Center for Public Education

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Research Report

"Follow Me and Like My Beautiful Selfies": Social Media Use and Adolescent Mental Health

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Introduction

"Disrupting school and interactions with peers, the pandemic has left teens with stress, anxiety, and other mental health challenges" (Powder, 2021). According to data recently published by the Centers for Disease Control and Prevention (CDC), in 2021, more than a third (37%) of high school students reported they experienced poor mental health during the COVID-19 pandemic, and nearly half (44%) reported they persistently felt sad or hopeless during the past year. School closures and virtual learning in the early stage of the pandemic distanced youth from peers, teachers, and other close people and stripped them from opportunities for extracurricular activities (Zhang et al., 2021).

Invariably, social media use has become more pronounced during the pandemic because of social distancing and pandemic-caused isolation. However, a growing body of research suggests that social media use can be harmful and even threaten teens' mental health and well-being. In a study titled "Follow Me and Like My Beautiful Selfies," researchers explored how teenage girls in Singapore frequently struggled on social media between self-presentation and peer comparison in the context of beauty (Chua and Chang, 2016). In 2021, American scholars in psychology analyzed a nationally representative sample and found that the more hours per day girls spent on social media, the more likely they engaged in self-harm and experienced depression (McAllister et al., 2021). A recent study postulated the connection between social media use and poor mental health, especially among girls (Twenge et al., 2022).

In a broad sense, social media refers to the means of interactions among people in which they create, share, and/or exchange information and ideas in virtual communities and networks. People, including teenagers, express their feelings and experiences in virtual environments and become aware of others' opinions and interests. Social media has become an integral part of our society and a ubiquitous presence in teens' daily life.

Nearly all teens (94%) in developed countries use social media platforms, such as Instagram, Snapchat, and Facebook (NORC Center for Public Affairs Research, 2017), and many post "selfies" (Anderson & Jiang, 2018). In the United States, according to the Pew Research Center (2018), "Fully 95% of teens have access to a smartphone, and 45% say they are online almost constantly." YouTube, Instagram, and Snapchat have been the most popular online platforms among teenagers.

To help school leaders understand the association between social media use and adolescents' mental health, the Center for Public Education (CPE) of the National School Boards Association (NSBA) reviewed over a hundred relevant empirical studies, professional or federal research papers, and media articles. In this report, we attempt to answer the following questions:

- What adolescent mental health issues manifested themselves most during the pandemic?

- How do teenagers use social media? What does the research say about the association between social media use and adolescents' mental health?

- What are some professional recommendations, state policies, and/or local practices that have been adopted to promote positive use of social media and mental well-being?

Adolescent Mental Health During the COVID-19 Pandemic

As of August 9, 2022, the outbreak of the COVID-19 pandemic has resulted in more than 585 million infected cases and 6.4 million deaths globally (John Hopkins University, 2022). The pandemic-caused lockdowns and various safety measures have changed people's lifestyles and affected people's psychological well-being, including teenagers who are in a developmental state that is particularly sensitive to environmental stress (Huynh et al., 2016).

"For adolescents and teens, whose interactions with peers are so central to their lives and development, the pandemic's shrinking of their world has been especially difficult" (Powder, 2021). Recent studies showed that more than one-third of adolescents reported a high level of loneliness during the early stage of the pandemic, a significant risk factor for depression and anxiety (Loades et al., 2020). The CDC survey data released in 2022 show us an unsettling picture of adolescent mental health.

The data show that about two-thirds of high school students felt that doing their schoolwork was more difficult during the COVID-19 pandemic than before it started. More than one-third of high school students reported poor mental health during the COVID-19 pandemic; they experienced constant stress, anxiety, and depression.

- Approximately 44% of high school students reported that during the 12 months before the survey, they felt sad or hopeless almost every day for two or more weeks in a row, so they stopped doing some usual activities.

- During the 12 months before the survey, nearly 20% of high school students seriously considered suicide, and more than 15% of high school students made plans about how they would attempt suicide.

- During the pandemic, more than 55% of high school students reported that a parent or other adult in their home swore at them, insulted them, or put them down. More than 28% of high school students were never or rarely able to spend time with family, friends, or other groups (such as clubs, religious groups, or other in-person social activities).

It should be noted that some demographic groups may have more mental health challenges than others. Table 1 shows that compared with male students, female students more likely experienced sadness, hopelessness, stress, anxiety, depression, and suicidal thoughts and attempts (49% vs. 24%). In contrast, male students seemed to drink more alcohol during the pandemic, compared with female students. The issue of alcohol drinking due to the impact of the pandemic seemed more prevalent among white students than among students of color. Additionally, Black students (31%) and Hispanic/Latino students (33%) were more likely to experience pandemic-caused isolation, compared with their white peers (25%).

Table 1. Percentage of High School Students, by Selected Mental Health Indicator, COVID-19 Impact, and Demographics: 2021

Mental Health	Female	Male	American Indian or Alaska Native*	Asian*	Black or African American*	Hispanic or Latino	White*
Felt sad or hopeless (almost every day for two or more weeks in a row so that they stopped doing some usual activities, ever during the 12 months before the survey)	56.5	31.4	49.5	40.2	39.7	46.4	43.8
Seriously considered attempting suicide (during the 12 months before the survey)	26.0	13.6	23.3	15.9	16.2	19.7	21.0
Made a plan about how they would attempt suicide (during the 12 months before the survey)	20.5	10.0	14.4	14.1	12.1	15.8	15.7
Actually attempted suicide (one or more times during the 12 months before the survey)	12.4	5.3	20.1	7.4	10.0	8.4	8.9
Had a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse (during the 12 months before the survey)	2.6	1.2	8.9	0.9	2.2	1.6	2.0
Reported that their mental health was most of the time or always not good (including stress, anxiety, and depression, during the 30 days before the survey)	41.6	19.6	20.5	29.1	25.6	31.1	32.8
Reported that their mental health was most of the time or always not good during the COVID-19 pandemic (poor mental health includes stress, anxiety, and depression)	48.9	24.4	23.3	33.7	28.0	36.8	40.1
Strongly agree or agree that doing their schoolwork was more difficult during the COVID-19 pandemic than before it started	69.1	64.1	72.4	61.7	67.7	69.4	65.5
Reported that a parent or other adult in their home swore at them, insulted them, or put them down during the COVID-19 pandemic	62.8	46.8	54.9	59.2	49.6	52.5	56.4
Strongly agree or agree that they drank more alcohol during the COVID-19 pandemic than before it started	14.0	15.4	10.2	10.3	9.2	12.1	17.1
Never or rarely were able to spend time with family, friends, or other groups during the COVID-19 pandemic (such as clubs or religious groups and not counting attending school online, by using a computer, phone, or other device)	28.2	28.3	29.4	26.6	31.1	32.8	24.9

Note: *Non-Hispanic. Source: ABES Table: Sex | DASH | CDC (where confidence intervals can be retrieved.)

Adolescent Social Media Engagement during the Pandemic

Social media engagement (e.g., posting/commenting frequency, emotion expression) among teenagers increased substantially during the pandemic (Zhang et al., 2021). Using one-year Reddit data, researchers found that on this particular social media platform (i.e., Reddit), teenagers' participation rate, posting/commenting frequency, and emotion expression were correlated with significant pandemic events (e.g., the WHO's declaration of COVID-19 as a pandemic, the U.S. declaration of it as a national emergency, and promising reports about vaccines and treatments). The major pandemic headline news, be it positive or negative, was generally followed by a hike in the number of teens posting or commenting on the r/Teenagers subreddit, an online community for broad topics.

In the study, researchers also compared the patterns of social media engagement during the pandemic between teenagers with and without mental health concerns. Teenagers with mental health concerns (e.g., teens who visited any of the three mental health subreddits in the years) showed a larger increase in posting/commenting and expressed more negative expressions, compared with their peers without mental health concerns. "This suggests teens with mental health concerns are more susceptible to the pandemic's influence and deserve special service attention" (Zhang et al. 2021).

There is a paucity of literature on the relationship between adolescent mental health, and young people's social media use during the pandemic. It should be noted that the above study only examined Reddit, a social media platform that a small proportion of teenagers use. Thus, it may be inappropriate to extrapolate the findings to the whole adolescent population. However, this study is informative in terms of increasing awareness of both the positive and negative impacts of social media on teenagers.

Social Media Use Among Adolescents

Social media is undoubtedly more popular among young people than older adults (i.e., people age 50 or above). Evidence shows that since 2012, more than 80% of young adults (under age 30) have started using social media (Figure 1). According to Twenge et al. (2019), American teenagers had become heavy users of social media even before 2012, when social media platforms tried to engage users by adding buttons such as "like," "retweet," and "share."

