

From: [Craig Preston](#)
To: [CITY CLERK](#)
Cc: lori.ann@costamesaca.gov; [GAMEROS, LOREN](#); [REYNOLDS, ARLIS](#); [CHAVEZ, MANUEL](#); [HARLAN, JEFFREY](#); [SETHURAMAN, RAJA](#); [STEPHENS, JOHN](#); [HARPER, DON](#); [MARR, ANDREA](#)
Subject: Consent Calendar ITEM #6, MONTHLY UPDATE OF STRATEGIC PLAN GOALS AND OBJECTIVES
Date: Tuesday, March 7, 2023 10:48:13 AM

Dear City Council and Staff,

Thank you for prioritizing action on climate risks to our city and global community. I am a resident of Costa Mesa.

Climate Change is a slow moving, dangerous catastrophe. We delay action at our own peril with the costs in reducing the harms increasing exponentially. City leadership is needed to model solutions to all of OC and the world.

I am concerned to see that Costa Mesa still does not have a separate Climate Action Plan. The recently published Climate Action Plan Report Card by Climate Action Campaign shows this on page 25.

<https://www.climateactioncampaign.org/1stocreportcard>

I am glad to see Costa Mesa approved a CAP budget in 2022, but concerned that the CAP is on hold until

sustainability staff is hired. No sustainability or climate-related staff positions are currently listed on the city's website. In 2020, the city created a sustainability plan, which contains no GHG inventory, no targets for emissions reductions, and is not legally binding.

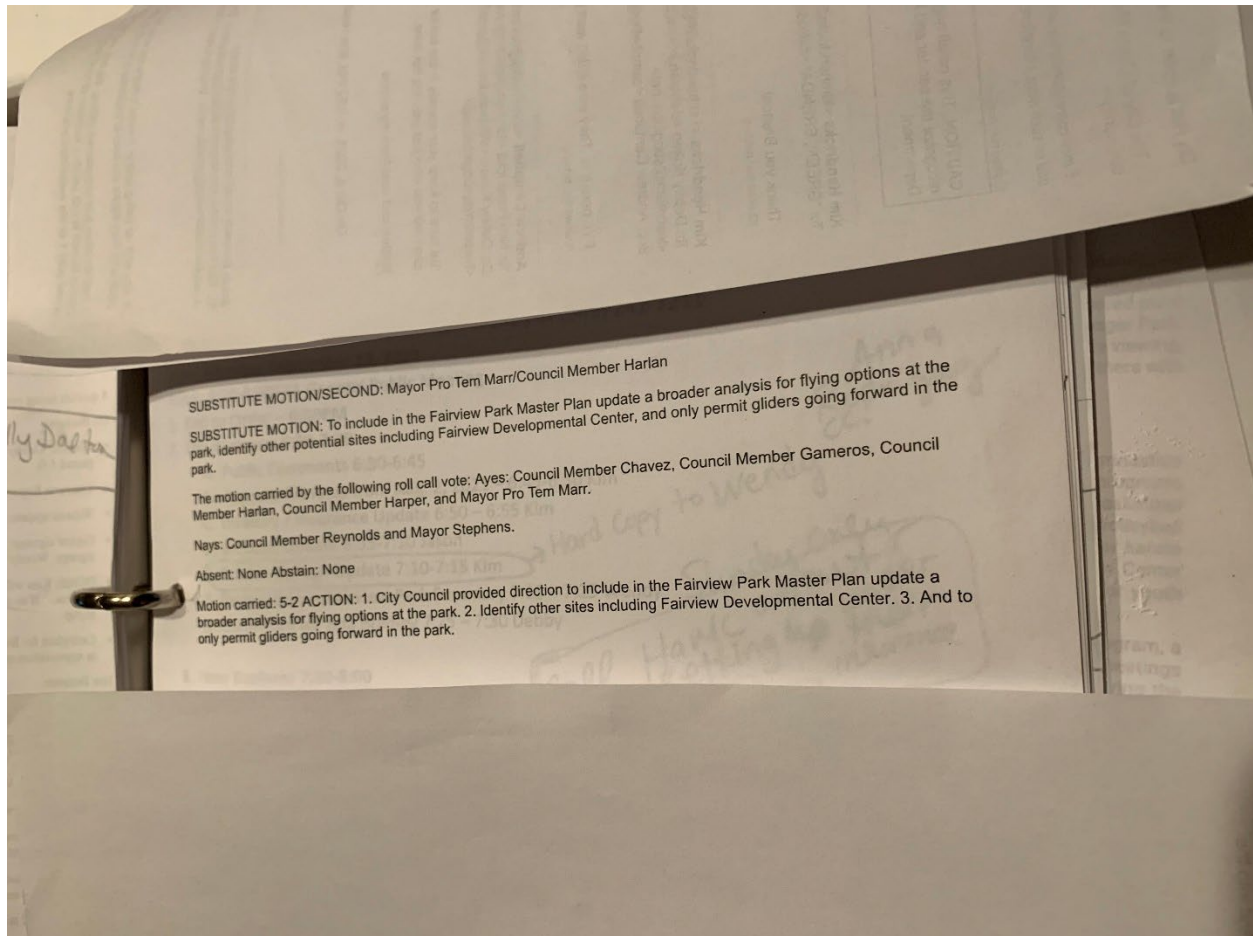
Please prioritize this issue, allocate funding for development on a CAP, and ensure that action on the plan does not get delayed any further.

How can I help?

Sincerely,
Craig Preston
117 Lexington Ln, Costa Mesa CA 92626
Co-leader of Citizens Climate Lobby OC Coast
(714) 473-2798 CraigP4444@gmail.com

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. Report any suspicious activities to the Information Technology Department.

From: Kim Hendricks <kimhendricks26@gmail.com>
Sent: Tuesday, March 7, 2023 10:24 AM
To: GREEN, BRENDA <brenda.green@costamesaca.gov>; MARR, ANDREA <ANDREA.MARR@costamesaca.gov>
Cc: REYNOLDS, ARLIS <ARLIS.REYNOLDS@costamesaca.gov>; STEPHENS, JOHN <JOHN.STEPHENS@costamesaca.gov>; HARLAN, JEFFREY <JEFFREY.HARLAN@costamesaca.gov>; CHAVEZ, MANUEL <MANUEL.CHAVEZ@costamesaca.gov>; GAMEROS, LOREN <LGAMEROS@costamesaca.gov>; HARPER, DON <DON.HARPER@costamesaca.gov>; FARRELL HARRISON, LORI ANN <LoriAnn@costamesaca.gov>; DALTON, KELLY M. <KELLY.DALTON@costamesaca.gov>
Subject: Fairview Park



Hi Brenda,

Please include this in public comments for tonight's meeting.

Hi Andrea,

You have been mentioning at city council meetings that you want "the fly field" to come back to you. Please look at the motion that carried on Sept. 28, 2021.

You can see this item will not be returning by itself but is included in the Fairview Park Master Plan update.

It really is an embarrassment to yourself to keep asking for something without remembering what you voted on or take the time to find out.

More importantly, it is an insult to city staff and committee members that spent a year and a half studying every aspect of it.

They did a comprehensive study and if you need the information again, I can provide it to you but you should be able to get it easily.

It would be nice if you would support the city and its efforts to move forward instead of undermining all the work that has already been done.

Thank you,

Kim Hendricks

From: [Craig A Durfey](#)
To: [GREEN, BRENDA](#); [Craig A Durfey](#)
Subject: Fwd: Rep. Kim Introduces Bipartisan Bill to Support Community-Based Youth and Young Adult Suicide Prevention Efforts.
Date: Monday, March 6, 2023 3:08:49 PM
Attachments: [image00001.png](#)
[Bill Text - AB-638 Mental Health Services Act early intervention and prevention programs .pdf 2023-02-14 - Testimony - Bride \(1\).pdf](#)
[2023-02-14 - Testimony - Golin1.pdf](#)
[2023-02-14 - Testimony - Pizzuro.pdf](#)
[2023-02-14 - Testimony - Lembke.pdf](#)
[2023-02-14 - Testimony - Prinstein1.pdf](#)
[H.R.7255 - Garrett Lee Smith Memorial Reauthorization Act.pdf](#)

durfeycraig778@gmail.com has shared a OneDrive file with you. To view it, click the link below.

 [Rep Kim Introduces Bipartisan Bill to Support Community-Based Youth and Young Adult Suicide Prevention Efforts.docx](#)

03-05-2023

(P.R.D.D.C.)

PARENTS FOR THE RIGHTS OF DEVELOPMENTALLY DISABLED CHILDREN

CRAIG A. DURFEY FOUNDER OF P.R.D.D.C.

P.O.BOX 937 GARDEN GROVE, CA 92842

CELL 714-321-8238

CADURFEY@GMAIL.COM

SOCIALEMOTIONALPAWS.COM

[FACEBOOK: CRAIG DURFEY](#)

U.S. HOUSE OF CONGRESS H2404 - HONORING CRAIG DURFEY FOR HIS FIGHT AGAINST AUTISM ... Ms. LORETTA SANCHEZ of California.

<https://www.govinfo.gov/content/pkg/CREC-2003-03-27/pdf/CREC-2003-03-27.pdf>

new website socialemotionalpaws.org

Today there is a growing need for educational awareness at all levels parents, teachers, school board members, first responders with social media addictions and accountability. H.R.7255 – Garrett Lee Smith Memorial Reauthorization Act ought to include children as early intervention that we know too much screentime have medical effects as in brain injury with CA SCR 73 Blue Light 2019 causes eye myopia, sleep deprivation, mental health issues.

On Thursday, March 3, 2022, Supervisor Foley hosted a public hearing describing the Fentanyl crisis in Orange County alongside Chairman Doug ...Supervisor Foley's Fentanyl Hearing with Local Law Enforcement, Health Experts, & Policymakers

<https://www.youtube.com/watch?v=FVABSrVJE9I> . The one of the keys points was awareness education for fifth, six grade prevention.

1. U.S. SENATE HEARING ECOUNTERING ILLICIT FENTANYL TRAFFICKING:

<https://socialemotionalpaws.com/blog-post-1/f/us-senate-hearing-ecountering-illicit-fentanyl-trafficking>

2. Kids' mental health, safety in the spotlight as social media exec:

<https://socialemotionalpaws.com/blog-post-1/f/kids%E2%80%99-mental-health-safety-in-the-spotlight-as-social-media-exec>

3. 10 things to know about how social media affects teens' brains:

<https://socialemotionalpaws.com/blog-post-1/f/10-things-to-know-about-how-social-media-affects-teens-brains>

4. U.S. Senate Hearing Protecting Our Children Online:

<https://socialemotionalpaws.com/blog-post-1/f/protecting-our-children-online>

5. Mitch J. Prinstein, PhD, ABPP Chief Science Officer American Psychological Association Washington, D.C.

Download Testimony.

Page 1-3

Today, we are seeing the repercussions of our underinvestment and lack of focus on children's mental health. Depression rates for teens doubled between 2009 and 2019 and suicide is the second leading cause of death for U.S. youth, up 4% since 2020, with one in five teens considering suicide during the pandemic and eating disorder emergency room admissions for girls 12 to 17 years old doubling since 2019 1. Furthermore, since the start of the pandemic, over 167,000 children have lost a parent or caregiver to the virus 2. This kind of profound loss can have significant impacts on the mental health of children, leading to anxiety, depression, trauma, and stress-related conditions 3. Faced with such data, in December 2021, the U.S. Surgeon General issued an advisory calling for a unified national response to the mental health challenges young people are facing 4. The rarity of such advisories further underscores the need for action to help stem the mental health crisis of children and adolescents.

There are many reasons why youth are experiencing this crisis today, and it is likely that there are simultaneous contributors to the outcomes presented above. Today, we are here to talk about whether youths' engagement with social media, and other online platforms, may be a relevant factor.

Many psychological scientists, including myself and my colleagues, have been asking this same question for years. We seek to understand how this new context in which youths' social interactions occur may be related to development, including potential benefits or risks that may be conferred by the online environment.

As the discipline with expertise on all of human behavior, our work has been broad in scope; and to date, our focus has been on the adolescent period, during which more complex and mature behaviors are developed through intricate and precise interactions among

neural, biological, social, contextual, and social systems. Today, although this remains a relatively nascent body of research, I would like to share what we know so far, so policymakers, educators, parents, caregivers, and youth can learn from what we are beginning to discover and make choices that will ensure the safety of youth.

In this testimony, I outline emerging research with findings that have begun to suggest possible benefits, and as well as possible adverse effects of technology and social media use on adolescent development. I also present legislative and regulatory solutions that if enacted, would represent positive steps towards learning more about, and hopefully solving this problem.

I am calling for new legislation and regulations that increase research funding and provide education on how children can use online platforms without experiencing the most harmful impacts; legislation that creates a requirement that social media companies protect the well-being of child users; legislation that prohibits problematic business practices and prevents companies from tricking and manipulating users; and bills that provide more leverage for federal regulators to

Page 9-10

Risks for Addictive Social Media Use. Youths' biological vulnerabilities also have significant implications for "problematic social media use" or addictive behaviors; note that the regions of the brain activated by social media use overlap considerably with the regions involved in addictions to illegal and dangerous substances 14. As noted above, the developing brain is built to increase a desire for social rewards (that social media delivers abundantly), without the ability to show the capacities of inhibition and restraint capable among adults. This suggests that youth may be at risk for extraordinarily

frequent uses of social media. Several bodies of research reveal that this indeed may be a very significant concern. For instance, data suggest that almost half of all adolescents report that they use social media “almost constantly” 15. 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, an significant impairment in their daily educational, social, work 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 use 16. 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 17.

Alterations in Brain Development. Youths’ biological vulnerability to technology and social media, and their resulting frequent use of these platforms, also has the potential to alter youths’ neural development since our brains develop in response to the environment we live in.

Recent studies have revealed that technology and social media use is associated with changes in structural brain development (i.e., changing the size and physical characteristics of the brain). In addition, research with my own colleagues at the University of North Carolina at Chapel Hill recently has revealed that technology and social media use also is associated with changes in how the brain works). Our data has revealed that youth indeed spend a remarkable amount of time using their devices 18. Objective data measured by teens’ phones themselves indicated that the average number of times that youth in sixth grade picked up their phones was over 100, with some interrupting daily activities to pick up their phones over 400 times a day. On average, adolescents

<https://socialemotionalpaws.com/blog-post-1/f/protecting-our-children-online>

Hearings to examine protecting our children online.

118th Congress (2023-2024)

Committee: Senate Judiciary

Related Items: Data will display when it becomes available.

Date: 02/14/2023 (11:00 AM EST)

Location: 216 Hart Senate Office Building, Washington, D.C. Website:

<https://www.judiciary.senate.gov/>

<https://www.congress.gov/event/118th-congress/senate-event/333588>

Full Committee Hearing

Date: Tuesday, February 14th, 2023

Time: 11:00am

Location: Hart Senate Office Building Room 216

Presiding: Chair Durbin

Status: Time Change

<https://www.judiciary.senate.gov/committee-activity/hearings/protecting-our-children-online>

Kristin Bride

Survivor Parent and Social Media Reform Advocate Portland, OR

Testimony of Kristin Bride

United States Senate Committee on the Judiciary

Hearing on Protecting Our Children Online February

14, 2023

Thank you, Chairman Durbin, Ranking Member Graham, and members of the committee. My name is Kristin Bride. I am a survivor parent and social media reform advocate, and member of the bipartisan Council for Responsible Social Media.

I am testifying here today to bring a face to the harms occurring every day resulting from the unchecked power of the social media industry. This is my son Carson Bride with beautiful blue eyes, an amazing smile, and a great sense of humor, who will be forever 16 years old. As involved parents raising our two sons in Oregon, we thought we were doing everything right. We waited until Carson was in 8th grade to give him his first cell phone, an old phone with no apps. We talked to our boys about online safety and the importance of never sending anything online that you wouldn't want your name and face next to on a billboard. Carson followed these guidelines. Yet tragedy still struck our family.

It was June 2020; Carson had just gotten his first summer job making pizzas, and after a successful first night of training, he wrote his upcoming work schedule on our kitchen calendar. We expressed how proud we were of him for finding a job during the pandemic. In so many ways, it was a wonderful night, and we were looking forward to summer. The next morning, I woke to the complete shock and horror that Carson had hung himself in our garage while we slept.

In the weeks that followed, we learned that Carson had been viciously cyberbullied by his "Snapchat friends," his high school classmates who were using the anonymous apps Yolo and LMK on Snapchat to hide their identities. It wasn't until Carson was a freshman in high school that we finally allowed him to have social media because that was how all the students were making new connections. What we didn't know is that apps like Yolo and LMK were using popular social media platforms to promote anonymous messaging to hundreds of millions of teen users.

After his death, we discovered that Carson had received nearly 100 negative, harassing, sexually explicit, and humiliating messages, including 40 in just one day. He asked his tormentors to “swipe up” and identify themselves so they could talk things out in person. No one ever did. The last search on his phone before Carson ended his life was for hacks to find out the identities of his abusers.

Anonymous apps like Whisper, Sarahah, and YikYak have a long history of enabling cyberbullying, leading to teen suicides.¹ The critical flaws in these platforms are compounded by the fact that teens do not typically report being cyberbullied. They are too fearful that their phones to which they are completely addicted will be taken away or that they will be labeled a snitch by their friends. <https://www.judiciary.senate.gov/imo/media/doc/2023-02-14%20-%20Testimony%20-%20Bride.pdf>

6. Can Technology Encourage Mass Shootings? with Dr. Lisa Strohman:

<https://socialemotionalpaws.com/blog-post-1/f/can-technology-encourage-mass-shootings-with-dr-lisa-strohman>

7. Violent Video Games OnThe Brain: What It Looks Like, with Dr. Li

<https://socialemotionalpaws.com/blog-post-1/f/violent-video-games-on-the-brain-what-it-looks-like-with-dr-li>

#8. ‘Addictive as cocaine’: Parents sue Fortnite creators

<https://socialemotionalpaws.com/blog-post-1/f/%E2%80%98addictive-as-cocaine%E2%80%99-parents-sue-fortnite-creators>

9. Daniel Amen |The most important lesson from 83,000 brain scans:

<https://socialemotionalpaws.com/blog-post-1/f/daniel-amen-%7Cthe-most-important-lesson-from-83000-brain-scans>

10. HOAG HOSPITAL MENTAL ILLNESS SOCIAL MEDIA ADDICTIONS:

<https://socialemotionalpaws.com/blog-post-1/f/hoag-hospital-mental-illness-social-media-addictions>

11. GAMING, SOCIAL MEDIA AND MENTAL WELLNESS PRESENTED BYSINA SAFAHIE:

<https://socialemotionalpaws.com/blog-post-1/f/gaming-social-media-and-mental-wellness-presented-bysina-safahie>

10. Nearly half of all U.S. teens have been cyberbullied, Pew Research:

<https://socialemotionalpaws.com/blog-post-1/f/nearly-half-of-all-us-teens-have-been-cyberbullied-pew-research>

11. Tech Addiction: Digital Madness- How Social Media Is Driving Our:

<https://socialemotionalpaws.com/blog-post-1/f/tech-addiction-digital-madness-how-social-media-is-driving-our>

12. Surgeon general warns 13 is too young for children to be on social media:

<https://socialemotionalpaws.com/blog-post-1/f/surgeon-general-warns-13-is-too-young-for-children-to-be-on-social-media>

and <https://www.cnn.com/videos/business/2023/01/29/vivek-murthy-social-media-13-too-young-brown-nr-sot-vpx-contd.cnn>

**# 13. and Surgeon General Vivek Murthy warns 13 is far too young for ...
...<https://www.dailymail.co.uk/news/article-11690563>**

Jan 29, 2023 — Surgeon General Vivek Murthy warned children should be banned from social media until they're between 16 and 18 to avoid a 'distorted' sense ...

<https://www.dailymail.co.uk/news/article-11690563/Surgeon-General-Vivek-Murthy-warns-13-far-young-children-sign-social-media-sites.html>

14. Parents who say their kids are addicted to 'Fortnite' slam Epic G:

<https://socialemotionalpaws.com/blog-post-1/f/parents-who-say-their-kids-are-addicted-to-fortnite-slam-epic-g>

15. Al Muratsuchi's Assembly Bill (AB) 272, Banning Smartphones in Sc:

"Growing evidence shows excessive smartphone use at school interferes with a student's education and success, encourages cyberbullying, and contributes to teenage anxiety, depression, and suicide," stated Assemblymember Muratsuchi. "This new law will encourage school districts to develop their own policy that strikes a balance between allowing appropriate student use of smartphones at school, while making sure that smartphones are not interfering with a student's educational, social and emotional development."

Evidence has shown that unrestricted use of smartphones by students at schools lowers academic performance, particularly among low-achieving students; promotes cyberbullying; and contributes to teenage mental health issues. Between 2009 and 2017, the number of 14 to 17 year olds experiencing clinical level depression jumped more than 60%, with a 47% increase among 12 to 13 year olds. AB 272 will take effect in January 2020. <https://socialemotionalpaws.com/blog-post-1/f/al-muratsuchis-assembly-bill-ab-272-banning-smartphones-in-sc>

16. Orange County YMCA Esports under 13 years old that should never be permitted <https://ymcaoc.org/esports/>

17. Federal legislation provides guidance to States by identifying a minimum set of acts or behaviors that define child abuse and neglect. The Federal Child Abuse Prevention and Treatment Act (CAPTA) (42 U.S.C.A. § 5106g), as amended by the CAPTA Reauthorization Act of 2010, defines child abuse and neglect as, at minimum:

"Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation"; or

"An act or failure to act which presents an imminent risk of serious harm."

This definition of child abuse and neglect refers specifically to parents and other caregivers. A "child" under this definition generally means a person who is younger than age 18 or who is not an emancipated minor.

[What is child abuse or neglect? What is the definition of child abuse and neglect? | HHS.gov](#)

18. World Health Organization Recommends Against Screen Time for Infants:

<https://socialemotionalpaws.com/blog-post-1/f/world-health-organization-recommends-against-screen-time-for-infants>

19. What Does Too Much Screen Time Do to Children's Brains?

<https://socialemotionalpaws.com/blog-post-1/f/what-does-too-much-screen-time-do-to-children%E2%80%99s-brains-1>

20. MRIs show screen time linked to lower brain development in preschool:

<https://socialemotionalpaws.com/blog-post-1/f/mris-show-screen-time-linked-to-lower-brain-development-in-preschool-3>

21. Press Release will Esports recognized as Child Abuse brain injury:

<https://socialemotionalpaws.com/blog-post-1/f/press-release-will-esports-recognized-as-child-abuse-brain-injury>

22. The key was awareness education:

Rep. Kim Introduces Bipartisan Bill to Support Community-Based Youth and Young Adult Suicide Prevention Efforts:

**H.R.7255 - Garrett Lee Smith Memorial Reauthorization Act
117th Congress (2021-2022)**

Sponsor: Rep. McMorris-Rodgers, Cathy [R-WA-5] (Introduced 03/28/2022)

Committees: House - Energy and Commerce

Latest Action: House - 03/29/2022 Referred to the Subcommittee on Health. (All Actions)

Tracker: Tip This bill has the status Introduced Here are the steps for Status of Legislation:

<https://www.congress.gov/bills/117/congress/house-bills/7255/text>

Shown Here:

Introduced in House (03/28/2022)

117th CONGRESS

2d Session

H. R. 7255

To amend title V of the Public Health Service Act to reauthorize the Garrett Lee Smith Memorial Act, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

March 28, 2022

Mrs. Rodgers of Washington (for herself, Mrs. Trahan, Mrs. Axne, and Mrs. Kim of California) introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL

To amend title V of the Public Health Service Act to reauthorize the Garrett Lee Smith Memorial Act, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Garrett Lee Smith Memorial Reauthorization Act”.

SEC. 2. SUICIDE PREVENTION RESOURCE CENTER.

Section 520C of the Public Health Service Act (42 U.S.C. 290bb–34) is amended—

- (1) in subsection (a), by striking “tribes, tribal organizations” and inserting “Tribes, Tribal organizations”;**
- (2) in subsection (b), by striking “tribal” each place it appears and inserting “Tribal”; and**
- (3) in subsection (c), by striking “\$5,988,000 for each of fiscal years 2018 through 2022” and inserting “\$9,000,000 for each of fiscal years 2023 through 2027**

SEC. 3. GARRETT LEE SMITH STATE AND TRIBAL YOUTH SUICIDE PREVENTION AND EARLY INTERVENTION GRANT PROGRAM.

Section 520E of the Public Health Service Act (42 U.S.C. 290bb–36) is amended—

(1) in subsection (a), by striking “tribal” each place it appears and inserting “Tribal”;

(2) in subsection (b)(1)(C)—

(A) by striking “Indian tribe or tribal organization” and inserting “Indian Tribe or Tribal organization”; and

(B) by striking “tribal youth” and inserting “Tribal youth”;

(3) in subsection (c), in the matter preceding paragraph (1), by striking “tribal” each place it appears and inserting “Tribal”;

(4) in subsection (e)(3), by striking “tribal” and inserting “Tribal”; and

(5) in subsection (m), by striking “\$30,000,000 for each of fiscal years 2018 through 2022” and inserting “\$40,000,000 for each of fiscal years 2023 through 2027”.

