

Assigned for all purposes to: Spring Street Courthouse, Judicial Officer:

Electronically FILED by Superior Court of California, County of Los Angeles on 03/28/2023 09:06 AM David W. Slayton, Executive Officer/Clerk of Court, by D. Jackson Aubry, Deputy Clerk

1 Joseph G. VanZandt (*pro hac vice*)*
Davis Vaughn (*pro hac vice*)*
2 Jennifer Emmel (*pro hac vice*)*
3 Clinton Richardson (*pro hac vice*)*
Seth Harding (*pro hac vice*)*
4 **BEASLEY ALLEN CROW**
METHVIN PORTIS & MILES, LLC
5 234 Commerce Street
Montgomery, AL 36103
6 Tel: (334) 269-2343
7 Email: Joseph.VanZandt@BeasleyAllen.com
Email: Davis.Vaughn@BeasleyAllen.com
8 Email: Jennifer.Emmel@BeasleyAllen.com
Email: Clinton.Richardson@BeasleyAllen.com
9 Email: Seth.Harding@BeasleyAllen.com

10 Thomas P. Cartmell (*pro hac vice*)*
Jonathan P. Kieffer (*pro hac vice*)*
11 **WAGSTAFF & CARTMELL LLP**
12 4740 Grand Avenue, Suite 300
Kansas City, MO 64112
13 Tel: (816) 531-2372
Email: tcartmell@wcllp.com
14 Email: jpkieffer@wcllp.com

15 Kirk J. Goza (*pro hac vice*)*
16 Bradley D. Honnold (*pro hac vice*)*
GOZA & HONNOLD LLC
17 9500 Nall Avenue, Suite 400
Overland Park, KS 66207-2950
18 Tel: (913) 451-3433
19 Email: kgoza@gohonlaw.com
Email: bhonnold@gohonlaw.com

20 C. Brooks Cutter, SBN 121407
21 Jennifer S. Domer, SBN 305822
CUTTER LAW P.C.
22 401 Watt Avenue
Sacramento, CA 95864
23 Tel: (916) 290-9400
Fax: (916) 588-9330
24 E-mail: bcutter@cutterlaw.com
E-mail: jdomer@cutterlaw.com

25 *Attorneys for Plaintiffs*
26
27
28

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

**SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES**

BALDWIN COUNTY PUBLIC SCHOOLS,
BALDWIN COUNTY, STATE OF
ALABAMA; MONTGOMERY PUBLIC
SCHOOLS, MONTGOMERY COUNTY,
STATE OF ALABAMA; AND TUSCALOOSA
CITY SCHOOLS, TUSCALOOSA COUNTY,
STATE OF ALABAMA,

Plaintiffs,

v.

META PLATFORMS, INC.; FACEBOOK
HOLDINGS, LLC; FACEBOOK
OPERATIONS, LLC; INSTAGRAM, LLC;
SNAP INC.; TIKTOK, INC.; BYTEDANCE,
INC.; ALPHABET INC.; XXVI HOLDINGS
INC.; GOOGLE LLC; and YOUTUBE LLC,

Defendants.

CASE NO. 23STCV06685

**COMPLAINT FOR DAMAGES AND
DEMAND FOR JURY TRIAL**

TABLE OF CONTENTS

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

I. INTRODUCTION 1

II. JURISDICTION AND VENUE 4

III. PARTIES 5

 A. Plaintiffs 5

 B. Meta Defendants. 5

 C. Defendant Snap, Inc. 6

 D. TikTok Defendants..... 7

 E. YouTube Defendants..... 7

IV. FACTUAL ALLEGATIONS 8

 A. GENERAL FACTUAL ALLEGATIONS 8

 1. Defendants have targeted children as a core market. 8

 2. Children are uniquely susceptible to harm from Defendants’ products.
 10

 3. Defendants designed their products to attract and addict youth..... 14

 4. Millions of kids use Defendants’ products compulsively. 18

 5. Defendants’ products have created a youth mental health crisis. 20

 6. Defendants could have avoided harming Plaintiffs and their students. 27

 7. Plaintiffs expressly disclaim any and all claims seeking to hold
 Defendants liable as the publisher or speaker of any content provided,
 posted, or created by third parties. 28