Figure 1. The Trends of Social Media Use by Age: 2005-2021
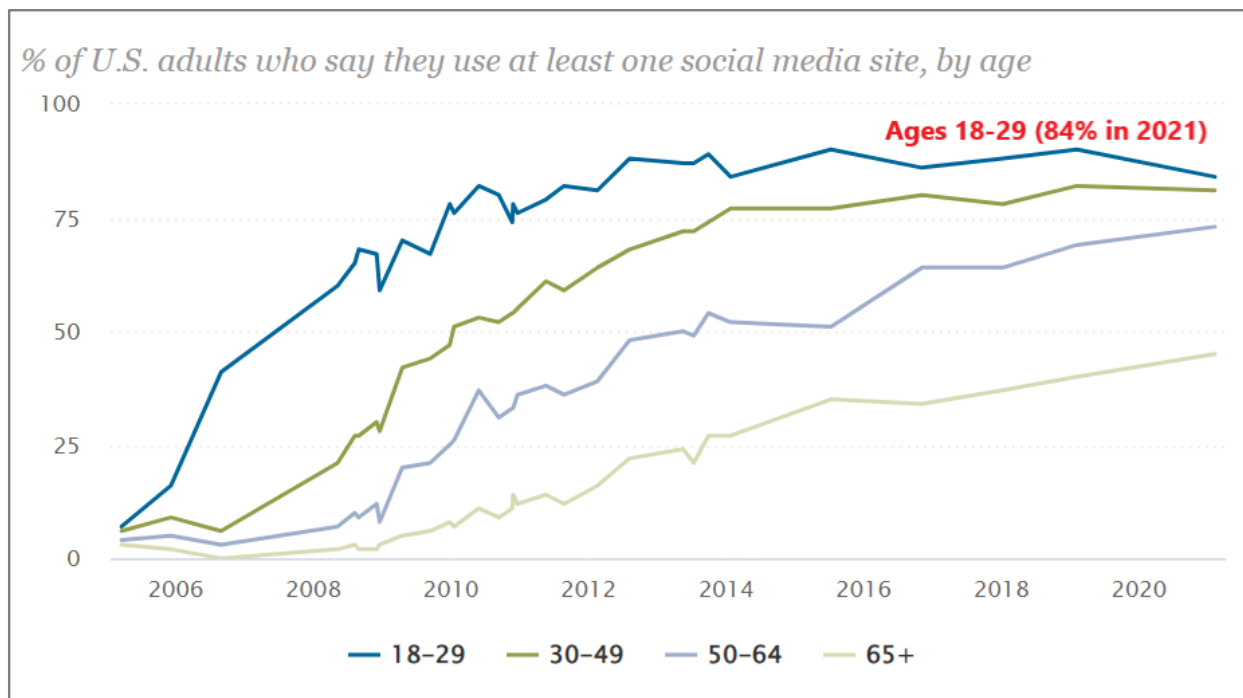
Source: Demographics of Social Media Users and Adoption in the United States | Pew Research Center

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Access to Smartphones

Smartphone ownership has grown rapidly among both preteens and teenagers. In 2015, 67% of teenagers had their own phones, while today 88% do ([Rideout & Robb, 2019](#)). The [Common Sense Census](#) — a program that has tracked trends in media use among tweens and teens since 2015 — reported that in 2021, about three in 10 of all 8- and 9-year-olds have their own phones; among 12- to 13-year-olds, about seven in 10 do; and among those age 14 or older, about nine in 10 have their own phones (Figure 2). As of the spring of 2022, 87% of teenagers own an iPhone, according to the [Piper Sandler Taking Stock With Teens® survey](#) (i.e., a semi-annual research project that gathers input from 7,100 teens with an average age of 16.2 years).

Figure 2. Smartphone Ownership by Children's Age: 2015 - 2021
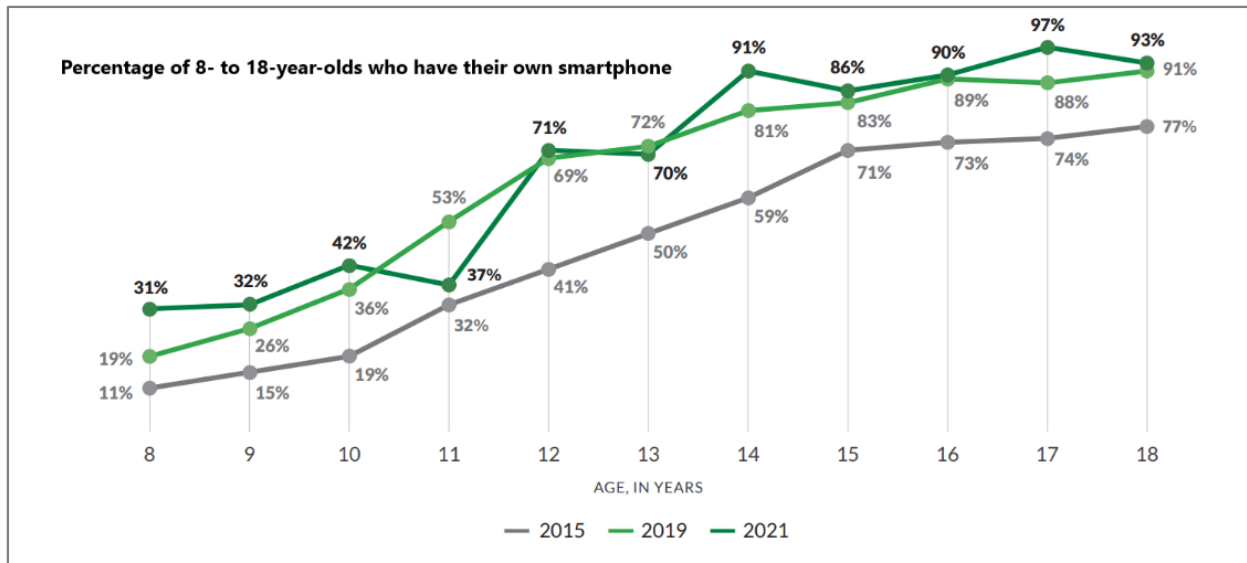
Source: [8-18-census-integrated-report-final-web_0.pdf (commonsensemedia.org)](#)

Social Media Platforms

Evidence shows that the more accessible they are to smartphones, the more teenagers use social media ([Anderson and Jiang, 2018](#)). Knowing which online network platforms are popular among teenagers would give school leaders and educators some new insights into the motivations of adolescents using social media. Three national surveys — (1) [2018 Pew Research survey](#) on the media use of U.S. teens ages 13 to 17, (2) [Fall 2021 Piper Sandler survey](#) on the media use of teens, and (3) 2021 the Common Sense on the media use of teens ages 13 to 18 — show that Snapchat and Instagram are more popular than Facebook and Twitter among teenagers (Figure 3). According to the Spring 2022 Survey conducted by [Piper Sandler](#), TikTok has become the most favorite social media platform among teenagers (33%), surpassing Snapchat for the first time (31%); Instagram remains the third (22%).

Figure 3. Percentage of Teenagers by Social Media Platform Usage (Three National Surveys): 2018 vs. 2021
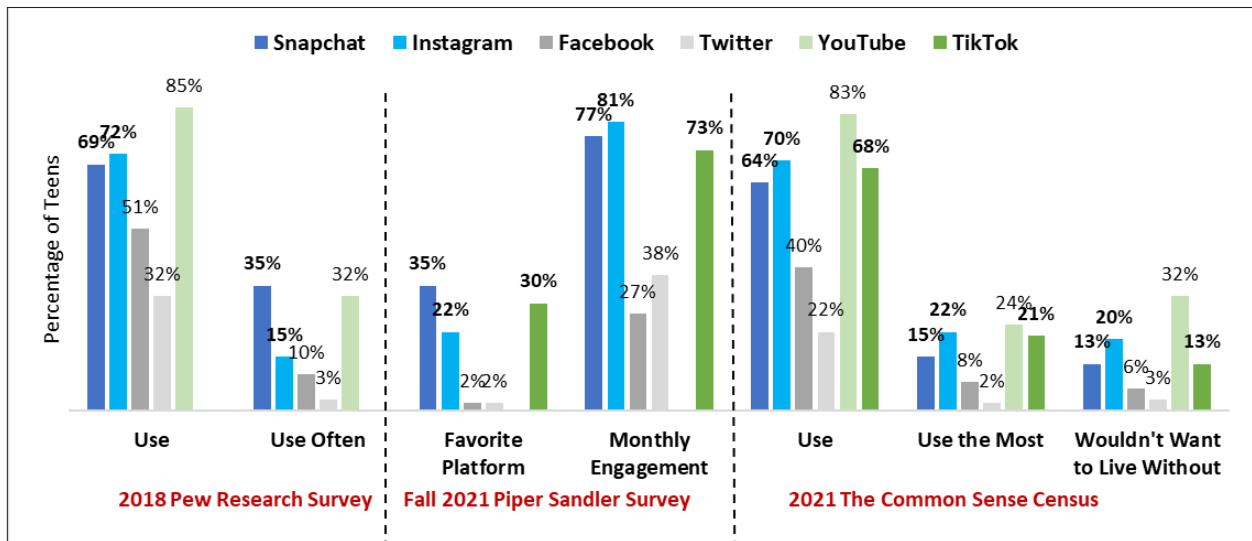
Source: Teens, Social Media & Technology 2018 | Pew Research Center; Taking Stock With Teens® - Spring 2022 (pipersandler.com); Youth Statistics: Internet and Social Media - Adolescence - ACT for Youth; More Than 1 In 3 Teens Say Snapchat Is Their Favorite Social Media App, Only 2% Cite Facebook, Survey Finds (forbes.com); 8-18-census-integrated-report-final-web_0.pdf (commonsensemedia.org)

Social Media Use and Demographics

According to the 2021 Common Sense Media survey, among children ages 8 to 18, 30% of girls reported that they enjoyed social media "a lot," as opposed to 19% of boys (Table 2). More Black children (35%) and Hispanic/Latino children (28%) reported that they enjoyed social media "a lot," compared with their white peers (21%). Approximately 30% of children from families with an annual income under $35,000 reported that they enjoyed social media "a lot"; this percentage was significantly higher than that of children from families with an annual income greater than $100,000.