SEC. 4. GARRETT LEE SMITH CAMPUS SUICIDE PREVENTION PROGRAM.

Section 520E–2(i) of the Public Health Service Act (42 U.S.C. 290bb–36b(i)) is amended by striking “2018 through 2022” and inserting “2023 through 2027”.

SEC. 5. MENTAL AND BEHAVIORAL HEALTH OUTREACH AND EDUCATION.

Section 549(f) of the Public Health Service Act (42 U.S.C. 290ee–4(f)) is amended by striking “2018 through 2022” and inserting “2023 through 2027”.

<https://youngkim.house.gov/media/press-releases/rep-kim-introduces-bipartisan-bill-support-community-based-youth-and-young>

42 USC 290ee-4: Mental and behavioral health outreach and education on college campuses Text contains those laws in effect on December 28, 2022 Pending Updates: Pub L. 117-328 (12/29/2022) [\[View Details\]](#)

From Title 42-THE PUBLIC HEALTH AND WELFARE CHAPTER 6A-PUBLIC HEALTH SERVICES SUBCHAPTER III-A-SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION Part D-Miscellaneous Provisions Relating to Substance Abuse and Mental Health

Jump To: **[Source Credit](#)**

§290ee–4. Mental and behavioral health outreach and education on college campuses

(a) Purpose

It is the purpose of this section to increase access to, and reduce the stigma associated with, mental health services to ensure that students at institutions of higher education have the support necessary to successfully complete their studies.

(b) National public education campaign

The Secretary, acting through the Assistant Secretary and in collaboration with the Director of the Centers for Disease Control and Prevention, shall convene an interagency, public-private sector working group to plan, establish, and begin coordinating and evaluating a targeted public education campaign that is designed to focus on mental and behavioral health on the campuses of institutions of higher education. Such campaign shall be designed to-

(1) improve the general understanding of mental health and mental disorders;

(2) encourage help-seeking behaviors relating to the promotion of mental health, prevention of mental disorders, and treatment of such disorders;

(3) make the connection between mental and behavioral health and academic success; and

(4) assist the general public in identifying the early warning signs and reducing the stigma of mental illness.

(c) Composition

The working group convened under subsection (b) shall include-

(1) mental health consumers, including students and family members;

(2) representatives of institutions of higher education;

(3) representatives of national mental and behavioral health associations and associations of institutions of higher education;

(4) representatives of health promotion and prevention organizations at institutions of higher education;

(5) representatives of mental health providers, including community mental health centers; and

(6) representatives of private-sector and public-sector groups with experience in the development of effective public health education campaigns.

(d) Plan

The working group under subsection (b) shall develop a plan that-

(1) targets promotional and educational efforts to the age population of students at institutions of higher education and individuals who are employed in settings of institutions of higher education, including through the use of roundtables;

(2) develops and proposes the implementation of research-based public health messages and activities;

(3) provides support for local efforts to reduce stigma by using the National Health Information Center as a primary point of contact for information, publications, and service program referrals; and

(4) develops and proposes the implementation of a social marketing campaign that is targeted at the population of students attending institutions of higher education and individuals who are employed in settings of institutions of higher education.

(e) Definition

In this section, the term "institution of higher education" has the meaning given such term in [section 1001 of title 20](#).

(f) Authorization of appropriations

To carry out this section, there are authorized to be appropriated \$1,000,000 for the period of fiscal years 2018 through 2022.

(July 1, 1944, ch. 373, title V, §549, as added [Pub. L. 114-255, div. B, title IX, §9033, Dec. 13, 2016, 130 Stat. 1261](#) .)

CA State law AB-638 Mental Health Services Act: early intervention and prevention programs.(2021-2022)

(e) Prevention and early intervention funds may be used to broaden the provision of community-based mental health services by adding prevention

and early intervention services or activities to these services, including prevention and early intervention strategies that address mental health needs, substance misuse or substance use disorders, or needs relating to cooccurring mental health and substance use services.

(f) In consultation with mental health stakeholders, and consistent with regulations from the Mental Health Services Oversight and Accountability Commission, pursuant to Section 5846, the department shall revise the program elements in Section 5840 applicable to all county mental health programs in future years to reflect what is learned about the most effective prevention and intervention programs for children, adults, and seniors.

Request a letter of support currently there is far too many silos have impeded progress to be effective our nation crisis of children's welfare at stake. U.S. Congress H.R.7255 - Garrett Lee Smith Memorial Reauthorization Act request be brought back with additional language to include social media outline above reference links with Fentanyl crisis campaign awareness funding with law enforcement investments. Request language all schools from elementary to high school be required under federal funds to address the lack training with social media and be held accountable for child abuse such as Esports in schools and not promote in YMC under 13 years old by law.

Requests create a federal with CA State Bi partisan caucuses to address to many silo impediments to hold hearings, raise awareness. The U.S. Senate Judiciary report 150 organization support product safety social medial please add one more to the list P.R.D.D.C. Craig A Durfey.

Thank You

Craig A Durfey

From: [Craig A Durfey](#)
To: [GREEN, BRENDA](#); [Craig A Durfey](#)
Subject: Fwd: CAMPUSES AMPLIFY DEA'S "ONE PILL CAN KILL" PUBLIC AWARENESS CAMPAIGN.
Date: Monday, March 6, 2023 3:07:55 PM
Attachments: [image003.png](#)
[Bill Text - AB-638 Mental Health Services Act early intervention and prevention programs .pdf](#)

03-05-2023

(P.R.D.D.C.)
PARENTS FOR THE
RIGHTS OF
DEVELOPMENTALLY
DISABLED CHILDREN
CRAIG A. DURFEY
FOUNDER OF P.R.D.D.C.
P.O.BOX 937 GARDEN
GROVE, CA 92842
CELL 714-321-8238
CADURFY@GMAIL.COM
SOCIALEMOTIONALPAWS.COM
[FACEBOOK: CRAIG DURFEY](https://www.facebook.com/craig.durfey)
U.S. HOUSE OF CONGRESS H2404 - HONORING CRAIG
DURFEY FOR HIS FIGHT AGAINST AUTISM ... Ms.
LORETTA SANCHEZ of California.

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new website
socialemotionalpaws.org

Dear Congresswoman Michelle Steel

Request your support for about the dangers of buying pills on social media, fentanyl education in schools fifth grade at all schools to 12th grade with local experts and impacted family members. Requesting letter of support that once again from advocating over many years now on my six sixth year with social media, yet still to many silos preventing awareness.

Below are opportunities to expand Orange County Sheriffs Dept program to all schools that the U.S. Senate U.S. SENATE HEARING ECOUNTERING ILLICIT FENTANYL TRAFFICKING

<https://socialemotionalpaws.com/blog-post-1/f/us-senate-hearing-ecountering-illicit-fentanyl-trafficking> awareness was best choice with accountability from school districts.

<https://www.dea.gov/dea-one-pill-can-kill-social-media-campaign>

CA State source funding could be until Congress can fund is AB-638 Mental Health Services Act: early intervention and prevention programs.(2021-2022) early intervention. Below are.

References of research that mirror Orange County CA hearing in 2022 fentanyl education in schools fifth grade a three-hour presentation however the police cars haven't been every discuss as the one below request to see these used as awareness campaign.

[Campuses Amplify DEA's 'One Pill Can Kill' Public Awareness Campaign | Campus Drug Prevention](#)

The Senate Foreign Relations Committee

FULL COMMITTEE HEARING

COUNTERING ILLICIT FENTANYL TRAFFICKING

<https://www.foreign.senate.gov/hearings/countering-illicit-fentanyl-trafficking>

Be part of the solution! If you see drugs being advertised on social media, report it anonymously to Safe Oregon.

The Campaign

We partnered with the Beaverton Police Department, the Washington County Sheriff's Office and the Washington County Public Health Department to raise awareness about the dangers of buying pills on social media. We posted on the district's and schools' social media accounts. Our middle, high and option school students received fentanyl-related lessons in their health and advisory classes. Our administrators and staff received specific fentanyl training. And we engaged in a Community Conversation about the dangers of fentanyl with local experts and impacted family members.

If you'd like to organize your own campaign and access to our social posts, graphics and logos, email community_involvement@beaverton.k12.or.us.



How can you help?

One of the best ways to protect kids from substance abuse is by having regular and open conversations to educate them about the risks. Listen to them without judgment. Also monitor their social media use. Drugs are often offered by someone that they know or a stranger that they meet on social media.

Watch for changes in their behavior including:

Irregular eating or

sleeping patterns

Low energy

General signs of

depression or anxiety

Unusual irritability

Slipping grades

Lack of interest in activities

that they once loved Drastic

clothing style changes

If you notice a change, ask about it. Trust your instincts.

<https://www.beaverton.k12.or.us/departments/communications-community-involvement/fake-and-fatal>

DEA's "[One Pill Can Kill](#)" initiative, which launched in September 2021, aims to raise public awareness about the counterfeit pill issue while highlighting prevention resources.

View a fact sheet on fake pills in [English](#) or [Spanish](#).

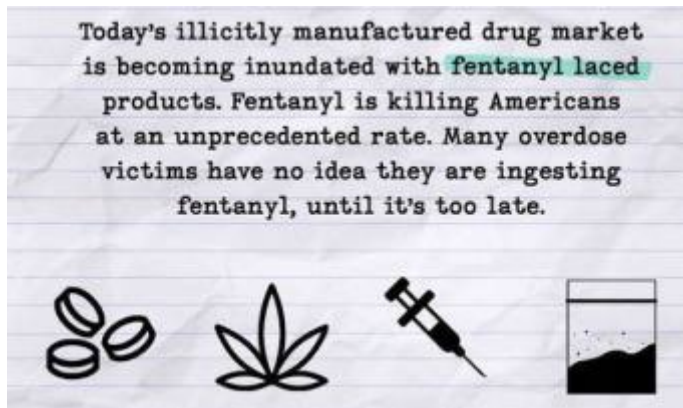
The prevalence of fake pills - pills that mimic legitimate medication but are often laced with fentanyl or methamphetamine - is a growing problem in communities across the nation.

Is your school using 'One Pill Can Kill' materials to get the word out about fake pills? If so, let us know! Send a description of your efforts to community.outreach@dea.gov. We may feature your school and its program on our site!

Campuses have adopted the initiative in an effort to educate their student population. Learn about them below. Auburn

University

Image



Auburn University's Health Promotion and Wellness Services uses their Instagram page to educate students about the dangers of illicitly manufactured drugs being laced with fentanyl. [Read more](#).

Dr. Thomas Hall, Director of the Orange County, Florida Drug-Free Coalition, has made several proactive efforts in the past two months to raise awareness of One Pill Can Kill for students, faculty, and staff at the University of Central Florida in Orlando. Dr. Hall has worked closely with the Chief of Police of UCF Campus Police, Carl Metzger, on these efforts. Click the following links to see [visuals of campus bus stop signage](#) and a [graphic wrap on campus police cruiser](#).

Texarkana College in Texas hosted Dr. Matt Young of Texarkana Emergency Center and Hospital to educate students on the dangers of fentanyl, including the fact that 6 out of 10 fake pills have lethal doses of the opioid. [Read more](#).

University at Albany

Image



The University at Albany's Center for Behavioral Health Promotion and Applied Research uses [their Instagram](#) page to educate students about the dangers of fake pills.

Check out a couple of their posts below:

- Fake pills [Instagram post](#)
- Overdose Awareness Week flyer [Instagram post](#)

The school also created social media posts, posters, and ads for bus shelters with QR codes to the One Pill Can Kill website.



According to Dr. Kelsey Bradshaw, a clinical child psychologist with Sharp Mesa Vista Hospital, “Social media has become a way for young people to communicate with others. Naturally, these platforms have also become a way that they communicate their needs for substances, and people try to take advantage of that because they assume there’s more anonymity.” Teens may be buying drugs out of boredom, isolation, existing substance use issues, or mental health struggles.

SnapChat, a popular social media platform among young adults and some teenagers, commissioned research from Morning Consult in response to the growing concerns about social media and drug use. The survey was designed to understand how young people perceive drugs and fentanyl. Their findings indicated that young adults and teenagers in the United States today are facing significant mental health challenges, connected to high levels of stress. This isn’t surprising, given the pandemic and the politically-fueled turmoil that we’ve faced in the last year. Almost 90% of those surveyed (ages 13 to 24) reported that people their age feel overwhelmed.

The study also found that young people are seeking coping strategies for their stress, and many are turning to drug abuse. About 1 in 5 Gen Zers have thought about abusing prescription drugs, and 84% agree that “coping with stress and anxiety” is a key reason people use drugs. Unfortunately, young people also lack resources and education about the dangers of drug abuse and specifically, the deadliness of fentanyl and its presence in common drugs of choice. Nearly 1 in 4 youth said they did not have enough information about fentanyl to know how dangerous it is. <https://socialemotionalpaws.com/blog-post-1/f/illegal-drug-sales-on-social-media-how-snapchat-is-stepping-up-t>

Snapchat’s role in fentanyl crisis probed during House roundtable:

House lawmakers considered the role of social media, and specifically Snap-owned Snapchat, in propagating the fentanyl poisoning crisis in a roundtable Wednesday.

The event in the House Energy and Commerce Committee could set the stage for new proposals to protect kids on the internet or limit the liability protections for online platforms.

The committee's new Republican leader Rep. Cathy McMorris Rodgers, R-Wash., has indicated that under her stewardship, the panel will seek to significantly narrow liability protections for tech platforms and in the past she's expressed interest in protections for kids online.

<https://socialemotionalpaws.com/blog-post-1/f/snapchat%E2%80%99s-role-in-fentanyl-crisis-probed-during-house-roundtable>

Use of Snapchat in fentanyl sales draws scrutiny.

“We are committed to doing our part to fight the national fentanyl poisoning crisis, which includes using cutting-edge technology to help us proactively find and shut down drug dealers’ accounts,” Rachel Racusen, a Snap spokeswoman, said in an emailed statement. Drug deaths among American teenagers have soared in recent years, and illicitly manufactured fentanyl has led that surge. From 2019 to 2021, the median monthly number of overdoses among adolescents in the U.S. climbed 109%, with fentanyl-related deaths among the same 10-to-19-year-old cohort soaring 182%, according to statistics from the Centers for Disease Control and Prevention.

<https://socialemotionalpaws.com/blog-post-1/f/use-of-snapchat-in-fentanyl-sales-draws-scrutiny>

LOCAL NEWS Teen found dead at Bernstein High School, 3 others hos

One teenage girl died, and three other teenagers were hospitalized after they were found to have overdosed at a school in Hollywood and a nearby park.

All the teenagers are believed to have gotten Percocet laced with fentanyl at Lexington Park, where two of the teens were found. The park is less than a mile from Bernstein High School, where two 15-year-old girls had also overdosed, including a girl whose body was found in a bathroom.

The grim discoveries were made by a parent who was concerned his stepdaughter had not come home. He had reported his stepdaughter missing at 2:30 p.m., and continued looking for her. He eventually made his way to the school, in the 1300 block of North Wilton Place, and found her suffering from an overdose in the courtyard and called police.

LAPD officers arrived at the school at about 9 p.m. The girl told her stepfather that her friend had also overdosed and was in a bathroom. The officers got staff, who were at an on-campus event, to get inside the school, where they found the second girl unresponsive inside a bathroom stall. Paramedics tried to help the girl, but she was ultimately pronounced dead at the scene.

<https://socialemotionalpaws.com/blog-post-1/f/local-news-teen-found-dead-at-bernstein-high-school-3-others-hos>

Song for Charlie dedicated to raising awareness about ‘fentapills:

WHAT IS SONG FOR CHARLIE ALL ABOUT?

After the sudden loss of their son Charlie, Ed and Mary Ternan created Song for Charlie with one goal: to bring awareness to counterfeit prescription pills being sold online targeting young people. With your help, we can spread the word and save lives.

OUR VISION

We envision a future in which the casual use of prescription pills is considered socially unacceptable, and in which sharing random pills is uncool.

We endeavor to change the ‘quick fix’ mindset of self-medication in favor of more organic and sustainable strategies for managing stress and anxiety.

To accomplish these goals, we must break through the noise and communicate with young people on their terms – go where they are; speak their language; and get them talking.

OUR MISSION

Growing up in our fast-paced world is stressful. Song for Charlie is a national family-run, nonprofit charity that encourages young people to choose healthy coping strategies over self-medication. We empower students to learn and share knowledge by providing research tools and promoting peer-to-peer learning programs.

<https://socialemotionalpaws.com/blog-post-1/f/song-for-charlie-dedicated-to-raising-awareness-about-%E2%80%98fentapills>

<https://www.songforcharlie.org/about-us>

Jennifer Epstein will review the steps of the PAIR method- Plan, find Allies, Identify what you want, and Request action, and give you tips on how to get the **attention of your school district.**

<https://www.songforcharlie.org/video-resources?pgid=l15dxmic2-44b939dd-1f1a-4315-a531-8ad4160f5bdf>

Video Resources | Song for Charlie

Song for Charlie

<https://www.songforcharlie.org/video-resources>

A library of our video resources including informational vidoes, webinars and documentaries.

Orange County CA Fentanyl Hearing Address the rising epidemic.

Watch Our Fentanyl Hearing Hosted by Supervisor Foley featuring Local Law Enforcement, Health Experts, and Policymakers.



Countering the deadly scourge of fentanyl in Orange County

'Our resources are outmatched by the sheer quantity of what is being trafficked,' says Sheriff Don Barnes.



Alexander Neville, 14, pictured during a trip to Palomar Mountain in 2019, died after ingesting fentanyl in June 2020

A single sugar packet's worth of fentanyl packs 500 lethal doses.

More than 100,000 lives were consumed by drug poisonings and overdoses last year in the United States, the equivalent of 10 Boeing 737 jets crashing every week — for an entire year.

The synthetic opioid was responsible for just 4% of drug-related deaths in 2013, but more than 70% in 2021. It's now the leading cause of death for children 17 and under

"The fentanyl epidemic is our most significant long-term health crisis," Orange County Sheriff Don Barnes said at a public hearing Thursday, March 3. "Our resources are outmatched by the sheer quantity of what is being trafficked."
<https://www.ocregister.com/2022/03/03/countering-the-deadly-scourge-of-fentanyl-in-orange-county/>

<https://abc7.com/nogales-high-school-la-puente-california-14-year-old-girl-dies/12235319/>

<https://www.cbsnews.com/losangeles/news/usc-nonprofit-taco-continues-fight-against-fentanyl-epidemic/>

<https://anchor.fm/elizabeth-cheryl/episodes/Dear-Fentanyl--Your-secret-is-out-e1gqun7>

<https://www.beaverton.k12.or.us/departments/communications-community-involvement/fake-and-fatal>

<https://socialemotionalpaws.com/blog-post-1/f/fentanyl-tainted-pills-bought-on-social-media-cause-youth-drug-de>

ILLEGAL DRUG SALES ON SOCIAL MEDIA: HOW SNAPCHAT IS STEPPING UP T

<https://socialemotionalpaws.com/blog-post-1/f/illegal-drug-sales-on-social-media-how-snapchat-is-stepping-up-t>

A Roundtable on Big Tech and the Fentanyl Poisoning Crisis.

<https://socialemotionalpaws.com/blog-post-1/f/a-roundtable-on-big-tech-and-the-fentanyl-poisoning-crisis>

Thank You

Craig A Durfey



Written Testimony of Josh Golin
Executive Director, Fairplay
Before the Senate Judiciary Committee
Hearing on “Protecting our Children Online”
February 14, 2023

My name is Josh Golin and I am Executive Director of Fairplay.

I would like to thank Chairman Durbin, Ranking Member Graham, and the Distinguished Members of the Committee for holding this hearing of critical importance to America’s families, and for inviting me to testify.

For more than a decade, social media companies have been performing a vast uncontrolled experiment on our children. They use the reams of data they collect on young people and endless A/B testing to fine tune their platforms’ algorithms and design to maximize engagement, because more time and activity on a platform means more revenue. And because the way these platforms engage with young people is largely unregulated, there is no obligation to consider and mitigate the harmful effects of their design choices on children and teens.

The resulting impact on children and families has been devastating. Compulsive overuse, exposure to harmful and age-inappropriate content, cyberbullying, eating disorders, harms to mental health, and the sexual exploitation of children are just some of the problems linked to Big Tech’s insidious business model.

It doesn’t have to be this way. Instead of prioritizing engagement and data collection, apps, websites, and online platforms could be built in ways that reduce risks and increase safeguards for children and teens. With many young people now spending a majority of their waking hours online and on social media, improving the digital environment so it is safer and not exploitative or addictive is one of the most important things we can do to address the mental health crisis.

But that won’t happen through self-regulation. It is past time for Congress to enact legislation that expands privacy protections for young people and requires online operators to prioritize children’s wellbeing in their design choices. Without meaningful congressional action, children and teens will continue to be harmed in the most serious and tragic ways by Instagram, TikTok, Snapchat, YouTube, and thousands of lesser known apps, websites, and platforms.

My testimony today will describe how many of the most serious issues facing children and teens online are a direct result of design choices made to further companies’ bottom lines, and Congress’s failure to enact meaningful safeguards. I will then describe the types of protections that should be included in any online safety and privacy legislation.

I. About Fairplay

Fairplay is the leading independent watchdog of the children's media and marketing industries. We are committed to building a world where kids can be kids, free from the false promises of marketers and the manipulations of Big Tech. Our advocacy is grounded in the overwhelming evidence that child-targeted marketing – and the excessive screen time it encourages – undermines kids' healthy development.

Through corporate campaigns and strategic regulatory filings, Fairplay and our partners have changed the child-targeted marketing and data collection practices of some of the world's biggest companies. In 2021, we led a large international coalition of parents, advocates, and child development experts to stop Meta from releasing a version of Instagram for younger children.¹ Our 2018 Federal Trade Commission complaint against Google for violating the Children's Online Privacy Protection Act (COPPA) led to the 2019 FTC settlement that required Google to pay a record fine and to limit data collection and targeted advertising on child-directed content on YouTube.² With our partners at the Center for Digital Democracy, we have filed other requests for investigation at the FTC that remain pending. We have documented, for example, that Google Play recommends apps for young children that violate COPPA and uses unfair monetization techniques;³ that TikTok has not complied with the 2019 FTC Consent Decree that it was violating COPPA;⁴ and that Prodigy, a popular online math game assigned to millions of elementary school students across the country, uses manipulative design to unfairly promote expensive subscriptions to children.⁵

Fairplay also leads the Designed with Kids in Mind Coalition, which advocates for regulations that would require operators to make the best interests of children a primary consideration

¹ Brett Molina and Terry Collins, *Facebook postponing Instagram for kids amid uproar from parents, lawmakers*, USA Today (Sept. 27, 2021), <https://www.usatoday.com/story/tech/2021/09/27/instagram-kids-version-app-children-pause/5881425001/>.

² Campaign for a Commercial-Free Childhood (now Fairplay) and Center for Digital Democracy, *Request to Investigate Google's YouTube Online Service and Advertising Practices for Violating the Children's Online Privacy Protection Act*, Counsel for Center for Digital Democracy and Campaign for a Commercial-Free Childhood before the Federal Trade Commission (filed April 2, 2018), <https://fairplayforkids.org/advocates-say-googles-youtube-violates-federal-childrens-privacy-law/>.

³ Campaign for a Commercial-Free Childhood (now Fairplay) and Center for Digital Democracy, *Request to Investigate Google's Unfair and Deceptive Practices in Marketing Apps for Children*, Counsel for Center for Digital Democracy and Campaign for a Commercial-Free Childhood before the Federal Trade Commission (filed Dec. 12, 2018), <https://fairplayforkids.org/apps-which-google-rates-safe-kids-violate-their-privacy-and-expose-them-other-harms/>.

⁴ Campaign for a Commercial-Free Childhood (now Fairplay) and Center for Digital Democracy, *Complaint and Request for Investigation of TikTok for Violations of the Children's Online Privacy Protection Act and Implementing Rule*, Counsel for Campaign for a Commercial-Free Childhood and Center for Digital Democracy before the Federal Trade Commission (filed May 14, 2020), https://fairplayforkids.org/wp-content/uploads/2020/05/tik_tok_complaint.pdf.