 B. FACTUAL ALLEGATIONS AS TO META 29

 1. The Facebook Product..... 30

 2. The Instagram Product 31

 3. Meta’s Products are Addictive and Harmful to Youth..... 31

 C. FACTUAL ALLEGATIONS AS TO SNAP 38

 D. FACTUAL ALLEGATIONS AS TO TIKTOK 45

 E. FACTUAL ALLEGATIONS AS TO GOOGLE (YOUTUBE) 52

 F. PLAINTIFF-SPECIFIC ALLEGATIONS..... 56

 1. The Effect of Social Media Use in Schools 56

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

2. Impact of Social Media on Plaintiffs..... 60

V. CAUSES OF ACTION 66

VI. DEMAND FOR A JURY TRIAL..... 70

VII. PRAYER FOR RELIEF 70

1 **I. INTRODUCTION**

2 1. This matter arises from an egregious breach of the public trust by Defendants Meta
3 Platforms, Inc. (hereinafter, “Meta Platforms”), Facebook Holdings, LLC, Facebook Operations,
4 LLC, Instagram, LLC (hereinafter, “Instagram”), (collectively—“Meta”), together with Snap Inc.
5 (hereinafter, “Snap”), TikTok, Inc. (hereinafter, “TikTok”), and ByteDance, Inc (hereinafter,
6 “ByteDance”) (hereinafter, collectively, “Non-Meta,” and, together with “Meta,” “Defendants”).
7 Defendants own and operate some of the largest social media companies in the world.

8 2. In the past decade, youth in America have engaged with Defendants’ products at an
9 exponential rate. This increase in youth using social media is the direct result of Defendants’ calculated
10 efforts to encourage and addict adolescents to endlessly use their products – Instagram, Facebook,
11 TikTok, Snapchat, and YouTube.

12 3. Defendants do not charge their users for these products, but instead receive money
13 from advertisers who pay a premium to target advertisements to specific categories of people as
14 studied and sorted by Defendants’ algorithms. Thus, Defendants generate revenue based upon the
15 total time users spend on the application, which directly correlates with the number of advertisements
16 that can be shown to each user.

17 4. The defects in Defendants’ products vary somewhat, but all Defendants’ products have
18 inadequate age verification measures; insufficient parental controls; algorithmically-generated,
19 endless feeds to keep users scrolling in an induced “flow state;” “intermittent variable rewards” that
20 manipulate dopamine delivery; and mechanisms to reward extreme usage while producing harmful
21 social comparison. These defects, along with others discussed throughout this complaint, cause
22 Defendants’ products to be harmfully addictive, which in turn causes additional related injuries.

23 5. Excessive screen time is especially harmful to adolescents’ mental health, sleep
24 patterns, and emotional well-being. Yet, Defendants’ products lack any warnings (to users in general,
25 minor users, or their parents) that foreseeable product use can cause injury to users’ mental and
26 physical health, rendering the products unreasonably dangerous. Defendants’ products contain
27 designs intended to circumvent parental oversight.

28

1 6. Defendants know that minors are much more vulnerable to serious psychological harm
2 through social media use than adults. Nevertheless, Defendants knowingly seek to grow the use of
3 their products by minors through designs, algorithms, and policies that promote addiction,
4 compulsive use, and other severe mental harm.

5 7. Rather than making meaningful changes to safeguard the health and safety of its users,
6 Defendants have consistently chosen to prioritize profit over safety by continuing to implement
7 product designs that increase the frequency and duration of users' engagement, resulting in the
8 pernicious harms described in greater detail below.

9 8. In Fall 2021, Frances Haugen, a former Facebook employee turned whistleblower,
10 came forward with internal documents showing that Meta was aware that its products cause significant
11 harm to its users, especially our children. Non-Meta Defendants' social media products have similar
12 designs and mechanism of action resulting in similar addictive qualities and harmful outcome to minor
13 users. Students, both in Plaintiffs' communities and around the country, are being victimized and
14 exploited by Defendant social media products. Defendants, through addictively designed products
15 fueled by extreme data tracking, are ruthlessly extracting every dollar possible from youth with callous
16 disregard for the harm to their mental and physical health.

