How Social Media Companies, Device Manufacturers, and Parents Are Responding to Excessive Device Use Amongst Young Americans

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by

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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Introduction

As our lives become digitized, excessive screen time is becoming common: According to Zablotsky et al. (2024, 1): "During July 2021 through December 2023, one-half of teenagers ages 12–17 had 4 hours or more of daily screen time (50.4%)". Excessive use has been associated with diminished mental health, including depressive symptoms (Forte et al., 2023, p. 2313) and disrupted sleep (Liebig et al., 2023, p. 1). The problem has worsened as devices become more accessible to younger demographics. Excessive screen time amongst children can reduce sleep duration and parental control (Bertrandias et al., 2023, p. 280), stifling development.

A variety of social groups in the United States have taken this problem as a call to action. Governments have sued social media companies over predatory design practices. Such companies have launched features intended to promote mindful device usage. Tech experts have used settings and screen time trackers to reduce usage. Social media companies, device manufacturers and parents are responding to the screentime epidemic in divergent ways. All claim that they value the wellbeing of users, but the tools and techniques that they've employed to protect the wellbeing of children have been faulted as ineffective.

Review of Research

Researchers have studied the mental health toll of excessive screen time. Excessive use is associated with poor mental health outcomes, including depression (Forte et al., 2023, 2 p. 2313), addiction, and anxiety (Al-Samarraie et al., 2022, p. 2315). Poor mental health contributes to the chronic overuse of devices (Al-Samarraie et al., 2022, p. 2315) and social media addiction is

predicted by anxiety, loneliness, and emotion suppression (Nikolinakou, Phua, & Kwon, 2024) thus creating a loop that compounds this problem.

Progress has been made towards a solution. Researchers have defined factors that contribute to addiction, helping social media providers and health professionals mitigate its development (Liang et al., 2024). Physical activity is found to be inversely associated with negative mental health symptoms (Forte et al., 2023, p. 2313). Promising results have emerged in studies where users addressed problematic usage via device settings and screen time trackers (Holte, Giesen, & Ferraro, 2023, p. 6778). Teams have combined public health, economic, and legal analysis to provide recommendations to lawmakers (Costello et al., 2023).

Discourse varies over which social groups are responsible. Some compare excessive screen time to tobacco, alcohol, and gambling addictions and the narratives around user responsibility vs. company malpractice (Montag, Thrul, & van Rooij, 2022). Some suggest parents play the most important role in reducing screen overuse (Rao et al., 2022). Others emphasize how social media companies rely on engagement to drive profit (Mackinnon & Shade, 2020). Parties blaming social media providers have sued and are evaluating to what extent said companies can be held liable (Kim, 2024).

Research has exposed how social media feeds addictive behaviors. Short-form video content must be repeatedly interacted with to maintain positive or suppress negative emotions and eventually leads to addiction, procrastination, and withdrawal (Tian, Bi, & Chen, 2023). Short-form video content is often paired with “infinite scroll”, which aims to keep users online (Krajina & Cuvalo, 2023). Addictive behaviors are intensional results of design intended to maximize time spent online and drive data-driven business models (Montag & Elhai, 2023).

Consumers also play a role in how these products are used. Fang, Wang, and Hao (2019) hold that users should rationally view content despite its addictive design. Children note that phones distract parents during conversations, wish parents spent less time on devices, and say parents are addicted (McDaniel, 2019). Parents also use smartphones as pacifiers (Diefenbach & Borrmann, 2019) with child screen times being positively associated with parenting stress (Brauchli et al., 2024).

TikTok

TikTok, a popular social media amongst teens, has implemented tools to help users reduce the amount of time spent on their app. In March 2023, "the company announced a new 60-minute 'daily screen time limit' for every account registered to a user under age 18. Mr. Chew [TikTok's chief executive] hailed the new restriction in prepared remarks released on Tuesday ahead of his congressional testimony. He pointed to the limit as one of the 'numerous steps to help ensure that teens under 18 have a safe and enjoyable experience on the app'" (Maheshwari, 2023). According to TikTok's Help Center, "Daily screen time is a screen time management setting that allows you to manage your usage on TikTok. It lets you set a daily screen time limit so that you get notified when you reach that time on TikTok. You can turn this setting on and off at any time. You can also view your screen time summary in your activity center." (TikTok). Additional tools listed include "Screen time breaks", "Sleep reminders", "Weekly screen time updates", and the "Screen time dashboard" (TikTok).

