

Adolescents and Social Media: Privacy, Brain Development, and the Law

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Adolescents under the age of 18 are not recognized in the law as adults, nor do they have the fully developed capacity of adults. Yet teens regularly enter into contractual arrangements with operators of websites to send and post information about themselves. Their level of development limits their capacity to understand the implications of online communications, yet the risks are real to adolescents' privacy and reputations. This article explores an apparent contradiction in the law: that in areas other than online communications, U.S. legal systems seek to protect minors from the limitations of youth. The Children's Online Privacy Protection Act provides some protection to the privacy of young people, but applies only to children under age 13, leaving minors of ages 13 to 17 with little legal protection in their online activities. In this article, we discuss several strategies to mitigate the risks of adolescent online activity.

J Am Acad Psychiatry Law 44:313–21, 2016

Adolescents are able and are legally allowed to send information about themselves and communicate via social media and online and mobile sites, without fully understanding the implications. An oft-cited example is the teenage girl who “sexts” an explicit image to her boyfriend, only to have the image shared with others in ways she never intended.¹ Such risks of online communications are real, particularly to the privacy interests of adolescents.

Although adolescents under the age of 18 are neither recognized in the law as adults, nor understood in psychiatry to have the fully developed capacity of adults, many easily enter into online contracts for the use of social media. The Children's Online Privacy Protection Act (COPPA) has provided protection to the privacy interests of children, but it applies to children under the age of 13.² As is discussed below, minors between the ages of 13 and 17 have little legal protection from the hazards of communicating online.

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Disclosures of financial or other potential conflicts of interest: None.

We wanted to integrate for the reader the available information on the legal status, both legislative and judicial, and implications of adolescents' online activity and how that information relates to current knowledge of brain development. We review privacy risks associated with teenagers' online activities, including social media participation, and how Internet use by teenagers has been addressed legislatively and judicially. In addition, we contrast the ease with which adolescents can legally enter into online contracts that waive their privacy rights; commercial contracts that are void or voidable due to adolescents' minority legal status; and many other areas, including criminal activity and penal responsibility, in which the law acts to shield juveniles from the consequences of their developmental immaturity. We also discuss strategies to limit the potential harm, resulting from adolescents' online activity, to their privacy, safety, and well-being. Such strategies include legislatively mandated technological fixes, parental monitoring, education, and the potential role of psychiatrists in these endeavors.

Teen Social Media Use and Privacy

The American Academy of Pediatrics defines a social media site as “any Web site that allows social interaction,” examples of which include social networking sites, gaming sites and virtual worlds, video

sites, and blogs (Ref. 3, p 800). Social media sites may target demographic groups ranging from prepubescent children (e.g., Disney's Club Penguin) to adult professionals (e.g., LinkedIn). Sites that cater to general audiences (such as Facebook, Twitter, and Instagram) are frequently used by adolescents for communication, education, and entertainment. Recognized risks of social media activity include cyberbullying, online harassment, adolescent relationship abuse, so-called "Facebook depression," and the inherent risks that come with "sexting" and other types of disclosure of private information, including exposure to online sexual solicitation and predation, as well as criminal implications of possessing or distributing sexually explicit images of underage individuals.^{1,3,4} Some college admissions officers use Google and Facebook in their review of applicants, and the information they find can negatively affect the applicant's chances of admission.⁵ Poorly considered social media postings can cost people their jobs and reputations.⁶

Despite these dangers, teens have frequently shared their personal information via social media. According to a 2012 Pew Research Center survey of 802 teens, 81 percent of online teens used a social networking site such as Facebook, and 24 percent used Twitter.⁷ Teen Facebook profiles had a median of 300 friends, and teen Twitter accounts had a median of 79 followers. Significant percentages of teen social media users report sharing their photographic likeness (91%), school name (71%), city of residence (71%), e-mail address (53%), and cell phone number (20%). Sharing in each of these categories increased significantly from 2006 to 2012. In addition, on the online profile they used most, teen social media users frequently posted their real name (92%), personal interests (84%), birth date (82%), relationship status (62%), and videos of themselves (24%). A significant minority of teen Facebook users (14%) kept the online profile completely public, and a majority (64%) of teen Twitter users knowingly "tweeted" publicly.