17 9. As a result, the U.S. Surgeon General, Commissioner Bedoya of the Federal Trade
18 Commission, and leading children's health groups have all sounded the alarm - adolescents and
19 children are suffering a mental health crisis. These authorities highlight the dramatic increases in the
20 mental health needs of minors. The Surgeon General has linked this to social media's relentless focus
21 on profits over safety: "[b]usiness models are often built around maximizing user engagement as
22 opposed to safeguarding users' health and ensuring that users engage with one another in safe and
23 healthy ways."¹

24 10. Similarly, Commissioner Bedoya of the Federal Trade Commission observed that "we
25 live in an attention economy. . . . In an attention economy, companies very literally compete for our
26

27 ¹ Protecting Youth Mental Health, *The U.S. Surgeon General's Advisory*, 2021, available at <https://www.hhs.gov/sites/default/files/surgeon-general-youth-mental-healthadvisory.pdf>.
28

1 thoughts, our time, our minds. No one should be surprised if that economy affects our mental health.”²

2 There is no question that children are facing a growing mental health crisis of epidemic proportions.

3 There is no question: Defendants are a substantial cause of this crisis.

4 11. This youth mental health crisis is infecting all aspects of education. Students are
5 experiencing record rates of anxiety, depression, and other mental health issues because of
6 Defendants’ intentional conduct. These students perform worse in school, are less likely to attend
7 school, more likely to engage in substance use and to act out, all of which directly affects Plaintiffs’
8 ability to fulfill their educational mission.

9 12. Therefore, Plaintiffs, as part of their mission as educational institutions which shape
10 the minds of youth, provide mental health services to their students. Plaintiffs train their teachers and
11 staff to screen students for mental health symptoms and provide or refer them to services, such as
12 those offered by school-based health clinics operated in partnership with behavioral health agencies.
13 Plaintiffs continue to hire mental health professionals to keep up with the ever-growing need of its
14 students, but there is no end in sight. Plaintiffs need much more.

15 13. Plaintiffs require funding to develop a long-term plan to deal with the mental health
16 crisis and address the record rates of depression, anxiety, suicidal ideation, and the other tragic
17 byproducts caused by Defendants. Plaintiffs need Defendants to take accountability for their bad acts.
18 It needs Defendants to stop targeting youths for profit and it needs them to use alternative designs for
19 their products that they know are the driving force behind the current mental health crisis for the
20 students in Plaintiffs’ school systems.

21 14. Plaintiffs bring claims for public nuisance and negligence arising from Defendants’
22 unreasonably dangerous social media products and their failure to warn of such dangers. Defendants
23 knew or, in the exercise of ordinary care, should have known that their social media products were
24 harmful to a significant percentage of their minor users and failed to re-design their products to

25
26 _____
27 ² Commissioner Alvaro M. Bedoya, Federal Trade Commission, Prepared Remarks Before the National
28 Academies of Sciences, Engineering & Medicine Meeting of the Committee on the Impact of Social Media on
the Health and Wellbeing of Children & Adolescents (February 7, 2023).

1 ameliorate these harms or warn minor users and their parents of dangers arising out of the foreseeable
2 use of their products. Defendants intentionally created an attractive nuisance to children, but
3 simultaneously failed to provide adequate safeguards from the harmful effects they knew were
4 occurring. Plaintiffs have in turn been harmed as school districts serving many youths suffering from
5 these mental health and physical injuries.

6 **II. JURISDICTION AND VENUE**

7 15. This Court has jurisdiction over this action pursuant to CAL. CODE CIV. PRO. §§ 395
8 and 410.10.

9 16. This Court has subject matter jurisdiction over all causes of action alleged in this
10 complaint pursuant to CAL. CONST. art. VI, § 10, and this is a court of competent jurisdiction to grant
11 the relief requested. Plaintiffs' claims arise under the laws of the State of California and the State of
12 Alabama, are not preempted by federal law, do not challenge conduct within any federal agency's
13 exclusive domain, and are not statutorily assigned to any other trial court.

14 17. This Court has general personal jurisdiction over Defendants because each is
15 headquartered and has its principal place of business in the State of California and has continuous
16 and systematic operations within the State of California.

17 18. This Court also has specific personal jurisdiction over Defendants because they
18 actively do business in Los Angeles County and the State of California. Defendants have purposely
19 availed themselves of the benefits, protections, and privileges of the laws of the State of California
20 through the design, development, programming, manufacturing, promotion, marketing, and
21 distribution of the products at issue and have purposely directed their activities toward this state.
22 Defendants have sufficient minimum contacts with this state to render the exercise of jurisdiction by
23 this Court permissible.