Table 2 shows that most teenagers use YouTube, Instagram, TikTok, and Snapchat, regardless of their demographic characteristics. However, Black teenagers are more likely to report using Twitter when compared with white youth (36% vs. 20%). This trend has been recorded since 2011. According to the Pew Research Center, African-American teens were three times as likely to be Twitter users when compared with white teens (34% vs. 11%). In 2013, two in five (39%) African-American teens were using Twitter.

Table 2. Percentage of Teenagers, by Social Media Platform Usage and Demographics: 2021

Among the 79% of all 13- to 18-year-olds who use social media and online videos at least once a week, percent who say they ever use …	Gender		Race/Ethnicity			Family Income		
	Girls	Boys	Black	Hispanic / Latino	White	Lower	Middle	Higher
YouTube*	80	86	89	81	82	81	85	81
Instagram*	78	62	81	77	65	66	74	67
TikTok	70	66	77	73	67	68	73	62
Snapchat	66	62	58	54	68	54	67	64
Facebook	40	40	44	39	39	46	45	31
Twitter	20	23	36	21	20	16	27	18
Discord*	18	29	14	24	26	11	24	27
Pinterest*	30	8	14	19	19	16	19	20
Reddit*	7	14	10	8	11	2	9	15
Percent of 8- to 18-year-olds who say they enjoy social media "a lot"*	30	19	35	28	21	30	24	22

Note: *The difference between girls and boys is statistically significant. Family income: Lower income is <$35,000 per year; middle is $35,000 to $99,999; and higher is $100,000 or more. Source: 8-18-census-integrated-report-final-web_0.pdf (commonsensemedia.org)

Additionally, Table 2 shows that among students ages 13 to 18, more boys than girls use YouTube, Discord, and Reddit, whereas more girls than boys use Instagram (78% vs. 62%) and Pinterest (30% vs. 8%). Different patterns of social media use between girls and boys have been reported in many studies (Herring and Kapidzic, 2015). For example, teenage girls in the U.S. were more active bloggers than boys, while boys were more likely to upload online videos and use video-sharing applications (Lenhart et al., 2007). Boys spend more time playing video games and visiting video websites such as YouTube (Rideout et al., 2010). By contrast, girls create and share more videos (Lenhart, 2012) and are more likely to video chat, keeping with their more active texting and mobile communication behaviors (Lenhart et al., 2010).

- **Why boys use Discord and Reddit more than girls:** Discord was initially created for gamers to talk while they are playing, and Chat for Gamers is likely to be one reason why more boys are attracted to this social media platform (Ucciferri, 2020). Reddit was initially created by technology savvies. Some of its content is heavily technology-oriented (Proferes et al., 2021), and some of its features, such as context collapse and anonymity, are used to cater to queer users (Triggers et al., 2021).

- **Why girls use Instagram and Pinterest more than boys:** Instagram is often described as a platform for fashion, beauty, design, and brands that target women as its customers; the platform is particularly user-friendly for sharing photos (Gajanan, 2015). Pinterest has similar features to Instagram. Multiple studies suggest that Instagram has a strong influence on the well-being of young people, especially girls, and is related to body image and body self-esteem and awareness (Robinson et al., 2017; Santarossa et al., 2016; Tiggemann & Zaccardo, 2015)

Social Media Design and Adolescent Psychology

Like other industries, social media companies pursue technology innovation to attract more users and promote more businesses. For instance, researchers (Cheng et al., 2012) reported that location-based social networks (LBSNs), such as Facebook, have attracted millions of users to share their social friendship and their locations via check-ins, and "the available check-in information makes it possible to mine users' preference on locations and to provide favorite recommendations."

In another study (Abbasi and Fazl-Ersi, 2022), researchers reported on technologies used to identify influential users in social media. Social influencers refer to individuals with the potential to influence large audiences on social media. The study pointed out that "identifying such influencers is important in designing techniques to increase the speed of information dissemination."

Social media platforms are often designed in line with adolescent psychology theories (Bossen et al., 2020). Many teenagers are motivated to use social media because they desire to expand their social networks, seek ways to be famous, have channels to express themselves, and expect to be acknowledged as unique individuals. Research reveals that some factors may contribute to the popularity of some social media platforms among youngsters. For example,

- "Talent show" — TikTok allows its users to prepare and share short videos and music pieces and gives youngsters a platform to express themselves innovatively and ingeniously. In a sense, TikTok has become an alternative media for youngsters to share their talents online (Patel and Binjola, 2020).

- "Fun and spontaneity" — The concept of Snapchat is having the fastest way to share a moment with friends — regardless of whether it is good or bad, beautiful or ugly — and bringing fun and spontaneity into the digital communication world (Poltash, 2013). Many users use this platform to share 'selfies,' typically embed text and 'doodles' with photos they share, use it mostly at home, and primarily for communication with close friends and family as an 'easier and funnier' alternative to other instant messaging services (Piwek and Joinson, 2015).

- "Influencers" — Young adults often visit platforms like Instagram or YouTube for product reviews before making a purchase and frequently purchase items solely because influencers recommend them on social media (Djafarova and Rushworth, 2017; Marwick, 2015). Social influencers can reach thousands or even millions of potential customers using social media and are thus highly effective advertisers (Lin et al., 2018).

Specific Concerns about Adolescent Social Media Use

"It is no secret that social media platforms were deliberately designed to hold users' attention as long as possible, tapping into psychological biases and vulnerabilities relating to our desire for validation and fear of rejection" (Fersko, 2018). Parents, educators, researchers, and experts in psychology noticed that some issues among teenagers may be caused by social media use. Research suggests that harmful social media posts can be linked to feelings of envy, inadequacy, and less satisfaction with life. In addition, teenagers' addictive use of social media can lead to ADHD symptoms, depression, anxiety, eating disorders, and sleep deprivation (Columbia University, 2021).

Harmful Content on Social Media

Exposure to harmful or toxic content on social media can certainly cause adolescents' poor health, both mental and physical, and can even put teenagers at risk. Concerns have been raised about "picture me drinking" — alcohol-related posts by Instagram influencers that became popular among adolescents and young adults (Hendriks et al., 2020). By the same token, on TikTok, postings about positively framed e-cigarettes and vaping are available without age restrictions, and those postings can mislead teenagers in terms of their awareness and perception of vaping (Sun et al., 2021).

- **Sexting.** Snapchat is a visual social media platform where users can share fleeting pictures and videos. A "Snap" is a picture or video that users can send through the app to one or more of their friends. A video snap can be a maximum of 60 seconds long (known as a Long Snap). Keeping in line with the app's original feature, Snapchat does not hold onto any photo or video content—the platform deletes content after the recipient has viewed the Snap. Since its launch in September 2011, there have been questions about whether the Snapchat self-destructing message function would be used as a tool for sexting to harm youngsters (Poltash, 2013).
- **Cyberbullying.** The Wall Street Journal (2019) reported on the dark side of the social media platform Discord and stated that "Its private gaming communities can be like unsupervised playgrounds, full of racist memes, vulgar talk and bullying."
- **Causing self-harm or poor health.** The Guardian (2021) reported that in one study, about one-quarter of the teenagers who reported feeling "not good enough" said it started with Instagram. More than 40% of Instagram users in both the U.K. and the U.S. who reported feeling "unattractive" said the feeling began after using the app. Eating disorders expert Bryn Austin, a professor in the Department of Social and Behavioral Sciences at Harvard University, said, "Instagram, with its algorithmically-driven feeds of content tailored to each user's engagement patterns, can draw vulnerable teens into a dangerous spiral of negative social comparison and hook them onto unrealistic ideals of appearance and body size and shape."