Teen social media users in the Pew survey did not express high levels of concern about third-party access to their personal data, with only nine percent reporting being "very concerned."⁷ At the same time, one in six teens reported having been contacted online by someone the teen did not know in a way that made the teen feel scared or uncomfortable; one in three had received online advertising that was inap-

propriate for his age; and 39 percent admitted that they had lied about their age to access a website or obtain an online account. The latter finding is relevant to this discussion. Exploration of how old a person must be to use social media sites reveals that there is little oversight, as will be discussed below.

Teen Social Media Use and Contracts

Juveniles' legal ability to access online programs and services is based in contract law. Increasing attention in the courts is resulting in judicial decisions on the question of whether a juvenile can legally consent to online terms of service such as those for social media sites that address privacy and security. The last decade has seen litigation about whether an adult who clicks a box on a website or browses through a website has consented to its terms of service. Courts have generally agreed that in such circumstances, a valid contract is created, binding the user to the website's terms of service. In a 2009 case from the Eastern District of Missouri, for example, the court recognized that the legal effect of such online agreements is an emerging area of the law and that courts, which have ruled on such matters, have applied traditional principles of contract law.⁸ Generally, the question is whether the plaintiff had reasonable notice of, and manifested his or her consent to, the online agreement. If a website's customer was informed of the contract terms, the customer is bound by those terms. The court explained that "clickwrap" agreements, in which the user is required to click a box consenting to the site's contract terms before he or she is allowed to proceed on the website, have been upheld routinely by federal courts.

Courts considering "browsewrap" agreements, which operate by binding the website's user through use of the website alone, have similarly held that the validity of a browsewrap turns on whether the website user had actual or constructive knowledge of the website's terms and conditions before using the site.⁹ In one case in which the court upheld the validity of a browsewrap agreement and concluded that the user had breached the agreement, the court observed that any reasonable adult in the defendant's position would have understood the basic terms of the contract.¹⁰ What about nonadults? Do users who are under age 18 also become legally bound by clickwrap or browsewrap contracts? Despite a general attitude in the law that persons under the age of 18 are not legally capable of consenting to various activities,

such as voting, purchasing property, or purchasing alcohol or tobacco, adolescents can, and regularly do, form contracts to participate in online activities.

Children's Online Privacy Protection Act

The main federal law regarding juveniles' online privacy protects only youths who are under the age of 13. Age 13 became a cutoff in the online world in 2000 with the passage of COPPA, a federal law that protects the privacy of children by requiring parental consent for the collection or use of children's personal information. Passed in response to a concern that companies were using online marketing techniques that targeted children and then collecting children's personal information without parental consent or notification, COPPA defines a child as an individual under the age of 13.^{2,11}

In the 1990s, the Internet became a major tool for commerce as well as communications. With the use of the Internet by an increasing number of households in the United States came a resulting increase in the use of online programs by children. The Electronic Privacy Information Center (EPIC) reported that "[b]y 1998, almost 10 million children in the United States had access to the Internet."¹¹ With Internet marketing, unlike with print media or television, companies were able to benefit from not only conveying information to consumers, including children, but also obtaining information from them. According to EPIC, "[t]he interactive nature of the Internet enabled marketers to collect personal information from children through their registration to chat rooms and discussion boards, to track behavior of web surfers through advertisements, and to promise gifts in exchange for personal information." This information was then compiled and sold to third parties for commercial purposes.

Along with the increase in Internet use and the growing practice of companies' obtaining information about children soon came an increasing awareness of the dangers of these practices. A 1996 report by the Center for Media Education highlighted a growing body of research demonstrating that children are less able than adults to understand the ramifications of revealing personal information and to distinguish a website's substantive material from the advertisements around it. It became apparent that "[t]argeting of children by marketing techniques resulted in the release of huge amounts of private information into the market. . . ." ¹² News media

began to investigate the breadth and depth of information companies were obtaining. In one example of such an exposé, a television reporter used the name of a known child killer to purchase a list of children's names.¹³

Testifying in favor of privacy protections for children, EPIC's director, Marc Rotenberg, explained that problems in the marketing industry warranted Congress' action. Collection of data about children based on their online activities was increasing "at a phenomenal rate," posing "a substantial threat to the privacy and safety of young people."¹⁴ According to Mr. Rotenberg, legal standards and government regulation were practically nonexistent, and industry self-regulation was not well-suited to protect children's privacy.