24 19. Venue is proper in Los Angeles Superior Court pursuant to CAL. CODE CIV. PRO. §§
25 395 and 395.5 because Defendants regularly conduct business and certain of Defendants' liability
26 arose in Los Angeles County.

27
28

1 **III. PARTIES**

2 **A. Plaintiffs**

3 20. Plaintiff Baldwin County Public Schools (“BCPS”) is in Baldwin County, Alabama,
4 and contains 45 schools and serves more than 30,200 students. BCPS’ office is located at 2600-A
5 North Hand Avenue, Bay Minette, AL 36507.

6 21. Plaintiff Montgomery Public Schools (“MPS”) is in Montgomery County, Alabama,
7 and manages 51 public schools and serves more than 27,300 students. MCS’ office is located at 307
8 S. Decatur Street Montgomery, AL 36104.

9 22. Plaintiff Tuscaloosa City Schools (“TCS”) is in Tuscaloosa County, Alabama, and
10 manages 21 public schools and serves more than 10,200 students. TCS’ office is located at 1210 21st
11 Avenue, Tuscaloosa, AL 35401.

12 **B. Meta Defendants.**

13 23. Meta Platforms, Inc. (“Meta”) is a multinational technology conglomerate, having its
14 principal place of business in Menlo Park, California. Meta develops and maintains social media
15 products, communication products, and electronic devices, including Facebook and Instagram.³ Meta
16 Platforms was originally incorporated in Delaware on July 29, 2004, as “TheFacebook, Inc.” On
17 September 20, 2005, the company changed its name to “Facebook, Inc.” On October 28, 2021, the
18 company assumed its current designation. While Plaintiffs have attempted to identify the specific Meta
19 Platforms subsidiary(s) that committed each of the acts alleged in this Complaint, Plaintiffs were not
20 always able to do so, in large part due to ambiguities in Meta Platforms’ and its subsidiaries’ own
21 documents, public representations, and lack of public information. However, upon information and
22 belief, Meta Platforms oversees the operations of its various products and subsidiaries, some of which
23 have been identified and are listed below. For this reason, unless otherwise specified, the shorthand
24 “Meta” contemplates the apparent control that Meta Platforms wields over its subsidiaries’ overall

25
26 _____
27 ³ These products include Facebook (its self-titled app, Messenger, Messenger Kids, Marketplace, Workplace,
28 etc.), Instagram (and its self-titled app), and a line of electronic virtual reality devices called Oculus Quest (soon
to be renamed “Meta Quest”).

1 operations and, therefore, further refers to its various subsidiaries and predecessors. To the extent this
2 assumption is incorrect, the knowledge of which Meta Platforms subsidiary, current or former, is
3 responsible for specific conduct is knowledge solely within Meta's possession, the details of which
4 Plaintiffs should be permitted to elucidate during the discovery phase.

5 24. Meta Platforms' subsidiaries include but may not be limited to: Facebook Holdings,
6 LLC; Facebook Operations, LLC; Instagram, LLC; and a dozen other entities whose identity or
7 relevance is presently unclear.

8 25. Facebook Holdings, LLC was incorporated in Delaware on March 11, 2020, and is a
9 wholly owned subsidiary of Meta Platforms. Facebook Holdings is primarily a holding company for
10 entities involved in Meta Platforms' supporting and international endeavors, and its principal place of
11 business is in Menlo Park, California.

12 26. Facebook Operations, LLC was incorporated in Delaware on January 8, 2012, and is a
13 wholly owned subsidiary of Meta Platforms. Facebook Operations is likely a managing entity for Meta
14 Platforms' other subsidiaries, and its principal place of business is in Menlo Park, California.

15 27. Instagram, LLC was founded by Kevin Systrom and Mike Krieger in October 2010. In
16 April 2012, Meta Platforms purchased the company for \$1 billion (later statements from Meta
17 Platforms have indicated the purchase price was closer to \$2 billion). Meta Platforms reincorporated
18 the company on April 7, 2012, in Delaware. Currently, the company's principal place of business is
19 in Menlo Park, CA. Instagram is a social media platform tailored for photo and video sharing.