Action Box 1. How to Stop Cyberbullying

Resources from stopbullying.gov

Stopbullying.gov is a federal government website managed by the U.S. Department of Health and Human Services. According to the federal government, cyberbullying is bullying that takes place over digital devices like cellphones, computers, and tablets, through SMS, Text, and apps, or online in social media, forums, or gaming where people can view, participate in, or share content. Cyberbullying includes sending, posting, or sharing negative, harmful, false, or mean content about someone else. It can include sharing personal or private information about someone else causing embarrassment or humiliation. Some cyberbullying crosses the line into unlawful or criminal behavior.

The most common places where cyberbullying occurs are:

- Social Media, such as Facebook, Instagram, Snapchat, and Tik Tok
- Text messaging and messaging apps on mobile or tablet devices
- Instant messaging, direct messaging, and online chatting over the internet
- Online forums, chat rooms, and message boards, such as Reddit
- Email
- Online gaming communities

Cyberbullying Tactics

It is important to understand how children are cyberbullied so it can be easily recognized, and action can be taken. Some of the most common cyberbullying tactics include:

- Posting comments or rumors about someone online that are mean, hurtful, or embarrassing.
- Threatening to hurt someone or telling them to kill themselves.
- Posting a mean or hurtful picture or video.
- Pretending to be someone else online in order to solicit or post personal or false information about someone else.
- Posting mean or hateful names, comments, or content about any race, religion, ethnicity, or other personal characteristics online.
- Creating a mean or hurtful webpage about someone.
- Doxing, an abbreviated form of the word documents, is a form of online harassment used to exact revenge and to threaten and destroy the privacy of individuals by making their personal information public, including addresses, social security, credit card and phone numbers, links to social media accounts, and other private data.

Prevent Cyberbullying

Many of the warning signs that cyberbullying is occurring happen around a child's use of their device. Some of the warning signs that a child may be involved in cyberbullying are:

- Noticeable increases or decreases in device use, including texting.
- A child exhibits emotional responses (laughter, anger, upset) to what is happening on their device.
- A child hides their screen or device when others are near, and avoids discussion about what they are doing on their device.
- Social media accounts are shut down or new ones appear.
- A child starts to avoid social situations, even those that were enjoyed in the past.
- A child becomes withdrawn or depressed, or loses interest in people and activities.

Cyberbullying is a form of bullying, and adults should take the same approach to address it: support the child being bullied, address the bullying behavior of a participant, and show children that cyberbullying is taken seriously. Because cyberbullying happens online, responding to it requires different approaches.

- **Notice** – Recognize if there has been a change in mood or behavior and explore what the cause might be. Try to determine if these changes happen around a child's use of their digital devices.
- **Talk** – Ask questions to learn what is happening, how it started, and who is involved.
- **Document** – Keep a record of what is happening and where. Take screenshots of harmful posts or content if possible. Most laws and policies note that bullying is a repeated behavior, so records help to document it.
- **Report** – Most social media platforms and schools have clear policies and reporting processes. If a classmate is cyberbullying, report it to the school. Parents, educators, and students can also contact app or social media platforms to report offensive content and have it removed. If a child has received physical threats, or if a potential crime or illegal behavior is occurring, report it to the police.
- **Support** – Peers, mentors, and trusted adults can sometimes intervene publicly to positively influence a situation where negative or hurtful content posts about a child. Public intervention can include posting positive comments about the person targeted with bullying to try to shift the conversation in a positive direction. If possible, try to determine if more professional support is needed for those involved, such as speaking with a guidance counselor or mental health professional.

Addictive Use of Social Media

Adolescents' addictive use of social media and the internet has been an increasing concern among parents, teachers, researchers, and society (Peris et al., 2020). A study in Canada showed that teenagers who use social media such as Snapchat, Instagram, and Facebook may suffer anxiety and depression, because of the influence of peer groups who socially compel addictive behaviors, including the fear of missing out, rather than the technologies per se (Adorjan and Ricciardelli, 2021). Another study on middle school students who reported having an active Instagram account suggests that as adolescents become more popular on Instagram (i.e., as their followers count increases), the risk also increases that they might develop an addiction to Instagram use and experience cyber aggressions. This, in turn, may harm their psychological well-being (Longobardi et al., 2020).

Psychologists have found that the frequency of a teen's use of social media is significantly associated with distress (Underwood and Faris, 2017). In the study "#Being Thirteen: Social Media and the Hidden World of Young Adolescents' Peer Culture," the participants who checked Facebook or other networking sites between 50 and 100 times a day were 37% more likely to feel distressed than those who checked just a few times a day. Those who checked more than 100 times a day were 47% more likely to feel distressed (Underwood and Faris, 2017). In another study, researchers found that among girls who spent three or more hours per day on social media, 29% engaged in self-harm; among girls who spent five or more hours on social media daily, 31% were depressed (McAllister et al., 2021).

Research shows that addictive use of social media may exacerbate loneliness. Early studies found that internet use absorbs time from face-to-face interaction with family and friends (Brenner, 1997). Social media use can lead to a decrease in social contacts and an increase in loneliness (Apaolaza et al., 2013; Kraut et al., 1998). The United Nations International Children's Emergency Fund (UNICEF) points out that for teenagers, the feelings triggered by a 'like' can temporarily relieve feelings of loneliness, but they cannot replace socializing altogether. When adolescents who feel lonely offline use social media to compensate for less developed social skills, they may end up feeling even more lonely in the long run (Fersko, 2018).

More frequent use of the internet has been associated with negative psychological well-being (Huang, 2010). Compared with their non-depressed peers, depressed adolescents use the internet more frequently (Ybarra, Alexander, & Mitchell, 2005). For adolescents suffering from depression, three types of social media use — "oversharing" (sharing updates at a high frequency or too much personal information), "stressed posting" (sharing negative updates with a social network), and encountering "triggering posts" — can aggravate their depression symptoms (Radovic et al., 2017).

Action Box 2. How to Define Social Media Addiction

Definitions of Social Media Addiction per Behavioral Science

Social media addiction, often addressed as online social networking addiction (OSNA), is a relatively new addictive behavior among adolescents (Li et al., 2018). Although the diagnostic framework is not entirely clear in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), researchers often describe social media addiction symptoms as compulsive use and withdrawal, craving, tolerance, and interpersonal and health-related problems. According to the biopsychosocial model (Griffiths, 2005), problematic social media use can be determined by a range of addiction symptoms (Griffiths et al., 2014).

Social Media Addiction Symptoms
- Mood modification — excessive social media use leading to specific changes in mood states.
- Salience — total preoccupation with social media use.
- Tolerance — increasing amounts of time using social media.
- Withdrawal symptoms — negative feelings and psychological symptoms such as irritability or anxiety when social media use is restricted.
- Conflict — interpersonal problems as a direct result of social media usage.
- Relapse — returning to excessive social media use after a period of abstinence.

Definitions of Social Media Addiction
Andreassen (2015) defined addictive use of social media (e.g., Facebook) as "being overly concerned about online social networking use, to be driven by a strong motivation to log on to or use online social networking that impairs other social activities, studies/jobs, interpersonal relationships, and/or psychological health and well-being."

In a study on the relationship between social media addiction and employee's job performance (Zivnuska et al., 2019), researchers define social media addiction as "the excessive use and habitual monitoring of social media, manifested in compulsive usage that comes at the expense of other activities." They point out that as social media use is so interactive, it tends to be very reinforcing; people use it to stimulate online conversations and get feedback about their activities, interests, and opinions. For this reason, it can lead to habitual, or addictive, posting and monitoring behaviors. The study suggests that social media addiction can degrade job performance and become a cause of burnout.

YouTube Addiction
"Social media addiction: What is the role of content in YouTube?" In this study, social media addiction is narrowed down to YouTube addiction (Balakrishana and Griffiths, 2017). Unlike traditional media, YouTube allows users to interact, engage, view, collaborate, and primarily assess their system of communication. Past literature has identified adolescents' high involvement with tobacco, alcohol, and electronic cigarette video content in YouTube.

Content creation in YouTube is an inclusive activity. As a social media platform, YouTube is more than being just a consumer-entertainment or as a "passing time" site. Both creating and viewing activities are associated with psychological and interpersonal satisfaction, which for a small minority could lead to an addiction.

Caveats

Some researchers point out that the term "addiction" should be used cautiously when talking about an individual's social media use. Due to the problem of inconsistencies regarding the definition of problematic, excessive, or addictive social media use, there is also a lack of reliable and valid psychometric scales to assess the phenomenon of troubling social media use (Bányai et al., 2017). According to van Rooij and Prause (2014), "attributing (i)nternet behaviors to a disease state can be harmful."

Many researchers emphasize that, in extreme cases, compulsive use of social media may result in symptoms and consequences traditionally associated with substance-related addictions. Based on the insights derived from recent empirical research, Kuss and Griffiths (2017) summarized 10 lessons learned concerning online social networking sites (or social media platforms) and addiction.