In March 1998, the Federal Trade Commission (FTC) presented Congress with a report that addressed the lack of regulation and protection of children's information online, which was followed in July 1998 by a Senate bill entitled, The Children's Online Privacy Protection Act of 1998. Portions of this bill were enacted by Congress and signed into law by President Clinton on October 21, 1998, becoming effective on April 21, 2000.^{2,11}

The law applies to operators of commercial websites aimed at children under the age of 13, as well as to commercial websites for general audiences, among which an operator has actual knowledge are children under the age of 13.² Among its provisions, COPPA requires that website operators obtain parental consent before collecting personal information from children. It also requires operators to allow parents to prohibit disclosure of this information to third parties, to review the information and have it deleted, and to prevent its further use or collection of children's personal information. Website operators also must take steps to protect this information and to retain it only as long as necessary.

Under COPPA's amended Rule, which went into effect in 2013, "personal information" consists of a variety of identifiers including name, address or geolocation information, telephone number, Social Security number, a child's image or voice, online contact information or user name that functions as such, a "persistent identifier" allowing recognition of a user over time and across websites, and information about the child or parents that is combined with one of these identifiers.^{2,15}

Criticism of COPPA has included concerns about what the FTC requires of a website to verify parental consent, including “sending/faxing signed printed forms, supplement of credit card numbers, calling toll-free numbers, or forwarding digital signatures through email.”¹¹ These methods “are too costly, cumbersome, and inadequate in protecting personal information.”¹¹ In addition, there are complaints that the FTC has not enforced COPPA adequately.¹¹

Typically, the official terms of service for social networking sites, such as Facebook and MySpace, mirror the COPPA regulations, stating that 13 years is the minimum age to be able to participate.³ Where did this age cutoff come from? The FTC reported that Congress decided to apply COPPA’s protections to children under 13 because it recognized “that younger children are particularly vulnerable to overreaching by marketers and may not understand the safety and privacy issues created by the online collection of personal information.”¹⁶ According to COPPA’s final Rule, the American Psychological Association “stressed the need for a high standard for parental consent because children under the age of 13 do not have the developmental capacity to understand the nature of a website’s request for information and its implications for privacy.”¹⁷ A lawyer with expertise in COPPA law explained that age 13 was selected “because it was felt that kids over this age were tech savvy enough to understand the ramifications of providing information to third parties.”¹⁸ However, the assumption that adolescents age 13 and over do understand and consider the potential consequences of posting personal information online is not well supported, either by the law’s treatment of teens in other contexts or by current understanding of their developmental capacities, as will be discussed below.

Juveniles Aged 13 to 17 Online

Even if COPPA were perfectly enforced and effective in protecting the privacy of children under age 13, youths aged 13 to 17 are not protected by the law. The FTC has said that although COPPA does not apply to those aged 13 to 17, “the FTC is concerned about teen privacy and does believe that strong, more flexible, protections may be appropriate for this age group.”¹⁶ Nevertheless, teens who have not yet reached the age of legal majority are capable of legally contracting or consenting to online terms of service,

just like adults, at least when there is no disclaimer on the website. Some companies, like Amazon, claim on their website that they do not sell to children: “Amazon.com does not sell products for purchase by children. We sell children’s products for purchase by adults. If you are under 18, you may use Amazon.com only with the involvement of a parent or guardian.”¹⁹

The federal district court case of *A.V. v. iParadigms, LLC*, demonstrates that a court will find that a minor is capable of agreeing to online terms of use.²⁰ The *A.V.* court determined that the parties (four minor high school students and an online proprietary technology system) entered into a valid contractual agreement. When the students clicked “I Agree” to acknowledge their acceptance of the terms of the clickwrap agreement they became bound by the company’s terms. Among other arguments, the students asserted the defense of infancy to try to void the terms of the agreement. Under Virginia state law, a contract with an infant is voidable by the infant when he or she attains the age of majority, but the *A.V.* court would not allow the infancy defense to void the students’ contractual obligations after they benefited from the contract.