20 **C. Defendant Snap, Inc.**

21 28. Snap is a Delaware corporation with its principal place of business in Santa Monica,
22 California. Snap designs, owns, and operates the Snapchat social media platform, an application that
23 is widely marketed by Snap and available to users throughout the United States. Snapchat is a platform
24 for engaging in text, picture, and video communication. The platform is also for editing and
25 dissemination of content. Snapchat was founded in 2011, by three Stanford college students, Reggie
26 Brown, Evan Spiegel, and Bobby Murphy

27
28

1 **D. TikTok Defendants.**

2 29. TikTok, Inc. is a California corporation with its principal place of business in Culver
3 City, California. TikTok designs, owns, and operates the TikTok social media platform, an application
4 that is widely marketed by TikTok and available to users throughout the United States. TikTok is
5 known as a video-sharing application, where users can create, share, and view short video clips.

6 30. ByteDance, Inc. is a Delaware corporation with its principal place of business in
7 Mountain View, California. ByteDance design, owns, and/or operates TikTok, and design, owns,
8 and/or operates the TikTok social medial platform, an application that is widely marketed by TikTok
9 and available to users throughout the United States.

10 **E. YouTube Defendants.**

11 31. Defendant Alphabet Inc. is a Delaware corporation with its principal place of business
12 in Mountain View, California. Alphabet Inc. is the sole stockholder of XXVI Holdings Inc.

13 32. Defendant XXVI Holdings Inc. is a Delaware corporation with its principal place of
14 business in Mountain View, California. XXVI Holdings, Inc. is a wholly owned subsidiary of
15 Alphabet Inc. and the managing member of Google LLC (“Google”).

16 33. Defendant Google is a limited liability company organized under the laws of the state
17 of Delaware, and its principal place of business is in Mountain View, California. Google LLC is a
18 wholly owned subsidiary of XXVI Holdings Inc., and the managing member of YouTube, LLC.
19 Google LLC transacts or has transacted business in this District and throughout the United States. At
20 all times material to this Complaint, acting alone or in concert with others, Google LLC has advertised,
21 marketed, and distributed its YouTube video sharing platform to consumers throughout the United
22 States. At all times material to this Complaint, acting alone or in concert with YouTube, LLC, Google
23 LLC formulated, directed, controlled, had the authority to control, or participated in the acts and
24 practices set forth in this Complaint.

25 34. Defendant YouTube, LLC is a limited liability company organized under the laws of
26 the state of Delaware, and its principal place of business is in San Bruno, California. YouTube, LLC
27 is a wholly owned subsidiary of Google LLC. YouTube, LLC transacts or has transacted business in
28

1 this District and throughout the United States. At all times material to this Complaint, acting alone or
2 in concert with Defendant Google LLC, YouTube, LLC has designed, advertised, marketed, and
3 distributed its YouTube social media platform to consumers throughout the United States. At all times
4 material to this Complaint, acting alone or in concert with Google LLC, YouTube, LLC formulated,
5 directed, controlled, had the authority to control, or participated in the acts and practices set forth in
6 this Complaint.

7 **IV. FACTUAL ALLEGATIONS**

8 **A. GENERAL FACTUAL ALLEGATIONS**

9 **1. Defendants have targeted children as a core market.**

10 35. Each Defendant has designed, engineered, marketed, and operated its products to
11 maximize the number of children who download and use them compulsively. These designs are
12 powerfully addictive and succeed in capturing youth. Researchers studying the effect social media has
13 on the brain have shown that social media exploits “the same neural circuitry” as “gambling and
14 recreational drugs to keep consumers using their products as much as possible.”⁴

15 36. Children are more vulnerable users and have more free time on their hands than their
16 adult counterparts. Because children use Defendants’ products more, they see more ads, and as a result
17 generate more ad revenue for Defendants. Young users also generate a trove of data about their
18 preferences, habits, and behaviors. That information is Defendants’ most valuable commodity.
19 Defendants mine and commodify that data, including by selling to advertisers the ability to reach
20 incredibly narrow tranches of the population, including children. Each Defendant placed its products
21 into the stream of commerce and generated revenues through the distribution of those products at the
22 expense of the consuming public and Plaintiff.