These features intend to combat TikTok's addictive nature, but their effectiveness has come into question. McMahon, a 17-year-old senior at East Lyme High School, says: "For a long time, I would do one assignment and then I would reward myself with a TikTok, but then that

TikTok would turn into 30... It kind of affected my mental health... I was having a hard time sleeping when I was watching this many TikToks at night" (Maheshwari, 2023). These are behaviors the features are intended to reduce, but Joe Clement, a high school teacher and author of a book on the overuse of technology in classrooms said "it's not really a limit, it's a suggestion", with his students saying they would "blow right by that" (Maheshwari, 2023). This limit also overlooks that minors can lie about their age: "Brian Parker, a software engineer in Portland, Ore., has typically given his 14-year-old daughter three hours of TikTok screen time every day… When he asked her if she came across any of the 60-minute prompts, she admitted that she was pretending that she was 21 on the app and so wouldn't receive those" (Maheshwari, 2023).

Discourse around the effectiveness of these tools includes other leaders at TikTok: "Tracy Elizabeth, TikTok's head of family safety and developmental health, said that even though teenagers could still watch the app after entering a passcode, research showed that pausing to do that could cause them to do something else. 'That pause where they need to proactively think about what they're doing and make a choice if they'd like to continue using the app, that's the part that's really important,' she said" (Maheshwari, 2023). Third parties working with TikTok claim otherwise: Dr. Michael Rich, pediatrician and director of the Digital Wellness Lab at Boston Children's Hospital (an initiative funded by TikTok and Meta), "acknowledged that TikTok's new rules weren't technically limits. 'Really, what our input to them seems to have done is put some speed bumps in place,' he said" (Maheshwari, 2023). Even teens question the intentions behind these efforts. Slemp, a high school senior claims, "They are for sure setting this time limit to make themselves seem like they care about teen mental health — like, 'We're

making an effort to prevent them from staying on too long'... But they're smart; they know if they actually do that, they're not going to be as popular" (Maheshwari, 2023).

TikTok knows that the tools it created to combat excessive device usage are ineffective. More than a dozen states, including Kentucky, "are suing TikTok for allegedly duping the public about the safety of the popular video app, claiming it was deliberately designed to keep young people hooked on the service" (Allyn, 2024). These lawsuits resulted in public court documents with pertinent information redacted "since authorities entered into confidentiality agreements with TikTok" (Allyn, Goodman, & Kerr, 2024). These digital redactions can be removed by simply copying and pasting the underlying text. In reference to the 60-minute daily limit, Kentucky's suit reads:

> TikTok measured the success of the tool... by three unrelated "success metrics," the first of which was "improving public trust in the TikTok platform via media coverage." Reducing the time teens spent on TikTok not only was not a "success metric": while up to a 10% drop was acceptable, if this tool caused teens to spend over 10% less time on TikTok per day, the company would need revisit the design...
>
> TikTok's default "time limit" proved to have negligible impact... the company found that the default screen time use prompts reduced the average time per day teens spent on TikTok per day from approximately 108.5 minutes to approximately 107 minutes... the decrease in screen time was far less than the amount TikTok expected and had approved as acceptable, the company did not revisit the design of the tool to be more effective at preventing excessive use of TikTok (Commonwealth of Kentucky, 2024, 89 - 90).

This ineffectiveness of these tools is intentional:

> leadership directed TikTok employees to "keep stay duration impact within a reasonable threshold"—meaning not significantly reduce the time users spend on the app—and have "no impact to [user] retention." More specifically, for several safety features, TikTok's goal was to only allow "a maximum 5% drop in stay time for . . . minors...
>
> a product manager confirmed that fighting addiction was not a purpose: "Our goal is not to reduce the time spent."...

> a TikTok employee confirmed that the company's "goal is not to reduce the time spent" on the TikTok app, but rather to ultimately "contribute to DAU [daily active users] and retention" of users...
>
> the screentime dashboard did not affect Young Users' usage because "minors do not have executive function to control their screen time...
>
> TikTok expected the "Weekly Screen Time Updates for Minors" to have no effect on "[a]verage session duration from 10pm-6am." (Commonwealth of Kentucky, 2024, 92 - 94).