Another court concluded that minor plaintiffs stated a claim for declaratory judgment that their online contracts were void, distinguishing those cases in which a minor seeks to void only a portion of an online agreement while retaining some benefits of the agreement.²¹

Other cases have demonstrated the ease with which minors can circumvent the age restrictions of online services and the lack of legal protection against this practice. A federal court of appeals held that an online service’s contract with a minor is valid and enforceable, and the court explained that even the fact that an online service cannot verify the age of the user does not render such an agreement invalid. In *Doe v. SexSearch.com*, an adult who met an underage person through the defendant’s online dating service and was criminally charged after a sexual encounter, sued the online service for failing to sufficiently screen the underage person from its registry.²² He alleged that the defendant online service breached its contract with him by allowing the minor to sign up without the defendant’s verifying that she was in fact at least 18 (the site required only that users check a box indicating they were at least 18 years old). Because the website’s terms and conditions stated that

the online service could not guarantee, and assumed no responsibility for verifying, the accuracy of information provided by other users, and did not include a promise to prevent minors from registering, the court concluded that the plaintiff did not demonstrate a valid breach-of-contract claim.

Similarly, in *People v. Schutze*, the court affirmed a defendant's sentence for child sexual abuse and communicating with another on the Internet to commit this felony.²³ On the question of intent, the evidence showed that the defendant believed he was communicating with a 14-year-old girl. The person who established the online persona testified that she told the defendant she was 14, that her online profile information stated that she was 14, and that she did not have to falsely claim she was 18 years old to access the online chat room, because she had set up the account as if her mother had the account and gave the 14-year-old access to it.

Juveniles in Other Legal Contexts

Adolescents aged 13 to 17 are recognized as developmentally immature in other legal contexts.^{24–27} Recent United States Supreme Court cases regarding the death penalty and the sentence of life in prison without the possibility of release for juveniles have underscored that juveniles are treated differently in the law than are adults.^{28–30} In the 2012 U.S. Supreme Court case of *Miller v. Alabama*, in which the Court held that states cannot impose mandatory life sentences without parole for juvenile offenders, Justice Kagan summed up the judiciary's view of juveniles in the criminal context:

Roper and *Graham* establish that children are constitutionally different from adults for purposes of sentencing. Because juveniles have diminished culpability and greater prospects for reform, we explained, “they are less deserving of the most severe punishments.” Those cases relied on three significant gaps between juveniles and adults. First, children have a “lack of maturity and an underdeveloped sense of responsibility,” leading to recklessness, impulsivity, and heedless risk-taking. Second, children “are more vulnerable . . . to negative influences and outside pressures,” including from their family and peers; they have limited “control[] over their own environment” and lack the ability to extricate themselves from horrific, crime-producing settings. And third, a child’s character is not as “well formed” as an adult’s; his traits are “less fixed” and his actions less likely to be “evidence of irretrievabl[e] deprav[ity].”

Our decisions rested not only on common sense—on what “any parent knows”—but on science and social science as well. In *Roper*, we cited studies showing that “[o]nly a

relatively small proportion of adolescents” who engage in illegal activity “develop entrenched patterns of problem behavior.” And in *Graham*, we noted that “developments in psychology and brain science continue to show fundamental differences between juvenile and adult minds”—for example, in “parts of the brain involved in behavior control.” We reasoned that those findings—of transient rashness, proclivity for risk, and inability to assess consequences—both lessened a child’s “moral culpability” and enhanced the prospect that, as the years go by and neurological development occurs, his “deficiencies will be reformed” [citations omitted] (Ref. 30, pp 2464–5).

