

No. 23-2969

**IN THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

NETCHOICE, LLC
Plaintiffs-Appellees,

v.

ROB BONTA,
Defendants-Appellants.

On Appeal from the United States District Court
for the Northern District of California
No. 5:22-cv-08861-BLF
Hon. Beth Labson Freeman

**AMICUS CURIAE BRIEF OF THE AMERICAN ACADEMY OF
PEDIATRICS, THE AMERICAN PSYCHOLOGICAL ASSOCIATION
AND THE CALIFORNIA ACADEMY OF CHILD AND ADOLESCENT
PSYCHIATRY SUPPORTING APPELLANTS**

Joseph W. Cotchett
Anne Marie Murphy
Karin B. Swope
Blair Kittle
Cotchett Pitre & McCarthy LLP
840 Malcolm Road
Burlingame, CA 94010
Tel: (650) 697-6000
Fax:(650) 697-0577
jcotchett@cpmlegal.com
amurphy@cpmlegal.com
kswope@cpmlegal.com
bkittle@cpmlegal.com

DISCLOSURE STATEMENT

There are no parent corporations or publicly held corporations that own 10% or more of the stock in any of the amicus curiae.

AMICUS BRIEF BY CONSENT

All parties to this appeal have consented to the filing of this amicus brief.

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INTRODUCTION

The American Academy of Pediatrics (“AAP”) is a national, nonprofit professional organization of approximately 67,000 primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists. AAP is dedicated to the health, safety, and well-being of infants, children, adolescents and young adults. AAP makes policy statements on a broad range of pediatric issues, engages in advocacy to advance effective child health policies, publishes books, articles and newsmagazines, as well as *Pediatrics*, the leading peer-reviewed journal in the field, and sponsors meetings and conferences among pediatric health care providers and advocates, among many other activities in support of the health and well-being of children and the health care providers who serve them.

The American Psychological Association (“APA”) is the leading association of psychologists in the United States. A nonprofit scientific and professional association, APA has nearly 155,000 members. Among APA’s major purposes are to increase and disseminate knowledge regarding human behavior, and to foster the application of psychological learning to important human concerns. The issues here include scientifically established links between adolescent behavior and social media exposure, about which APA has recently issued a Health Advisory to share

the science with parents and policymakers.¹ APA also has a long history of submitting amicus briefs which share this science with the courts, having done so over 200 times and having been cited in court decisions more than 50 times.

AAP California is comprised of AAP California Chapters 1, 3 and 4 and represents more than 3,000 primary care and subspecialty pediatricians across California. AAP California is committed to the attainment of optimal physical, mental, and social health and well-being for all infants, children, adolescents, and young adults living in California.

The California Academy of Child and Adolescent Psychiatry (“CALACAP”) is the state-wide umbrella organization that draws together the four regional councils of child and adolescent psychiatrists in California.

ARGUMENT

I. The Current Regulation of Online Businesses is Inadequate to Protect Children From Numerous Serious Physical and Psychological Harms

The internet and social media companies that interact constantly with children and teens present unique risks of harm to children, including through the collection and use of their personal data, as described below. AAP, APA and CALACAP support regulation of the business practices of internet and social media companies to protect the physical and psychological well-being of all young

¹ <https://www.apa.org/topics/social-media-internet/health-advisory-adolescent-social-media-use>

people because there is currently no sufficiently comprehensive regulatory framework nationally or in California.

The primary law that provides internet privacy protections for children at the federal level is the Children’s Online Privacy Protection Act of 1998 (“COPPA”).² Much has changed in the digital ecosystem in the 25 years since COPPA was enacted, and the limitations that existed at that time have only become more problematic. For example, COPPA defines “child” as anyone *under the age of 13*, which in addition to leaving older children without any protection at all, leaves to the online services providers how to determine which users are ages 1 through 12—an area where the online services providers have consistently fallen short. In addition, COPPA only applies to services *directed to children* and to operators *who have actual knowledge* that they are collecting personal information from children. This is both over- and under-inclusive: companies can, and do, label services as general audience rather than child-directed, even when those services do appeal to children and attract them in significant numbers, with no reliable means of determining the age of users. COPPA does not require detailed and systematic data collection or internal or public reporting of children’s use of companies’ services, making it difficult to monitor and evaluate children’s uses of these

² 15 U.S.C. § 6501.

services. In the past 25 years, as the online industry has changed, these and other shortcomings of COPPA have become increasingly apparent.