⁵ Campaign for a Commercial-Free Childhood (now Fairplay), *Request for Investigation of Deceptive and Unfair Practices by the Edtech Platform Prodigy*, Campaign for a Commercial-Free Childhood before the Federal Trade Commission (filed Feb. 19, 2020), https://fairplayforkids.org/wp-content/uploads/2021/02/Prodigy_Complaint_Feb21.pdf.

when designing apps, websites, and platforms likely to be accessed by young people.⁶ Fairplay and many of our coalition members actively supported the successful passage of the California Age Appropriate Design Code. We were also lead organizers on the 2022 federal legislative campaigns for the Kids Online Safety Act and the Children and Teens' Online Privacy Protection Act. And in November of last year, we filed a Petition for Rulemaking, signed by 21 organizations, urging the FTC to declare that certain design techniques used by online platforms to maximize engagement are unfair practices.⁷

Fairplay is also home to the Screen Time Action Network, a collaborative community of practitioners, educators, advocates, and parents who work to reduce excessive technology use harming children, adolescents, and families. The Action Network hosts seven work groups, including Online Harms Prevention, a group whose members include today's witness Kristin Bride and several other parents who have tragically lost their children to social media harms.

II. Children and teens spend a significant portion of their day using digital media.

Digital device use begins in early childhood: Nearly half of 2- to 4-year-olds and more than two-thirds of 5- to 8-year-olds have their own tablet or smartphone.⁸ Preschool-age children average 2.5 hours of screen media use per day, and five- to eight-year-olds average about 3 hours.⁹ In a study of elementary school-aged children's digital media use during the pandemic, approximately one-third of parents reported that their children began using social media at a younger age than they had originally planned.¹⁰

Despite the fact that all major social media sites have a minimum age of 13 in their terms of service, a growing number of younger children use platforms like TikTok, Snapchat and Instagram. About half of parents of children ages 10 to 12 and 32% of parents of kids ages 7 to 9 reported their child used social media apps in the first six months of 2021.¹¹ That same year, 18% of 8- to 12-year-olds reported using social media every day, a 38% increase from just two years prior.¹² Leaked documents from TikTok revealed the company used machine learning to

⁶ Coalition members include Accountable Tech, American Academy of Pediatrics, Center for Digital Democracy, Center for Humane Technology, Children and Screens, Common Sense, Electronic Privacy Information Center, Exposure Labs: The Creators of The Social Dilemma, Fairplay, ParentsTogether, and RAINN: <https://designedwithkidsinmind.us/>.

⁷ Center for Digital Democracy & Fairplay, *In the Matter of Petition for Rulemaking to Prohibit the Use on Children of Design Features that Maximize for Engagement*, (filed Nov. 17 2022). <https://fairplayforkids.org/wp-content/uploads/2022/11/EngagementPetition.pdf>

⁸ Victoria Rideout & Michael B. Robb, *The Common Sense Census: Media Use by Kids Age Zero to Eight*, 2020, Common Sense Media at 25, (2020), https://www.commonsensemedia.org/sites/default/files/research/report/2020_zero_to_eight_census_final_web.pdf.

⁹ *Id.*

¹⁰ Tiffany Munzer, Chioma Torres, et al., *Child Media Use During COVID-19: Associations with Contextual and Social-Emotional Factors*, 43 *Journal of Developmental and Behavioral Pediatrics* at 3 (2022), <https://pubmed.ncbi.nlm.nih.gov/36106745/>.

¹¹ Kristen Rogers, *Children under 10 are using social media. Parents can help them stay safe online*, CNN, (Oct. 18, 2021), <https://www.cnn.com/2021/10/18/health/children-social-media-apps-use-poll-wellness/index.html>

¹² Victoria Rideout, Alanna Peebles, et al., *The Common Sense Census: Media Use by Tweens and Teens at 12*, (2022), https://www.commonsensemedia.org/sites/default/files/research/report/8-18-census-integrated-report-final-web_0.pdf.

analyze user accounts and classified one-third of the platform's users as under 14,¹³ which suggests platform operators are well aware that children lie about their age in order to access social media.

Further, research indicates the pandemic has increased screen media use for preteens and teenagers. In 2021, preteens (ages 8 to 12) averaged over 5.5 hours of entertainment screen time per day and teens (ages 13 to 18) averaged a remarkable 8.5 hours daily - a 17% increase from 2019 for both age groups.¹⁴ Much of this time is spent on the major social media platforms. Ninety-five percent of teens say they use YouTube, and 67% say they use TikTok.¹⁵ Thirty-five percent of teens say they are using one of the top five online platforms – YouTube, TikTok, Instagram, Snapchat, or Facebook – “almost constantly.”¹⁶

Teens' and preteens' daily screentimes vary based on race and household income. White preteens average 4.5 hours of entertainment screen time use daily, compared to Black preteens (6.5 hours) and Hispanic/Latino preteens (7 hours). White teens spend approximately 8 hours per day on screens for entertainment, while Black and Hispanic/Latino teens average approximately two hours more.¹⁷ Preteens in higher-income households spend just under 4.5 hours of screen time per day, compared to preteens in middle-income households (5.75 hours) and lower-income households (7.5 hours). Teens in higher-income households spend about 2.5 hours less daily on screens for entertainment compared to teens in lower- and middle-income households, (7 and 9.5 hours daily, respectively).¹⁸

III. Overuse of digital media is linked to a number of serious harms for young people

Increased time online and social media use is linked to serious harms for young people. As the Surgeon General has observed – and as described in detail in Section IV of this testimony – “[b]usiness models are often built around maximizing user engagement as opposed to safeguarding users’ health and ensuring that users engage with one another in safe and healthy ways . . . This translates to technology companies focusing on maximizing time spent, not time well spent.”¹⁹ By maximizing time and activities online, the design choices made by platforms to maximize engagement harm minors in a number of ways, including: undermining mental health, harm to body image, fostering problematic internet use, harming physical health,

¹³ Raymond Zhong and Sheera Frenkel, *A Third of TikTok's U.S. Users May Be 14 or Under, Raising Safety Questions*, New York Times, (Aug. 14, 2020), <https://www.nytimes.com/2020/08/14/technology/tiktok-underage-users-ftc.html>.

¹⁴ Common Sense, *The Common Sense Census: Media Use by Tweens and Teens at 12* (2022), https://www.commonsensemedia.org/sites/default/files/research/report/8-18-census-integrated-report-final-web_0.pdf.

¹⁵ Emily A. Vogels et al., *Teens, Social Media and Technology 2022*, Pew Research Center (Aug. 10, 2022), <https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022>.

¹⁶ *Id.*

¹⁷ Victoria Rideout, Alanna Peebles, et al., *The Common Sense Census: Media Use by Tweens and Teens at 12*, (2022), https://www.commonsensemedia.org/sites/default/files/research/report/8-18-census-integrated-report-final-web_0.pdf.

¹⁸ *Id.*

¹⁹ *Protecting Youth Mental Health: The U.S. Surgeon General's Advisory* at 25 (2021), <https://www.hhs.gov/sites/default/files/surgeon-general-youth-mental-health-advisory.pdf>.

increasing minors' risk of contact with dangerous or harmful people, and increasing minors' exposure to age-inappropriate and otherwise harmful content.

Harm to mental health

Maximizing minors' time and activities online is linked with worse psychological wellbeing in minors in concrete and serious ways that cannot be ignored in the context of the current youth mental health crisis.

Heavy users of digital media are more likely to be unhappy, to be depressed, or to have attempted suicide.²⁰ Two nationally representative surveys of U.S. adolescents in grades 8 through 12 found "a clear pattern linking screen activities with higher levels of depressive symptoms/suicide-related outcomes and nonscreen activities with lower levels."²¹ The same research found that suicide-related outcomes became elevated after two hours or more a day of electronic device use.²² Among teens who used electronic devices five or more hours a day, a staggering 48% exhibited at least one suicide risk factor.²³ Of particular concern, a large and growing body of research indicates a strong link between time spent on social media—some of the services most relentless in their deployment of engagement-maximizing techniques—and serious mental health challenges.²⁴ More frequent and longer social media use is associated with depression,²⁵ anxiety,²⁶ and suicide risk factors.²⁷

Even if some of these documented associations are explained by children's underlying emotional challenges, the design features that online platforms deploy to maximize engagement are likely to have differential negative effects on these young people. For example, children with more negative emotionality may seek endless scrolling as a means of dissociating

²⁰ Jean M. Twenge & W. Keith Campbell, *Media Use Is Linked to Lower Psychological Well-Being: Evidence from Three Datasets*, 90 Psychol. Q., 311 (2019). <https://pubmed.ncbi.nlm.nih.gov/30859387/>

²¹ Jean M. Twenge et al., *Increases in Depressive Symptoms, Suicide-Related Outcomes, and Suicide Rates Among U.S. Adolescents After 2010 and Links to Increased New Media Screen Time*, 6 Clinical Psychol. Sci. 3, 9 (2018) <https://doi.org/10.1177/2167702617723376>. See also Jane Harness et al., *Youth Insight About Social Media Effects on Well/ill-Being and Self-Modulating Efforts*, 71 J. Adolescent Health, 324-333 (Sept. 1, 2022), 10.1016/j.jadohealth.2022.04.011; Amy Orben et al., *Windows of Developmental Sensitivity to Social Media*, 13 Nature Comm., 1649, (2022), 10.1038/s41467-022-29296-3

²² *Id.*

²³ *Id.*

²⁴ See, e.g., K.E. Riehm et al., *Associations Between Time Spent Using Social Media and Internalizing and Externalizing Problems Among US Youth*, 76 JAMA Psychiatry, 1266 (2019), <https://doi.org/10.1001/jamapsychiatry.2019.2325>; N. McCrae et al., *Social Media and Depressive Symptoms in Childhood and Adolescence: A Systematic Review*, 2 Adolescent Res. Rev., 315 (2017), <https://doi.org/10.1007/s40894-017-0053-4>; H. Allcott et al., *The Welfare Effects of Social Media*, 110 Econ. Rev. Am. 629 (2020), <https://www.aeaweb.org/articles?id=10.1257/aer.20190658>

²⁵ Jean M. Twenge & W. Keith Campbell, *Media Use Is Linked to Lower Psychological Well-Being: Evidence from Three Datasets*, 90 Psychol. Q. at 312 (2019). <https://pubmed.ncbi.nlm.nih.gov/30859387/>

²⁶ Royal Society for Public Health, *#StatusOfMind: Social Media and Young People's Mental Health and Wellbeing* 8 (May 2017), <https://www.rsph.org.uk/static/uploaded/d125b27c-0b62-41c5-a2c0155a8887cd01.pdf>

²⁷ Jean M. Twenge & W. Keith Campbell, *Media Use Is Linked to Lower Psychological Well-Being: Evidence from Three Datasets*, 90 Psychol. Q. (2019). <https://pubmed.ncbi.nlm.nih.gov/30859387/>

from emotional distress,²⁸ yet may be recommended more negative content based on their previous behavior.²⁹ Former Meta employee Frances Haugen has described how the company (then called Facebook) documented this harmful cycle in its own internal research on Instagram: “And what’s super tragic is Facebook’s own research says, as these young women begin to consume this -- this eating disorder content, they get more and more depressed. And it actually makes them use the app more. And so, they end up in this feedback cycle where they hate their bodies more and more.”³⁰

Harm to body image

Design features that maximize time spent on social media can also lead to heightened exposure to content which increases minors’ susceptibility to poor body image and, consequently, disordered eating. A 2019 study of 7th and 8th graders in the *International Journal of Eating Disorders* “suggest[ed] that [social media], particularly platforms with a strong focus on image posting and viewing, is associated with elevated [disordered eating] cognitions and behaviors in young adolescents.”³¹ Another study found a positive correlation between higher Instagram use and orthorexia nervosa diagnoses.³² Personal stories from sufferers of disordered eating have highlighted the link to social media,³³ as has Meta’s own internal research; the documents Frances Haugen shared with the *Wall Street Journal* in 2021 revealed that Facebook has been aware at least since 2019 that “[w]e make body image issues worse for one in three teen girls.”³⁴

Risk of problematic internet use and its associated harms

Maximizing time and activities online also fosters “problematic internet use” —psychologists’ term for excessive internet activity that exhibits addiction, impulsivity, or compulsion.³⁵ A 2016

²⁸Amanda Baughan et al., “I Don’t Even Remember What I Read”: How Design Influences Dissociation on Social Media, CHI Conference on Human Factors in Computing Systems, 1-13 (2022), <https://dl.acm.org/doi/pdf/10.1145/3491102.3501899>.

²⁹Kait Sanchez, *Go Watch this WSJ investigation of TikTok’s Algorithm*, The Verge, (July 21, 2021), <https://www.theverge.com/2021/7/21/22587113/tiktok-algorithm-wsj-investigation-rabbit-hole>.

³⁰Scott Pelley, *Whistleblower: Facebook is misleading the public on progress against hate speech, violence, misinformation*, CBS, (Oct. 3, 2021), <https://www.cbsnews.com/news/facebook-whistleblower-frances-haugen-misinformation-public-60-minutes-2021-10-03/>.

³¹Simon M. Wilksch et al., *The Relationship Between Social Media Use and Disordered Eating in Young Adolescents*, 53 Int. J. Eat. Disord. 96, 104 (2020).

³²Pixie G. Turner & Carmen E. Lefevre, *Instagram Use Is Linked to Increased Symptoms of Orthorexia Nervosa*, 22 Eating Weight Disorders 277, 281 (2017).

³³See, e.g., Jennifer Neda John, *Instagram Triggered My Eating Disorder*, Slate (Oct. 14, 2021), <https://slate.com/technology/2021/10/instagram-social-media-eating-disorder-trigger.html>; Clea Skopeliti, *‘I Felt My Body Wasn’t Good Enough’: Teenage Troubles with Instagram*, The Guardian (Sep. 18, 2021), <https://www.theguardian.com/society/2021/sep/18/i-felt-my-body-wasnt-good-enough-teenage-troubles-with-instagram>.

³⁴Georgia Wells et al., *Facebook Knows Instagram Is Toxic for Teen Girls, Company Documents Show*, W.S.J. (Sept. 14, 2021), <https://www.wsj.com/articles/facebook-knows-instagram-is-toxic-for-teen-girls-company-documents-show-11631620739>.

³⁵Chloe Wilkinson et al., *Screen Time: The Effects on Children’s Emotional, Social, and Cognitive Development*, Informed Futures, at 6, (2021), <https://informedfutures.org/wp-content/uploads/Screen-time-The-effects-on-childrens-emotional-social-cognitive-development.pdf>.

nationwide survey of minors ages 12 to 18 found that 61% of teens thought they spent too much time on their mobile devices, and 50% felt “addicted” to them.³⁶ In a 2022 Pew Research survey, 35% of teens said they are on YouTube, TikTok, Instagram, Snapchat, or Facebook “almost constantly.”³⁷ And a report released last week by Amnesty International on young people ages 13-24 found “a staggering 74% of respondents report checking their social media accounts more than they would like to. Respondents bemoaned the ‘addictive’ lure of the constant stream of updates and personalized recommendations, often feeling ‘overstimulated’ and ‘distracted.’”³⁸

Problematic internet use, in turn, is linked to a host of additional problems. For example, one study of 564 children between the ages of 7 and 15 found that problematic internet use was positively associated with depressive disorders, Attention Deficit Hyperactivity Disorder, general impairment, and increased sleep disturbances.³⁹ A meta-analysis of peer-reviewed studies involving cognitive findings associated with problematic internet use in both adults and adolescents found “firm evidence that [problematic internet use]. . . is associated with cognitive impairments in motor inhibitory control, working memory, Stroop attentional inhibition and decision-making.”⁴⁰ Another study of over 11,000 European adolescents found that among teens exhibiting problematic internet use, 33.5% reported moderate to severe depression; 22.2% reported self-injurious behaviors such as cutting; and 42.3% reported suicidal ideation.⁴¹ The rate of attempted suicides was a staggering ten times higher for teens exhibiting problematic internet use than their peers who exhibited healthy internet use.⁴²

Harm to physical health

Maximizing minors’ time spent online at the expense of sleep or movement also harms their physical health. When minors are driven to spend more time online, they sleep less for a variety of reasons – because it is impossible to be online and sleep at the same time, because stimulation before bedtime disrupts sleep patterns, and because many of the design features used by online platforms make users feel pressured to be connected constantly, and that feeling often doesn’t go away at bedtime. Research shows that minors who exhibit problematic

³⁶ Common Sense, *Dealing with Devices: Parents*, 10-11, (2016), https://www.common sense media.org/sites/default/files/research/report/common sense_dealingwithdevices-topline_release.pdf.

³⁷ Emily A. Vogels et al., *Teens, Social Media and Technology 2022*, Pew Research Center (Aug. 10, 2022), <https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022>.

³⁸ Amnesty International, “*We are totally exposed*”: *Young people share concerns about social media’s impact on privacy and mental health in global survey* (Feb. 7, 2023) <https://www.amnesty.org/en/latest/news/2023/02/children-young-people-social-media-survey-2/>.

³⁹ Restrepo et al., *Problematic Internet Use in Children and Adolescents: Associations with Psychiatric Disorders and Impairment*, 20 BMC Psychiatry 252 (2020), <https://doi.org/10.1186/s12888-020-02640-x>.

⁴⁰ Konstantinos Ioannidis et al., *Cognitive Deficits in Problematic Internet Use: Meta-Analysis of 40 Studies*, 215 British Journal of Psychiatry 639, 645 (2019), <https://pubmed.ncbi.nlm.nih.gov/30784392/>.

⁴¹ Michael Kaess et al., *Pathological Internet use among European adolescents: psychopathology and self-destructive behaviours*, 23 Eur. Child & Adolescent Psychiatry 1093, 1096 (2014), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4229646/>.

⁴² *Id.*

internet use often suffer from sleep problems.⁴³ One-third of teens report waking up and checking their phones for something other than the time at least once per night.⁴⁴ Some teens set alarms in the middle of the night to remind them to check their notifications or complete video game tasks that are only available for a limited time.⁴⁵

These behaviors in turn create new risks for young people. Screen time before bed is associated with lower academic performance.⁴⁶ Teenagers who use social media for more than five hours per day are about 70% more likely to stay up late on school nights.⁴⁷ A lack of sleep in teenagers has been linked to inability to concentrate, poor grades, drowsy-driving incidents, anxiety, depression, thoughts of suicide, and even suicide attempts.⁴⁸

A large body of research demonstrates that more time online displaces physical activity⁴⁹ and is consistently correlated with minors' risk of obesity, which in turn increases their risk of serious illnesses like diabetes, high blood pressure, heart disease, and depression.⁵⁰ Further, when minors spend more time online, they are exposed to more advertisements for unhealthy food and beverages,⁵¹ which are heavily targeted toward minors⁵² and disproportionately marketed to Black and Hispanic youth.⁵³ In addition, poor sleep quality—which, as discussed above, is associated with problematic internet use—increases the risk of childhood obesity by 20%.⁵⁴

⁴³ Anita Restrepo, Tohar Scheininger, et al., *Problematic Internet Use in Children and Adolescents: Associations with Psychiatric Disorders and Impairment*, 20 BMC Psychiatry 252 (2020), <https://doi.org/10.1186/s12888-020-02640-x>.

⁴⁴ Common Sense, *Screens and Sleep: The New Normal: Parents, Teens, Screens, and Sleep in the United States* at 7 (2019), <https://www.common SenseMedia.org/sites/default/files/research/report/2019-new-normal-parents-teens-screens-and-sleep-united-states-report.pdf>.

⁴⁵ Emily Weinstein & Carrie James, *Behind Their Screens: What Teens Are Facing (And Adults Are Missing)*, MIT Press, at 38 (2022).

⁴⁶ Chloe Wilkinson et al., *Screen Time: The Effects on Children's Emotional, Social, and Cognitive Development* at 4 (2021), <https://informedfutures.org/wp-content/uploads/Screen-time-The-effects-on-childrens-emotional-social-cognitive-development.pdf>.

⁴⁷ *Heavy Social Media Use Linked to Poor Sleep*, BBC News (Oct. 23, 2019), <https://www.bbc.com/news/health-50140111>.

⁴⁸ *Among teens, sleep deprivation an epidemic*, Stanford News Ctr. (Oct. 8, 2015), <https://med.stanford.edu/news/all-news/2015/10/among-teens-sleep-deprivation-an-epidemic.html>.

⁴⁹ E de Jong et al., *Association Between TV Viewing, Computer Use and Overweight, Determinants and Competing Activities of Screen Time in 4- to 13-Year-Old Children*, 37 Int'l J. Obesity 47, 52 (2013), <https://pubmed.ncbi.nlm.nih.gov/22158265/>.

⁵⁰ Jeff Chester, Kathryn C. Montgomery, et al., *Big Food, Big Tech, and the Global Childhood Obesity Pandemic* at 3 (2021), https://www.democraticmedia.org/sites/default/files/field/public-files/2021/full_report.pdf.

⁵¹ *Id.*

⁵² Jeff Chester, Kathryn C. Montgomery, et al., *Big Food, Big Tech, and the Global Childhood Obesity Pandemic* at 3 (2021), https://www.democraticmedia.org/sites/default/files/field/public-files/2021/full_report.pdf.

⁵³ University of Connecticut Rudd Center for Food Policy & Health et. al., *Targeted Food and Beverage Advertising to Black and Hispanic Consumers: 2022 Update*, (Nov. 2022), <https://uconnruddcenter.org/wp-content/uploads/sites/2909/2022/11/TargetedMarketing2022-Executive-Summary.pdf>.

⁵⁴ Yanhui Wu et al., *Short Sleep Duration and Obesity Among Children: A Systematic Review and Meta-Analysis of Prospective Studies*, 11 Obesity Rsch. & Clinical Prac. 140, 148 (2015), <https://pubmed.ncbi.nlm.nih.gov/27269366/>; Michelle A. Miller et al., *Sleep Duration and Incidence of Obesity in Infants, Children, and Adolescents: A Systematic Review and Meta-Analysis of Prospective Studies*, 41 Sleep 1, 15 (2018), <https://pubmed.ncbi.nlm.nih.gov/29401314/>.

Harms to Safety

The pressure to spend more time on digital media platforms and maximize interactions with other users also puts children at risk of predation. Twenty-five percent of 9-to-17-year-olds report having had an online sexually explicit interaction with someone they believed to be an adult.⁵⁵ In 2020, 17% of minors – including 14% of 9-12-year-olds – reported having shared a nude photo or video of themselves online. Of these children and teens, 50% reported having shared a nude photo or video with someone they had not met in real life, and 41% reported sharing with someone over the age of 18.⁵⁶

Design features that maximize engagement also increase young people’s risk of cyberbullying. A 2022 survey by the Pew Research Center found that nearly 50% of teens reported being cyberbullied.⁵⁷ Sexual minority and gender expansive youth report being exposed to anonymous forms of cyberbullying more than their heterosexual and cisgender counterparts.⁵⁸ Cyberbullying is linked to increased risky behaviors such as smoking and increased risk of suicidal ideation.⁵⁹

It’s worth noting that these serious threats to children’s safety aren’t limited to social media. The FTC’s recent settlement with Epic Games documented how the default text and voice chat settings on Fortnite led children and teens to communicate with strangers, including adults. As a result, children were subject to harassment, bullying, and predation while playing the wildly popular game.⁶⁰

IV. The platforms where children spend the majority of their time online are designed to maximize engagement, often at the expense of children’s wellbeing and safety.

Digital platforms are designed to maximize engagement. The longer a user is on a platform and the more they do on the platform, the more data the user generates. Tech companies and their marketing partners use this valuable data to target users with advertising.⁶¹ Gaming app companies employ teams of experts who specialize in user acquisition and retention.⁶² The

⁵⁵ Thorn. “Responding to Online Threats: Minors’ Perspectives on Disclosing, Reporting, and Blocking.” (May 2021), https://info.thorn.org/hubfs/Research/Responding%20to%20Online%20Threats_2021-Full-Report.pdf.

⁵⁶ Thorn. “Understanding sexually explicit images, self-produced by children.” (9 Dec. 2020), <https://www.thorn.org/blog/thorn-research-understanding-sexually-explicit-images-self-produced-by-children/>.

⁵⁷ Emily A. Vogels et. al., *Teens and Cyberbullying 2022*, Pew Research Center, (Dec. 2022), <https://www.pewresearch.org/internet/2022/12/15/teens-and-cyberbullying-2022/>.

⁵⁸ Bauman, S., & Baldasare, A., *Cyber aggression among college students: Demographic differences, predictors of distress, and the role of the university*, 56 *Journal of College Student Development* 317 (2015), <https://doi.org/10.1353/csd.2015.0039>.

⁵⁹ van Geel M, Vedder P, Tanilon J. *Relationship Between Peer Victimization, Cyberbullying, and Suicide in Children and Adolescents: A Meta-analysis*, *JAMA Pediatr.* 2014;168(5):435–442. doi:10.1001/jamapediatrics.2013.4143 <https://jamanetwork.com/journals/jamapediatrics/fullarticle/1840250>.

⁶⁰ Case 5:22-cv-00518-BO, *Epic Games: Complaint for Permanent Injunction*, (Dec. 19, 2022), https://www.ftc.gov/system/files/ftc_gov/pdf/2223087EpicGamesComplaint.pdf.