The Supreme Court has also recognized that outside the criminal context, youth are different from adults and that minors are therefore treated differently throughout the law. In the 2011 case of *J.D.B. v. N. Carolina*, the Court listed the examples of the many “legal disqualifications placed on children as a class.” A minor’s contract is voidable if the minor chooses to void it. Minor children have the legal right to acquire and to own property, but they are considered in the law incapable of managing property. In almost every state, individuals under 18 years of age are prohibited from voting, from serving on juries, or from marrying without parental consent.³¹

In addition to capacity to contract, right to vote, and ability to marry, minors are prohibited by law from purchasing alcohol and tobacco and from owning firearms. What all of these examples have in common is that just because adolescents might want to engage in certain activities and might even appear at first glance to be capable of doing so (choosing to drink alcohol or use tobacco, enter into contracts, and vote) does not mean that the law necessarily views them as capable of engaging in these activities. Rather, youth are protected from the risks of their own immaturity. Such protection is not, however, applied to online activity. U.S. laws recognize that adolescents cannot contract like adults, but allows them to do the equivalent of entering into a contract by engaging in social media and other online communications. Even if the adhesiveness of online contracts with minors can be legally challenged (e.g., via assertion of the infancy doctrine and intellectual property and copyright arguments),^{32,33} the negative consequences of a teenager’s misguided posting of personal information are often immediate and run the risk of “going viral” through unwelcome reposting by others. Contract law protections do little to ameliorate these dangers.

Adolescent Brain Development

The Supreme Court's assertions about differences between minors and adults that affect both minors' culpability and their need for protection are founded in the growing body of knowledge of adolescent neurodevelopment. The Court's decision in *Miller v. Alabama* was based in part on the joint *amici curiae* brief filed by the American Psychological Association, the American Psychiatric Association, and the National Association of Social Workers, which highlighted research that "has shown that adolescents' judgment and decision-making differ from adults' in several respects: Adolescents are less able to control their impulses; they weigh the risks and rewards of possible conduct differently; and they are less able to envision the future and apprehend the consequences of their actions. Even older adolescents who have developed general cognitive capacities similar to those of adults show deficits in these aspects of social and emotional maturity."³⁴

Studies of adolescents' ability to make informed decisions in other legal settings help to demonstrate that the skills necessary for different aspects of decision-making reach maturity at different rates. A study of juveniles' comprehension of their *Miranda* rights to silence and counsel compared youths aged 10 to 16 to adults aged 17 to 50.³⁵ As a group, juveniles younger than 15 performed more poorly than adults on measures of their understanding of the words and phrases used in *Miranda* warnings and of their perception of the role and significance of these rights in the legal process. In a study of juveniles' competence to stand trial, Grisso and colleagues³⁶ compared youths aged 11 to 17 to young adults aged 18 to 24. They found that juveniles younger than 16 performed more poorly than adults on an assessment of understanding of court procedures, personnel, and trial rights; ability to process information related to making legal decisions; and appreciation of the relevance of information to one's situation. Sixteen- and 17-year-olds performed similarly to adults.

Steinberg and colleagues,³⁷ noting that such studies as those of juvenile competence to stand trial and comprehension of *Miranda* rights focus on cognitive skills such as information-processing and logical reasoning, examined how the maturation of cognitive capacity such as these compared with the development of psychosocial maturity. To participants aged 10 to 30, the researchers administered tests of basic

cognitive skills (including resistance to interference in working memory, digit span, and verbal fluency) and measures of psychosocial maturity (including risk perception, sensation seeking, impulsivity, resistance to peer influence, and future orientation). There were age differences in cognitive capacity across early adolescence but not after age 16, reflecting the pattern seen in the aforementioned assessments of legal competencies. In measures of psychosocial maturity, however, there were no age differences among participants aged 10 to 16, but there were differences between the 16- to 17-year-old and 22-and-older age groups and between the 18- to 21-year-old and 26-and-older age groups. The researchers compared these data to the results of Grisso *et al.*,³⁶ who studied juvenile trial competence. Comparing like age groups, they found that the pattern of differences in cognitive capacity among age groups closely paralleled the age differences in abilities significant to trial competence.³⁷ These results suggest that psychosocial maturity develops later in adolescence than do general cognitive abilities.