II. The Proposed California Law to Regulate the Business Practices of Internet and Social Media Companies, Particularly Their Design and Privacy Protections, Greatly Improves Protections for Children on The Internet

The California Age-Appropriate Design Code Act of 2022 (“CAADCA”),³ which is modeled after the United Kingdom’s Children’s Code, seeks to regulate the business practices of large internet and social media companies operating in California regarding their collection and use of children’s private information. The law is written to protect children’s privacy and create a safer online space for children to learn, explore and play in ways not adequately protected by the federal law described above. The CAADCA expands protection to all children under the age of 18, as opposed to the age-13 cutoff under federal law.⁴ This expanded protection for 13- to 18-year-olds is significant because adolescence is a critical developmental stage filled with distinctive and pivotal biological, cognitive, emotional, and social changes that can leave them vulnerable to many of the manipulative design and privacy practices commonly employed by social media and digital platforms. Further, children develop along unique paths and access technology at different time points, so broad protection across childhood and

³ Cal. Civ. Code § 1798.99.29.

⁴ Cal. Civ. Code § 1798.99.30.

adolescence is needed. It also applies to services “likely to be accessed by children,” as opposed to services self-described by the companies as “directed to children.”⁵ CAADCA also does not contain any “safe harbors” like those written into the COPPA, which essentially exempt companies from liability for following their own self-regulating guidelines.⁶ As described by the Congressional Research Service, the CAADCA provides that covered businesses *may not*:

- use the personal information of any child in a way that the business knows, or has reason to know, is materially detrimental to the physical health, mental health, or well-being of a child;
- profile a child or collect geolocation information from a child by default unless certain criteria are met;
- collect, sell, share, or retain any personal information that is not necessary to provide an online service, product, or feature with which a child is actively and knowingly engaged;
- use personal information of a child—if collection was necessary to provide an online service, product, or feature, or to comply with other provisions of the CAADCA—for any reason other than a reason for which that personal information was collected; or
- use dark patterns to lead or encourage children to provide additional personal information, forgo privacy protections, or take an action detrimental to the child.⁷

⁵ *Id.*

⁶ 15 U.S.C. § 6503.

⁷ Congressional Research Service, *NetChoice v. Bonta* and First Amendment Limits on Protecting Children Online, Nov. 1, 2023.

The CAADCA requires companies to either estimate the age of child users with a reasonable degree of certainty or apply the higher privacy and data protections afforded to children to all consumers, configure a high level of privacy protections for child users by default, provide tools to help children and their parents exercise their privacy rights, and undertake a Data Protection Impact Assessment of any new service identifying the risks of material detriment to children, among other things.⁸

The CAADCA has gained wide support from groups and individuals advocating for the rights and safety of children, including the American Academy of Child and Adolescent Psychiatry, American Academy of Pediatrics California, the Center for Digital Democracy, the Eating Disorders Coalition, the Electronic Privacy Information Center, and many others.⁹

The reasons why the AAP, APA, CALACAP and child health professionals support safeguards and regulations like those included in the CAADCA are described below.

III. Children are Vulnerable to Online Manipulation as a Result of Their Ongoing Physical, Mental and Emotional Development

Pediatricians and child health providers often state that children are not just little adults; they differ physically, psychologically, and emotionally in ways that

⁸ *Id.*

⁹ <https://californiaaadca.com/>

make them more vulnerable to certain conditions and experiences than adults, including their susceptibility to data-driven marketing practices and manipulative design. The prefrontal cortex of the human brain, which is responsible for skills like planning, prioritizing and decision-making, is not fully developed until the mid to late 20s.¹⁰ Therefore, in childhood and adolescence, skills involving emotional control, impulse inhibition, mental flexibility, perspective taking, and attentional control are not fully developed, which has direct implications for their behavior online.¹¹ For example, youth are more attracted than adults to novelty and rewards that online experiences are designed to offer.¹² They are also more susceptible to influence from peers, which may include instructions from fictional characters, celebrities or influencers that they like or with whom they identify.¹³ Children

¹⁰ Alderman, Elizabeth et. al. Unique Needs of the Adolescent <https://publications.aap.org/pediatrics/article/144/6/e20193150/37985/Unique-Needs-of-the-Adolescent>

¹¹ Best, John R., and Patricia H. Miller. A developmental perspective on executive function. *Child development* 81.6 (2010): 1641-1660.