⁶¹ See generally 5Rights Foundation. “Pathways: How digital design puts children at risk.” (July 2021), <https://5rightsfoundation.com/uploads/Pathways-how-digital-design-puts-children-at-risk.pdf>.

⁶² See, e.g., *Leading User Acquisition in the quickly growing mobile games industry: Get to know Winnie Wen of Jam City*, *Jam City* (Nov. 15, 2021), <https://www.jamcity.com/leading-user-acquisition-in-the-quickly-growing-mobile->

major social media platforms – including Facebook, Instagram, YouTube, and TikTok – have both in-house and external research initiatives focused on documenting and improving engagement, as well as utilizing neuromarketing and virtual reality techniques to measure effectiveness.⁶³

Engagement-maximizing design features prey upon minors’ developmental vulnerabilities and can lead to significant harm. These features create risk for children because they can lead to problematic internet use and the associated harm. In addition, many of the techniques used to extend engagement create new risks and harms in their own right. They include: social manipulation design features; variable reward design features; and algorithmic content recommendation systems.

Social manipulation design features

Social manipulation design features leverage a minor’s desire for social relationships to encourage users to spend more time and/or perform more activities on a website or service. These features are the hallmarks of social media platforms: follower, view, and like counts; interaction streaks; displays of the names of users who have commented, viewed, or liked a piece of content; and prompts that encourage a user to share with a larger audience by adding suggested new friends or making their account or posts public.

Younger adolescents have specific developmental needs for social connectedness and are particularly attuned to social validation.⁶⁴ Children develop a need to fit in with their peers around age 6⁶⁵ and the need to be noticed and admired by others around age ten.⁶⁶ Social

[games-industry-get-to-know-winnie-wen-of-jam-city/](#); *Mediation that supports everything your app business needs to scale*, ironSource, <https://www.is.com/mediation/>; Mihovil Grguric, *15 Key Mobile Game Metrics That Developers MUST Track*, udonis (Sept. 20, 2022), <https://www.blog.udonis.co/mobile-marketing/mobile-games/key-mobile-game-metrics>.

⁶³ See, e.g., Meta Careers, *Shape the Future of Marketing with the Marketing Science Team*, Meta (Sept. 19, 2018), <https://www.metacareers.com/life/come-build-with-the-facebook-marketing-science-team/>; Bob Arnold & Anton Miller, *How Google’s Media Lab Boosts YouTube Ad Results*, AdAge (May 14, 2021), <https://adage.com/article/google/how-googles-media-lab-boosts-youtube-ad-results/2335796>; *TikTok Insights*, TikTok for Business (2022), <https://www.tiktok.com/business/en-US/insights>; *TikTok Ads Break Through Better than TV and Drive Greater Audience Engagement*, TikTok for Business, <https://www.tiktok.com/business/library/TikTokDrivesGreaterAudienceEngagement.pdf>; *How Virtual Reality Facilitates Social Connection*, Meta, <https://www.facebook.com/business/news/insights/how-virtual-reality-facilitates-social-connection>.

⁶⁴ Nicholas D. Santer et al., *Early Adolescents’ Perspectives on Digital Privacy*, Algorithmic Rights and Protections for Children (2021) at 6, 30.

⁶⁵ In particular, between the ages of six and nine, children start to feel the need to fit in to peer social groups. See Jun Zhao et al., *‘I Make Up a Silly Name’: Understanding Children’s Perception of Privacy Risks Online*, CHI Conference on Human Factors in Computing Systems Proceedings (May 2, 2019), <https://doi.org/10.1145/3290605.3300336>.

⁶⁶ Zara Abrams, *Why Young Brains Are Especially Vulnerable to Social Media*, APA (Feb. 3, 2022), <https://www.apa.org/news/apa/2022/social-media-children-teens> (“Starting around age 10, children’s brains undergo a fundamental shift that spurs them to seek social rewards, including attention and approval from their peers.”).

acceptance evokes activation in the brain's reward center.⁶⁷ Further, minors' prefrontal cortex, which helps regulate responses to social rewards, is not as mature as adults'.⁶⁸ These factors all converge to create a feedback loop in which, because minors crave this social reinforcement, they seek it out, and ultimately are unequipped with the tools to protect themselves against the allure of "rewards" that these manipulative design features purportedly promise.

Social manipulation design features also exploit young people's tendency for social comparison and recreate, on a 24/7 basis, the high school cafeteria experience where everyone can instantly see who is popular and who is not. Features such as like and follower counts and comment displays induce anxiety in minors that they or their content may not be as popular as that of their peers. In the words of one high school student, "[I]f you get a lot of likes, then 'Yay,' you look relevant, but then if you don't get a lot of likes and/or views, it can completely crush one's confidence. Especially knowing that you're not the only one who's able to see it."⁶⁹ Snapchat streaks literally quantify the strength of users' relationships and create pressure on users to communicate with their friends on the app daily.⁷⁰ Teens report feeling obligated to maintain Snapstreaks to "feel more popular" and show that they "care about that person."⁷¹

Ultimately, these design features create strong incentives for young people to engage in potentially harmful behaviors. Their drive for social rewards "lead[s] to greater relinquishing of security in certain arenas to gain social validation and belonging, for example, disclosing publicly to participate in online communities and accrue large amounts of likes, comments, and followers."⁷² Young users quickly learn that they can improve their social media metrics by posting frequently and posting particularly provocative or risqué content.⁷³ Such posts can increase the risk of cyberbullying and sexual exploitation. In addition, the pressure to

⁶⁷ Eveline Crone & Elly A. Konijn, *Media Use and Brain Development During Adolescence*, 9 *Nature Comm.* 1, 4 (2018), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5821838/>.

⁶⁸ For example, adults "tend to have a fixed sense of self that relies less on feedback from peers" and "adults have a more mature prefrontal cortex, an area that can help regulate emotional responses to social rewards." Zara Abrams, *Why Young Brains Are Especially Vulnerable to Social Media*, APA (Feb. 3, 2022), <https://www.apa.org/news/apa/2022/social-media-children-teens>.

⁶⁹ Katie Joseff, *Social Media Is Doing More Harm than Good*, Common Sense Media (Dec. 17, 2021), <https://www.commonsensemedia.org/kids-action/articles/social-media-is-doing-more-harm-than-good>.

⁷⁰ Taylor Lorenz, *Teens Explain the World of Snapchat's Addictive Streaks, Where Friendships Live or Die*, Insider (Apr. 14, 2017, 1:58 PM), <https://www.insider.com/teens-explain-snapchat-streaks-why-theyre-so-addictive-and-important-to-friendships-2017-4>; Lori Janjigian, *What I Learned After Taking Over My 13-Year-Old Sister's Snapchat for Two Weeks*, Business Insider (Aug. 4, 2016, 11:53 AM), <https://www.businessinsider.com/how-teens-are-using-snapchat-in-2016>.

⁷¹ *Id.*

⁷² Nicholas D. Santer et al., *Early Adolescents' Perspectives on Digital Privacy, Algorithmic Rights and Protections for Children* (2021) at 6 (citing J.C. Yau & S. M. Reich, "It's Just a Lot of Work": Adolescents' Self-Presentation Norms and Practices on Facebook and Instagram, 29 *J. Res. on Adolescence* 196, 196-209 (2019)).

⁷³ For example, Adolescent girls report feeling pressure to post sexualized selfies as a means of generating attention and social acceptance from their peers. Macheroni, G., Vincent, J., Jimenez, E. 'Girls Are Addicted to Likes so They Post Semi-Naked Selfies': Peer Mediation, Normativity and the Construction of Identity Online, 9 *Cyberpsychology: Journal of Psychosocial Research on Cyberspace* (May 1, 2015), <https://doi.org/10.5817/CP2015-1-5>.

demonstrate popularity through high friend, follower, and like counts can lead children to accept friend requests from strangers, putting them at risk of predation.

Variable reward design features

One objective of persuasive design is to reduce friction so that platforms are easier to use, and so young people will keep using them. Low-friction variable rewards are highly effective at maximizing the amount of time users spend on the service. The psychology that renders these features effective is based on research that predates the internet by many years, beginning with experiments by renowned psychologist B.F. Skinner in the early 20th century.⁷⁴ Research by Skinner and others revealed that when test subjects – both humans and other animals – are rewarded unpredictably for a given action, they will engage in the action for a longer period of time than if the reward is predictable.⁷⁵ Specifically, the brain generates more dopamine in response to an uncertain reward than in response to an expected and reliable one.⁷⁶ The tendency of variable rewards to drive compulsive behavior is sometimes referred to as the “Vegas Effect,” and is the primary mechanism at work in slot machines.⁷⁷ In the words of Nir Eyal, a consumer psychology expert who wrote the popular industry how-to *Hooked: How to Build Habit-Forming Products*, “[v]ariable schedules of reward are one of the most powerful tools that companies use to hook users.”⁷⁸

One common example of variable rewards design features is the infinite or endless scroll mechanism with variable content. When a platform uses endless scroll, a user is continuously fed new pieces of content as they scroll down a feed or page, and they never know what might appear next. Harvard researchers Emily Weinstein and Carrie James explain in their recent book on teens and technology: “Apps like TikTok have an endless database of content to offer users. Some videos are pointless or boring or upsetting; others give a fleeting reward in the form of funny, relatable, or compelling content.”⁷⁹ The pursuit of the next “rewarding” piece of content keeps users scrolling. As one 16-year-old told Weinstein and James, Snapchat is “so addictive because it’s so easy to go on to the next thing.... And you never know what amazing thing could be on the next Story, and all you have to do is tap once and you get to the next thing.”⁸⁰

⁷⁴ J. E. Staddon & D. T. Cerutti, *Operant Conditioning*, 54 Annual Review of Psychology 115 (2003), <https://doi.org/10.1146/annurev.psych.54.101601.145124>; B. F. Skinner, *Two Types of Conditioned Reflex: A Reply to Konorski and Miller*, 16 J. Gen. Psychology, 272 (1937), <https://doi.org/10.1080/00221309.1937.9917951>.

⁷⁵ Laura MacPherson, *A Deep Dive into Variable Designs and How to Use Them*, DesignLi (Nov. 8, 2018), <https://designli.co/blog/a-deep-dive-on-variable-rewards-and-how-to-use-them/>; Mike Brooks, *The “Vegas Effect” of Our Screens*, Psychol. Today (Jan. 4, 2019), <https://www.psychologytoday.com/us/blog/tech-happy-life/201901/the-vegas-effect-our-screens>.

⁷⁶ Anna Hartford & Dan J. Stein, *Attentional Harms and Digital Inequalities*, 9 JMIR Mental Health 2, 3 (Feb. 11, 2022), <https://pubmed.ncbi.nlm.nih.gov/35147504/>.

⁷⁷ Mike Brooks, *The “Vegas Effect” of Our Screens*, Psychol. Today (Jan. 4, 2019), <https://www.psychologytoday.com/us/blog/tech-happy-life/201901/the-vegas-effect-our-screens>.

⁷⁸ Nir Eyal, *The Hook Model: How to Manufacture Desire in 4 Steps*, Nir and Far, <https://www.nirandfar.com/how-to-manufacture-desire/>.

⁷⁹ Emily Weinstein & Carrie James, *Behind Their Screens: What Teens Are Facing (And Adults Are Missing)*, MIT Press, at 33 (2022); see also GCFGlobal.org, *Digital Media Literacy: Why We Can’t Stop Scrolling*, <https://edu.gcfglobal.org/en/digital-media-literacy/why-we-cant-stop-scrolling/1/>.

⁸⁰ *Id.* at 34.

All popular social media platforms, including those used heavily by minors such as TikTok, Snapchat, Instagram, and Facebook, feature endless scroll feeds strategically designed to intermittently surface content that users are algorithmically predicted to engage with. An internal TikTok document said that the app maximizes for two metrics: user retention and time spent.⁸¹ Similarly, a product manager for YouTube’s recommendation system explained that the platform’s recommendation algorithm “is designed to do two things: match users with videos they’re most likely to watch and enjoy, and . . . recommend videos that make them happy. . . . [S]o our viewers keep coming back to YouTube, because they know that they’ll find videos that they like there.”⁸² And Adam Mosseri of Instagram said, “[W]e make a set of predictions. These are educated guesses at how likely you are to interact with a post in different ways.... The more likely you are to take an action, and the more heavily we weigh that action, the higher up you’ll see the post.”⁸³

Tech companies know that variable rewards are a valuable tool to increase users’ activity and time spent online and ultimately, to maximize profits. But they are similarly aware of the risks associated with these types of rewards. For example, in 2020, responding to internal research indicating that teen users had difficulty controlling their use of Facebook and Instagram, a Meta employee wrote to a colleague: “I worry that the driving [users to engage in more frequent] sessions incentivizes us to make our product more addictive, without providing much more value... Intermittent rewards are the most effective (think slot machines), reinforcing behaviors that become especially hard to extinguish.”⁸⁴ Ultimately, these sophisticated variable reward techniques prey upon minors’ developmental sensitivity to rewards.

Algorithmic content recommendation systems

Algorithms designed to maximize engagement fill young people’s feeds with the content that is most likely to keep them online, even when that means exposing them to a post, image, or video that is dangerous or abusive. Platforms such as YouTube, TikTok, and Instagram serve users content based on automated suggestions. Algorithms choose which content to suggest to children and teens based on the vast amount of data they collect on users, such as likes, shares, comments, interests, geolocation, and information about the videos a user watches and for how long. As described above, these algorithms are designed to extend engagement by discerning which pieces of content a user is most likely to engage with – not whether the content or overall online experience is beneficial to the user.⁸⁵

⁸¹ Ben Smith, *How TikTok Reads Your Mind*, New York Times, (Dec. 5, 2021), <https://www.nytimes.com/2021/12/05/business/media/tiktok-algorithm.html>.

⁸² Creator Insider, *Behind the Algorithms - How Search and Discovery Works on YouTube*, YouTube (Apr. 16, 2021), <https://youtu.be/9Fn79qJa2Fc>.

⁸³ Adam Mosseri, *Shedding More Light on How Instagram Works*, Instagram (June 8, 2021), <https://about.instagram.com/blog/announcements/shedding-more-light-on-how-instagram-works>.

⁸⁴ *Spence v. Meta Platforms*, N.D. Cal. Case No. 3:22-cv-03294 at 82 (June 6, 2022) (citing Facebook Papers: “Teen Girls Body Image and Social Comparison on Instagram – An Exploratory Study in the US” (March 2020), at p. 8).

⁸⁵ A former YouTube engineer observed: “recommendations are designed to optimize watch time, there is no reason that it shows content that is actually good for kids. It might sometimes, but if it does, it is coincidence.” Orphanides, K.G. “Children’s YouTube is still churning out blood, suicide and cannibalism.” *Wired*, (March 23, 2018), <https://www.wired.co.uk/article/youtube-for-kids-videos-problems-algorithm-recommend>

Algorithmic recommendations can be particularly dangerous when they target children and teens' greatest vulnerabilities. Investigations have repeatedly demonstrated the way social media feeds deliver harmful mental health and eating disorder content to accounts registered to minors. A December 2022 report by the Center for Countering Digital Hate (CCDH) found that newly created TikTok accounts registered to teenagers that watched or liked videos about body image, mental health, or eating disorders received videos in their For You feed related to self-harm, suicide, or eating disorders within minutes.⁸⁶ These videos appeared on the accounts' For You feeds every 206 seconds on average. CCDH also studied the For You feeds of newly created TikTok accounts registered to teenagers that included the phrase "loseweight" in their usernames. Those accounts received videos about self-harm, suicide, or eating disorders in their For You feeds every 66 seconds on average.⁸⁷

Other reports have made similar findings: A 2021 *Wall Street Journal* investigation documented how TikTok users were served videos that encouraged eating disorders and discussed suicide.⁸⁸ The same year, Senator Richard Blumenthal's office created an account for a fake 13-year-old girl that "liked" content about dieting, and the account was served pro-eating disorder and self-harm content within 24 hours.⁸⁹ Young users' engagement with this harmful content is valuable to tech companies: Our 2022 report detailed how Meta profits from 90,000 unique pro-eating disorder accounts that reach 20 million people, one-third of whom are minors, some as young as nine.⁹⁰

Content recommendation algorithms also expose minors to videos of dangerous viral "challenges," which has tragically led to the serious injury and death of many young people. For example, media reports have documented how "the blackout challenge" on TikTok, in which young people hold their breath or choke themselves until they pass out, is responsible for the deaths of several children.⁹¹ Many families say that their children learned about the challenge through recommended videos on their For You feeds.⁹²

V. Apps, websites, and platforms target children with unfair surveillance advertising and influencer marketing techniques.

⁸⁶ Center for Countering Digital Hate, *Deadly by Design: Tik Tok Pushes Harmful Content Promoting Eating Disorders and Self-harm into users' feeds*, (Dec. 15, 2022), <https://counterhate.com/research/deadly-by-design/>

⁸⁷ *Id.*

⁸⁸ Wall Street Journal Staff, *Inside TikTok's Algorithm: A WSJ Video Investigation*, Wall Street Journal, (July 21, 2021), <https://www.wsj.com/articles/tiktok-algorithm-video-investigation-11626877477>.

⁸⁹ Nihal Krishan, *Senate office impersonates 13-year-old girl on Instagram to flag eating disorder content*, Yahoo News, (Sep. 30 2021), <https://www.yahoo.com/entertainment/senate-office-impersonates-13-old-212700515.html>.

⁹⁰ Fairplay, *Designing for Disorder: Instagram's Pro-eating Disorder Bubble* at 1 (Apr. 2022), https://fairplayforkids.org/wp-content/uploads/2022/04/designing_for_disorder.pdf.

⁹¹ Olivia Carville, *TikTok's Viral Challenges Keep Luring Young Kids to Their Deaths*, Bloomberg, (Nov. 30, 2022), <https://www.bloomberg.com/news/features/2022-11-30/is-tiktok-responsible-if-kids-die-doing-dangerous-viral-challenges>; Anne Marie Lee, *Child deaths blamed on TikTok 'blackout challenge' spark outcry*, CBS News, (Aug. 19, 2021), <https://www.cbsnews.com/news/tik-tok-blackout-challenge-child-deaths/>.

⁹² Michael Levenson and April Rubin, *Parents Sue TikTok, Saying Children Died After Viewing 'Blackout Challenge'*, New York Times, (July 6, 2022), <https://www.nytimes.com/2022/07/06/technology/tiktok-blackout-challenge-deaths.html>.

Digital platforms also harm children and teens through unfair digital advertising practices, including surveillance advertising and influencer marketing. These techniques make it harder for young people to recognize content as advertising designed to influence their behaviors and defend themselves against it, rendering them vulnerable to the influence of corporate actors that can collect and utilize data to target them with precision.

Children face pervasive and inappropriate advertising from a young age: According to one study, more than 95% of early childhood videos on YouTube contain ads, and one in five videos viewed by children 8 and under contained ads that were not age-appropriate, such as ads that featured violent or sexualized content.⁹³ Researchers have also found a high rate of age-inappropriate advertisements on preschool apps⁹⁴ and have found that the educational potential of children's apps is severely degraded by the high number of disruptive ads that appear, particularly on free apps that are more likely to be used by low-income children.⁹⁵

Surveillance advertising

Surveillance advertising – targeted advertising using personal data collected by websites and platforms – is the dominant form of marketing online. Programmatic data-driven advertising accounted for 90% of display ads in the U.S. last year.⁹⁶ This pervasive form of advertising draws on massive amounts of data about young people. By some estimates, advertisers already possess over 13 million data points about a child by the time they turn 13, despite the fact that the Children's Online Privacy Protection Act (COPPA) requires parental permission before sharing the personal information of children 12 and under with advertisers.⁹⁷ These data are drawn from countless daily activities, including web surfing, interacting with friends on social media, and recording messages and exchanging images and other communications on computers, phones, and tablets.⁹⁸ Smart home technologies allow companies to collect data on a young person's home life; extended reality (virtual, augmented, and mixed reality) devices can collect unique biometric data.

⁹³ Radesky, J. S., Schaller, A., Yeo, S. L., Weeks, H. M., & Robb, M.B. "Young kids and YouTube: How ads, toys, and games dominate viewing." *Common Sense Media*, (2020), https://d2e111jq13me73.cloudfront.net/sites/default/files/uploads/research/2020_youngkidsyoutube-report_final-release_forweb.pdf.

⁹⁴ Meyer M, Adkins V, Yuan N, Weeks HM, Chang YJ, Radesky J. "Advertising in Young Children's Apps: A Content Analysis." *J Dev Behav Pediatr*, (Jan. 2019), <https://pubmed.ncbi.nlm.nih.gov/30371646/>.

⁹⁵ Meyer, M., Zosh, J.M., McLaren, C., Robb, M., McCaffery, H., Golinkoff, R.M., Hirsh-Pasek, K., & Radesky, J. "How educational are "educational" apps for young children? App store content analysis using the Four Pillars of Learning framework." *Journal of Children and Media*, (2021), <https://www.tandfonline.com/doi/abs/10.1080/17482798.2021.1882516?journalCode=rchm20>.

⁹⁶ Meaghan Yuen, *Programmatic Digital Display Advertising in 2022: Ad Spend, Formats, and Forecast*, Insider Intelligence (May 23, 2022), <https://www.insiderintelligence.com/insights/programmatic-digital-display-ad-spending/>.

⁹⁷ *SuperAwesome Launches Kid-Safe Filter to Prevent Online Ads from Stealing Children's Personal Data*, SuperAwesome (Dec. 6, 2018), <https://www.superawesome.com/superawesome-launches-kid-safe-filter-to-prevent-online-ads-from-stealing-childrens-personal-data/>.

⁹⁸ Wolfie Christl, *Corporate Surveillance in Everyday Life: How Companies Collect, Combine, Analyze, Trade, and Use Personal Data on Billions*, Cracked Labs (June 2017), https://crackedlabs.org/dl/CrackedLabs_Christl_CorporateSurveillance.pdf.

Kids and teens cannot appreciate the depth and breadth of these data collection systems, nor the way they are used to target them with precision. Younger children largely think about privacy in interpersonal terms, such as the ability to be left alone and control access to physical places.⁹⁹ As children get older, they may start to think about privacy in terms of freedom from surveillance at school or by the government, but they do not think about privacy in the sense that companies might use information about them to influence their purchasing choices, for example.¹⁰⁰

Ultimately, surveillance ads are inherently unfair when targeted to children. As Fairplay, Global Action Plan, and Reset Australia described in a report about Facebook:

On the one side is a child, poorly equipped to distinguish between advertising and information, especially within digital contexts. On the other, Facebook with its vast troves of data about the child, including but not limited to their browsing history, mood, insecurities, their peers' interests, and more. This power imbalance makes surveillance advertising inherently more manipulative than contextual digital advertising, let alone traditional analogue advertising.¹⁰¹

As with algorithmically recommended content, surveillance ads can be used to target and exacerbate young people's vulnerabilities. Leaked documents from Facebook revealed in 2017 that the company told advertisers it could help them target teens at moments when they are feeling specific emotions, such as "silly," "defeated," "overwhelmed," "useless" and "a failure."¹⁰² Facebook Australia told advertisers it could specify when teens are likely to experience certain moods, sharing that "earlier in the week, teens post more about 'anticipatory emotions' and 'building confidence,' while weekend teen posts contain more 'reflective emotions' and 'achievement broadcasting.'"¹⁰³

This capability allows marketers to target vulnerable young people with ads for harmful products. Ads for risky "Flat Tummy Teas" and dangerous exercise routines target young women on Instagram. Early digital marketing campaigns for Juul vaping products were deliberately targeted at young audiences.¹⁰⁴ Researchers were able to target ads to teenagers

⁹⁹ Kaiwen Sun et al., *They See You're a Girl if You Pick a Pink Robot with a Skirt: A Qualitative Study of How Children Conceptualize Data Processing and Digital Privacy Risks*, CHI Conference on Human Factors in Computing Systems (May 2021), <https://dblp.org/rec/conf/chi/SunSASGRS21>; Priya Kumar et al., *No Telling Passcodes Out Because They're Private: Understanding Children's Mental Models of Privacy and Security Online*, 1 Proceedings of the ACM on Human-Computer Interaction 64, (Nov. 2017), <https://pearl.umd.edu/wp-content/uploads/2017/08/kumar-et-al-2018-CSCW-Online-First.pdf>.

¹⁰⁰ Mariya Stoilova et al., *Digital by Default: Children's Capacity to Understand and Manage Online Data and Privacy*, 8 Media and Comm'n 197, 200, (2020), <http://dx.doi.org/10.17645/mac.v8i4.3407>.

¹⁰¹ Yi-ching Ho, E., Farthing, R., *How Facebook still targets surveillance ads to teens*, Reset Australia, Fairplay, and Global Action Plan (Nov. 2021), <https://fairplayforkids.org/wp-content/uploads/2021/11/fbsurveillancereport.pdf>.

¹⁰² Sam Machkovech, *Report: Facebook Helped Advertisers Target Teens Who Feel "Worthless"*, ArsTechnica (May 1, 2017), <https://arstechnica.com/information-technology/2017/05/facebook-helpedadvertisers-target-teens-who-feel-worthless/>.

