially children, in the digital landscape. In *"The Child's Right to Protection from Economic Exploitation in the Digital World"* [36], the authors discuss how children are increasingly vulnerable to economic exploitation online. They highlight the risks associated with profiling, the commercialization of play, and digital child labor, underscoring the vulnerability of children who may unknowingly have their information collected for commercial purposes. Social media algorithms play a central role in profiling children based on their online behavior and preferences, enabling targeted advertising that capitalizes on their naivety and lack

of experience. The commercialization of gaming further blurs the lines between entertainment and commercial activity, as children are encouraged to make in-app purchases or engage with embedded advertisements under the guise of enhancing their gaming experience. In addition, the emergence of "kidfluencers" on platforms such as YouTube and Instagram have raised concerns about the unregulated practice of "using children to convince children" about products or services and may compromise children's rights and well-being in the pursuit of corporate profits.

Advertising exposure on television is limited to specific time slots during programming, with the primary goal remaining consistent across all advertising efforts: to influence consumer behavior and drive sales. Despite the more limited exposure to television compared with the ubiquitous presence of the Internet, both types of media employ strategic techniques to engage viewers and elicit desired responses. Their techniques intelligently draw on psychological, sociological, neuroscientific, and technological insights into relevant consumer behavior. This specialized understanding of human behavior is used to persuade and manipulate but should not be directed toward minors due to the harmful impact on their physical, emotional, and spiritual health.

Social media's impact on youth mental health

Every child and adolescent psychiatrist knows it: the kids are not well [37]. Warning signs recognized by pediatricians, teachers, parents, and the US Surgeon General [38, 39] indicate that youth mental health is in crisis, and social media has emerged as a major contributor. Rates of depression, anxiety, and suicide have been on the rise among young people worldwide in recent years.

The transition from childhood to adulthood during adolescence is a critical developmental period characterized by significant physical, emotional, and cognitive changes. This transition can render adolescents particularly vulnerable to mental health issues in this developmental stage [40]. Rapid brain development, identity formation, peer influence, family, financial factors, and social media contribute to increased risks. Social media appears to exacerbate issues with identity formation and peer pressure through exposure to idealized body images, leading to negative self-perceptions and increased psychological distress [41].

“*The Anxious Generation*” by Jonathan Haidt [42] details the role of social media and technology in amplifying feelings of anxiety and depression among adolescents. Haidt presents compelling information supporting how the constant connectivity and comparison fostered by social media platforms can result in feelings of inadequacy, loneliness, and fear of missing out, or FOMO, among adolescents. The culture of comparison promoted by social media leads adolescents to constantly measure their self-worth against the curated lives of their peers, ultimately promoting feelings of inadequacy and low self-esteem, which are closely linked to increased anxiety and depressive symptoms. These feelings can be particularly detrimental for adolescents who are in the process of developing their identities and social skills, making them more susceptible to psychosocial and behavioral problems. The visual nature of platforms such as Instagram and Snapchat further intensify these feelings, bombarding adolescents with images that promote unrealistic standards of beauty and success.

Understanding the virtual kidnapping phenomenon

Haidt introduced the phrase “phone-based childhood” and described its detrimental effects among youth, including social isolation, sleep deprivation, attention fragmentation, and addiction. These adverse effects arise from the optimum circumstances that social media provides for advertising. Social media provides engaging content that captivates users’ attention for extended periods while tailoring the content to their individual interests to promote purchases. Regrettably, this process has both immediate and long-term repercussions.

Young users are the ideal clients because they are unaware of the manipulative practices that take place during their many hours of screen time. During this time, advertisers are conforming the present and future customers of all type of products using their techniques for the longest time given that youngsters are plugged into their phones and most likely unplugged from the real world. Engagement is maximized with exceptional tools such as notifications, likes, and shares that tap into the brain’s reward system, leading to a cycle of compulsive use and, possibly, addiction [43, 44]. Though not all individuals are affected in the same way [45], it appears that some are more susceptible to the addictive behaviors associated with social media. An especially susceptible age

for addiction is early adolescence, where evidence suggests a bidirectional relationship between social media providing temporary relief from anxiety and triggering feelings of loneliness, depression [46], and low self-esteem [40] over time.