¹² De Decker, Annelies, et al. Associations of reward sensitivity with food consumption, activity pattern, and BMI in children. *Appetite* 100 (2016): 189-196.; Sherman, L. E., Hernandez, L. M., Greenfield, P. M., & Dapretto, M. (2018). What the brain 'Likes': neural correlates of providing feedback on social media. *Social cognitive and affective neuroscience*, 13(7), 699–707. <https://doi.org/10.1093/scan/nsy051>.

¹³ Albert, D., Chein, J., & Steinberg, L. 2013. Peer influences on adolescent decision making. *Current Directions in Psychological Science*, 22.2, 114-120.; Nesi, J., Rothenberg, W. A., Hussong, A. M., & Jackson, K. M. (2017). Friends' alcohol-related social networking site activity predicts escalations in adolescent drinking: Mediation by peer norms. *Journal of Adolescent Health*, 60(6), 641–

may be especially vulnerable to online algorithms created by and for adults, which are designed to maximize time spent using the product or service, and the collection of data about each user, among other things. Research also has compared social media use to diagnostic criteria for substance use dependencies, revealing that many adolescents report an inability to stop using social media, even when they want to, remarkable efforts to maintain access to social media, the use of social media to regulate their emotions, a need for increasing social media use to achieve the same level of pleasure (i.e., tolerance symptoms), withdrawal symptoms following abstinence and significant impairment in their daily educational and social routines. A recent study revealed that over 54% of 11– 13-year-old youth reported at least one of these symptoms of problematic social media

647. <https://doi.org/10.1016/j.jadohealth.2017.01.009>; Richards, Melissa N., and Sandra L. Calvert. Media characters, parasocial relationships, and the social aspects of children’s learning across media platforms.

<https://psycnet.apa.org/record/2017-00224-009>; Barr, Rachel, Nichols, Deborah Media exposure during infancy and early childhood: The effects of content and context on learning and development (2017): 141-163; Tolbert, Amanda N., and Kristin L. Drogos. Tweens’ wishful identification and parasocial relationships with YouTubers. *Frontiers in psychology* 10 (2019): 2781.

use.¹⁴ About 85% of youth report spending more time than intended online and 61% reporting failing when trying to stop or reduce their use of social media.¹⁵

IV. Manipulative Design and Engagement-Extending Features Often Lead to Excessive Internet and Social Media Use and Prevent Children From Developing Healthy Relationships with Technology

The U.S. Surgeon General recently issued a report detailing social media's risks of harming children.¹⁶ The report warned that internet and social media platforms are intentionally “designed to maximize user engagement” in terms of user time spent, frequency of use and attention; this practice has been verified by publicly-available industry communications.¹⁷ Adolescents themselves report feeling that they spend more time on social media and online platforms than they intended, in ways that do not support their wellbeing.¹⁸

¹⁴ Boer M, Stevens GWJM, Finkenauer C, van den Eijnden RJJM. The course of problematic social media use in young adolescents: A latent class growth analysis. *Child Dev.* 2022;93(2):e168-e187. doi:10.1111/cdev.13712

¹⁵ The Common Sense Census: Media Use by Tweens and Teens. (2021). https://www.commonsensemedia.org/sites/default/files/research/report/8-18-census-integrated-report-final-web_0.pdf.

¹⁶ Office of the Surgeon General, U.S. Surgeon General’s Advisory on Social Media and Youth Mental Health, U.S. PUBLIC HEALTH SERVICE (May 23, 2023), <https://www.hhs.gov/sites/default/files/sg-youth-mental-health-social-media-advisory.pdf>.

¹⁷ See Complaint in: *State of Arizona et. al v. Meta Platforms, Inc. et. al.*, Case No. 4:23-cv-05448, Northern District of California at p. 25 (Complaint by 38 Attorney Generals against Meta) <https://oag.ca.gov/system/files/attachments/press-docs/Less-redacted%20complaint%20-%20released.pdf>

¹⁸ See Weinstein, Emily and James, Carrie, Behind their Screens: What Teens are Facing (and Adults Are Missing) (2022).