¹⁰³ *Id.*

¹⁰⁴ Jidong Huang et al., *Vaping versus JUULing: how the extraordinary growth and marketing of JUUL transformed the US retail e-cigarette market*, 28 Tobacco Control 146, 150 (Feb. 22, 2019), <https://doi.org/10.1136%2Ftobaccocontrol-2018-054382> ("JUUL was one of the first major retail e-cigarette

on Facebook based on their interests in gambling, alcohol, and dieting.¹⁰⁵ While Meta announced in 2021 that they were restricting advertisers' ability to target teens based on their interests, this change was misleading, as the company's ad targeting algorithm still used the data it collected on young people to determine who is most likely to be vulnerable to a given ad.¹⁰⁶

Even in cases where the products aren't as harmful as alcohol or dieting aids, surveillance advertising exploits children. As Common Sense notes, "Kids may be profiled as gamers, impulsive purchasers, or anxious overshareers – and then unfairly targeted by ads that encourage more of these things."¹⁰⁷

Influencer marketing

Product placement and host-selling are not permitted on children's television, where regulations require clear separation between content that is advertising and content that is not. The online marketing ecosystem does not have similar rules, and as a result, advertising and entertainment and informational content are deeply intertwined.

One of the ways that marketers reach kids and teens online is by advertising products through influencers and trusted fictional characters. This method of advertising is highly appealing to marketers because it is seen as more "authentic" and it capitalizes on the relationships that kids and teens form with the characters and media figures they see online. This advertising sector is huge and getting bigger. Market research shows that influencer marketing is currently growing by billions of dollars annually.¹⁰⁸ Influencer marketing reaches even the youngest kids online: "kidfluencers" on YouTube receive millions of views on videos of themselves unboxing and showing off new toys from brands and marketers.

Research demonstrates that influencer marketing overcomes children and teenagers' nascent cognitive ability to understand and defend themselves against advertising. For example, young people identify closely with these media characters and figures and develop feelings or

brands that relied heavily on social media to market and promote its products."); Julia Cen Chen-Sankey et al., E-cigarette Marketing Exposure and Subsequent Experimentation Among Youth and Young Adults, 144 *Pediatrics* at 8 (Nov. 2019), <https://doi.org/10.1542/peds.2019-1119>; see also Erik Larson et al., *Juul Reaches \$439 Million Settlement Over Marketing to Kids*, Bloomberg Law, (Sept. 6, 2022), <https://news.bloomberglaw.com/health-law-and-business/juul-reaches-439-million-multi-state-settlement-over-marketing>.

¹⁰⁵ Farthing, Rys, et al., *Profiling Children for Advertising: Facebook's Monetisation of Young People's Personal Data*, Reset Australia, (April 2021), https://au.reset.tech/uploads/resettechaustralia_profiling-children-for-advertising-1.pdf.

¹⁰⁶ *Id.* In February 2023, Meta announced yet another change to its ad targeting for teens and now claims it will not use teens interests or online activities at all for the targeting of ads to minors. As of this writing, Fairplay has not had the opportunity to verify this claim.

¹⁰⁷ Joseph Jerome and Ariel Fox Johnson, *AdTech and Kids: Behavioral Ads Need a Time-Out*, Common Sense, (2021), <https://d2e111jq13me73.cloudfront.net/sites/default/files/uploads/AdTech%20and%20Kids.pdf>.

¹⁰⁸ Traackr, *2022 Influencer Marketing Impact Report* at 2, (2022), <https://www.traackr.com/content/influencermarketing-impact-report-2022>; *State of Influencer Marketing 2022*, Influencer Marketing Hub at 10, (2022), https://influencermarketinghub.com/ebooks/Influencer_Marketing_Benchmark_Report_2022.pdf.

friendships known as parasocial relationships.¹⁰⁹ As a result of these relationships, kids and teens have difficulty responding to content from a beloved character or creator as an advertisement,¹¹⁰ and can therefore be unduly influenced by marketers. As Fairplay outlined in its comments to the Federal Trade Commission last year, the existing system of disclosures – even when it is followed – does very little to alert kids and teens to the massive amounts of advertising content they encounter online every day.¹¹¹

This form of stealth marketing negatively impacts kids and teens. Children who watch unboxing videos are more likely to nag their parents for products and throw a tantrum if the answer is “no” than when they watch regular commercials.¹¹² In internal Meta research leaked by Frances Haugen, teens specified that influencers and their materialistic, over-the-top “money for nothing” – or effortlessly rich – lifestyles triggered social comparisons and contributed to young people feeling bad about themselves. The research emphasized the cumulative effect of influencer marketing: “However, users report seeing multiple pieces of content from celebrities and influencers in each app session, multiplying their effect. In addition, their friends mimic celebrities’ beauty and fashion standards, further compounding the effects of one piece of content.”¹¹³

VI. Congress must take action to protect young people online.

When kids are in digital spaces for learning, socializing, and relaxing, they deserve the opportunity for the most positive experience, designed in a way that understands and supports their unique ways of seeing the world. They should be able to explore in developmentally-appropriate ways without being manipulated into spending more time or targeted by algorithms that amplify harmful content.

We cannot continue to hope that tech platforms will unilaterally disarm in the race for young people’s valuable attention. Nor can we expect young people to extract themselves from the

¹⁰⁹ Amanda N. Tolbert & Kristin L. Drogos, *Tweens’ Wishful Identification and Parasocial Relationships With YouTubers*, 10 *Frontiers In Psychology* 1, (2019), <https://www.frontiersin.org/articles/10.3389/fpsyg.2019.02781/full>; Frans Folkvord, K.E. Bevelander & Esther Rozendaal, et al., *Children’s bonding with popular YouTube vloggers and their attitudes toward brand and product endorsements in vlogs: an explorative study*, 20 *Young Consumers Insight And Ideas For Responsible Marketers* (2019), <https://doi.org/10.1108/YC-12-2018-0896>.

¹¹⁰ Emmelyn Croes & Jos Bartels, *Young adults’ motivations for following social influencers and their relationship to identification and buying behavior*, 125 *Computers In Human Behavior* at 7, (2021), <https://doi.org/10.1016/j.chb.2021.106910>; 4 Brigitte Naderer, Jörg Matthes & Stephanie Schäfer, Effects of disclosing ads on Instagram: the moderating impact of similarity to the influencer, 40 *International Journal of Advertising* 686, 687-88 (2021).

¹¹¹ See generally Comments of Fairplay, Alexander Neville Foundation, et al. in the Matter of Protecting Kids from Stealth Advertising in Digital Media (filed July 18, 2022), <https://fairplayforkids.org/wp-content/uploads/2022/07/influencer-comments.pdf>.

¹¹² Harsha Gangadharbatla & Deepti Khedekar, *The Role of Parental Mediation and Persuasion Knowledge in Children’s Consumption of Unboxing Videos*, 22 *Advertising & Society Quarterly* (2021), <https://muse.jhu.edu/article/813891>.

¹¹³ The Wall Street Journal, *Teen Girls Body Image and Social Comparison on Instagram – An Exploratory Study in the U.S.*, (Sep. 29, 2021) <https://s.wsj.net/public/resources/documents/teen-girls-body-image-and-social-comparison-on-instagram.pdf>.

exploitative platforms where their friends are, or expect overworked parents to navigate confusing settings across multiple platforms and monitor every moment their kids are online.

The last time Congress passed a law to protect children online was 25 years ago. The digital landscape has changed dramatically, in many unforeseen ways, since the passage of the Children's Online Privacy Protection Act in 1998 when smart phones, YouTube, social media, multiplayer gaming with voice chat, and virtual reality didn't even exist. In addition, COPPA only covers children until they turn 13 and has failed to effectively keep kids ages 12 and under off of platforms like Snapchat, Instagram and TikTok, leaving significant demographics vulnerable to exploitation and harm. Congress's continued inaction has emboldened Big Tech to develop an exploitative business model without considering or mitigating its harmful effects on children and teens. Consequently, the social media platforms that define youth culture and norms and shape children's values, behavior, and self-image were developed with little to no thought given to how young people might be negatively affected.

We cannot expect a 25-year-old framework to adequately protect children from today's sophisticated persuasive technologies powered by big data and machine learning or in the rapidly developing metaverse. We need new legislation that puts brakes on this harmful business model and curbs dangerous and unfair design practices.

At a minimum, such legislation should:

1. Extend privacy protections to teens. Currently, COPPA only covers children until their 13th birthday. It is critical to limit the collection of adolescents' data, which fuels harmful recommendations and puts young people at risk of privacy harms.
2. Ban targeted advertising to children and teens to protect them from harmful marketing targeted to their vulnerabilities. Surveillance ads not only take advantage of young people's developing capacities and sell them on harmful products, but they also incentivize tech platforms to prioritize engagement over safety.
3. Require tech companies to make the best interests of children and teens a primary consideration in the design and operation of their platforms, including their algorithms. It is important that such liability be broad enough to capture current harmful practices, such as quantified popularity, as well as emerging features and products. The latter is particularly important given the rapid development of metaverse applications targeted to young people.¹¹⁴ Companies should have a duty to prevent and mitigate harms to young people before new features or products are released.
4. Prohibit the use of dark patterns, which are used to undermine young people's autonomy and manipulate them into spending more time or money on a platform.
5. Impose transparency requirements, including access to algorithms, that enable outside researchers to better understand the impacts of social media on young people. We

¹¹⁴ See, e.g., Salvador Rodriguez, *Meta Pursues Teen Users as Horizon Metaverse App Struggles to Grow*, The Wall Street Journal (Feb. 8, 2023) <https://www.wsj.com/articles/meta-to-revamp-horizon-metaverse-app-plans-to-open-for-teen-use-as-soon-as-march-11675749223>.

shouldn't have to rely on courageous whistleblowers like Frances Haugen to understand how social media platforms are impacting our youth.

6. Require minors' privacy and account settings to be on the most protective by default, rather than putting the onus on youth or their parents to navigate a maze of confusing settings just to have a safer, more age-appropriate experience.
7. Have a clear and effective enforcement mechanism, such as a division at the FTC, solely dedicated to protecting young people and their privacy online.

The good news is that two bills which together would do all of the above, the Kids Online Safety Act and the Children and Teens' Online Privacy Protection Act, advanced out of the Commerce Committee with broad bipartisan support last July – the first such legislation to advance out of committee in more than two decades. The Committee votes came on the heels of a number of important hearings with whistleblowers, child development experts, and tech executives in the Senate Judiciary and Commerce Committees and House Energy and Commerce Committee, which established a clear record of harm and the need for new online protections for young people.

The bad news, of course, is that neither bill became law or even received a floor vote. And every day that the status quo continues, children are suffering – and even dying – from preventable harms.

We've named the problem and debated the solutions. Now it's time to build on last year's momentum and disrupt the cycle of harm by passing privacy and safety-by-design legislation. Let's make 2023 the year that Congress finally takes a huge step toward creating the internet children and families deserve.

Thank you again for having me here today and I look forward to discussing all of this with you.

Testimony of Kristin Bride
United States Senate Committee on the Judiciary
Hearing on Protecting Our Children Online
February 14, 2023

Thank you, Chairman Durbin, Ranking Member Graham, and members of the committee. My name is Kristin Bride. I am a survivor parent and social media reform advocate, and member of the bipartisan Council for Responsible Social Media.

I am testifying here today to bring a face to the harms occurring every day resulting from the unchecked power of the social media industry. This is my son Carson Bride with beautiful blue eyes, an amazing smile, and a great sense of humor, who will be forever 16 years old. As involved parents raising our two sons in Oregon, we thought we were doing everything right. We waited until Carson was in 8th grade to give him his first cell phone, an old phone with no apps. We talked to our boys about online safety and the importance of never sending anything online that you wouldn't want your name and face next to on a billboard. Carson followed these guidelines. Yet tragedy still struck our family.

It was June 2020; Carson had just gotten his first summer job making pizzas, and after a successful first night of training, he wrote his upcoming work schedule on our kitchen calendar. We expressed how proud we were of him for finding a job during the pandemic. In so many ways, it was a wonderful night, and we were looking forward to summer. The next morning, I woke to the complete shock and horror that Carson had hung himself in our garage while we slept.

In the weeks that followed, we learned that Carson had been viciously cyberbullied by his "Snapchat friends," his high school classmates who were using the anonymous apps Yolo and LMK on Snapchat to hide their identities. It wasn't until Carson was a freshman in high school that we finally allowed him to have social media because that was how all the students were making new connections. What we didn't know is that apps like Yolo and LMK were using popular social media platforms to promote anonymous messaging to hundreds of millions of teen users.

After his death, we discovered that Carson had received nearly 100 negative, harassing, sexually explicit, and humiliating messages, including 40 in just one day. He asked his tormentors to "swipe up" and identify themselves so they could talk things out in person. No one ever did. The last search on his phone before Carson ended his life was for hacks to find out the identities of his abusers.

Anonymous apps like Whisper, Sarahah, and YikYak have a long history of enabling cyberbullying, leading to teen suicides.¹ The critical flaws in these platforms are compounded by the fact that teens do not typically report being cyberbullied. They are too fearful that their phones to which they are completely addicted will be taken away or that they will be labeled a snitch by their friends.

Yolo's own policies stated that they would monitor for cyberbullying and reveal the identities of those who do so. I reached out to Yolo on 4 separate occasions in the months following Carson's death, letting them know what happened to my son and asking them to follow their own policies. I was ignored all 4 times. At this point, I decided to fight back.

I filed a National Class Action Lawsuit in May 2021, against Snap Inc., Yolo, and LMK.² We believe Snap Inc. suspended Yolo and LMK from their platform because of our advocacy.

However, our complaint against Yolo and LMK for product liability design defects and fraudulent product misrepresentation was dismissed in the Central District Court of California last month, citing Section 230 immunity.³ And still, new anonymous apps like NGL and sendit are appearing on social media platforms and charging teens subscription fees to reveal the messenger or provide useless hints.

I speak before you today with the tremendous responsibility to represent the many other parents who have also lost their children to social media harms. In the audience are Rose Bronstein from Illinois who lost her son Nate and Christine McComas from Maryland who lost her daughter Grace, both to suicide after being viciously cyberbullied over social media. Our numbers continue to grow exponentially with teen deaths from dangerous online challenges fed to them on TikTok, sextortion over Facebook, fentanyl-laced drugs purchased over Snapchat, and deaths from eating disorder content over Instagram. I have included the stories of my fellow survivor parent advocates in this written testimony.

Let us be clear—these are not coincidences, accidents, or unforeseen consequences. They are the direct result of products designed to hook and monetize America's children.

It should not take grieving parents filing lawsuits on behalf of their dead children to hold this industry accountable for their dangerous and addictive product designs. Federal legislation like the Kids Online Safety Act (KOSA), which requires social media companies to have a duty of care when designing their products for America's children, is long overdue. We need our lawmakers to step up, put politics aside, and finally protect all children online.

Thank you for this opportunity, and I look forward to answering your questions.

Cyberbullying Frequency (2022, *Pew Research Center*)⁴

US Teens aged 13-17 reported:

- 46% experienced cyberbullying, with offensive name calling being the most common type of harassment
- 22% had false rumors spread about them
- 17% received explicit images they didn't ask for
- 15% report being constantly asked where they are; what they are doing or who they are with by someone other than a parent
- 10% reported receiving physical threats
- 7% reported having explicit images of them shared without their consent

Cyberbullying Impact (2018, *Cyberbullying Research Center*)⁵

Cyberbullying is more devastating than traditional bullying because:

- The victim may not know who is bullying them due to anonymity.
- Hurtful actions go viral which increases the audience and aggressors to limitless.
- It is easier to be cruel on-line as no social cues exist.

Cyberbullying and Suicidal Ideations (2022, *JAMA Network Open Study*)⁶

- Cyberbullying was the #1 cause of suicidal ideations in adolescents aged 10-13 years old based on a study of 10,414 United States adolescents.

Cyberbullying Reporting:

Reasons teens don't report cyberbullying (2021)⁷:

- Fear of losing their access to their technology:
 - The Pew Research Center reports that 65% of parents have taken away a teen's phone or internet privileges as punishment.⁸
- They don't want to be seen as snitch and lose even more social status.
- Ashamed for being a target

Parent Concerns (2023, *Pew Research*)⁹

- 35% of parents are worried that their kids may be bullied (2nd to Anxiety and Depression)

Citations:

¹Ian Martin, Hugely Popular NGL App Offers Teenagers Anonymity In Comments About Each other (June 29, 2022), FORBES at <https://www.forbes.com/sites/ianmartin/2022/06/29/hugely-popular-ngl-app-offers-teenagers-anonymity-in-comments-about-each-other/>

²Bride et al. v. Snap Inc., Yolo Technologies Inc., Lightspace Inc., No. 21-cv-6680 (Central District of California), ECF No. 1 (Class Action Complaint)

³Bride et al. v. Snap Inc., Yolo Technologies Inc., Lightspace Inc., No. 21-cv-6680 (Central District of California), ECF No. 142 (Order Dismissing Complaint)

⁴Vogels, E. (2022, Dec 15), Teens and Cyberbullying 2022, *Pew Research Center*, <https://www.pewresearch.org/internet/2022/12/15/teens-and-cyberbullying-2022/>

⁵Hinduja, Sameer PhD., Patchin, Justin W. PhD., Cyberbullying, identification, Prevention and Response, (2018) at <https://cyberbullying.org/Cyberbullying-Identification-Prevention-Response-2018.pdf>

⁶Arnon S, Brunstein Klomek A, Visoki E, et al. (2022), Association of Cyberbullying Experiences and Perpetration With Suicidality in Early Adolescence (2022). *JAMA Network Open*. 2022;5(6):e2218746. doi:10.1001/jamanetworkopen.2022.18746

⁷ Dong, Menga, (2021, Feb 9), Why Teens Don't Report Cyberbullying at <https://desis.osu.edu/seniorthesis/index.php/2021/02/09/why-teens-dont-report-cyberbullying/>

⁸ Pew Research Statistics (2016, Jan 7), Parents Teens & Digital Monitoring at <https://www.pewresearch.org/internet/2016/01/07/parents-teens-and-digital-monitoring/>

⁹ Pew Research Statistics from Pew Research Center <https://www.axios.com/2023/01/29/kids-parents-mental-health-depression-anxiety>

Social Media Harms Parent Survivor Advocates

Tawainna Anderson, *Pennsylvania*

Tawainna lost her 10-year-old daughter, Nylah, last year when she tried the “Blackout Challenge” in a closet of their home. TikTok’s algorithm served Nylah a video featuring the dangerous challenge on her “For You” page. Tawainna discovered her daughter’s body next to her phone, and the strangulation marks on her neck suggested she desperately tried to free herself before she died.

Joann Bogard, *Indiana*

Joann’s son Mason died at age 15 years old after he participated in a challenge he’d seen on YouTube called “the Choking Game.” He was rushed to the hospital, but his parents had to make the heart wrenching decision to take him off life support and donate his organs. In the years since, Joann has reported hundreds of choking game videos to YouTube, TikTok, and other platforms but they have universally told her the videos don’t violate their guidelines, despite killing hundreds of children like Mason, because they have a commercial interest in maximizing content on their platforms.

Kristin Bride, *Oregon*

Kristin’s son, Carson was 16 years old when he died by suicide after he was viciously cyberbullied by his high school “Snapchat Friends” who were using the anonymous apps Yolo and LMK to hide their identities. Carson received over 100 humiliating, threatening and sexually explicit messages before he ended his life. The last search on his phone was for hacks to find out who was abusing him. When Kristin repeatedly contacted Yolo asking them to follow their own stated policies for monitoring and revealing the identities of those who cyberbully on their platform, she was ignored all 4 times.

Rose Bronstein, *Illinois*

Rose’s son Nate was 15 years old when he died by suicide after he was viciously cyberbullied by over 20 high school classmates. Nate received hateful and threatening messages via iMessage. A Snapchat message was created by a classmate and reposted 7 times by others. It included threats of physical harm and death. The Snapchat quickly went viral and reached hundreds of Chicago area students. Nate also received a separate Snapchat message that read “go kill yourself”.

LaQuanta Hernandez, *Texas*

LaQuanta’s 13-year-old daughter, Jazmine, was cyberbullied for months via TikTok and Instagram on the basis of her race. The bullies sent her racist comments and photos, including photoshopping her face onto Emmett Till’s body after being lynched by the KKK. Instagram took over three days to take down the posts. Jazmine was too scared to sleep in her own bed until the posts were taken down.

Tracy Kemp, Texas

Tracy's 14-year-old son Brayden was among a group of Black students who were targeted by racist cyberbullies on Instagram and Snapchat. The accounts used the school's name and logo and called on other students to take and submit pictures of Black students without their consent. She says the racist cyberbullying has drastically affected her son's mental health. The anonymity these platforms provide encourages this type of abusive and bullying behavior.

Rosemarie Maneri, New York

Shylynn was 16 years old when she was contacted by an adult via Facebook who coerced her into sending inappropriate photos of herself. Although she tried to block him, he reached out to her best friend and her best friend's mom to get back into her life. He then threatened to release her photos to her friends and family if she did not continue to send him photos and continue the relationship with him. Embarrassed, scared and not knowing what to do to make it all go away, Shylynn died from suicide at just 18 years old.

Christine McComas, Maryland

Christine's 14-year-old daughter Grace went from being a joyful, active teen to death by suicide in less than a year after malicious, death-wishing and dehumanizing cyber-abuse on Twitter. Christine screenshot the abuse and sought help from multiple public agencies including schools, police and the court system to no avail. The screenshot proof of social media abuse led to the unanimous passage of Maryland's criminal statute named Grace's Law less than a year after her death. An update to Grace's Law (2.0) was passed in 2019 to keep up with digital dangers.

Annie McGrath, Wisconsin

Annie's son Griffin died at 13 years old after he participated in an online challenge called "the Choking Game." Griffin had a YouTube channel and was trying to get more likes and comments on his videos, which may have tempted him to participate in the dangerous challenge.

Maurine Molak, Texas

David Molak died by suicide at the age of 16 after months of devastating and relentless cyberbullying by a group of students on Instagram, text, video, and GroupMe. Bullies threatened him and told him he should never go back to school. The cyberbullying left him feeling helpless and hopeless because neither he nor his parents could make it stop.

Amy Neville, Arizona

At 14, Amy's son, Alexander Neville, had his whole life ahead of him until he took a single pill that he was led to believe was oxycodone. However, it contained deadly fentanyl. Snapchat made it easy for a drug dealer to connect with him. Unfortunately, Alexander's case is not a one off situation. This happens everyday all across our country.

Erin Popolo, *New Jersey*

Erin's daughter, Emily Murillo, was a special education student who was bullied in person for most of her school career. During the pandemic shutdown, the bullies continued to reach out to her via Snapchat and Instagram. At 17 years old Emily lost hope that she would ever be viewed as 'normal' by her peers and died by suicide in January of 2021. The bullying continued as hackers hijacked Emily's Zoomed funeral, sending cruel messages, and posting inappropriate images on the Zoom for all of Emily's mourning family to see, until they finally had to stop the funeral.

Despina Prodromidis, *New York*

Despina's daughter Olivia died at 15 years old after meeting an adult stranger over Snapchat – a common problem across platforms who introduce kids to adult strangers to keep them engaged and online. This man gave her a drug which turned out to be pure fentanyl.

Neveen Radwan, *California*

Neveen's 15-year-old daughter, Mariam, was an avid user of several social media platforms at the time of her anorexia diagnosis. These apps constantly bombarded her with "pro-ano" (pro-anorexia) content. The algorithms targeted her with "skinny challenges" and manipulated content that triggered her illness to an all-time high. She then embarked on a life-threatening journey of over 2 years, in multiple hospitals, and almost dying multiple times.

Mary Rodee, *New York*

Mary's son, Riley, died by suicide at 15 years old. He was sextorted on Facebook by an adult who pretended to be a teenage girl and then threatened to release compromising images of Riley unless he gave them thousands of dollars. Riley, ashamed and frightened, died just six hours after the contact began. Facebook never responded when Mary and Riley's father reported the incident.

Judy Rogg, *California*

Judy's son, Erik Robinson, died at 12 years old after participating in the "choking challenge" that was and continues to be widely circulated on YouTube. Erik rarely used YouTube – he heard about the challenge from a friend who did, a sadly common pattern that shows even children whose parents don't allow them access to social media are vulnerable to its harms. Investigators determined that Erik died from this just the day after he learned about it. He had no idea that this could cause harm or death.

Deb Schmill, *Massachusetts*

Deb's daughter, Becca, died at 18 years old of fentanyl poisoning from drugs she and a friend purchased from a dealer they found on Snapchat. Becca was sexually assaulted at 15 by a boy she'd met on social media and, shortly after the assault, her peers started cyberbullying her by text and over Snapchat. Becca turned to drugs to help ease the pain and was unaware the drugs she bought over Snapchat – a massive, nearly untraceable drug market thanks to the platform's design – contained fentanyl.