Steinberg and colleagues³⁷ pointed out the relevance of their findings to the treatment of adolescents under the law. They noted:

When it comes to decisions that permit more deliberative, reasoned decision-making, where emotional and social influences on judgment are minimized or can be mitigated, and where there are consultants who can provide objective information . . . adolescents are likely to be just as capable of mature decision-making as adults, at least by the time they are 16 [Ref. 37, p 592].

On the other hand:

. . . in situations that elicit impulsivity . . . characterized by high levels of emotional arousal or social coercion, or that do not encourage or permit consultation with an expert . . . adolescents' decision-making, at least until they have turned 18, is likely to be less mature than adults' [Ref. 37, p 592].

The evolving understanding of adolescent brain development and behavioral maturation includes the dual-process model of judgment and decision-making²⁷ and ongoing structural and neurochemical changes noted in the developing teenage brain that occur into young adulthood.²⁵⁻²⁷ Albert and Steinberg²⁷ reviewed "cold" (cognitive, logical, analytic) and "hot" (emotional, impulsive, experiential) systems of information processing. Although adolescents have generally reached analytic maturity by their mid-teens, their still-developing experiential systems are particularly susceptible to social and

emotional factors (e.g., peer pressure, romantic attachment), and their capacity for behavioral self-regulation is incomplete. Neuroscience research has shown adolescent brains to be in a continuous state of maturation, demonstrating changes in myelination, synaptic pruning, and development of the prefrontal cortex that occur into the mid-20s. In addition, a documented increased susceptibility to the effects of the neurotransmitter dopamine that occurs during the hormonal changes of puberty lends further scientific support to the increased risk-taking and reward-seeking behaviors that are typical of adolescence.^{25,27}

Differences in the rate of cognitive and psychosocial maturity are significant to the assessment of adolescents' ability to make informed decisions regarding participation in online activities. When faced with the decision of whether to agree to the terms of service of a social media website, an adolescent is able, and likely, to click a "yes" box without logical reflection (and very often without reading the terms to which they are agreeing), without consultation with an adult, and without considering the potential risks of online communication. The circumstances of adolescents' ongoing engagement with social media websites are similarly likely to elicit the types of decision-making in which even older adolescents tend to be immature compared with adults.

Potential Solutions

What efforts have been, or should be, put forward to address the apparent challenge of protecting minors in their online communications? Expanding COPPA's age restriction to 18 years, though it would recognize the vulnerability of juveniles age 13 and over, would seem unlikely to be successful. Teens are technologically savvy, already heavily invested in social media, and apt to find ways to circumvent blanket limitations. Policies that recognize the tendency of adolescents to act impulsively and without considering risks, and that take steps to mitigate the consequences of such behavior online, may hold more promise. Some social networking sites such as Facebook and Twitter allow users to delete their posts. Legislation in California broadens that capability and also makes it mandatory for all child-focused websites. Effective January 1, 2015, the California law entitled, "Privacy Rights for California Minors in the Digital World," colloquially called the "eraser button" law, requires a website to allow persons

younger than age 18 to remove their own postings from that website. In addition, the statute requires websites to provide clear instructions to minors on how to delete their postings.³⁸⁻⁴⁰ The law has been hailed by organizations such as Common Sense Media, whose CEO, James Steyer, noted, "Kids and teenagers often self-reveal before they self-reflect."³⁹

Like COPPA, the eraser button law applies to operators of websites or online or mobile applications directed at minors or those with actual knowledge that the minor uses its website or online or mobile application. Also like COPPA, the statute's evident intention is to protect the privacy of young persons. But the law appears to expand on COPPA in two important ways. First, it goes further in protecting minors' privacy by prohibiting websites and mobile applications from advertising products or services including alcoholic beverages, firearms, fireworks, aerosol paint that can be used to deface property, tanning devices, dietary supplements containing ephedrine group alkaloids, tobacco, and lottery tickets. Second, the eraser button law applies to the group of adolescents who are not protected under the COPPA law. A "minor" is defined in the eraser button law as "a natural person under 18 years of age who resides in [California]."³⁸ The eraser button law seems to recognize the value in legal protections for youth, particularly in the area of privacy.