There is a fine line between persuasion and manipulation, especially when advertising to youth. Whereas persuasion aims to influence behavior through reasoned arguments or emotional appeals, manipulation often relies on deceptive tactics that exploit vulnerability. The line between persuasion and manipulation becomes unclear when platforms use advanced algorithms to customize advertisements, potentially breaching ethical standards by tailoring the information users receive. These manipulative strategies personalize information to users based on financial, political, and other motives, presenting filtered content that may not be comprehensive or accurate but rather serves a specific agenda.

Young users who are still developing are particularly vulnerable to these tactics, leading them to make impulsive decisions influenced by emotionally charged messages. Their beliefs, purchasing behavior, and acceptance or rejection of moral issues can impact their social and moral development if they become victims of manipulation without understanding how it happens, despite small-font warnings or explanations. Visual elements, which are prevalent on platforms such as Instagram, play a crucial role in shaping youth perceptions and behavior, as appealing images and relatable influencers can increase persuasiveness. However, this strategy can backfire, tying emotional and social needs to consumption patterns and sometimes promoting unhealthy behaviors or products.

The fragmentation of attention caused by social media advertising has implications across behavioral and cognitive domains. Social media platforms inherently promote fragmented attention among young people, leading to superficial engagement with peers and family as online interactions take precedence. This shift toward digital interactions can produce feelings of isolation and disconnection from immediate social contexts. Social skills are fundamental for effective communication, collaboration, and conflict resolution and are developed through face-to-face interactions, enabling individuals to read social cues, express empathy, and engage in cooperative play. At the cognitive level, the fragmentation of attention poses a challenge to adolescents’ ability to focus, and

frequent use of social media has been correlated with lower academic performance and difficulties in processing information. Moreover, an inability to focus and concentrate inhibits one's ability to retain information, which may have serious consequences. Young individuals struggling to concentrate on academic or personal responsibilities may face challenges excelling in professions that require intense cognitive involvement, meticulous attention, and adept handling of intricate tasks. These careers are crucial in shaping the future of society, requiring heightened levels of focus and concentration to navigate the complexities and requirements of contemporary workplaces. In sectors such as healthcare, education, engineering, and creative industries, the ability to concentrate efficiently is vital for achieving success and maintaining personal well-being. Adolescence is marked by significant neurological changes that enhance cognitive functions, such as attention, memory, and executive functioning [47, 48]. These changes are facilitated by the maturation of brain structures, particularly in the prefrontal cortex, which is responsible for higher-order cognitive processes. The cognitive overload resulting from a constant influx of information can overwhelm social media users, leading to difficulties with processing and reflecting on relevant content [49]. These problems can hinder academic success in different educational contexts with serious repercussions for a young person's future [50-52].

In conclusion, given the complex interplay between media, youth development, mental health, marketing, and societal norms, we must critically examine the role of media in shaping young people's well-being. It is essential to explore interventions that can prevent future problems and help those who are already struggling with the effects of media. We emphasize the importance of play in child development, particularly in fostering social, emotional, and cognitive skills that are critical to overall happiness and success. Encouraging children to play with their peers while minimizing screen time is a key intervention to enhance their social and emotional skills and is consistent with research showing that excessive screen time can inhibit the meaningful interactions necessary for language and social skill development. By promoting interactive play and reducing screen time, children benefit from improved communication, emotional understanding, creativity, problem-solving skills, and a sense of community and belonging. This intervention is supported by several studies cited in the document

that highlight the impact of play on children's holistic development. The unique challenges faced by Generation Z, the first generation to experience the effects of virtual kidnapping through social media advertising, including fragmented attention and mental health struggles, will have significant implications across professions, particularly in science and healthcare. To effectively address these challenges, it is imperative to implement targeted interventions, create supportive work environments, and provide mental health resources.

To empower young people and improve their online experience, they must be well informed and actively engaged. This can be achieved by educating them about the persuasive and manipulative tactics commonly used on social media, with a particular focus on reducing habituation and addressing disturbing trends in youth social media use. In addition, it is essential to provide a platform for young people to voice their concerns and suggestions. By giving them a space to express themselves, we encourage their active participation in improving online interactions, ultimately fostering a more positive and enriching digital landscape for all. We advocate for awareness, regulation, and responsible media consumption practices, as well as advertising techniques that mitigate the negative impact on youth.

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