TESTIMONY OF
CEO John Pizzuro, Raven
Commander, New Jersey Internet Crimes Against Children (Ret)
New Jersey State Police (Ret)

for the

UNITED STATES SENATE
COMMITTEE ON THE JUDICIARY
Protecting Our Children Online

February 14, 2023

Chairman Durbin, Ranking Member Graham, and distinguished Senators, thank you for the opportunity to testify today on Protecting Our Children Online. For me, there is no more significant issue than safeguarding our children, as well as those who protect them from harm.

I wish I did not have to be here to testify on this issue because it would mean our children are safe when they go online. The truth is, we have not protected our children sufficiently due to the ever-increasing use of social media apps and the growth of their online lives. Their risk for harm has increased at such a significant pace that shielding them from abuse and exploitation has become untenable. To quote a sentiment shared by thousands of global experts in this space: “We cannot arrest our way out of this problem.” Today there are countless victims of Child Sexual Abuse Material (CSAM), sextortion, and other exploitative crimes. The sad reality is that we are failing to protect our children from the threats they face online.

Those who would protect our youth are overburdened and under-resourced, which makes children vulnerable. Our nation’s young people are unable to escape from the bombardment of posts, reels, and online social interaction. A major disadvantage of our global society is that any offender can reach any victim, anywhere in the world, through any app or gaming platform. We live in a world where everyday tasks increasingly are accomplished through apps, from shopping, to making a flight reservation, to – sadly - even children buying drugs.

I am here today as the CEO of Raven, an advocacy group comprised of 14 professionals, including nine retired Internet Crimes Against Children (ICAC) Task Force Commanders, who have committed their lives to the advocacy and protection of children. The Internet Crimes Against Children Task Force Program (ICAC program) helps state and local law enforcement agencies develop an effective response to technology-facilitated child sexual exploitation and Internet crimes against children. The ICAC program is a national network of 61 coordinated task forces, with at least one in each state, representing more than 4,700 federal, state, and local law enforcement and prosecutorial agencies. These agencies are engaged in both proactive and reactive investigations, forensic investigations, and criminal prosecutions. This ICAC program also encompasses training and technical assistance, victim services, and community education.¹

¹ The ICAC Task Force program was developed in 1998 response to the increasing number of children and teenagers using the Internet, the proliferation of child sexual abuse images available electronically, and heightened online activity by predators seeking unsupervised contact with potential underage victims. The Providing Resources,

I am retired from the New Jersey State Police, where I served as the Commander of the Internet Crimes Against Children task force from 2015 to 2021. I personally experienced the struggles of how best to protect our children online. We witnessed children targeted by offenders across all platforms – no social media or gaming platform was safe, from apps such as Snapchat, Twitter, Kik, Telegram, Discord, LiveMe, and Meetme, to gaming platforms and online games such as Minecraft, Roblox, and Fortnite. And these represent just a fraction of the places where offenders regularly interact with children. If the platform allows individuals to chat, or a way to share photographs and videos, I assure you there is a very real danger that offenders are using that access to groom or sexually exploit minors. Sadly, in addition to sexual exploitation, the platforms allow children to buy drugs such as Fentanyl.²

Our children's world has become focused on "likes," followers, and views, and in this way social media exploits vulnerabilities in our children's psychology. In an interview with Axios, the former President of Facebook stated, "That means that we needed to sort of give you a little dopamine hit every once in a while, because someone liked or commented on a photo or a post or whatever ... It's a social-validation feedback loop ... You're exploiting a vulnerability in human psychology ... [The inventors] understood this, consciously, and we did it anyway."³

That interview occurred on November 9, 2017 - more than five years ago, and our dependence on technology has only increased. Cell phones have become ubiquitous, even in elementary schools, providing offenders with an entirely new way to exploit children on the playground. Children are made vulnerable on these platforms as the result of poor moderation, the absence of age or identity verification, and inadequate or missing safety mechanisms. Of course, as the amount of screentime has increased, so has the likelihood the children can be groomed and manipulated.

Grooming is defined as simply manipulating and gaining a child's trust, but it is much more than that. Grooming is what offenders do to victimize children, and it happens daily to unsusceptible children who cannot see the danger. Children do not know the threat online because they primarily engage in their online world in a safe place. As a result, the amygdala, the fear center of their brain, is not activated, and children do not see the danger. This is what offenders will capitalize on.

While sending compliments, virtual currency, gift cards, and other incentives are certainly part of grooming, today's offenders do even more to access children's trust. Offenders research children to know what they like, and do not like, what music they listen and so on. The offender will then mirror their words and repeat the exact language. The child then will see someone who

Officers, and Technology to Eradicate Cyber Threats to Our Children Act ("the PROTECT Act") of 2008, (P.L. 110-401, codified at 42 USC 17601, et seq.), authorized the ICAC program through FY 2013. On November 2, 2017, the Providing Resources, Officers, and Technology to Eradicate Cyber Threats to (PROTECT) Our Children Act of 2017 was signed into law, reauthorizing the ICAC Task Force Program through FY 2022. More information is available at <https://www.icactaskforce.org/>.

² <https://ktla.com/news/local-news/mother-mourns-sons-death-from-fentanyl-laced-drugs-purchased-on-snapchat/>.

³ <https://www.axios.com/2017/12/15/sean-parker-facebook-was-designed-to-exploit-human-vulnerability-1513306782>

is just like them. Chat forums on Tor share success stories on successfully grooming children of all ages. Each offender will attempt to groom hundreds of children using various techniques beyond just sending a picture or a video. We discuss numerous “in real life” dangers in school curriculums, yet online grooming is not part of it.

As the New Jersey ICAC Commander, I struggled with the significant increases in investigations, arrests, and victims we faced each year. For example, in 2015 we received 2,315 Cybertips and made 125 arrests, and by the end of 2019 we had 8,000 Cybertips and we made 420 arrests. We understood the importance of trying to keep up, but even creative attempts to “do more with less” became unsustainable. And this was prior to COVID, when screentime increased substantially and cemented our children’s reliance on apps. These challenges were frustratingly present with every ICAC task force across the United States. The most staggering increase we faced was self-generated CSAM cases – children taking sexual images of themselves as the request of offenders. These were not images of older teens sending photos of themselves to their boyfriends and girlfriends – we began to see images of 7, 8, and 9-year-olds in sexual poses. The online landscape is horrifying because offenders know this is where our children live, and they recognize there are not enough safeguards to keep them at bay.

During one case, I received a call from a Child Advocacy Center in another state. The advocate told me a mother had just arrived with her 8-year-old daughter after she found sexual abuse videos on the child’s phone. An offender had obtained a sexually abusive video of an 11-year-old girl, and then used that video to coerce 60 children to share sexually explicit videos of themselves. This included a video of a 12-year-old girl abusing her 1½-year-old brother. These child victims were located throughout the United States and Canada and were using a popular live-streaming app. This is one example of thousands of cases throughout the United States and the globe.⁴

The Protect Our Children Act of 2008 created a funding mechanism for Internet Crimes Against Children task forces that are responsible for 90% of the child exploitation investigations in the United States. But things have changed in this space since 2008. In 2008 there was an average of one computer per household. Today, families in the U.S. have an average of 20 Internet-capable devices, including phones, tablets, laptops, and gaming consoles. And the volume of data investigators must comb through to find victims has increased significantly. Reactive investigations take place when law enforcement receives information, such as a CyberTip, that a crime has occurred. A proactive investigation involves the use of intelligence to try to identify potential offenders.

Today, law enforcement is often unable to proactively investigate child exploitation cases due to the volume of Cybertips. As a result of the exponential increase in Cybertips (these tips increased by 2,800% between 2012 and 2021) law enforcement agencies have been forced to become

⁴ <https://www.app.com/story/news/crime/2019/09/24/lakewood-sex-offender-had-more-than-1-000-images-child-porn-his-iphone-feds-say/2435710001/>.

reactive, and most can no longer engage in the proactive operations that are designed to target the most dangerous offenders.⁵

It is important to understand that the CyberTipline is challenging law enforcement not only with respect to the quantity of leads, but also the quality of leads. Most of the investigative leads provided by service providers, through NCMEC, to the ICAC Task Forces are not actionable, meaning they do not contain sufficient information to permit an investigation to begin. The lack of uniformity in what is reported by service providers results in law enforcement being forced to sort through thousands of leads trying desperately to identify worth-while cases. Cases where abusers and offenders who are considered particularly sadistic and dangerous. The *Ackerman* case out of the Fourth Circuit, and the *Wilson* case out of the Ninth Circuit, have also increased the burden on law enforcement officers trying to review CyberTips.

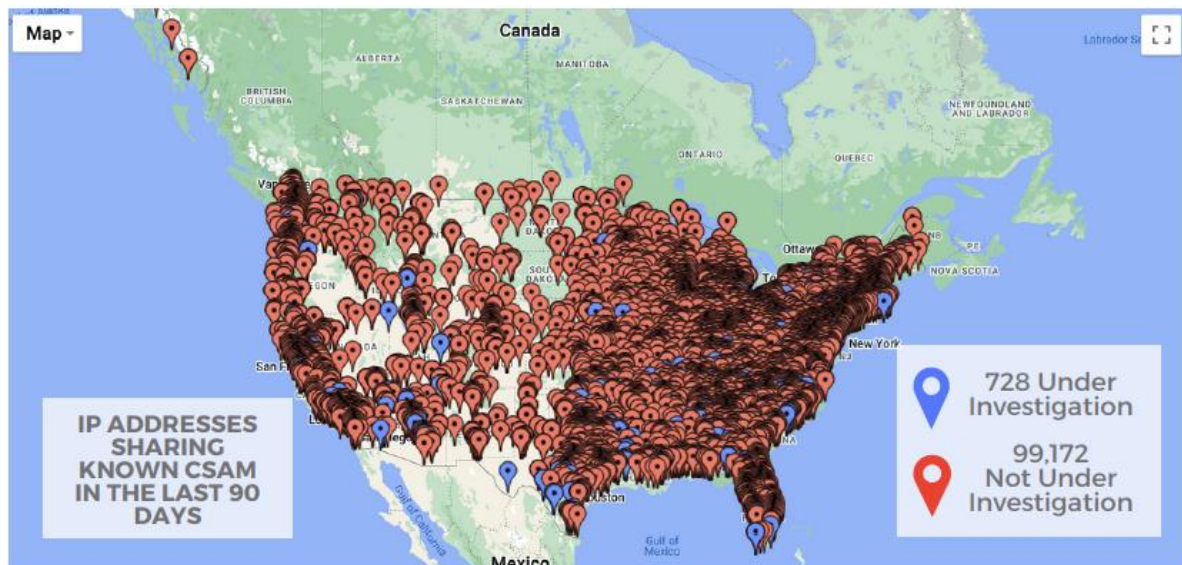
As noted above, the sheer volume of Cybertips also prevents law enforcement from pursuing proactive investigative effort that would efficiently target the most egregious offenders. For example, peer-to-peer file sharing investigations and operations used to allow ICAC Task Forces to efficiently locate and apprehend hands-on offenders.⁶ In the last 90 days, alone, there have been 99,172 IP addresses throughout the United States that have distributed known CSAM images and videos through peer-to-peer networks. Yet only 782 - less than 1% - are being investigated (see Exhibit 1). Consistently, 75% of these cases have resulted in successful prosecutions. Significantly, the most rigorous studies involving interviews with offenders have shown that between 57% and 85% of individuals arrested for these crimes have committed undetected sexual abuse of minors; on average, those offenders have assaulted between 10 to 13 victims.⁷ Due to the overwhelming volume of Cybertips, law enforcement is simply not investigating peer-to-peer to the degree that it wants and should.

EXHIBIT 1

⁵ Reactive investigations take place when law enforcement receives information, such as a CyberTip, that a crime has occurred. A proactive investigation involves the use of intelligence to try to identify potential offenders.

⁶ <https://www.nj.gov/njsp/news/2016/20160818.shtml>

⁷ <https://www.ojp.gov/ncjrs/virtual-library/abstracts/butner-study-redux-report-incidence-hands-child-victimization-child>.



ICAC Task Forces throughout the United States used to regularly conduct undercover operations targeting offenders who traveled to meet and assault individuals they believed were 10- to 14-year-olds. All of these undercover investigations are performed using social media apps or online ads that solicit the sexual assault of children. When arrests are made, investigators rarely find it is the first time the offender has traveled to sexually abuse a child.

These offenders bring drugs, alcohol, sex toys, and other paraphernalia. In one an offender brought a dog leash and collar so he could be “walked” by a 12-year-old.⁸ Task forces throughout the U.S. would conduct these operations on a routine basis, and they were very successful. The North Florida ICAC task force, for example, conducted 48 of these operations, arresting thousands of individuals, and obtained a conviction rate of 98.7%. Unfortunately, task forces are no longer able to perform these types of operations - they are resource intensive, and the volume of reactive cases prohibits it.

The Darknet, including Tor, has become the newest online haven for child exploitation.⁹ Some forums and boards contain the most abusive child exploitation videos and images law enforcement has encountered. Chat forums allow offenders to create “best practices” on how to groom and abuse children effectively. A post named the “Art of Seduction” that explained how to “seduce” children was read more than 54,000 times. Other posts discuss the best way to introduce sexual activity to children without alarming them or offer such topics as “Thoughts on having oral sex with 0-2-year-olds.” These conversations are horrific, yet Tor is easily downloaded as a web browser, and children and teens can install it on their phones and begin accessing it within minutes.

⁸ <https://www.nj.gov/oag/newsreleases19/pr20190424a.html>.

⁹ The Dark Net is an encrypted portion of the internet that is not indexed by search engines where users can communicate anonymously without divulging identifying information, such as a user's location. Tor is one network on the Dark Net.

In one undercover operation a registered sex offender paid to sexually abuse an 11-year-old, spoke about how he was able to victimize his two-year-old nephew, and described how he groomed children into providing him with child sexual abuse videos.¹⁰ The offender sent screen shots of his texts with children with whom he had connected using Kik, which revealed his technique for convincing them to send him sexually explicit material. He admitted sexually assaulting a massage therapist and indicated he wanted to kidnap an eight-year-old child, but he was afraid of being caught.

Another offender, a Jersey City police officer, used the Wikr and Kik apps to communicate with his victims. He used those apps to communicate undercover investigators, where he attempted to pay to sexually assault an 8- and 10-year-old girl. He then traveled to Atlantic City with condoms and cash, with the intent of abusing the child. These are just a few examples of the depravity that law enforcement deals with daily. The crimes that lead to their apprehension is nearly always only the tip of the iceberg – there is never just one victim.

The details of these undercover investigations shock the conscious. There is no shortage of case reports describing the sexual abuse of 11-year-olds. Or a mother who is targeted by an offender because her 5-year-old is too young to text but is of the age interest for the offender. Or the offender who brought a stuffed animal for the 10-year-old he was going to rape, along with a bottle of Viagra and other sexual devices for when the Viagra failed.

The impact of these cases does not only affect our children. They impact the law enforcement community. Investigators, prosecutors, child advocacy professionals, and everyone involved in these horrendous acts must bear witness to the depraved images, sounds, words, videos, and case specifics eroding their mental health. The toll these cases place on law enforcement's mental state comes with a price. We need to support these law enforcement professionals from a wellness standpoint. Many times, our law enforcement professionals suffer in silence with limited resources. Every day I would come to work and worry about the damage these cases do to the people investigating them every day. I am concerned about the lack of resources available to the law enforcement community from a wellness standpoint. No one can prepare you for what you see in these cases; once you see them, they are challenging to unsee. These cases will stay with investigators throughout their lives to the detriment of their lives and families.

The reality is everything happens online. Offenders, including registered sex offenders, are lurking in the same places where our children are communicating with their friends or playing online games. There is very little to stop these predators from communicating with, and then grooming, any child they perceive as vulnerable. Those who seek to police these spaces are in need of significant help if they are to bring about change.

This past summer, I took a short walk on the beach in Point Pleasant. It was a beautiful 80-degree day, and along my half-mile walk I counted 67 children and teens on their phones, 12 of whom were making a TikTok video. I then came across a four-year-old who was lost and could not find his parent. Statistically, at least 1/4 of those children will be victimized. We are at a point where we need to identify what works and provide authorities with sufficient resources to

¹⁰ <https://www.justice.gov/usao-edca/pr/sacramento-county-man-sentenced-25-years-prison-sexual-exploitation-child>.

increase their protective capabilities. Children need our help. Every day, social media companies write posts and release one press release after another in which they tout their successes at keeping children safe. While appreciated, these actions constitute mere drops in the bucket. One simply can look at the statistics to determine the real story - what is truly happening to our children. Based on what I have experienced, I can confidently tell you three things: At the moment the predators are winning, our children are not safe, and those who are fiercely committed to protecting them are drowning and will continue to so unless we can get them the resources they need.



**AMERICAN
PSYCHOLOGICAL
ASSOCIATION**
SERVICES, INC.

**Written Testimony
of
Mitch Prinstein, PhD, ABPP
Chief Science Officer
American Psychological Association
Protecting Our Children Online
Before the U.S. Senate Committee on Judiciary**

February 14, 2023

Chairman Durbin, Ranking Member Graham, and members of the Judiciary Committee, thank you for the opportunity to testify today on the online dangers facing our children and teens. I am Dr. Mitch Prinstein, Chief Science Officer at the American Psychological Association (APA). APA Services, Inc. is the companion organization of the American Psychological Association, which is the nation's largest scientific and professional nonprofit organization representing the discipline and profession of psychology, as well as over 146,000 members and affiliates who are clinicians, researchers, educators, consultants, and students in psychological science. Through the application of psychological science and practice, our association's mission is to use psychological science and information to benefit society and improve lives.

I am grateful you have called attention to youth and the online environment. Our youth are struggling in many ways, largely due to our society's failure to adequately attend to child and adolescent mental health.

My testimony is broken down into the following sections to help inform the Committee about the complexities of the challenges before us and to help shape policy solutions:

- Overview pg. 2
- Online/ Social Media Behaviors and Youth Mental Health pg. 6
- Psychological Effects of Lost Opportunities While Youth Are Online pg. 17



Overview

Today, we are seeing the repercussions of our underinvestment and lack of focus on children's mental health. Depression rates for teens doubled between 2009 and 2019 and suicide is the second leading cause of death for U.S. youth, up 4% since 2020, with one in five teens considering suicide during the pandemic and eating disorder emergency room admissions for girls 12 to 17 years old doubling since 2019 ¹. Furthermore, since the start of the pandemic, over 167,000 children have lost a parent or caregiver to the virus ². This kind of profound loss can have significant impacts on the mental health of children, leading to anxiety, depression, trauma, and stress-related conditions ³. Faced with such data, in December 2021, the U.S. Surgeon General issued an advisory calling for a unified national response to the mental health challenges young

¹Radhakrishnan, L. (2022). Pediatric Emergency Department Visits Associated with Mental Health Conditions Before and During the COVID-19 Pandemic — United States, January 2019–January 2022. *MMWR. Morbidity and Mortality Weekly Report*, 71(8). <https://doi.org/10.15585/mmwr.mm7108e2>; Curtin, S. (2022). Vital Statistics Rapid Release Provisional Numbers and Rates of Suicide by Month and Demographic Characteristics: United States, 2021. <https://www.cdc.gov/nchs/data/vsrr/vsrr024.pdf>; Daly, M. (2021). Prevalence of Depression Among Adolescents in the U.S. From 2009 to 2019: Analysis of Trends by Sex, Race/Ethnicity, and Income. *Journal of Adolescent Health*. <https://doi.org/10.1016/j.jadohealth.2021.08.026>; Suicide. (n.d.). National Institute of Mental Health (NIMH). Retrieved February 10, 2023, from <https://www.nimh.nih.gov/health/statistics/suicide/#%3A~%3Atext%3DSuicide%20is%20a%20Leading%20Cause%20of%20Death%20in%20the%20United%20States%2C-According%20to%20the%26text%3DSuicide%20was%20the%20second%20leading%20Cause%20of%2035%20and%2044>; Yard, E. (2021). Emergency Department Visits for Suspected Suicide Attempts Among Persons Aged 12–25 Years Before and During the COVID-19 Pandemic — United States, January 2019–May 2021. *MMWR. Morbidity and Mortality Weekly Report*, 70(70(24);888–894). <https://doi.org/10.15585/mmwr.mm7024e1>.
² Hidden Pain: Children Who Lost a Parent or Caregiver to COVID-19 and What the Nation Can Do To Help Them | COVID Collaborative. (n.d.). [www.covidcollaborative.us. https://www.covidcollaborative.us/initiatives/hidden-pain](https://www.covidcollaborative.us/initiatives/hidden-pain).

³ Almeida, I. L. L., Rego, J. F., Teixeira, A. C. G., & Moreira, M. R. (2021). Social isolation and its impact on child and adolescent development: a systematic review. *Revista paulista de pediatria : orgao oficial da Sociedade de Pediatria de Sao Paulo*, 40, e2020385. <https://doi.org/10.1590/1984-0462/2022/40/2020385>.



people are facing ⁴. The rarity of such advisories further underscores the need for action to help stem the mental health crisis of children and adolescents.

There are many reasons why youth are experiencing this crisis today, and it is likely that there are simultaneous contributors to the outcomes presented above. Today, we are here to talk about whether youths' engagement with social media, and other online platforms, may be a relevant factor. Many psychological scientists, including myself and my colleagues, have been asking this same question for years. We seek to understand how this new context in which youths' social interactions occur may be related to development, including potential benefits or risks that may be conferred by the online environment. As the discipline with expertise on all of human behavior, our work has been broad in scope; and to date, our focus has been on the adolescent period, during which more complex and mature behaviors are developed through intricate and precise interactions among neural, biological, social, contextual, and social systems. Today, although this remains a relatively nascent body of research, I would like to share what we know so far, so policymakers, educators, parents, caregivers, and youth can learn from what we are beginning to discover and make choices that will ensure the safety of youth.

In this testimony, I outline emerging research with findings that have begun to suggest possible benefits, and as well as possible adverse effects of technology and social media use on adolescent development. I also present legislative and regulatory solutions that if enacted, would represent positive steps towards learning more about, and hopefully solving this problem. I am calling for new legislation and regulations that increase research funding and provide education on how children can use online platforms without experiencing the most harmful impacts; legislation that creates a requirement that social media companies protect the well-being of child users; legislation that prohibits problematic business practices and prevents companies from tricking and manipulating users; and bills that provide more leverage for federal regulators to

⁴ Richtel, M. (2021, December 7). Surgeon General Warns of Youth Mental Health Crisis. The New York Times. <https://www.nytimes.com/2021/12/07/science/pandemic-adolescents-depression-anxiety.html#:~:text=The%20United%20States%20surgeon%20general>.



clamp down on known harmful impacts while building internal expertise to prepare to tackle newly discovered harms. APA supported these efforts in past Congresses and commits to work to see these proposals enacted because, as I present below, scientific data are beginning to suggest areas of serious concern that must not be allowed to continue unchecked.

Before we discuss specific impacts of online platforms or solutions, it is important to acknowledge that causal data are not available for many of these issues, since the experimental designs needed to make cause-and-effect statements would be considered unethical or require access to currently inaccessible data. This underscores the need for increased access to data and funding for high-quality research. However, as with non-causal research revealing the effects of childhood adversity on mental health, or the effects of combat on PTSD among veterans, extant, rigorous science can nevertheless allow us to reach reasonable conclusions that can shape policy.

It also is important to acknowledge that technology and social media may not, in themselves, be problematic for child development, as each device and platform offers a multitude of features and communication opportunities that users can choose from. Extensive research has demonstrated that the amount of screentime alone is not likely associated with negative psychological outcomes among youth⁵. Moreover, not all youth exposed to identical stimuli are affected in the same ways. Thus, the most appropriate question is: what specific online *behaviors, features, or content* may be associated with benefit or risk to which youth. This is the focus of the most recent work among psychological scientists, yielding some comforting, but also some worrying results.

But first, to understand the role of social media in youths' development, it is necessary to understand the role of social interactions more generally at this critical developmental stage.

⁵ Odgers CL, Jensen MR. Annual Research Review: Adolescent mental health in the digital age: facts, fears, and future directions. *J Child Psychol Psychiatry*. 2020;61(3):336-348. doi:10.1111/jcpp.13190.



Children's interactions with peers are not merely for fun. It is within the social context that most children's education occurs; thus, peer interactions significantly affect cognitive development. The peer context also is the milieu in which children learn social rules, norms, and expectations; develop emotional competence and morality; and in which all of children's behaviors are consistently reinforced (or corrected), thus influencing long-term behavioral development. Indeed, numerous studies have revealed that children's interactions with peers have enduring effects on their occupational status, salary, relationship success, emotional development, mental health, and even on physical health and mortality over 40 years later ⁶. These effects are stronger than the effects of children's IQ, socioeconomic status, and educational attainment. These enduring effects likely occur because of remarkably powerful and reciprocal interactions between youths' social experiences and their biological development. Children's brains and peripheral nervous systems influence how they interact with peers, and in turn, those experiences change the development of their brain structures, neural pathways, and even how their nervous system responds to stress throughout their lives.