1. Social networking and social media use are not the same.
2. Social networking is eclectic.
3. Social networking is a way of being.
4. Individuals can become addicted to using social networking sites.
5. Facebook addiction is only one example of social media addiction.
6. Fear of missing out (FOMO) may be part of social media addiction.
7. Smartphone addiction may be part of social media addiction.
8. Nomophobia may be part of social media addiction. (Nomophobia has been defined as "no mobile phone phobia," i.e., the fear of being without one's mobile phone. Evidence shows that nomophobia contributes to regular and time-consuming use, feelings of anxiety when the phone is not available, "ringxiety" (i.e., repeatedly checking one's phone for messages, sometimes leading to phantom ring tones), constant availability, preference for mobile communication over face-to-face communication, and financial problems as a consequence of use. Nomophobia is inherently related to a fear of not being able to engage in social connections or on social media.)
9. There are sociodemographic differences in social media addiction. (For example, in terms of age, studies indicate that younger individuals may be more likely to develop problems as a consequence of their excessive engagement with online social networking sites. In terms of gender, psychotherapists treating technology-use related addictions suggest social media addiction may be more common in female rather than male patients. In the age group of 14–16 years, girls appear to show a higher prevalence of addictions to the internet and social media.)
10. There are methodological problems with research to date.

Simply put, social media addicts exhibit behavioral addiction symptoms; for adolescents, compulsive use of social media negatively affects their mental health, including self-esteem and well-being.

Link Between Social Media Use and Adolescent Mental Health

Around 2012, rates of depression, anxiety, loneliness, dissatisfaction with life, self-harm, suicide attempts, and suicides began rising among adolescents, especially in the United States (Burstein et al., 2019) and the United Kingdom (Cybulski et al., 2021). During the same period, social media started to be popular among teenagers. Although the steady rise in adolescent depression since 2012 could be caused by any number of social, economic, or technological trends, researchers highly suspect that increases in adolescent depression may be linked to rising social media use (Twenge, 2020).

Some studies and literature reviews, however, have concluded that among adolescents, daily social media use is not a strong or consistent risk factor for depressive symptoms (Kreski et al., 2021). Other researchers reached just opposite conclusions. In a recent study (Twenge et al., 2022), researchers reexamined the link between social media use and poor mental health among teenagers using specification curve analysis. They reanalyzed three large-scale community samples — (1) 5,926 girls and 5,946 boys between 13 and 15 years old; (2) 16,374 boys and 17,377 girls in 8th and 10th grade; and (3) 14,304 boys and 14,026 girls.

The results show that the negative association between mental health and social media use is stronger than links between mental health and binge drinking, sexual assault, obesity, and hard drug use. In particular, among girls, there is a consistent, substantial negative association between mental health and social media use. Based on their findings, the researchers suggest that since many countries are experiencing increasing rates of depression, anxiety, and suicide among teenagers and young adults, parents, educators, and communities should pay attention to adolescents' social media use and online activities. In particular, attention should be paid to whom they follow or interact with, what content they are talking about, and how much time they spend on social media.

Action Box 3. How Legislators Try to Hold Social Media Platforms Accountable

Legal Actions on Social Media Accountability in Terms of Protecting Children

Since 2020, many bills have been introduced to hold social media companies accountable, but they focus differently on policymaking. Some bills target social media companies' violations of freedom of speech, while others aim to regulate disinformation on social media. For this report, we only describe bills introduced to protect children from the negative impact of social media.

The Communications Decency Act, a.k.a. Section 230, was passed in 1996. The law says that social media companies (i.e., providers of interactive computer services) have obligations to protect children by limiting access to material that is harmful to minors. However, vast technological changes have occurred since Section 230 was passed, and the law needs to be upgraded accordingly.

As more evidence shows that social media can have a damaging impact on children, legislators at both federal and state levels are seeking legal solutions to hold social media platforms accountable in this regard.

- *The Nudging Users to Drive Good Experiences on Social Media (Social Media NUDGE) Act* — On 2/10/2022, U.S. Senators Amy Klobuchar (D-MN) and Cynthia Lummis (R-WY) introduced bipartisan legislation to address negative impacts of social media. The bill requires the Federal Trade Commission to identify content-agnostic platform interventions to reduce the harm of algorithmic amplification and social media addiction on covered platforms, and for other purposes. If adopted, the bill will establish studies to examine and recommend interventions to reduce addiction and the amplification of harmful content on social media platforms.

- *The Platform Accountability and Transparency Act (PATA*) — On 12/9/2021, U.S. Senators Chris Coons (D-DE), Chair of the Senate Judiciary Subcommittee on Privacy, Technology, and the Law; Rob Portman (R-OH), Ranking Member of the Homeland Security and Governmental Affairs Committee; and Amy Klobuchar (D-MN) introduced this bipartisan bill. "Social media has connected the world in ways that were difficult to imagine only a decade ago, but the last few years have also made clear the tradeoffs that come with that," said Senator Coons. Senator Portman expressed his concerns about how certain social media platforms facilitate the sale of children. The bill would require social media companies to increase transparency by providing access to certain platform data for vetted, independent researchers and the public.

- *The Justice Against Malicious Algorithms Act of 2021* — Representative Frank Pallone Jr. (D-NJ-6) introduced this bill on 10/15/2021. If the bill is adopted, the liability protection (sometimes referred to as Section 230 protection) shall NOT apply to a service provider or a social media platform that (a) has more than 5 million monthly visitors for more than 3 of the preceding 12 months; (b) uses an algorithm or similar computational process to make personalized, recommendations based on information specific to an individual; and (c) knowingly or recklessly makes a personalized recommendation that materially contributes to a physical or severe emotional injury to a person.

- *The Kids Online Safety Act of 2022 (*KOSA*)* — Senator Richard Blumenthal (D-CT) & Senator Marsha Blackburn (R-TN) introduced this bill on 9/30/2021. If the bill is adopted, social media platforms will be required to:

    a. Provide minors with options to protect their information, disable addictive product features, and opt-out of algorithmic recommendations.

    b. Perform an annual independent audit assessing risks to minors, their compliance with this Act, and whether the platform is taking meaningful steps to prevent those harms.

    c. Provide academic researchers and non-profit organizations with access to critical datasets from social media platforms to foster research regarding harms to the safety and well-being of minors.

    d. Give parents new controls to help support their children and spot harmful behaviors, including providing children and parents with a dedicated channel to report harms to kids to the platform.

- *Kids Internet Design and Safety Act or the KIDS Act* — [Senator Edward J. Markey (D-MA)](#) introduced this bill on 09/30/2021. The bill prohibits operators of commercial online platforms that are directed to children from engaging in certain practices, including implementing features that encourage additional engagement with the platform, promoting certain types of content, and using certain advertising methods.

- *The Federal Big Tech Tort Act* — [Senator Josh Hawley (R-MO)](#) introduced this bill on 09/30/2021. The bill creates a private right of action against a social media company when an individual under the age of 16 years suffers bodily injury or harm to mental health that is attributable, in whole or in part, to the use of a social media company's website, online application, or mobile application.

In **California**, legislators have introduced the [Social Media Duty to Children Act](#). If adopted, the bill will impose a clear duty on social media platforms not to use techniques that cause addiction to children and to make platforms liable for penalties and damages when social media addiction harms children, especially adolescent girls. The bipartisan, first-in-the-nation state legislation will work to discourage, through financial accountability, social media companies from manipulating their inventions to be addictive and harmful to children.

"California's bill came on the same day that another state, **Minnesota**, made strides on another measure aimed at protecting young people from social media," according to [McCluskey](#) (2022). The [Minnesota bill](#) prohibits a social media platform like Facebook, Instagram, YouTube, WhatsApp, TikTok, and others, from using algorithms to target children with specific types of content. The bill would require anyone operating a social media platform with more than one million users to require that algorithm functions be turned off for accounts owned by anyone under the age of 18. If the [bill](#) is adopted, social media companies would pay a civil penalty of $1,000 for each violation of this law.

The Social Media Victims Law Center ([SMVLC](#)) is a law firm that "works to hold social media companies legally accountable for the harm they inflict on vulnerable users." The SMVLC describes itself as a legal resource for parents of teenage victims suffering from depression, an eating disorder, hospitalization, sexual exploitation, self-harm, or suicide because of social media cyberbullying. The following are two recent cases posted on its website:

- [Meta Platforms, Inc. and Snap, Inc. Face Wrongful Death Lawsuit for Causing the Suicide of 11-year-old Selena Rodriguez](#)
- [Meta Platforms, Inc. and Snap, Inc. Face Lawsuit for Product Liability, Sexual Discrimination on its Platforms by Oregon Family](#)

Research shows that parents welcome regulations to curb social media use among children and teenagers, especially after the months of COVID-19 quarantine when many young people were isolated at home and spent hours and hours a day online. In contrast, researchers from the CATO Institute (Burrus and Bembridge, 2022) question whether "the government cracking down on social media" can singly solve the current youth mental health crisis. Factors — the pandemic era's unfathomable number of deaths, pervasive sense of fear, economic instability, and forced physical distancing from loved ones, friends, and communities — also contribute to adolescents' poor well-being during the pandemic (U.S. Surgeon General, 2021).