The White House issued its own warning about the “unprecedented youth mental health crisis” and online platforms’ “use of manipulative design techniques embedded in their products to promote addictive and compulsive use by young people to generate more revenue.”¹⁹

Survey data show that digital media use by young people is widespread. As reported in a 2023 Pew Study, more than 90% of teens say they use the internet daily, and a third of teens say that they use at least one of YouTube, TikTok, Snapchat, or Instagram, almost constantly.²⁰ Digital media use begins at a young age, with young people frequenting online platforms like YouTube and connected “social” gaming. Data from Common Sense Media show that children ages 0-8 spend an average of 39 minutes per day watching online video on sites like YouTube; data directly from young children’s tablets shows this can range to over 6 hours per day.²¹

Given the widespread use of a diverse array of social media and digital platforms across the pediatric age span, companies have a duty to design their

¹⁹ <https://www.whitehouse.gov/briefing-room/statements-releases/2023/05/23/fact-sheet-biden-harris-administration-announces-actions-to-protect-youth-mental-health-safety-privacy-online/>

²⁰ <https://www.pewresearch.org/internet/2023/12/11/teens-social-media-and-technology-2023/#:~:text=and%20household%20income.-,By%20gender,22%25%20vs.%2011%25>

²¹ Radesky, Jenny S., et al. Video-Sharing Platform Viewing Among Preschool-Aged Children: Differences by Child Characteristics and Contextual Factors. *Cyberpsychology, Behavior, and Social Networking* 25.4 (2022): 230-236.

products in child-friendly ways that are responsive to the developmental needs of young users, rather than turn a blind eye to the young people that are widely understood to be spending their time there. In the same way that products like cribs and toys are regulated to minimize risk to the young people using them, social media and digital platforms must be similarly regulated to eliminate the features that pose the greatest risks and minimize the potential for harm. Data-driven algorithmic recommendations that predict and suggest precisely what a user wants to see to keep them on their platforms, or manipulative design features, like autoplay, that may be perfectly acceptable for adults, have a differential impact on younger users precisely because of their age-based vulnerabilities. Unfortunately, the current regulatory environment not only does not require companies to design digital products used by children and teens so they can be used by them safely, but it encourages them to ignore the existence of their youngest users altogether. This status quo is not tenable.

V. Internet and Social Media Use by Children and Teens Have Serious Documented Harms that Must Be Addressed by Regulation to Provide a Healthier Online Experience

Children require access to a safe internet for several reasons, including access to information, educational programming, connecting to family, friends, and cultural experiences, and age-appropriate entertainment. Adolescents benefit from social media experiences that provide access to affirming and positive communities.

However, the current digital ecosystem contains risky features – such as engagement-extending design and data-driven profiling – that accentuate the risk of well-known health harms:

a. Sleep Loss and Poorer Sleep Quality

Sleep quantity and quality are essential contributors to children’s mental and physical health. Lack of sleep and poor-quality sleep are linked to depression, diabetes, attention deficits and poor academic performance in school, and poor mental health in general.²² Meta-analyses demonstrate consistent links between daily screen use, evening media use, and poor-quality sleep.²³ Mechanisms include later bedtimes, waking up overnight to check notifications, and arousal from stimulating content. Teens report that algorithm-driven video content can be difficult to disengage from in the overnight hours, thereby delaying sleep onset.²⁴

²² National Heart, Lung and Blood Institute, How Sleep Affects Your Health. Updated June 15, 2022. <https://www.nhlbi.nih.gov/health/sleep-deprivation/health-effects>

²³ Janssen, Xanne, et al. Associations of screen time, sedentary time and physical activity with sleep in under 5s: A systematic review and meta-analysis. *Sleep medicine reviews* 49 (2020): 101226; Carter, Ben, et al. Association between portable screen-based media device access or use and sleep outcomes: a systematic review and meta-analysis. *JAMA pediatrics* 170.12 (2016): 1202-1208; Jessica C. Levenson et al., The Association Between Social Media Use and Sleep Disturbance Among Young Adults, 85 *Preventive Med.* 36–41 (Apr. 2016), <https://www.sciencedirect.com/science/article/abs/pii/S0091743516000025>