Our brains, our bodies, and our society have been evolving together to shape human development for millennia, influencing our communities, our culture, and our society. Within the last twenty years, the advent of portable technology and social media platforms is changing what took 60,000 years to evolve. We are just beginning to understand how this may impact youth development.

I will first discuss the potential effects of technology and social media use on youth mental health. This will include an outline of five main issues emerging from the research, including the risks of pre-adulthood use of social media, the ramifications that come from unmonitored (and "liked") content online, the potential effects of digital stress, the encouragement of social comparisons, and research demonstrating benefits of social media use among youth. In the

⁶ For a review, see; Prinstein, M. J., & Giletta, M. (2020). Future Directions in Peer Relations Research. *Journal of Clinical Child & Adolescent Psychology*, 49(4), 556–572. <https://doi.org/10.1080/15374416.2020.1756299>.



following section, I will discuss the psychological effects of opportunities lost while youth spend time online. Last, I will discuss potential solutions and policy recommendations.

Online/ Social Media Behaviors and Youth Mental Health

Pre-adulthood use of technology and social media may be particularly concerning. There is reason to be significantly concerned about the age at which many youth begin using technology and social media. Developmental neuroscientists have revealed that there are two highly critical periods for adaptive neural development. Aberrations in our brain growth during these periods may have lifetime implications. One of these is the first year of life. The second begins at the outset of puberty and lasts until early adulthood (i.e., from approximately 10 to 25 years old). This latter period is highly relevant, as this is when a great number of youths are offered relatively unfettered access to devices and unrestricted or unsupervised use of social media and other online platforms ⁷. Within the age range of 10-25 years, change occurs gradually and steadily; thus risks likely are greater towards the beginning of this range and become attenuated as youth mature. Herein, this period is referred to as “pre-adulthood.”

At the outset of puberty, adolescents’ brains begin developing in a specific, pre-determined sequence. Generally, sub-cortical areas shared with many mammalian species mature before areas at the top layer of the brain, which is responsible for many of our more human capabilities, such as premeditation, reflection, and inhibition. Among these initial areas developing among most youth, typically starting at the ages of 10-12 years old, are regions associated with our craving for “social rewards,” such as visibility, attention, and positive feedback from peers. In contrast, regions involved in our ability to inhibit our behavior, and resist temptations (i.e., the prefrontal cortex) do not fully develop until early adulthood (i.e., approximately 10-15 years later). In other words, when it comes to youths’ cravings for social attention, they are “all gas pedal with no

⁷ Vogels, E. A., Gelles-Watnick, R., & Massarat, N. (2022, August 10). Teens, social media and technology 2022. Pew Research Center. <https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/>.



brakes.” Adolescence is thus a developmentally vulnerable period during which youth may be especially motivated to pursue social rewards, and not yet fully capable of restraining themselves.

Research suggests that technology and social media use may exploit this biological vulnerability among youth. Data reveal that social media stimuli, such as receiving “likes” or followers activates the social reward regions of the brain ⁸. In other words, these features of social media capitalize on youths’ biologically based need for social rewards before they are able to regulate themselves from over-use. This has at least four significant implications for youth mental health.

Social Media and Loneliness. Although ostensibly social media platforms are built to foster interpersonal contacts and connections, they are not designed primarily to foster meaningful and mutually rewarding relationships that confer psychological benefits. Relationships are most beneficial to youths’ psychological development when they are characterized by support, emotional intimacy, disclosure, positive regard, reliable alliance (e.g., “having each other’s backs”), and trust ⁹. It is possible to use social media to foster exactly these types of relationship qualities, such as through direct messaging features. However, these are not the functions that are highlighted on most platforms. More typically, users are directed towards the number of “likes,” followers, or reposts they received, often without immediate access to the identity of those who engaged with their profile or content. In other words, platforms are more apt to motivate users towards one’s metrics than people themselves, which has led many youth to upload curated or filtered content to portray themselves most favorably. Note that these features of social media, and the resulting behaviors of those who use social media create the exact opposite qualities needed for successful and adaptive relationships (i.e., disingenuous, anonymous, depersonalized). In other

⁸ 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>.

⁹ Furman, W., Bukowski, W. M., Newcomb, A. F., & Hartup, W. W. (1996). The company they keep: Friendship in childhood and adolescence. *Cambridge studies in social and emotional development*. In W. Bukowski, A. Newcomb & W. Hartup (Eds), *The measurement of friendship perceptions: Conceptual and methodological*, (41-65).



words, social media offers the “empty calories of social interaction,” that appear to help satiate our biological and psychological needs, but do not contain any of the healthy ingredients necessary to reap benefits. Anecdotally, teens’ behavior reflects this issue – the “Finsta” phenomenon reflects digital natives’ attempt to find more honest and intimate relationships with one another, but without experience in doing so first offline. Scientific data also support this claim; research reveals that in the hours following social media use, teens paradoxically report *increases* rather than decreases in loneliness ¹⁰.

Heightened Risk for Negative Peer Influence. Adolescents frequently are exposed to content online depicting illegal, immoral, dangerous, and unethical behavior. The architecture of many social media platforms allows users to like, repost, or comment on this content. Emerging data suggest that these features of social media present a significant risk to adolescents’ mental health. Specifically, data reveal that social media may change adolescents’ susceptibility to maladaptive behavior through both biological and psychological pathways. Research examining adolescents’ brains while on a simulated social media site, for example, revealed that when exposed to illegal, dangerous imagery, activation of the prefrontal cortex was observed suggesting healthy inhibition towards maladaptive behaviors. However, when these same images were shown with icons indicating that they were “liked” on social media, there was a significant decrease in activation of the brain’s inhibition center, suggesting that the “likes” may reduce youths’ inhibition (i.e., perhaps increasing their proclivity) towards dangerous and illegal behavior.¹¹ This is evidence that social media features are changing how youths’ brains respond to images in ways that confer risk for the development of maladaptive behavior.

¹⁰ Armstrong-Carter, E., Garrett, S. L., Nick, E. A., Prinstein, M. J., & Telzer, E. H. (2022). Momentary links between adolescents’ social media use and social experiences and motivations: Individual differences by peer susceptibility. *Developmental Psychology*. Advance online publication. <https://doi.org/10.1037/dev0001503>.

¹¹ See for example, 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>.



There also is evidence that these features of social media may promote a psychological affinity for dangerous and risk-taking behavior. For instance, a study of young high school students revealed that adolescents' exposure to "liked" posts depicting alcohol use was associated with changes in teens' perceptions of their peers' acceptance of alcohol use, which in turn predicted these same teens' early engagement in heavy episodic drinking (i.e., five or more drinks on a single occasion)¹². Related research has demonstrated that individuals are more likely to "like" a post that they see others have "liked" before them, and this may increase the likelihood of exposure to similarly themed-posts, via AI-derived algorithms¹³. These findings illustrate clear and powerful ways that the features embedded in social media platforms may have an important and highly concerning effect on youth mental health. Note, it is also possible that these same processes can be used to influence peers towards positive behaviors; however, this has not been adequately investigated.

Risks for Addictive Social Media Use. Youths' biological vulnerabilities also have significant implications for "problematic social media use" or addictive behaviors; note that the regions of the brain activated by social media use overlap considerably with the regions involved in addictions to illegal and dangerous substances¹⁴. As noted above, the developing brain is built to increase a desire for social rewards (that social media delivers abundantly), without the ability to show the capacities of inhibition and restraint capable among adults. This suggests that youth may be at risk for extraordinarily frequent uses of social media. Several bodies of research reveal that this indeed may be a very significant concern. For instance, data suggest that almost half of

¹² Nesi J, Rothenberg WA, Hussong AM, Jackson KM. Friends' Alcohol-Related Social Networking Site Activity Predicts Escalations in Adolescent Drinking: Mediation by Peer Norms. *J Adolesc Health*. 2017;60(6):641-647. doi:10.1016/j.jadohealth.2017.01.009.

¹³ Egebark J, Ekström M. Liking what others "Like": using Facebook to identify determinants of conformity. *Exp Econ*. 2017;21(4):1-22. doi:10.1007/s10683-017-9552-1.

¹⁴ De-Sola Gutiérrez, J., Rodríguez de Fonseca, F., & Rubio, G. (2016). Cell-Phone Addiction: A Review. *Frontiers in Psychiatry*, 7(175). <https://doi.org/10.3389/fpsyt.2016.00175>; Griffiths, M. D., Kuss, D. J., & Demetrovics, Z. (2014). Social networking addiction: An overview of preliminary findings. In K. P. Rosenberg & L. Curtiss Feder (Eds.), *Behavioral addictions: Criteria, evidence, and treatment* (pp. 119–141). Elsevier Academic Press. <https://doi.org/10.1016/B978-0-12-407724-9.00006-9>; Kirby, B., Dapore, A., Ash, C., Malley, K., & West, R. (2020). Smartphone pathology, agency and reward processing. *Lecture Notes in Information Systems and Organisation*, 321-329. https://doi.org/10.1007/978-3-030-60073-0_37.



all adolescents report that they use social media “almost constantly”¹⁵. 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, a significant impairment in their daily educational, social, work 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 use¹⁶. 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 media¹⁷.

Alterations in Brain Development. Youths’ biological vulnerability to technology and social media, and their resulting frequent use of these platforms, also has the potential to alter youths’ neural development since our brains develop in response to the environment we live in. Recent studies have revealed that technology and social media use is associated with changes in structural brain development (i.e., changing the size and physical characteristics of the brain). In addition, research with my own colleagues at the University of North Carolina at Chapel Hill recently has revealed that technology and social media use also is associated with changes in how the brain works). Our data has revealed that youth indeed spend a remarkable amount of time using their devices¹⁸. Objective data measured by teens’ phones themselves indicated that the average number of times that youth in sixth grade picked up their phones was over 100, with some interrupting daily activities to pick up their phones over 400 times a day. On average, adolescents

¹⁵ Vogels, E. A., Gelles-Watnick, R., & Massarat, N. (2022, August 10). Teens, social media and technology 2022. Pew Research Center. <https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/>.

¹⁶ Boer M, Stevens GWJM, Finkenauer C, van den Eijnden RJM. 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

¹⁷ 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.

¹⁸ Armstrong-Carter, E., Garrett, S. L., Nick, E. A., Prinstein, M. J., & Telzer, E. H. (2022). Momentary links between adolescents’ social media use and social experiences and motivations: Individual differences by peer susceptibility. *Developmental psychology*.



also reported an average of 8.2 hours of time on their devices each day, with some logging double this amount ¹⁹. The phone “apps” adolescents picked up their devices to use most often were popular social media platforms. Our research using annual fMRI brain scans revealed that more frequent uses of adolescents’ devices (i.e., predominantly for social media) was associated with changes in how their brains developed. More phone “pickups” were associated with unique development of brain regions. In short, results found that high social media users may have promoted brain development in a way that may make adolescents more inclined to focus on social rewards (e.g., attention from peers) and altered self-control ²⁰.

Youth’s Exposure to Unmonitored Content Poses Potential Risks. There are two domains of problematic content online that many youth are exposed to. Research demonstrates that this also likely contributes to mental health difficulties among children and adolescents. One domain pertains to content that actively showcases and promotes engagement in psychologically disordered behavior, such as sites that discuss eating disordered behaviors (i.e., “pro-Anna” sites that encourage fasting, laxative use, excessive exercise) and pro-cutting sites depicting nonsuicidal self-injury ²¹. Research indicates that this content has proliferated on social media sites, not only depicting these behaviors, but teaching young people how to engage in each, how to conceal these behaviors from adults, actively encouraging users to engage in these behaviors, and socially sanctioning those who express a desire for less risky behavior ²². Moreover, in some cases this content is not removed nor are trigger warnings included to protect vulnerable youth from the effects that exposure to this content can have on their own behavior. This underscores the need for platforms to deploy tools to filter content, display warnings, and create reporting structures to mitigate these harms.

¹⁹ Maza MT, Fox KA, Kwon S-J, et al. Association of habitual checking behaviors on social media with longitudinal functional brain development. *JAMA Pediatr.* 2023;177(2):160-167. doi:10.1001/jamapediatrics.2022.4924.

²⁰ See above.

²¹ Lewis, S. P., Heath, N. L., St Denis, J. M., & Noble, R. (2011). The scope of nonsuicidal self-injury on YouTube. *Pediatrics*, 127(3), e552–e557. <https://doi.org/10.1542/peds.2010-2317>.

²² Whitlock JL, Powers JL, Eckenrode J. The virtual cutting edge: the internet and adolescent self-injury. *Dev Psychol.* 2006 May;42(3):407-17. doi: 10.1037/0012-1649.42.3.407. PMID: 16756433.



A second area of concern regarding online content pertains to the frequency of online discrimination and cyberbullying, including youths' posts that encourage their peers to attempt suicide. Research demonstrates that online victimization, harassment, and discrimination against racial, ethnic, gender, and sexual minorities is frequent online and often targeted at young people²³. LGBTQ+ youth experience a heightened level of bullying, threats, and self-harm on social media. One in three young LGBTQ+ people have said that they had been sexually harassed online, four times as often as other young people²⁴. Brain scans of adults and youths reveal that online harassment activates the same regions of the brain that respond to physical pain and trigger a cascade of reactions that replicate physical assault and create physical and mental health damage²⁵. Moreover, research has revealed that online discrimination often is harsher and more severe than offline discriminatory experiences. Results reveal that the effects of online discrimination and bullying on youths' risk for depression and anxiety are significant above and beyond the effects of experiences that these same youth experience offline. The permanence, potential for worldwide dissemination, anonymity, and the like, repost, and comment features afforded on most social media platforms seem to contribute to youths' mental health difficulties. As with other forms of harassment and associated harms, new policies and processes are needed to blunt the impact of these harms.

The Potential Effects of Digital Stress. Social media platforms frequently include a variety of features designed to maintain users' engagement online, or encourage users to return to the app. Psychological theory and research have begun to reveal that this has become a significant source

²³ Moreno, M. A., Chassiakos, Y. R., Cross, C., Hill, D., Ameenuddin, N., Radesky, J., Hutchinson, J., Boyd, R., Mendelson, R., Smith, J., Swanson, W. S., & Media, C. C. (2016). Media use in school-aged children and adolescents. *Pediatrics*, 138(5). <https://doi.org/10.1542/peds.2016-2592>; Tynes, B. M., Giang, M. T., Williams, D. R., & Thompson, G. N. (2008). Online racial discrimination and psychological adjustment among adolescents. *Journal of Adolescent Health*, 43(6), 565-569. <https://doi.org/10.1016/j.jadohealth.2008.08.021>.

²⁴ Out Online: The Experiences of LGBT Youth on the Internet. (2013). GLSEN. <https://www.glsen.org/news/out-online-experiences-lgbt-youth-internet>.

²⁵ Cannon, D. S., Tiffany, S. T., Coon, H., Scholand, M. B., McMahon, W. M., & Leppert, M. F. (2007). The PHQ-9 as a brief assessment of lifetime major depression. *Psychological Assessment*, 19(2), 247-251. <https://doi.org/10.1037/1040-3590.19.2.247>.



of stress. This is highly relevant since stress is one of the strongest predictors of children's and adolescents' mental health difficulties, including suicidal behavior. "Digital stress," is characterized by a youth's a) connection overload (i.e., notification and implicit social requirements to participate on social media platforms), b) the fear of missing out on conversations and other social interactions taking place exclusively online, c) the need to remain constantly available to others online, and d) approval anxiety (i.e., concerns about the response to one's own posts) are each notable factors influencing the way youth think about their connection to online platforms²⁶. Nearly half of all young people participating in online platforms report experiencing digital stress. Research demonstrates that higher levels of digital stress are associated with greater increases in depressive symptoms among adolescents²⁷.

Social Media Encourages Social Comparisons. The quantitative nature of social media, combined with the use of visual stimuli, creates a fertile ground for social comparisons. Adolescence, a period defined by psychologists as a process of identity development via reflected appraisal processes (i.e., evaluating oneself based on feedback from peers) are especially likely to engage with social media in ways that allow them to compare their appearance, friends, social activities with others with what they see online, especially when those in their own social network are commenting and "liking" these same posts. The opportunity for constant feedback, commentary, quantitative metrics of approval, and 24-hour social engagement is unprecedented among our species. Research suggests that these social comparison processes, and youths' tendency to seek positive feedback or status (i.e., more "likes," followers, online praise) is associated with a risk for depressive symptoms²⁸. In addition, psychological science demonstrates

²⁶ Steele, R. G., Hall, J. A., & Christofferson, J. L. (2020). Conceptualizing Digital Stress in Adolescents and Young Adults: Toward the Development of an Empirically Based Model. *Clinical child and family psychology review*, 23(1), 15–26. <https://doi.org/10.1007/s10567-019-00300-5>.

²⁷ Nick, E. A., Kilic, Z., Nesi, J., Telzer, E. H., Lindquist, K. A., & Prinstein, M. J. (2022). Adolescent Digital Stress: Frequencies, Correlates, and Longitudinal Association With Depressive Symptoms. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, 70(2), 336–339. <https://doi.org/10.1016/j.jadohealth.2021.08.025>.

²⁸ Choukas-Bradley, S., Nesi, J., Widman, L., & Galla, B. M. (2020). The Appearance-Related Social Media Consciousness Scale: Development and validation with adolescents. *Body Image*, 33, 164–174.



that exposure to this online content is associated with lower self-image and distorted body perceptions among young people. This exposure creates strong risk factors for eating disorders, unhealthy weight-management behaviors, and depression ²⁹. As with other impacts of online platforms, evidence indicates that these body image issues are particularly prevalent in LGBTQ+ youth. Leaving these youth more predisposed to eating disorders, depression, bullying, substance abuse and other mental health harms.

Potentially Beneficial Effects of Social Media Use. It is important to acknowledge that research on social media use and adolescent development is relatively new, as are many social media platforms. In addition, there has been remarkably little funding designated for research on this topic. Consequently, the long-term effects of social media use on youth development is relatively uncharted. For instance, above I discussed some of the potential effects of technology social media use on brain development. Yet, it is unknown whether adolescent brain development, known for its plasticity, may “correct” some of the alternations in brain structure or function, whether compensatory neural processes may develop, or whether these alterations may confer unknown future strengths.

In addition, there is some research demonstrating that social media use is linked with positive outcomes that may benefit psychological development among youth. Perhaps most notably, psychological research suggests that young people form and maintain friendships online. These relationships often afford opportunities to interact with a more diverse peer group than offline, and the relationships are close and meaningful and provide important support to youth in

<https://doi.org/10.1016/j.bodyim.2020.02.017>; Hawes, T., Zimmer-Gembeck, M. J., & Campbell, S. M. (2020). Unique associations of social media use and online appearance preoccupation with depression, anxiety, and appearance rejection sensitivity. *Body Image*, 33, 66-76. <https://doi.org/10.1016/j.bodyim.2020.02.010>; Nesi, J.L., & Prinstein, M.J. (2015). Using social media for social comparison and feedback seeking: Gender and popularity moderate associations with depressive symptoms. *Journal of Abnormal Child Psychology*, 43(8), 1427–1438.

²⁹ Carrotte, E. R., Vella, A. M., & Lim, M. S. (2015). Predictors of “liking” three types of health and fitness-related content on social media: A cross-sectional study. *Journal of Medical Internet Research*, 17(8), e205. <https://doi.org/10.2196/jmir.4803>; <https://doi.org/10.1016/j.paid.2011.11.011>.



times of stress³⁰. The buffering effects of social support from peers has been well documented in the psychological literature³¹. This may be especially important for youth with marginalized identities, including racial, ethnic, sexual, and gender minorities. Digital platforms provide an important space for self-discovery and expression for LGBTQ+ youth.

Research also suggests that during the COVID-19 lockdown from 2020-2021, the use of one-on-one (i.e., direct messaging) on social media and sharing funny content reduced stress among youth. There also is some evidence that youth are more likely to engage in civic activism online than off³².

A growing area of research has also focused on the use of youths' interest in online activities as an opportunity for digital-based intervention³³. Adolescents report high levels of comfort with, and a preference for, online communication, especially when discussing mental health. Studies also show that adolescents commonly use the internet for mental health information³⁴.

³⁰Anderson, M., & Jiang, J. (2018, November 28). 2. Teens, friendships and online groups. Pew Research Center: Internet, Science & Tech; Pew Research Center: Internet, Science & Tech. <https://www.pewresearch.org/internet/2018/11/28/teens-friendships-and-online-groups/>; Charmaraman L, Hodes R, Richer AM. Young Sexual Minority Adolescent Experiences of Self-expression and Isolation on Social Media: Cross-sectional Survey Study. *JMIR Ment Health*. 2021;8(9):e26207. doi:10.2196/26207; Massing-Schaffer M, Nesi J, Telzer EH, Lindquist KA, Prinstein MJ. Adolescent Peer Experiences and Prospective Suicidal Ideation: The Protective Role of Online-Only Friendships. *J Clin Child Adolesc Psychol*. 2022;51(1):49-60. doi:10.1080/15374416.2020.1750019; Marciano L, Ostroumova M, Schulz PJ, Camerini A-L. Digital Media Use and Adolescents' Mental Health During the Covid-19 Pandemic: A Systematic Review and Meta-Analysis. *Front Public Health*. 2021;9:793868. doi:10.3389/fpubh.2021.793868; Baskin-Sommers A, Simmons C, Conley M, et al. Adolescent civic engagement: Lessons from Black Lives Matter. *Proc Natl Acad Sci USA*. 2021;118(41). doi:10.1073/pnas.2109860118.

³¹Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310–357. <https://doi.org/10.1037/0033-2909.98.2.310>.

³²Marciano, L., Ostroumova, M., Schulz, P. J., & Camerini, A. L. (2022). Digital Media Use and Adolescents' Mental Health During the Covid-19 Pandemic: A Systematic Review and Meta-Analysis. *Frontiers in public health*, 9, 793868. <https://doi.org/10.3389/fpubh.2021.793868>.

³³Bradford, S., & Rickwood, D. (2015). Young people's views on electronic mental health assessment: Prefer to type than talk? *Journal of Child and Family Studies*, 24(5), 1213–1221. <https://doi.org/10.1007/s10826-014-9929-0>.

³⁴Intervention and Prevention in the Digital Age. (2022). In J. Nesi, E. Telzer, & M. Prinstein (Eds.), *Handbook of Adolescent Digital Media Use and Mental Health* (pp. 363-416). Cambridge: Cambridge University Press.

doi:10.1017/9781108976237.019; Park, E., & Kwon, M. (2018). Health-Related Internet Use by Children and Adolescents: Systematic Review. *Journal of medical Internet research*, 20(4), e120. <https://doi.org/10.2196/jmir.7731>.



These elements, taken together, present the possibility that digital modes of treatment and other health interventions may be particularly effective for young people.

Research into the field of digital mental health interventions is growing and the existing information is heavily skewed toward more established modalities (e.g., telehealth, online/web-based interventions). Evidence supports the use of videoconferencing as an effective form of treatment for youth mental health across a range of problems³⁵. While many computerized programs and internet-based treatment programs were found to be of moderate to high quality, a systematic review of the literature found that the inclusion of a therapist or clinician improved outcomes in adolescents with depression and anxiety over those that were self-paced³⁶. Young people with a history of suicidal ideation often prefer to initially seek and receive healthcare online³⁷. Even when individuals have strong support systems offline, they may struggle to access that support in times of need³⁸. Early indications that online support may be appealing because of its immediate nature and because the interactions are among peers with shared experience and

³⁵ Myers, K. M., Valentine, J. M., Melzer, S. M. (2007, Nov). Feasibility, acceptability, and sustainability of telepsychiatry for children and adolescents. *Psychiatric Services*, 58(11), 1493-1496. <https://doi.org/10.1176/ps.2007.58.11.1493>; Nelson, E. L., Cain, S., & Sharp, S. (2017, Jan). Considerations for conducting telemental health with children and adolescents. *Child Adolescent Psychiatric Clinics of North America*, 26(1), 77-91. <https://doi.org/10.1016/j.chc.2016.07.008>.

³⁶ Clarke, T. C., Black, L. I., Stussman, B. J., Barnes, P. M., & Nahin, R. L. (2015). Trends in the use of complementary health approaches among adults: United States, 2002-2012. *National health statistics reports*, (79), 1-16.; Wozney L, McGrath P, Gehring N, Bennett K, Huguet A, Hartling L, Dyson M, Soleimani A, Newton A. eMental Healthcare Technologies for Anxiety and Depression in Childhood and Adolescence: Systematic Review of Studies Reporting Implementation Outcomes. *JMIR Ment Health* 2018;5(2):e48. <https://mental.jmir.org/2018/2/e48>; Hollis, C., Falconer, C. J., Martin, J. L., Whittington, C., Stockton, S., Glazebrook, C., & Davies, E. B. (2017). Annual Research Review: Digital health interventions for children and young people with mental health problems - a systematic and meta-review. *Journal of child psychology and psychiatry, and allied disciplines*, 58(4), 474-503. <https://doi.org/10.1111/jcpp.12663>.