Meta

Like TikTok, Meta claims it values user well-being via messages shared publicly. In a self-published article highlighting the steps taken to address mental health concerns, Meta (2024) states that "We want teens to have safe, age-appropriate experiences on our apps. We've developed more than 30 tools and resources to support teens and their parents". By visiting Meta's Safety Center site, users can read about these tools, including "Hiding likes: We're giving everyone on Instagram and Facebook the option to hide like counts on all posts in their feed and like counts on their own posts" and "'Take a Break' reminders: We now give people on Instagram the option to turn on 'break reminders' so they can remind themselves when they've spent 10, 20 or 30 minutes on the app in a given visit to the app." (Meta).

Unlike TikTok, Meta's tools are not enabled by default, calling into question whether the company expects users to use them. Like TikTok, Meta has faced legal action through which internal documents have been exposed. These documents reveal "Daisy", a project that later became the "Hiding likes" feature:

> Meta research noted that teen users, in particular, "compare and check like counts frequently, and feel bad about themselves when they see others' posts getting more validation than theirs." [...] ("Daisy") was noted to have both short and long-term positive effects on young users' well-being-"ha[ving] a statistically significant impact" in

> achieving "less social comparison," as well as causing "negative social comparison [to] decrease[] more over time"...
>
> Meta's researchers noted that making Daisy available as an opt-in setting rather than a default setting "won't actually be effective at reducing [social comparison]" and that an opt-in option "is highly unlikely to be useful." And as a Meta employee acknowledged in an October 2020 email, "the vast majority of [users] will not change the setting, so to me, the decision to not [implement] Daisy means the default should be no Daisy." (Commonwealth of Massachusetts, 2025, 126 - 127)

On the topic of "Take a Break" reminders:

> Meta designed its "Take a Break" reminder to be easily dismissed and to not require any action before allowing a user to scroll right past it for an immediate and quick return to more infinite scrolling...
>
> Employees knew that users dismissed the "Take a Break" reminder 40 times more than following its prompt to take a break [...] Moreover, Meta's research determined "many people are unaware of filters such as ... 'Take a Break', and a "design opportunit[y]" could be to make it more "visible" and "increase awareness." But Meta did not take even this small step (Commonwealth of Massachusetts, 2025, 137)

The features that Meta enables users to disable also encourage problematic device usage.

Sean Parker, a founder of Facebook (now Meta), admitted that,

> The thought process that went into building these applications, Facebook being the first of them, ... was all about: 'How do we consume as much of your time and conscious attention as possible?' [...] that means that we need to sort of give you a little dopamine hit every once in a while, because someone liked or commented on a photo or a post or whatever. And that's going to get you to contribute more content, and that's going to get you ... more likes and comments. [...] It's a social-validation feedback loop [...] exploiting a vulnerability in human psychology. [...] The inventors, creators — it's me, it's Mark [Zuckerberg] [...] — understood this consciously. And we did it anyway. (Allen, 2017).

This hacking of the human psychology remains a tactic at Meta, as court documents reveal that,

> In creating and designing these features, Meta has carefully studied the fundamental neuroscience of teenage brains to exploit teens' vulnerabilities. [...] For example, in May 2020, Meta researchers tasked with studying Instagram's "Teen Ecosystem" to identify opportunities for growth, conducted an internal presentation called "Teen Fundamentals," which discussed "adolescent development concepts, neuroscience as well as nearly 80 studies of our own product research" that highlighted vulnerabilities of the teenage brain (Commonwealth of Massachusetts, 2025, 95).

Sean Parker is not the only former Facebook leader exposing the company's malpractice - Frances Haugen is a whistleblower that left Meta in 2021: “A product manager who worked for nearly two years on the civic misinformation team at the social network before leaving in May, Ms. Haugen has used the documents she amassed to expose how much Facebook knew about the harms that it was causing and provided the evidence to lawmakers, regulators and the news media” (Mac & Kang, 2023). Zuckerberg, Meta’s CEO, has recently vetoed a proposal - backed by 21 independent experts around the world - to remove plastic surgery filters whose effects amongst vulnerable populations have caused concern (Commonwealth of Massachusetts, 2025, 131 - 132).

Apple

Apple supplies users with the ability to access social media via their mobile devices. As of February 2025, Apple represents 57.93% of the U.S. Mobile Vendor Market Share (StatCounter, 2025). Apple also promotes social media applications via its App Store, the venue through which applications are installed on Apple hardware. TikTok sits at the #1 rank in the Entertainment section of the App Store (Apple), and Instagram sits at #2 in Photo & Video (Apple). These high rankings promote these apps to anyone with an iPhone.