²⁴ Radesky et al (2023) Constant Companion CSM report: <https://www.commonensemedia.org/research/constant-companion-a-week-in-the-life-of-a-young-persons-smartphone-use>

b. Distraction in School

Social media and digital platforms are often used during school hours and send notifications to students throughout the day, which further promotes use of the platforms. These distractions reduce student attention and distract from the primary educational goals that are paramount throughout the school day.²⁵

c. Unhealthy Nutrition

Advertising of unhealthy foods, such as high-calorie, low-nutrient processed food and sugar-sweetened beverages are common on social media and internet platforms used by children²⁶ and have found to be targeted at adolescents from minoritized race/ethnicity.²⁷ Prolonged daily screen media consumption is also inversely correlated with fruit and vegetable intake and directly correlated with energy-dense, nutrient-poor snacks, drinks and food, further contributing to increased childhood obesity.²⁸ Thus, both engagement-extending features and data

²⁵ <https://www.washingtonpost.com/education/2023/05/09/school-cellphone-ban-yondr/>

²⁶ Alruwaily A, Mangold C, Greene T, Arshonsky J, Cassidy O, Pomeranz JL, Bragg M. Child social media influencers and unhealthy food product placement. *Pediatrics*. 2020 Nov 1;146(5).

²⁷ Cassidy O, Tanofsky-Kraff M, Waters AJ, Shank LM, Pine A, Quattlebaum M, DeLeon PH, Bragg M, Sbrocco T. The impact of racially-targeted food marketing and attentional biases on consumption in Black adolescent females with and without obesity: Pilot data from the Black Adolescent & Entertainment (BAE) study. *PloS one*. 2023 Jan 20;18(1):e0279871.

²⁸ Jenny Radesky, Digital Advertising to Children, *Pediatrics* (2020) 146 (1): e20201681, Digital Advertising to Children | Pediatrics | American Academy of

profiling impact minors' exposure to unhealthy food marketing, which influences their food preferences, eating behaviors, and obesity risk.

d. Eating Disorders

Social media and internet use can also expose children to content promoting unsafe disordered eating behavior. For example, “Pro-Ana” and “thinspiration” social media accounts direct children to engage in fasting, laxative use, and excessive exercise, as well as how to conceal these behaviors from caregivers. In young girls, there is a positive correlation between the number of media accounts they have, daily time spent on them, and their rates of eating disorders,²⁹ and risk of cutting or non-suicidal self-injury.³⁰ Systematic reviews demonstrate that exposure to unrealistic beauty ideals and dieting/fitness content is associated with

Pediatrics (aap.org); Thais CL, Serrano KJ, Yaroch AL, Nebeling L, Oh A. Perceptions of food advertising and association with consumption of energy-dense nutrient-poor food among adolescents in the United States, *J. Health Commun.* 2017; 22(8): 638-646; Pearson N., Biddle SJ. Sedentary behavior and dietary intake in children, adolescents, and adults. A systematic review, *Am. J. Prev. Med.* 2011; 41(2): 178-188; Council on Communications and Media, Media and Young Minds, American Academy of Pediatrics Policy Statement, Nov. 1, 2016; Wen et al., Correlates of body mass index and overweight and obesity of children aged 2years; findings from the health beginnings trial, *Obesity (Silver Spring)*. 2014; 22(7): 1723 [PubMed].

²⁹ Simon M. Wilksch et al., The relationship between social media use and disordered eating in young adolescents, *53 Int’l J. Eating Disorders* 96–106 (2020), <https://pubmed.ncbi.nlm.nih.gov/31797420/>.