No law can protect adolescents perfectly from the risks of sharing information online. An eraser button law cannot, for example, prevent damage done by others viewing this information, or reposting it, before it is deleted. To help prevent teens from posting regrettable material in the first place, parents can play an important role by monitoring their teenagers' online activities and engaging them in discussion of their posting habits and decisions. Steinberg emphasized that the ability of adolescents to demonstrate mature decision-making skills is dependent on the setting and circumstances:

When it comes to decisions that permit more deliberative, reasoned decision-making, where emotional and social influences on judgment are minimized or can be mitigated, and where there are consultants who can provide objective information about the costs and benefits of alternative courses of action, adolescents are likely to be just as capable of mature decision-making as adults, at least by the time they are 15 or so. [Ref. 25, p 263].

Although parents cannot eliminate the heavy social and emotional influences on adolescents' online activity, they can serve as consultants to guide their

teens through the process of considering potential risks and consequences as they communicate online. According to a 2012 Pew Research Center survey of 802 parents of teens, most parents were already concerned about their teenagers' online behavior and privacy: 81 percent were concerned about advertisers learning information about their children, 72 percent were concerned about how their children interact online with people unknown to them, 69 percent were concerned about the impact of their children's online activity on academic and employment opportunities, and 69 percent were concerned about their children's management of their online reputations.⁴¹ Facing potential legal liability for their children's online behavior may further emphasize to parents the importance of monitoring their teenage children's online activities. In a case involving one minor posing as another on Facebook and posting damaging statements under the false account, the Georgia court of appeals concluded "a reasonable jury could find that, after learning . . . of [their child's] recent misconduct in the use of the computer and Internet account, the [parents] failed to exercise due care in supervising and controlling such activity going forward."⁴²

In addition to parental oversight and guidance, schools can enable and encourage responsible online behavior. Some schools have begun to specifically teach social media skills to students, using curricula such as the "Digital Literacy and Citizenship Classroom Curriculum" developed by Common Sense Media.^{43,44}

Psychiatrists can also participate in protecting minors from the consequences of their immaturity in their online activity. Psychiatrists should be aware of existing and pending federal and state laws regulating, supervising, and even prohibiting minors' online activities, including the applicable age groups, the types of regulation, and the extent of the protection these laws provide. Psychiatrists can advocate for new or additional legislation that would increase protection for adolescents communicating online, while remaining mindful that youth are always likely to find ways to circumvent these laws. Psychiatrists can also promote and participate in educational programs for youth regarding the dangers and consequences of impulsive online activities. In addition, psychiatrists who treat adolescents should be aware of how little oversight their online activity has and the consequences of their online activity for their lives.

Further research into youths' actual online activity and its extent is also needed. This should include research into the level of knowledge juveniles have about the content of the terms of service to which they agree when they sign up for online sites and their knowledge of the limitations of their ability to delete material they have posted online; the frequency of regret youths experience over their online postings and the content and circumstances of such postings; the frequency and content of negative results of online activity including facing consequences at home, school, and in the law; and the social embarrassment or bullying by peers resulting from inappropriate online activities. Such research would be important to illuminate the areas of risk to youth and the consequences of their online behavior, as well as to suggest additional avenues to ameliorate these risks.

Conclusion

Modern day teenagers participate heavily in social media. As with other potentially risky "offline" activities (e.g., engaging in sex, using alcohol, and smoking cigarettes), the legal system does not, and cannot, provide perfect protection to minors. Ultimately, extralegal interventions may prove more practical and effective, focused on educational outreach programs for teens and parents that encourage constructive and healthy online activities, self-protection of personal information, and open parent-teen communication. That said, legislation that mandates availability of certain technologies may provide a measure of additional protection. Such a law is California's "eraser button" statute, which affords minors the right to remove embarrassing or otherwise regrettable material they post on social media, thereby protecting them, in part, from the inherent limitations of youth.

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