³⁷ Frost, M., Casey, L. M., & O’Gorman, J. G. (2017). Self-injury in young people and the help-negation effect. *Psychiatry Research*, 250, 291-296. <https://doi.org/10.1016/j.psychres.2016.12.022>.

³⁸ Kruzan, K. P., Whitlock, J., & Bazarova, N. N. (2021). Examining the Relationship Between the Use of a Mobile Peer-Support App and Self-Injury Outcomes: Longitudinal Mixed Methods Study. *JMIR Mental Health*, 8(1), e21854. <https://doi.org/10.2196/21854>; 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>.



experiential knowledge³⁹. Yet, it is crucial for young people to have access to in-person screenings and clinician support.

Psychological Effects of Lost Opportunities While Youth Are Online

Every hour youth spend online is an hour that is not being spent on alternative (“in real life”) activities. In some cases, this may protect adolescents’ exposure to peer contexts in which substance use and sexually risky behaviors occur. However, youths’ online activities also may preclude engagement in activities necessary for successful maturation and psychological adaptation. Perhaps most concerning is the extent to which research has demonstrated that technology and social media use is interfering with youths’ sleep.

Research has supported the link between technology use and sleep in several ways. Perhaps most compelling are data from meta-analyses (i.e., a statistical integration of findings from across an entire body of research) indicating that 60% of adolescents report using technology in the hour before bedtime, and more screen time is associated with poorer sleep health and failure to meet sleep duration requirements set by the American Academy of Sleep Medicine, partly due to delayed melatonin release, delayed bedtimes, and increases in overstimulation and difficulty disengaging from online social interactions. Interventions to reduce nighttime screen use are successful in increasing sleep duration⁴⁰.

This has critical implications for adolescent development. Research suggests that insufficient sleep is associated with poor school performance, difficulties with attention, stress

³⁹ Marchant, A., Hawton, K., Stewart, A., Montgomery, P., Singaravelu, V., Lloyd, K., Purdy, N., Daine, K., & John, A. (2017). A systematic review of the relationship between internet use, self-harm and suicidal behaviour in young people: The good, the bad and the unknown. PLOS ONE, 12(8), e0181722. <https://doi.org/10.1371/journal.pone.0181722>; Thoits, P. A. (2011). Mechanisms Linking Social Ties and Support to Physical and Mental Health. Journal of Health and Social Behavior, 52(2), 145–161. <https://doi.org/10.1177/0022146510395592>.

⁴⁰ Telzer EH, Goldenberg D, Fuligni AJ, Lieberman MD, Gálvan A. Sleep variability in adolescence is associated with altered brain development. Dev Cogn Neurosci. 2015;14:16-22. doi:10.1016/j.dcn.2015.05.007.



regulation, and increased risk for automobile accidents. Neuroscientific research has demonstrated that inconsistent sleep schedules are associated with changes in structural brain development in adolescent years. In other words, youths' preoccupation with technology and social media may deleteriously affect the size of their brains ⁴¹.

In addition, note that youth also engage with online and social media apps *while participating* in other activities. Indeed, early studies show that when youth are engaging in schoolwork, they often are doing so alongside the use of social media platforms, a phenomenon called "media multitasking" ⁴². Research clearly demonstrates that most humans cannot multitask, but rather are rapidly task-shifting – a process associated with poorer memory and comprehension among youth ⁴³. Evidence shows that these phenomena only worsen with heavier use of social media, with more common symptoms such as mind wandering and higher levels of impulsivity among young adults who use social media more frequently ⁴⁴.

Potential Solutions and Policy Implications

⁴¹ Achterberg M, Becht A, van der Crujisen R, et al. Longitudinal associations between social media use, mental well-being and structural brain development across adolescence. *Dev Cogn Neurosci*. 2022;54:101088. doi:10.1016/j.dcn.2022.101088.

⁴² Jeong, S.-H., & Hwang, Y. (2012). Does Multitasking Increase or Decrease Persuasion? Effects of Multitasking on Comprehension and Counterarguing. *Journal of Communication*, 62(4), 571–587. <https://doi.org/10.1111/j.1460-2466.2012.01659.x>; van der Schuur, W. A., Baumgartner, S. E., Sumter, S. R., & Valkenburg, P. M. (2015). The consequences of media multitasking for youth: A review. *Computers in Human Behavior*, 53, 204–215. <https://doi.org/10.1016/j.chb.2015.06.035>; L. Mark Carrier, Larry D. Rosen, Nancy A. Cheever, Alex F. Lim,

Causes, effects, and practicalities of everyday multitasking, *Developmental Review* (2015), doi: 10.1016/j.dr.2014.12.005.

⁴³ Ralph, B. C., Thomson, D. R., Cheyne, J. A., & Smilek, D. (2014). Media multitasking and failures of attention in everyday life. *Psychological research*, 78(5), 661–669. <https://doi.org/10.1007/s00426-013-0523-7>.

⁴⁴ Ophir, E., Nass, C., & Wagner, A. D. (2009). Cognitive control in media multitaskers. *Proceedings of the National Academy of Sciences of the United States of America*, 106(37), 15583–15587.

<https://doi.org/10.1073/pnas.0903620106>; Ralph, B. C., Thomson, D. R., Cheyne, J. A., & Smilek, D. (2014). Media multitasking and failures of attention in everyday life. *Psychological research*, 78(5), 661–669.

<https://doi.org/10.1007/s00426-013-0523-7>; Baumgartner, S. E., Weeda, W. D., van der Heijden, L. L., & Huizinga, M. (2014). The Relationship Between Media Multitasking and Executive Function in Early Adolescents. *The Journal of Early Adolescence*, 34(8), 1120–1144. <https://doi.org/10.1177/0272431614523133>; Baumgartner, Susanne & van der Schuur, Winneke & Lemmens, Jeroen & te Poel, Fam. (2018). The Relationship Between Media Multitasking and Attention Problems in Adolescents: Results of Two Longitudinal Studies. *Human Communication Research*. 44. 3-30. 10.1093/hcre.12111.



The internet and the introduction of social media platforms have literally changed our species through new forms of social interaction, new rules for discourse, the rapid spread of information, and concomitant changes in the types of relationships that previously had defined the human race for millennia. This is an extraordinarily high priority area for additional scientific research; however, this work has been woefully underfunded. Currently, federal agencies lack both the direction, expertise, and dedicated funding to adequately research both the positive and negative impacts of online platforms. Tech companies responsible for these platforms employ dozens of researchers focused on designing products and observing how users engage with them. The federal government must match or exceed this commitment to ensure the public has an adequate understanding of how these platforms work and how users, especially children, are using these platforms and their impact. The research that is needed should be longitudinal to allow for long-term follow-up. Research should capture the experience of diverse samples, utilize the benefits of technology to capture objective measures of behavior, include technology (e.g., fMRI) to study biopsychosocial effects, and importantly, should make use of the data available to social media companies to fully understand the effects of social media and protect the common good. This effort must be paired with required increases in transparency and access to data for researchers to further understand online activity. New transparency and reporting requirements should ensure user privacy, while creating new mechanisms for researchers and policymakers to understand how these online spaces operate.

Recently, Congress allocated \$15M to research on social media and adolescent mental health. This is appreciated, yet barely sufficient to fund more than 3-5 individual studies that would meet the abovementioned specifications. At least \$100M in funds will be needed to reflect a serious commitment to this research area across federal agencies. And, as we are on the precipice of a new digital age with artificial intelligence (AI) and machine learning directly impacting us across the lifespan, it is paramount that our country invest in research to protect future generations.



Such research also might address the role of social media algorithms on users' experience. This requires access to data for independent researchers to understand how algorithms work ⁴⁵. Social media companies employing algorithms to display content to users should take steps to provide explanations on how these technologies work and how they might drive or reward certain types of posts or behavior. Data from algorithms, along with internal research, should also be made public to allow researchers and policymakers to achieve a greater understanding of the impacts of social media on users, particularly children. Federal agencies should prioritize research into the impacts of social media and provide private researchers with grants and other support to ensure findings relating to these platforms are made broadly available.

There is much more Congress and federal agencies can do to provide education around how best to use online platforms to mitigate harmful impacts. A coalition of more than 150 organizations, led by APA, have called on the Surgeon General to create and distribute resources dedicated to teaching children and caregivers about online social media use ⁴⁶. There is a clear need for an education campaign that enhances the public's understanding of the potential harms posed by social media and encourages caregivers and children to educate themselves with evidence-informed suggestions for its appropriate use. At the same time, it is important to acknowledge social media's potential to provide children with a healthy space for convening and companionship. While we recognize the need for additional research in this area, the very real harms of social media are impacting our children today, and more must be done to communicate and mitigate the impacts of online social media use. Educating young users and their caregivers about how best to use the platforms to mitigate negative impacts is an essential intervention that can start today. A public education campaign should include information about the specific dangers social media poses to adolescents, how parents and caregivers can best navigate learning

⁴⁵ Epps-Darling, A., Bouyer, R. T., & Cramer, H. (2020, October). Artist gender representation in music streaming. In Proceedings of the 21st International Society for Music Information Retrieval Conference (Montréal, Canada) (ISMIR 2020). ISMIR (pp. 248-254); Bravo, D. Y., Jefferies, J., Epps, A., & Hill, N. E. (2019). When things go viral: Youth's discrimination exposure in the world of social media. In Handbook of Children and Prejudice (pp. 269-287). Springer, Cham. https://doi.org/10.1007/978-3-030-12228-7_15.

⁴⁶ (2023). Apaservices.org. <https://www.apaservices.org/advocacy/news/surgeon-general-dangers-social-media>



more about these dangers, how best to communicate the risks with their children, and ultimately how to educate their children on the best methods for using social media in a safe way.

APA also advocates for Congress and federal agencies to require social media companies to do more to combat this issue. Platforms can create and provide new tools aimed at mitigating the harms associated with platform use. Requiring social media companies to provide children and their caregivers with options to make changes to their social media settings can promote mental health by protecting their information, disabling features that are particularly addictive, and opting out of algorithm processes that serve up problematic or harmful content. Social media companies can also be required to set defaults to address harms to young users.

Warnings on harmful content should also be considered to reduce exposure of young people to content that may negatively impact their mental health or well-being and companies should be held accountable for the proliferation of this content. Social media companies should acknowledge known impacts of their platforms, providing warnings and resources to parents and caregivers of young users, develop plans to mitigate known harms, and determine whether these warnings and plans were effective, with iterative updates based on these findings. Social media platforms must work to prevent and mitigate harmful content, such as promotion of self-harm, suicide, eating disorders, substance use and sexual exploitation. Independent audits can assess risks and determine whether platforms are taking meaningful steps to prevent damage and these must be paired with enforcement actions and accountability mechanisms for when platforms fail to effectively mitigate harms to children.

As discussed throughout this testimony, more must be done to specifically protect those children belonging to traditionally marginalized and minoritized communities. Mental health and other harms can disproportionately fall on LGBTQ+ youth, and resources should be dedicated to ensuring a reduction in these harms. More must be required of platforms to discourage and prevent cyberbullying and other forms of online hate and discrimination. Reporting structures should be



more robust to allow for instances to be tracked and discouraged. Reforms to platform user experience should be prioritized to ensure members of these communities are protected from disproportionate harm.

Specific legislation has been proposed across the federal government that would take productive steps in mitigating the known negative impacts of social media. The Kids Online Safety Act (KOSA) is one such piece of legislation. In 2022, APA CEO Arthur C. Evans Jr., PhD, said, “The Kids Online Safety Act is an important first step in reining in the harms caused to children by social media platforms,” and “enacting measures that curtail harmful practices while authorizing research to understand additional impacts is a thoughtful strategy”⁴⁷. KOSA and other previously proposed legislative fixes such as updates to the Children Online Privacy and Protection Act represent important steps by Congress and I encourage their debate and adoption.

APA is heartened by the focus on mental health in Congress, and eager to work with this committee and its members to develop legislation and enact the bills cited above. Your actions now can make all the difference in how our young people interact with and are impacted by online spaces. Together, psychology, other scientific disciplines, parents, caregivers, teachers, tech companies, and policymakers can work to solve this serious problem. APA is a ready partner and looks forward to working with the committee to put in place critical changes to our current system that improve the lives of our children and the flourishing of online spaces.

⁴⁷ (2023). Apaservices.org. <https://www.apaservices.org/advocacy/news/kids-online-safety-legislation>

LOG OFF

**Written Testimony of Emma Lembke,
Founder and Executive Director of the LOG OFF Movement**

United States Senate Committee on the Judiciary: Protecting Our Children Online

February 14, 2023

My name is Emma Lembke. I am originally from Birmingham, Alabama. I am currently a college sophomore studying Political Science at Washington University in St. Louis. I am honored and humbled to be here today.

I created my first social media account on Instagram when I was 12. I was in 6th grade and I was the last in my friend group allowed on social media platforms. At the time, I distinctly remember watching these apps pull my friends' attention away from games of tag and down, towards their screens. To 12-year-old me, these platforms almost seemed magical; tools that could deepen society's connective, expressive, and exploratory capabilities.

It felt as though I, a girl from Birmingham, Alabama, had the world at my fingertips, but as I began to spend more time on these platforms, I was met with a harsh reality. Social media was not magic. It was an illusion, a carefully designed product predicated on maximizing my attention at the cost of my well-being.

As my screen time steadily increased, my mental and physical health suffered. The constant quantification of my worth through likes, comments, and followers increased my anxiety and deepened my depression. As a young woman, being exposed to unrealistic body standards and harmful recommended content severely damaged my sense of self and led me towards disordered eating. I became the living embodiment of [Facebook's own 2019 internal research finding](#) that their platforms made body image issues worse for one in three teen girls.

No matter the harm I incurred, addictive features like the endless scroll and autoplay pulled me back into the online world where I continued to suffer. And there, I remained for over three years, scrolling mindlessly for 5-6 hours a day. I eventually reached a personal breaking point in the 9th grade that caused me to temporarily remove social media apps

from my device. I am still recovering today from the damage caused by social media and hyper aware that many of its effects are long lasting, if not permanent.

Senators, my story does not exist in isolation– it is a story representative of my generation, Generation Z. As the first digital natives, we grew up alongside technology. We have never known a world without the internet. Every answer has been a Google search away, every moment captured on Facebook or Instagram.

To be clear, social media can enhance our connective, expressive, and exploratory capabilities, but we are only just beginning to understand the consequences associated with growing up online. Yet, it is from our lived experience as Generation Z - the generation most harmed - that we can begin to build the most promising solutions. Decision makers from other generations must hear from us to fully understand the challenges and opportunities associated with being a young person in the digital world. It is only when young people are given a space at the table that effective solutions can emerge and safer online spaces can be created. The power of youth voices in the space is far too great to continue to be ignored.

This is why, as a senior in high school, after years of researching and reflecting on my own relationship with social media, I founded the LOG OFF Movement. I knew a community had to be created by young people for young people to tackle the complexities of social media and its impact on younger generations.

Through LOG OFF, I have engaged with youth around the world who have shared their experiences of harm with me. I've listened to stories of unwanted direct messages, vicious cyberbullying, and dangerous pro-anorexia rabbit holes. While our stories may differ, as young people we share the frustration of being portrayed as passive victims of Big Tech when in reality, we are ready to be included as active agents of change; rebuilding new, and safer online space for the next generation. Ten years from now social media will not be what it is today, it will be what people of my generation build it to be. We want to build it differently, we want to build it right.

I came here today as the representative for those young changemakers. To be the voice not just of those of my generation who have been harmed or who are currently struggling, but as a voice for all the 12-year-old girls yet to come. The genie is out of the bottle, and screen time across younger generations is only increasing, with [the number of US teenagers](#)

[online continuously almost doubling from 2015 to 2018: 24% to 45%. In 2020, 81% of 14 to 22-year-olds said they used social media either “daily” or “almost constantly.”](#)

As a society, we will never go back to a time where social media does not exist, nor should we. But make no mistake, unregulated social media is a weapon of mass destruction that continues to jeopardize the privacy, safety, and wellbeing of all American youth. This harm does not stop at the borders of the United States, this is a global crisis. The United States has a unique opportunity to lead the world in putting a stop to predatory and targeted actions by Big Tech against the world’s most vulnerable.

It’s time to act and, Senators, I urge you to meaningfully regulate these companies not just *for* my generation but *with* my generation. Integrating our lived experience into the regulatory process is essential to getting it right.

Thank you for having me here today. I look forward to answering your questions.

**AB-638 Mental Health Services Act: early intervention and prevention programs.** (2021-2022)

SHARE THIS:



Date Published: 10/07/2021 02:00 PM

Assembly Bill No. 638**CHAPTER 584**

An act to amend Section 5840 of the Welfare and Institutions Code, relating to mental health, and making an appropriation therefor.

[Approved by Governor October 06, 2021. Filed with Secretary of State
October 06, 2021.]

LEGISLATIVE COUNSEL'S DIGEST

AB 638, Quirk-Silva. Mental Health Services Act: early intervention and prevention programs.

Existing law, the Mental Health Services Act (MHSA), an initiative measure enacted by the voters as Proposition 63 at the November 2, 2004, statewide general election, establishes the continuously appropriated Mental Health Services Fund to fund various county mental health programs and requires counties to spend those funds on mental health services, as specified. The MHSA requires counties to establish a program designed to prevent mental illnesses from becoming severe and disabling and authorizes counties to use funds designated for prevention and early intervention to broaden the provision of those community-based mental health services by adding prevention and early intervention services or activities.

Existing law authorizes the MHSA to be amended by a $\frac{2}{3}$ vote of the Legislature if the amendments are consistent with, and further the purposes of, the MHSA.

This bill would amend the MHSA by including in the prevention and early intervention services authorized to be provided, prevention and early intervention strategies that address mental health needs, substance misuse or substance use disorders, or needs relating to cooccurring mental health and substance use services. By authorizing a new use for continuously appropriated funds, this bill would make an appropriation. The bill would state the finding and declaration of the Legislature that this change is consistent with, and furthers the intent of, the MHSA.

Vote: 2/3 Appropriation: yes Fiscal Committee: yes Local Program: no

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 5840 of the Welfare and Institutions Code is amended to read:

5840. (a) The State Department of Health Care Services, in coordination with counties, shall establish a program designed to prevent mental illnesses from becoming severe and disabling. The program shall emphasize improving timely access to services for underserved populations.

(b) The program shall include the following components:

- (1) Outreach to families, employers, primary care health care providers, and others to recognize the early signs of potentially severe and disabling mental illnesses.
- (2) Access and linkage to medically necessary care provided by county mental health programs for children with severe mental illness, as defined in Section 5600.3, and for adults and seniors with severe mental illness, as defined in Section 5600.3, as early in the onset of these conditions as practicable.
- (3) Reduction in stigma associated with either being diagnosed with a mental illness or seeking mental health services.
- (4) Reduction in discrimination against people with mental illness.

(c) The program shall include mental health services similar to those provided under other programs that are effective in preventing mental illnesses from becoming severe, and shall also include components similar to programs that have been successful in reducing the duration of untreated severe mental illnesses and assisting people in quickly regaining productive lives.

(d) The program shall emphasize strategies to reduce the following negative outcomes that may result from untreated mental illness:

- (1) Suicide.
- (2) Incarcerations.
- (3) School failure or dropout.
- (4) Unemployment.
- (5) Prolonged suffering.
- (6) Homelessness.
- (7) Removal of children from their homes.

(e) Prevention and early intervention funds may be used to broaden the provision of community-based mental health services by adding prevention and early intervention services or activities to these services, including prevention and early intervention strategies that address mental health needs, substance misuse or substance use disorders, or needs relating to cooccurring mental health and substance use services.

(f) In consultation with mental health stakeholders, and consistent with regulations from the Mental Health Services Oversight and Accountability Commission, pursuant to Section 5846, the department shall revise the program elements in Section 5840 applicable to all county mental health programs in future years to reflect what is learned about the most effective prevention and intervention programs for children, adults, and seniors.

SEC. 2. The Legislature finds and declares that this act is consistent with, and furthers the intent of, the Mental Health Services Act within the meaning of Section 18 of that act.



H.R.7255 - Garrett Lee Smith Memorial Reauthorization Act

117th Congress (2021-2022)

Sponsor: [Rep. McMorris Rodgers, Cathy \[R-WA-5\]](#) (Introduced 03/28/2022)

Committees: House - Energy and Commerce

Latest Action: House - 03/29/2022 Referred to the Subcommittee on Health. ([All Actions](#))

Tracker:

Introduced

Summary(1) Text(1) **Actions(3)** Titles(2) Amendments(0) Cosponsors(26) Committees(1) Related Bills(0)

[Bill History – Congressional Record References](#)

3 results for All Actions Except Amendments | [Compact View](#)

- ☐ Actions Overview[1] ☒ All Actions Except Amendments[3] ☐ All Actions[3]

Action By

☐ [House](#) [3]

House Committees

☐ [Energy and Commerce](#) [1]

Date	All Actions Except Amendments
03/29/2022	Referred to the Subcommittee on Health. Action By: Committee on Energy and Commerce
03/28/2022	Referred to the House Committee on Energy and Commerce. Action By: House of Representatives
03/28/2022	Introduced in House Action By: House of Representatives

The Cost Of A “Community Workforce Agreement” Is Higher Than Expected For Costa Mesa Public Projects

March 7, 2023

Testimony from 14-year Costa Mesa homeowner Dave Everett

Hi. My name is Dave Everett. I’m testifying today as a 14 year Costa Mesa resident who represents the Western Electrical Contractors Association here in Southern California.

When this special interest deal was proposed last year, I came to our City Council and tried to explain that this would **increase the cost of construction projects** in Costa Mesa subject to this CWA/PLAs.

Not only would the administration be expensive - as we are finding out tonight, but that it would be expensive for taxpayers because less competition and fewer bids will **increase the cost of construction projects** in Costa Mesa subject to PLAs.

And it will increase the cost much more than the council and specifically Mayor Stephens indicated when they approved this wasteful discriminatory special interest deal.

The Mayor claimed that this would only cost \$28,000 a year to Costa Mesa taxpayers when the reality could not be further from that.

“From what I can calculate at 8% we will be paying to administer it's 8/10 of a percent we will be paying about \$28,000 a year.”

If the \$400,000 contract is for 5 years, then we are paying \$80,000 per year - not the \$28,000 the Mayor suggested.

The Mayor was off by a factor of almost 3. (2.857)

I would ask the council to consider that *just as the administrative costs were significantly than the estimates*, the true cost of this CWA/PLA special interest deal will be significantly higher as well.

As I have repeatedly documented, the true cost to taxpayers for this special interest deal is in the reduction of competition and bids.

With a Project Labor Agreement or “Community Workforce Agreement”(it doesn’t matter what you call it, the language is always the exact same) a project that would get 25-30 bids would get only 4-5 with a PLA, so the bids come in at a higher price.

How much higher you ask?
15% higher.

So if the city spent \$52 million on public works construction, the CWA/PLA special interest deal would waste \$7.8 million taxpayer dollars.

If the city spends \$80 million on public works construction, the CWA/PLA special interest deal would waste \$12 million taxpayer dollars.

If the city spent \$200 million on public works construction, the CWA/PLA special interest deal would waste \$30 million taxpayer dollars.

So I wanted to re-submit, for the third time, a chart showing 4 major studies on PLA costs done by respected Universities.

The first study shows PLAs costing 18% more per project, another shows 15%, as does a third, and the forth has the cost at 20%

As I illustraited earlier, I used the lower figure of 15% to come up with the \$7.8, \$12 million or \$30 million dollars of waste based on that very conserative figure.

I did not add in the additional administrative cost.

So I just wanted to explain that to Costa Mesa taxpayers and to make sure the policymakers understand the true cost of discriminating against over 80% of the construction workforce that chooses to work non-union.

Thank you for your time and I will submit my comments to the city clerk and staff for the record.

Dave Everett
Western Electrical Contractors Association
(949) 346-4665 cell
DaveLeonEverett@gmail.com

CHART 4: PLA Statistical Study Results Comparison

Study Name, Author	Year of Study	Number of Schools	Additional Cost per Square Foot	Percentage Increase Cost
"The Effect of Project Labor Agreements on the Cost of School Construction," Belman et al.	2005	92	\$29-\$32	17%-20% *
"Do Project Labor Agreements Raise Construction Costs?," Bachman et al.	2003	62	\$12-\$20	9%-15%
"Project Labor Agreements and Public Construction Costs in Connecticut," Bachman et al.	2004	71	\$30	18%
"Measuring the Cost of Project Labor Agreements on School Construction in California," Vasquez et al.	2011	551	\$29-\$32	13%-15%
<i>*As noted on Page 5, the fully specified model did not find PLAs were significant.</i>				