In brief, taking legal actions to hold social media platforms accountable is necessary, but policymakers should also consider other measures to improve children's mental health.

Benefits of Social Media

"We're used to hearing that social media use is harmful to mental health and well-being, particularly for young people. Did it surprise you to find that it can have positive effects?" This reminder is from Mesfin Awoke Bekalu, a research scientist in the Lee Kum Sheung Center for Health and Happiness at Harvard T.H. Chan School of Public Health. Bekalu and his research team tried to quantify the relationship between social media use and health. They assessed the association of two dimensions of social media use — how much it's routinely used and how emotionally connected users are to the platforms — with three health-related outcomes: social well-being, positive mental health, and self-rated health.

Bekalu's study suggests that having a strong social network is associated with positive mental health and well-being (Bekalu et al., 2019). Routine social media use may compensate for diminishing face-to-face social interactions in people's busy lives. Social media may provide individuals with a platform that overcomes barriers of distance and time, allowing them to connect and reconnect with others and thereby expand and strengthen their in-person networks and interactions.

Early systematic review of studies reported that social media had limited negative impact on adolescent mental health (Best et al., 2014). Based on 43 original research papers published between 2003 and 2013, researchers found that social media increased opportunities for adolescents to present themselves, and appropriate use of social media could benefit teenagers' mental health, such as enhancing self-esteem, gaining social support, and learning how to protect themselves by identifying potential threats. The study also pointed out that social media use may increase teenagers' exposure to cyberbullying, social isolation, and depression.

"The nature of usage and time management are two factors that determine the positive and negative impacts of social media usage" (Ali et al., 2021). For teenagers who have been diagnosed with depression, positive use of social media includes searching for positive content (i.e., for entertainment, humor, content creation) or for social connection, while negative use includes sharing risky behaviors, cyberbullying, and making self-denigrating comparisons with others (Radovic et al., 2017). Researchers suggest that shifting social media patterns from negative to positive use can improve the mental well-being of depressed adolescents.

In summary, it is crucial for teenagers to use social media in purposeful ways, such as messaging with supportive friends and families, connecting with an online community of other depressed individuals (such as on Reddit or Tumblr), distancing themselves from depression with humorous content, and engaging in creative content such as viewing art or quotes. Purposeful use of social media can decrease depression (Bessiere, Pressman, Kiesler, & Kraut, 2010) and improve quality of life (Campisi, Folan, Diehl, Kable, & Rademeyer, 2015).

Media Literacy Education in the U.S. Public Schools

With a rapidly changing global communications environment, lawmakers and education policymakers are challenged to update relevant education and curriculum policy to reflect the needs of the world we live in. Media literacy skills have become imperative for students living in the 21st century. As of 2021, 14 states have developed regulations related to media literacy education, and many states have taken legislative action by introducing bills, holding hearings, and going through committee votes or floor votes (Media Literacy Now, 2021).

As a broad term, media literacy encompasses the consumption and production of media and digital products and communication technology of all kinds. Different from digital literacy, a term referring to knowing how to use technology devices, media literacy emphasizes developing critical thinking skills to assess and use information. Media literacy is defined as "the ability to access, analyze, evaluate, create and take action with all forms of communication, and encompasses the foundational skills of digital citizenship and internet safety, including the norms of appropriate, responsible, ethical, and healthy behavior, and cyberbullying prevention" (Media Literacy Now, 2021).

Digital Citizenship and Media Literacy Act – A Congressional Bill (2019)
The Digital Citizenship and Media Literacy Act was introduced in the U.S. Senate on July 23, 2019, but it did not receive a vote. The bill addresses media literacy education as a critical way to improving young people's mental health and equipping students with the skills to make informed decisions in areas such as products and services (including advertisements), education, health and wellness (including the use of controlled substances, nutrition, and physical health), and democratic decisions associated with public policy. The bill would establish a grant program for state and local educational agencies to promote media literacy, and it would authorize $20 million a year to fund that program.

Federal Actions
In 2021, the federal government published U.S. Surgeon General Vivek Murthy's advisory titled "Protecting Youth Mental Health." In the report, the surgeon general addressed the growing concern about the impact of digital technologies, particularly social media, on the mental health and well-being of children and young people. He stated that more research is needed, especially research using strong data and research methods, such as longitudinal and experimental designs, behavioral (as opposed to self-reported) measures of time spent online and types of content engaged with, as well as data on subgroups of users (e.g., boys vs. girls). The surgeon general also provided advice for educators, parents, and communities to help children and youth to use social media in a healthy way.

- Empower youth and their families to recognize, manage, and learn from difficult emotions. Youth should learn how to build strong relationships with peers and supportive adults, practice techniques to manage emotions, take care of body and mind, be attentive to the use of social media and technology, and seek help when needed. Families and caregivers should be positive role models for children, promote positive use of social media and technology, and learn to identify challenges early.

- Be intentional about how teens use social media. Parents can ask their children questions such as: How much time are you spending online? Is it taking away from healthy offline activities, like exercising, seeing friends, reading, and sleeping? What content are you consuming, and how does it make you feel? Are you online because you want to be, or because you feel like you have to be?

- Model good habits. Parents and educators can talk to children about the importance of mental health, advise them to seek help when needed, and show them positive ways to deal with stress. Parents can also practice with children how to take care of their mental health, for instance — taking breaks, getting enough sleep, exercising, eating balanced meals, maintaining regular routines, staying connected with family and friends, and taking time to unplug from technology or social media.

Aligned with the surgeon general's advisory, the Substance Abuse and Mental Health Services Administration (SAMHSA), within the U.S. Department of Health and Human Services (HHS), announced a new grant program in May 2022. The federal government will invest two million dollars to establish a national **Center of Excellence** (CoE). The national center will assist in disseminating information, guidance, and training on the impact social media use has on children and youth, especially the risks to their mental health. The center also will examine the clinical and social interventions that can be used to mitigate those risks.

State Actions

Since 2015, at least 79 media literacy and digital citizenship bills have been introduced in 28 states, and at least 14 of those have been enacted in 10 states, according to the Education Commission of the States. Most states have developed policies or frameworks about anti-cyberbullying, protecting student privacy information, and guiding students to efficiently use internet and online information from legitimate sources (Deye, 2017). However, policies about encouraging students to use social media in a positive manner have not been in place in many states. Parents, educators, and school leaders have raised concerns about student mental health, as the disruption of the pandemic has increased the ubiquitous influence of social media on students.

As of the end of 2019, Media Literacy Now (MLN) — an organization that advocates putting media literacy in the public education system — completed a preliminary survey of all state laws to compare state progress in media literacy policies. "There are 14 leading states with some media literacy-related language on the books today," according to a recent MLN report (2020). Based on the information from MLN, we did a comprehensive search on state bills, laws, and government policies that foster K-12 students to use social media positively and found that 21 states are taking specific actions (Table 3).

Table 3. State Policies on Media Literacy (As of April 2022)

State	Action	Bill Status	Year
Delaware	Require schools to teach social media skills	Introduced	2022
Missouri	Require schools to teach social media skills	Introduced	2022
South Carolina	Require schools to teach social media skills	Introduced	2022
Texas	Require Texas high school students to earn one credit in media literacy/digital citizenship before they can graduate	Introduced	2021
New Jersey	Require schools to teach safe and ethical use of social media	Passed	2014
	Require instruction on information literacy in curriculum of students in grades kindergarten through 12.	Introduced	2022
Illinois	Require a unit of media literacy in every high school	Passed	2021
Florida	Require instructional staff of public schools to provide instruction on social media literacy and district school boards to make social media literacy instructional material available online	Not passed	2022
Arizona	Provide standards, curriculum, practice guides	Introduced	2017
Ohio	Provide standards that include the development of skill sets in information, media, and technological literacy	Passed	2009
		Revised	2021