³⁰ Lavis, A., & Winter, R. (2020). #Online harms or benefits? An ethnographic analysis of the positives and negatives of peer-support around self-harm on social media. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 61(8). <https://doi.org/10.1111/jcpp.13245>.

lower body satisfaction and eating disorder symptomatology in teens.³¹

Unfortunately, this type of content trends on social media and is targeted at children and adolescents based on profiles informed by their prior usage behavior.

e. Mental Health and Low Self-Esteem

Extensive correlational evidence shows significant associations between time spent on social media and more depression, anxiety, emotional instability, distractibility, and difficulty making friends. Links between daily social media use and lower well-being are bidirectional, in that youth with lower well-being subsequently spend more time on social media, and social media correlates with later lower well-being.³² Person-centered analyses suggest that between 10-30% of adolescents have negative associations between their daily social media use and well-being.³³

³¹ Frieiro Padin P, González Rodríguez R, Verde Diego MD, Vázquez Pérez R. Social media and eating disorder psychopathology: A systematic review. *Cyberpsychology Journal of Psychosocial Research on Cyberspace.* 2021 Aug 24.

³² Orben A, Przybylski AK, Blakemore SJ, Kievit RA. Windows of developmental sensitivity to social media. *Nature Communications.* 2022 Mar 28;13(1):1649.; Odgers, C. L., Jensen, M. R. (2020). Annual Research Review: Adolescent mental health in the digital age: facts, fears, and future directions. *The Journal of Child Psychology and Psychiatry*, 61, 336-348.; Prinstein M. J., Nesi, J., Telzer, E. H. (2020). Commentary: An updated agenda for the study of digital media use and adolescent development – future directions following Odgers & Jensen (2020). *The Journal of Child Psychology and Psychiatry*, 61(3), 349-352. [https://www.jahonline.org/article/S1054-139X\(23\)00225-2/fulltext](https://www.jahonline.org/article/S1054-139X(23)00225-2/fulltext)

³³ Beyens I, Pouwels JL, van Driel II, Keijsers L, Valkenburg PM. Social media use and adolescents' well-being: Developing a typology of person-specific effect

Feelings of envy and inadequacy are also associated with internet and social media use in children. Internet and social media use subjects children daily to idealized photos and videos, often by celebrities and influencers, portraying a heightened sense of unrealistic lives, which can lead to negative comparisons and a negative self-image and low self-esteem.³⁴ Internal industry documents suggest that social media companies are aware of how their algorithms elevate content that leads to negative social comparisons in teens.³⁵

f. Drug and Alcohol Use, Tobacco Use and Vaping

Online advertising—including advertising directed toward children and teenagers—is associated with use of addictive tobacco products, electronic

patterns. *Communication Research*. 2021 Dec 13:00936502211038196.; Beyens I, Pouwels JL, van Driel II, Keijsers L, Valkenburg PM. The effect of social media on well-being differs from adolescent to adolescent. *Scientific Reports*. 2020 Jul 1;10(1):10763.

³⁴ Using Social Media for Social Comparison and Feedback-Seeking: Gender and Popularity Moderate Associations with Depressive Symptoms, 43 *J. Abnormal Child Psych*. 1427–38 (2015), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5985443/>; see also Nino Gugushvili et al., Facebook use intensity and depressive symptoms: a moderated mediation model of problematic Facebook use, age, neuroticism, and extraversion at 3, *BMC Psych*. 10, 279 (2022), <https://doi.org/10.1186/s40359-022-00990-7> (explaining that youth are particularly vulnerable because they “use social networking sites for construing their identity, developing a sense of belonging, and for comparison with others”).

³⁵ See Complaint in: *State of Arizona et. al v. Meta Platforms, Inc. et. al.*, Case No. 4:23-cv-05448, Northern District of California at p. 67 (Complaint by 38 Attorney Generals against Meta) <https://oag.ca.gov/system/files/attachments/press-docs/Less-redacted%20complaint%20-%20released.pdf>

cigarettes, alcohol and marijuana.³⁶ For instance, studies suggest exposure to e-cigarette advertising on social media sites is associated with e-cigarette use among adolescents and young adults.³⁷ This body of evidence is backed up by decades of research into the impact of advertising on young people, which demonstrate the influence of advertisements on youth attitudes toward and use of these products. These harmful products are marketed widely online, and data-driven advertising increases the risk of exposure which in turn can influence youth attitudes and behaviors towards these products.

g. Illegal and Unsafe Activities Including “Challenges”

One of the more troubling recent developments in the online world is the proliferation of online “challenges” daring children and adolescents to engage in dangerous and sometimes fatal behavior. The current digital ecosystem incentivizes engagement so that companies can collect more data and make revenue from ad impressions. This leads to competition for engagement from