Apple communicates care about user wellbeing by allowing users to monitor screen time. With iOS 12, Apple introduced Screen Time, “a set of tools that shows you which apps and websites you use and how long you use them. Parents can check how much time their kids are spending in apps and games” (Apple). According to the company, “If you spot an app that you’d like to use less, Screen Time can help. Tap the name of the app in a report, then tap Add Limit.”

(Apple). Apple supplies additional tools such as “Downtime”, “Screen Distance”, “Communication Limits”, and “Content & Privacy Restrictions” (Apple).

Parents struggle operating these tools. In February 2022, a user posted a thread on Apple’s Community page stating “Screen Time not working on Tiktok, Snapchat, Instagram. I've been trying to block these apps for months. I've tried everything from factory resetting the phone to getting a new phone and still those app will continue to work after the downtime and app limit” (DeadlySin29). 2132 users have clicked the “Me too” button on this thread to say they share this problem. This remained unfixed by August 2023, with another user posting “My nearly 13-yo is bypassing screentime limits, and is able to use apps that are clearly not allowed during downtime” (Ryter). This received 830 “Me too” clicks, and currently has 50 comments from other parents describing how teens are able to achieve similar workarounds. As of August 2024, parents continue to claim issue: “My 14 year old is able to watch unlimited TikTok by bypassing screen time limits. My kids have had screen time for years so I know how to manage the settings” (Bman1124). Here, commenters are suggesting non-technical solutions. The fact that features designed to promote user wellbeing have remained broken for years undermines the idea that Apple cares for user wellbeing at all.

Parents

Parents provide social media to children by supplying screens; most claim they are concerned about the negative mental health outcomes surrounding excessive screen time. Maya Valree, a mother of a 3-year-old girl in Los Angeles, told the Los Angeles Times that “Screen time is in the top three or five things to feel guilty about as a mom” and that she “understands the risks and constantly worries about them” (Gold, 2024). This view is consistent amongst the

public: based on a survey of U.S. adults with children age 5 to 11, the Pew Research Center reported that “Fully 71% of parents of a child under the age of 12 say they are at least somewhat concerned their child might ever spend too much time in front of screens, including 31% who are very concerned about this” (Auxier et al., 2020). In the same study, 86% of parents claimed they limit the time of day or length of time their child can use screens (Auxier et al., 2020). However, the problem persists.

Some parents lack the ability to monitor their child’s device usage. Still describing Maya Valree, the LA Times reports that “limiting her daughter’s screen time to one hour feels impossible as she juggles life as a working parent” (Gold, 2024). Terry, a mother of three, said “The stress of thinking, ‘Am I doing enough with my kids? You know?’ Yes, they have been on their iPad all day. Maybe we should, you know, read some books today, but it's like, I have a full day of work and [I'm] just trying to balance everything” (Findley et al., 2022). Brooke, a mother of two, says that her child “wanted to play... but I had to homeschool my first grader and work with her. My husband was working. And so, I would have her, you know, play by herself for a lot of the day. That was hard. Probably more screen time than we like, but what are you supposed to do right now?” (Findley et al., 2022).

A minority of parents willingly contribute to the problem. 28% are not concerned about child screen times (Auxier et al., 2020). The LA Times corroborates this metric: “Directives to limit the time young children spend on digital devices may not be taking root because many parents simply don’t believe their child’s screen time is a problem in the first place” (Gold, 2024). In particular, “Bianca, a mother of four children (aged 14 through 4), was also comfortable with extended screen time. She commented, ‘So, I'm not perfect. They're on [the]

tablet literally all day. This is fine. This is what makes them feel good. So that's what we're doing'." (Findley et al., 2022).

Conclusion

It is evident that social media companies, device manufacturers, and parents are not effectively responding to excessive screen times amongst young Americans. TikTok and Meta are purposefully supplying ineffective tools to users. Apple is not fixing their own broken instruments. Parents either lack the ability or desire to monitor their children. Children continue to amass unhealthy amounts of screen time and damage their mental well-being. If legal action does not ban social media, better tools must be supplied to the public (either by said companies or third-parties) to limit device usage. Knowledge on methods and reasons to reduce screen time must be disseminated amongst the public. Many children have already been negatively impacted by social media, so research into whether it is possible to reverse adverse effects has potential to benefit many. The present appears bleak, but ways in which we can address this issue remain exciting.

(3367 words)

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