State	Action	Bill Status	Year
Minnesota	Provide academic standards; require the Commissioner of Education to "revise and appropriately embed technology and information literacy standards consistent with recommendations from school media specialists into the state's academic standards and graduation requirements" and review them at least every 10 years.	Passed	2017
Wisconsin	Provide information and technology standards	N/A	2017
Alaska	Provide digital literacy standards (adopted)	N/A	2019
Colorado	Provide school districts with technical assistance to implement media literacy policies and best practices	Passed	2021
California	Provide for school districts a list of resources and instructional materials on media literacy, including media literacy professional development programs for teachers	Passed	2017
	Provide digital literacy and media literacy grant program	Introduced	2021
Connecticut	Provide best practices relating to instruction in digital citizenship, internet safety and media literacy, and methods of instructing students to safely, ethically, responsibly, and effectively use media and technology resources	Passed	2017
Washington	Provide districts with grants to integrate Media Literacy curriculum into classes	Passed	2021
Rhode Island	Incorporate media literacy into the basic education plan	Passed	2017
Utah	Identify best practices and compile resources for training students in healthy behavior related to technology use	Passed	2020
Virginia	Develop and implement health and safety best practice guidelines for the effective integration of digital devices in public schools	Passed	2020
Massachusetts	Develop instructional guidelines in media literacy education as it relates to history and civics.	Passed	2018
New Mexico	Work with local school districts to develop best practices and offer media literacy, defined as "the ability to access, analyze, evaluate, develop, produce and interpret media, and it encompasses the foundational skills that lead to digital citizenship." Digital citizenship "requires a diverse set of skills related to current technology and social media use and includes the norms of appropriate, responsible and healthy behavior." (May offer media literacy as an elective in middle and high schools)	Passed	2017

Source: U.S.-Media-Literacy-Policy-Report-2020.pdf (medialiteracynow.org). Note: Delaware: "Every 3 years, the Department shall prepare a written report, no later than July 31, that includes the educational programming provided under this section and how the school districts and charter schools implemented the standards under this section. This Act requires the Department of Education to develop and maintain evidence-based media literacy standards for use by school districts and charter schools serving students in grades kindergarten through 12" (Bill Detail - Delaware General Assembly). Missouri: "the department of elementary and secondary education shall develop a plan for the implementation of instruction in media

literacy skills in kindergarten through grade twelve in the public schools of this state, including instruction in early childhood education programs, based on the findings contained in the committee's final report" 3060H.01I.pdf (mo.gov). South Carolina: South Carolina Legislature Online - Bill Search by Bill Number (scstatehouse.gov). New Jersey: NJ S588 | 2022-2023 | Regular Session | LegiScan. Illinois: Illinois General Assembly - Bill Status for HB0234 (ilga.gov). Florida: HB 361 (2022) - Required Instruction in Social Media Literacy | Florida House of Representatives (myfloridahouse.gov). Texas: 87(R) HB 129 - Introduced version (texas.gov), Media literacy training could eventually be required for Texas high school students (kwtx.com); 87(R) HB 129 - House Committee Report version - Bill Text (texas.gov); Arizona: "The legislature intends to provide a process by which students, parents, teachers, librarians, other school employees, administrators and community representatives will engage in an ongoing discussion on safe media and technology use, with the goal of establishing digital citizenship and media literacy as part of the state's basic education goals and essential academic learning requirements." (Microsoft Word - SB1378P (azleg.gov)). Ohio: Section 3301.079 - Ohio Revised Code | Ohio Laws. Minnesota: Minnesota media literacy legislation and law | Media Literacy Now. Wisconsin: Wisconsin Academic Standards for Information and Technology Literacy. Alaska: Alaska Digital Literacy Standards. Colorado: Media Literacy Implementation | Colorado General Assembly. California: Bill Status - AB-2284 Pupil instruction: digital literacy and media literacy grant program. (ca.gov). Connecticut: Connecticut media literacy legislation and law | Media Literacy Now. Washington: Washington State Legislature. Rhode Island: S0106.pdf (state.ri.us). Utah: Utah media literacy legislation and law | Media Literacy Now. Virginia: Virginia media literacy legislation | Media Literacy Now. Massachusetts: Massachusetts media literacy legislation and law | Media Literacy Now. New Mexico: New Mexico media literacy legislation and law | Media Literacy Now

The MLN report concludes that only two states — Florida and Ohio — have strong statutory language on media literacy. We found that seven states have required or introduced bills to require schools to teach media literacy. **New Jersey** requires schools to teach safe and ethical use of social media. In 2009, **Illinois** passed an internet safety law that requires school districts to incorporate into their curriculum a component on internet safety; a new **Public Act** says that beginning with the **2021-2022 school year**, every public high school may include in its curriculum a unit of instruction on media literacy.

In nine states, there are policies that address provision of resources, such as standards, curriculum, and guides, for school districts to implement media literacy education. In **Ohio**, media literacy education was included as a requirement in a 2009 omnibus bill; the legislature required that statewide academic standards include the development of media literacy skills. In **Connecticut**, the law requires a special counsel to provide recommendations about practices and methods of instructing students to safely, ethically, responsibly, and effectively use media and technology resources. In **Washington**, school districts can apply for grants to implement a media-literacy-related curriculum.

We found that in at least five states, policymakers have been working with educators and school districts to identify best practices and good models to help students to develop media literacy skills. In **Virginia**, a House bill was introduced to direct the Department of Education to develop and implement health and safety best practice guidelines for the effective integration of digital devices in public schools. Although the **2007 state guidelines** for internet safety needs to be updated urgently, the guidelines provide some generic advice for school boards. The following are some examples from the document:

- Providing relevant information to parents should be a priority for school boards.
- Professional development for all educators on internet safety should be a high priority for school boards.
- Board members should stay up to date with new developments in capabilities, vulnerabilities, and legal issues related to the Internet and school responsibilities.

Action Box 4. How Districts Practice Social Media Education

Districtwide Initiatives to Help Students to Have Positive Social Media Experiences

Recent data show that three in five school district superintendents reported that their students' mental health was a major concern as of the fall of 2021 (Diliberti et al., 2021). Research shows that the negative association between teenagers' mental health and social media use is stronger than links between mental health and binge drinking, sexual assault, obesity, or hard drug use. However, half of teenagers ages 14-18 reported that social media helped their mental health the most during the pandemic, according to a survey conducted by Mental Health America (MHA), a community-based nonprofit organization. Seeing both positive and negative impact of social media on students, some district leaders have started districtwide initiatives to encourage positive use of social media.

Districtwide Campaign in the Dallas Independent School District (DISD)

In December 2021, the DISD in Texas launched a districtwide campaign to promote digital self-awareness, safety, etiquette, and best practices among middle school and high school students. The four Appy Day sessions that students attended addressed digital citizenship, social media, cyberbullying, and media literacy. "We want to make sure that our students are safe and that they're not posting things on the internet that would jeopardize their safety," Roshonda Clayton-Brown, deputy chief of school leadership, said in an article in the Dallas ISD's News Hub.

Digital Citizenship Coordinators in The Elk Grove Unified School District (EGUSD)

Given the pace at which new technology tools emerge, the EGUSD in California recognized the need to implement a comprehensive program to teach the safe, effective, and ethical use of digital age technologies to staff, students, and parents. As a first step, in 2008, the district formed the Digital Citizenship Task Force (previously known as the Internet Safety Task Force) and began designing a districtwide program. The Task Force addressed new issues and opportunities and assessed program progress.

The EGUSD initiative has two digital citizenship coordinators who curate and maintain the district's Digital Citizenship Website/Blog to ensure that all students, parents, and staff have access to resources to understand what it means to be a fully engaged and contributing digital citizen. One coordinator is a 2021-2023 Common Sense Educator and Google Certified Educator and supports teachers and students in meaningfully integrating technology in all curriculum areas. The other coordinator supports district staff/departments, teachers, and students on many web- and graphic-based projects and teaches a variety of digital citizenship topics.

The main themes of EGUSD's digital citizenship include cyberbullying, digital footprint, protecting online privacy, and media literacy. Like many other school districts, EGUSD uses resources from Common Sense Education (CSE), a nonprofit organization that has been the leading source of entertainment and technology recommendations for families and schools since 2003. According to CSE, all students need digital citizenship skills to participate fully in their communities and make smart choices online and in life. CSE recommends that schools address top concerns about students' social media use, prepare students with critical skills when using social media, support educators with relevant training, and engage the whole community through family outreach.

School Board Resolution in the Los Angeles Unified School District (LAUSD)

Recently, the LAUSD Board of Education passed a Board Resolution to require critical media literacy instruction, beginning with the 2021-22 school year. According to the resolution, the school board directed the Superintendent to ask the Division of Instruction to develop a plan for teaching Critical Media Literacy at all grade levels (1-12), and the Division of Instruction would bring to the Board in 90 days what could be done to begin implementing Critical Media Literacy instruction for the 2021-2022 school year. Additionally, the LAUSD board members asked the proposed plan

to include the number of minutes and the content sources of the critical media literacy courses, as well as relevant professional development.

In October 2021, the district hosted Digital Citizenship Week. During the event, there were presentations about activities and lessons focusing on the five DigCitCommit Competencies. The purpose of the event aims to shift the conversation from one of fear and negativity (don'ts) to one of inclusivity, empathy, and action (do's). It should be noted that the main goal of the curriculum is to teach students to evaluate the accuracy, perspective, and validity of digital media and social posts.