³⁶ American Academy of Pediatrics Policy Statement, July 1, 2020, Digital Advertising to Children

³⁷ Camenga D, Gutierrez KM, Kong G, Cavallo D, Simon P, Krishnan-Sarin S. E-cigarette advertising exposure in e-cigarette naïve adolescents and subsequent e-cigarette use: a longitudinal cohort study. *Addict Behav.* 2018;81:78–83; Vogel EA, Ramo DE, Rubinstein ML, et al. Effects of social media on adolescents’ willingness and intention to use e-cigarettes: an experimental investigation. *Nicotine Tob Res.* 2021;23(4):694–701; Hammig B, Daniel-Dobbs P, Blunt-Vinti H. Electronic cigarette initiation among minority youth in the United States. *Am J Drug Alcohol Abuse.* 2017;43(3):306–310

content creators. One way they do this is to engage in risky challenges that go "viral" and are difficult for platforms to catch until they have reached a large number of children/teens.

Recent publicity has been given to challenges such as:

The Benadryl Challenge, involving taking dangerous amounts of Benadryl to experience hallucinations, resulting in several teenagers being hospitalized and one reportedly dying.³⁸

The Tide Pod Challenge, involving the eating of Tide Pods laundry detergent, which is poisonous and caused dozens of cases of poisoning in 2018.³⁹

The Blackout Challenge or Choking Game, involving tying belts, cords, and other ligatures around one's neck to experience a high, resulting in the deaths and hospitalizations of numerous children.⁴⁰

TikTok and Snapchat are well-known for allowing online challenges through their content moderation policies, many of which are dangerous and some of which gain millions of likes or views.⁴¹

³⁸ <https://www.cnn.com/2023/04/18/us/benadryl-tiktok-challenge-teen-death-wellness/index.html>

³⁹ <https://www.cnn.com/2018/01/17/health/tide-laundry-pod-challenge-poison-control/index.html>

⁴⁰ <https://www.bloomberg.com/news/features/2022-11-30/is-tiktok-responsible-if-kids-die-doing-dangerous-viral-challenges>

⁴¹ TikTok, Online Challenges, <https://www.tiktok.com/safety/en-us/online-challenges/>; TikTok for Business, Branded Hashtag Challenge: Harness the Power

h. Sexual Exploitation and Extortion

Millions of cases of child exploitation online are reported every year⁴², and the design features of social media and digital platforms contribute to the problem by allowing strangers to interact with minors and providing for anonymity or falsification of identity. Internet and social media companies often make user profiles publicly available by default, and often fail to use effective age and identity assurance processes. Further, publicly available information about young users makes them more vulnerable to exploitation by adults. In recent years, “financial sextortion” crimes targeting young people have been reported, whereby adults, posing as children, deceive young users into sending explicit photos or videos and threaten to release them online to the world unless the victim or their family pays them not to.⁴³ In roughly a dozen cases, young victims of these

of Participation (Mar. 16, 2022), <https://www.tiktok.com/business/en-US/blog/branded-hashtag-challenge-harness-the-power-of-participation>; Snapchat adds ‘challenges’ with cash prizes to its TikTok competitor, The Verge, Oct. 6, 2021, <https://www.theverge.com/2021/10/6/22711632/snapchat-spotlight-challenges-announced-cash-prizes-tiktok>.

⁴² CyberTipline 2022 Report.

<https://www.missingkids.org/cybertiplinedata#:~:text=In%202022%2C%20NCMEC%20CyberTipline%20received,of%20suspected%20child%20sexual%20exploitation>.

⁴³ International Law Enforcement Agencies Issue Joint Warning about global financial sextortion crisis, FBI (2023), <https://www.fbi.gov/news/press-releases/international-law-enforcement-agencies-issue-joint-warning-about-global-financial-sextortion-crisis>. See also <https://www.nbcnews.com/news/us-news/teens-death-small-michigan-town-led-fbi-police-online-sexual-extortion-rcna120556>

schemes have died by suicide as a result of their experience.⁴⁴ The nature of how illegal child sex abuse material is shared and spread online—anonously, thousands and in some cases millions of times— exacerbates the suffering of the child victims.⁴⁵

i. Harassment and Abuse

The design features and practices of social media and digital platforms can facilitate harassment and abuse. The anonymity that platforms often provide makes bullying behavior easier to perpetrate and harder for young people who have been the victims of such harassment to address. Hate speech and other forms of cyberbullying can also be accelerated by algorithmic amplification, which can increase the visibility of bullying for young people such that individual acts of bullying are witnessed by many more people. Internal industry documents show that a high proportion of teenagers report being harassed online at least once per

⁴⁴ <https://www.justice.gov/usao-sdin/pr/fbi-and-partners-issue-national-public-safety-alert-sextortion-schemes>

⁴⁵ 136 See *Amy v. Curtis*, 2020 WL 5365979 (N.D. Cal. Sept. 8, 2020) (extending *In re Boland*, 946 F.3d 335 (6th Cir. 2020))

week.⁴⁶ Studies show that the more time a young male spends online, the more likely he is to commit acts of cyberbullying.⁴⁷

j. Monetary Harm

Many online games include manipulative “dark patterns” to manipulate users into making online purchases. In March 2023 the FTC filed a complaint against the maker of online video-game *Fortnite* requiring it to pay a \$245 million penalty for using dark patterns to manipulate children into such purchases.⁴⁸ Because of their inexperience and developmental capacities, children are particularly vulnerable to being manipulated into making effortless online purchases embedded in addictive online games.

CONCLUSION

Social media and digital platforms can have significant benefits for young people including education, socialization, and across other domains. Young people

⁴⁶ Monica Anderson, A Majority of Teens Have Experienced Some Form of Cyberbullying, Pew Rsch. Ctr. (Sept. 27, 2018), <https://www.pewresearch.org/internet/2018/09/27/a-majority-of-teens-have-experiencedsome-form-of-cyberbullying/>.

⁴⁷ Amanda Giordano et al., Understanding Adolescent Cyberbullies: Exploring Social Media Addiction and Psychological Factors, 7(1) *J. Child & Adolescent Counseling* 42–55 (2021), <https://www.tandfonline.com/doi/abs/10.1080/23727810.2020.1835420?journalCode=uac20>.

⁴⁸ Federal Trade Commission, ‘FTC Finalizes Order Requiring Fortnite maker Epic Games to Pay \$245 Million for Tricking Users into Making Unwanted Charges’ (March 2023)

should not have to be subjected to the significant harms documented above to reap these benefits. Given the amount of time children spend in digital spaces, these platforms need to not just protect their safety but also be designed in ways that optimize their development and online experiences. There is great potential in the digital ecosystem to provide increased benefits and reduced risks of harm. Young people need an internet designed with their unique needs in mind, which the CAADCA would help create. Current regulations do not come close to adequately addressing these harms. AAP, APA and CALACAP, as leaders in the promotion and treatment of childhood and adolescent health, support the plaintiffs in this case and urge the court to uphold the CAADCA as a reasonable means of regulating the business practices of large online companies in the interest of protecting the physical and mental health of children.

Date: December 20, 2023

COTCHETT, PITRE & McCARTHY, LLP

/s/ Anne Marie Murphy

JOSEPH W. COTCHETT
ANNE MARIE MURPHY
KARIN B. SWOPE
BLAIR V. KITTLE

CERTIFICATE OF COMPLIANCE

The undersigned, counsel for, the American Academy of Pediatrics and filing on behalf of American Psychological Association and the California Academy of Child and Adolescent Psychiatry, Supporting Appellants, *Amicus Curiae*, *Amicus Curiae*, hereby certifies that this brief complies with the type-volume limitation of Fed. R. App. P. 29(a)(5) and Cir. R. 32-1(a) because it contains 4,732 words as reported by the word count function of Microsoft Word, excluding the parts of the brief exempted by Fed. R. App. P. 32(f). This brief also complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because it has been prepared in a proportionally spaced typeface using Microsoft Word in Times New Roman font, 14-point type for both text and footnotes.

Dated: December 19, 202

/s/ Anne Marie Murphy

CERTIFICATE OF SERVICE

I hereby certify that on December 20, 2023 a copy of the foregoing brief was filed electronically with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system.

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ANNE MARIE MURPHY