More Social Media Literacy Education Needed in Public Schools

According to the Education Commission of the States (ECS, 2021), a Stanford study found that 91 percent of teachers believe that digital citizenship is at least moderately effective in helping students make smart, safe, and ethical decisions online. While social media literacy education seems to be working, data show that more work needs to be done in this field. In 2021, The Social Institute (TSI) surveyed nearly 10,500 students nationwide and asked how they could be empowered to navigate social media and technology positively.
The results (Arundel, 2021) show that —

- Approximately 60 percent of fourth graders said that they could post positive and encouraging comments.

- Nearly half (46%) of seventh graders said that they would tell a friend to block and report the social media account if they realized someone had created an anonymous account about them and posted embarrassing photos with threatening captions.

- However, 42 percent of eighth graders said that they rarely or never pay attention to how companies are tracking information about them online.

Despite the challenges of using social media and the risks, social media does offer a useful way of educating and reaching adolescents to promote mental well-being (O'Reilly et al., 2018). Evidence shows that adolescents frequently utilize social media and the internet to seek information about mental health (O'Reilly et al., 2018). Therefore, to meet the challenges created by the ubiquitous use of social media, school leaders may consider different strategies to foster positive use of social media, increase their communities' awareness of the negative impact of social media, and provide effective tools to guide students when they use it.

Rethinking "Old School" Approaches at the District Level

In many rural schools, principals and teachers stand at the entrance of the school or classroom to greet every student and do daily feelings check-ins every morning. During the pandemic, many educators continued this practice on social media. This approach seems "old school," but a special education teacher posted on Instagram a Mental Health Check-In she did with her students, and it went viral. Daily emotional check-ins help educators to detect issues that students have beyond classrooms and then take some preventative measures (Driscoll, n.d.).

Adding Social Media Use to Mental Health Screening

Researchers found that teenagers with mental health concerns were more likely to express their negative emotions in a social media community where people share common concerns, and this phenomenon suggests the importance of routinely screening teens' mental health problems and providing them with timely support and services (Zhang et al., 2021). "Given that many teens with mental health concerns may use social media, such as Reddit, to exchange information and support on mental health issues, it is a promising strategy to introduce trained mentors into online mental health communities to offer enhanced support and service referral for needing participants" (Zhang et al., 2021).

Mental health screening tools have been recommended by scholars, federal government, and even practitioners. School-based universal mental health screening is feasible for school districts and can provide important information about the emotional and behavioral health of students (Siceloff et al., 2017). Adding social media use to mental health screening will empower parents, educators, counselors, and school leaders to make informed decisions and take action. Other data (e.g., absenteeism, dropouts, school discipline, academic performance) also play a critical role in assisting educators in identifying students who may be at risk in mental health.

Rebuilding Extracurricular Activities

By the fall of 2021, about 99% of public school students attended school full-time in person (NCES, 2021). This means that extracurricular activities are coming back. Researchers found that adolescents who participated in extracurricular activities (e.g., sports, arts programs, community programs) were significantly less likely to engage in recreational screen-based activities (e.g., watching programs, browsing the internet, playing computer games) for two or more hours after school (Oberle et al., 2020).

Readdressing LifeReady Skills

As we mentioned above, social media addiction affects students' mental health as well as their performance in school. For years, educators and school leaders have been working hard to prepare students with the skills they need to lead a successful and fulfilling life. Time management and self-discipline are included in the set of NSBA's LifeReady skills. Additionally, research suggests that although social media literacy is critical to help teenagers use social media in a positive manner, students need skills and support to cope with aggressors on social media and handle conflicts (Ging and Norman, 2016).

Action Box 5. How Parents Can Support the Positive Use of Social Media

Empower Parents with Information, Advice, and Screening Tools

Parents play an indispensable role in their children's education, including social media literacy education. According to medical experts (Ben-Joseph, 2018), parents can help keep children grounded in the real world by limiting media use. Also, by setting a good example through their own virtual behavior, parents can model for their children how to use social media in a safe and healthy manner. Many school districts, recognizing the power of parental involvement, provide resources for parents to help their children develop healthy habits for using social media.

Navigating Parents to Detailed Resources in Midlothian Independent School District (MISD)

To inform and guide parents, the MISD in Texas has developed an online hub that navigates parents and students to access comprehensive resources. Topics include Digital Responsibility, Digital Safety, Digital Law, Digital Literacy & Fluency, and Digital Health & Wellness. Under Digital Health and Wellness, parents and students can find a template of a family media agreement (based on different age groups) and tips that students can follow at night to help boost their energy and focus in the morning. "Examples include logging off messaging apps, social media, and email; turning off smartphones; getting in the habit of powering off all electronics, like laptops, tablets, TVs, and video game consoles)".

Increasing Parental Social Media Awareness in Clovis Unified School District (CUSD)

The CUSD in California has made internet and social media awareness the districtwide policy. "As a school district we are continuing to educate students about the risks posed by irresponsible use of the internet. We encourage every parent to be a part of proactive efforts to help our youth use their social media accounts in a safe and responsible way. Students also play an important role in alerting their parents and school administrators to any suspicious online behavior that they witness." (CUSD, 2022).
Some tips the district provides for parents:

- Be familiar with your child's online activity, including all social media accounts. Don't be afraid to "follow" or "friend" your kids on their personal social media channels.

- Talk to your children regularly about their use of the internet and social media, and create a safe environment for your children to report internet activity or online posts/messages that make them uncomfortable.

- Report inappropriate or threatening online content immediately to law enforcement or school staff.

Free Online Mental Health Screening from Mental Health America (MHA)

In 2014, MHA launched a collection of online mental health screenings. The free, confidential, anonymous, and scientifically validated screening tools help individuals understand and learn more about their mental health. According to MHA, with more than 15 million screens taken — over 5 million in 2021 alone — the online screening program has collected the largest data set from a help-seeking population. The data show that most screeners are under the age of 25; most people screen "positive"—their results show moderate to severe symptoms; most "positive" screeners have never been diagnosed with a mental health condition.

The findings suggest that common sense knowledge about social media use and mental health may not be enough by and in itself for parents to help their children, particularly when parents are unsure whether they should seek professional advice for their children. Online screening is one of the quickest and easiest ways to determine whether an individual is experiencing symptoms of a mental health condition, such as depression or anxiety. While online screening tools, including MHA's Youth Mental Health Test, are not diagnostic instruments, the easily administrated tests help detect risky

behaviors early. Mental health screenings allow for early identification and intervention and help bridge the gap.

In 2021, The Social Institute (TSI) surveyed nearly 10,500 public and private students nationwide about how they can be empowered to navigate social media positively; 60 percent of the fourth graders said that they could post positive and encouraging comments (Arundel, 2021); 40 percent of the fifth graders said that they told their parents what they watched on YouTube (TSI, 2022). The data suggests that educating students on how to use social media positively from a very young age is essential.

In brief, parental involvement can foster teenagers' healthy habits of social media use. Providing information, tips, and screening tools will empower parents to work closely with schools in social media literacy education.

Conclusions

More teenagers are using social media. More adolescents are suffering from poor mental health. The COVID-19 pandemic aggravates the situation of student mental well-being, which has become a common challenge in the U.S. and the rest of the world. Yet, literature shows two sides of the same coin. If adolescents use social media in a purposeful and positive manner, social media will enhance their self-esteem and meet their social interaction needs. "Although there are important benefits, social media can also provide platforms for bullying and exclusion, unrealistic expectations about body image and sources of popularity, normalization of risk-taking behaviors, and can be detrimental to mental health" (Mellins, 2021).

Media literacy education certainly has a place in fostering the positive use of social media, namely helping students to increase knowledge of internet safety and enhance skills in coping with social media conflicts. For students with diagnosed depression symptoms, social media can provide a meaningful platform to meet their social interaction needs. It is crucial for mental health service programs to develop a friendly environment and offer responsive training to support vulnerable teenagers.

Research suggests that social media addiction can be more toxic for the mental well-being of teenagers, especially girls, compared with binge drinking and drug abuse. Therefore, school leaders may consider more investment in enriching school programs, especially extracurricular activities. Arts programs, sports, and hands-on learning curricula can attract students to engage in activities that benefit them, build their characters, and distance them from social media overuse.

In conclusion, as educators and advocates, school leaders need to have a vision of how students should use social media. As remarked by Susan Cooper, a social media enthusiast and strategist, "Engage, Enlighten, Encourage, and especially … just be yourself! Social media is a community effort, everyone is an asset."

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ABOUT NSBA

Founded in 1940, the National School Boards Association (NSBA) is a federation of state associations and the U.S. territory of the Virgin Islands. Through its member state associations that represent locally elected school board officials serving approximately 51 million public school students, NSBA advocates for equity and excellence in public education through school board leadership.

We believe that public education is a civil right necessary to the dignity and freedom of the American people and that each child, regardless of their disability, ethnicity, socio-economic status or citizenship, deserves equitable access to an education that maximizes their individual potential. For more information, visit nsba.org.