23 37. This exploitation of children, including students at Plaintiffs’ schools, has become
24 central to Defendants’ profitability. Recognizing the vulnerability of children under 13, particularly in
25

26
27 ⁴ Addiction Center, *What is Social media Addiction?*, <https://www.addictioncenter.com/drugs/social-media-addiction/> (last visited at Mar 13, 2023 at 4:24 PM).
28

1 the Internet age, Congress enacted the Children’s Online Privacy Protection Act (“COPPA”) in 1999.⁵
2 COPPA regulates the conditions under which Defendants can collect, use, or disclose the personal
3 information of children under 13. Under COPPA, developers of products and websites that are directed
4 to or known to be used by children under 13 cannot lawfully obtain the individually identifiable
5 information of such children without first obtaining verifiable consent from their parents.⁶ Even apart
6 from COPPA, it is well established under the law that children lack the legal or mental capacity to
7 make informed decisions about their own well-being.

8 38. COPPA was enacted precisely because Congress recognized that children under age 13
9 are particularly vulnerable to being taken advantage of by unscrupulous website operators. As a June
10 1998 report by the FTC observed, “[t]he immediacy and ease with which personal information can be
11 collected from children online, combined with the limited capacity of children to understand fully the
12 potentially serious safety and privacy implications of providing that information, have created deep
13 concerns about current information practices involving children online.”⁷ The same report observed
14 that children under the age of 13 “generally lack the developmental capacity and judgment to give
15 meaningful consent to the release of personal information to a third party.”⁸

16 39. Contemporaneous testimony by the Chairman of the FTC observed that the Internet
17 “make[s] it easy for children to disclose personal information to the general public without their
18 parents’ awareness or consent. Such public disclosures raise safety concerns.”⁹ Further, “the practice
19 of collecting personal identifying information directly from children without parental consent is

20 _____
⁵ See 15 U.S.C. §§ 6501-6506.

21 ⁶ The FTC recently clarified that acceptable methods for obtaining verifiable parent consent include: (a)
22 providing a form for parents to sign and return; (b) requiring the use of a credit/card online payment that
23 provides notification of each transaction; (c) connecting to trained personnel via video conference; (d) calling
24 a staffed toll-free number; (e) asking knowledge-based questions; or (f) verifying a photo-ID from the parent
compared to a second photo using facial recognition technology. Federal Trade Commission, *Complying with
COPPA: Frequently Asked Questions*, July 2020, [https://www.ftc.gov/business-guidance/resources/complying-
coppa-frequently-asked-questions](https://www.ftc.gov/business-guidance/resources/complying-coppa-frequently-asked-questions).

25 ⁷ Privacy Online: A Report to Congress, Federal Trade Commission (1998) at 13, <https://www.ftc.gov/sites/default/files/documents/reports/privacy-online-report-congress/priv-23a.pdf>.

26 ⁸ *Id.*

27 ⁹ S. 2326, Children’s Online Privacy Protection Act of 1998: Hearing Before the U.S. Sen. Subcom. On
28 Communications, Comm. On Commerce, Science, and Transportation, 105th Cong. 11 (1998) (statement of
Robert Pitofsky, Chairman, Federal Trade Commission).

1 clearly troubling, since it teaches children to reveal their personal information to strangers and
2 circumvents parental control over their family’s information.”¹⁰

3 40. None of the Defendants conduct proper age verification or authentication. Instead, each
4 Defendant leaves it to users to self-report their age. This unenforceable and facially inadequate system
5 allows children under 13 to easily create accounts on Defendants’ apps.

6 41. This is particularly egregious for two reasons. First, Defendants have long been on
7 notice of the problem. For instance, in May 2011, Consumer Reports reported the “troubling news”
8 that 7.5 million children under 13 were on Facebook.¹¹ Second, given that Defendants have developed
9 and utilized age-estimation algorithms for the purpose of selling user data and targeted advertisements,
10 Defendants could readily use these algorithms to prevent children under 13 from accessing their
11 products, but choose not to do so. Instead, they have turned a blind eye to collecting children’s data in
12 violation of COPPA.

13 42. Defendants have done this because children are financially lucrative, particularly when
14 they are addicted to Defendants’ apps.

15 **2. Children are uniquely susceptible to harm from Defendants’ products.**

16 43. Youth are also particularly vulnerable to injury from the environment of extreme social
17 comparison, which Defendants’ products create and manipulate for profit. Social comparisons on
18 social media are frequent and are especially likely to be upward and negative, as social media provides
19 a continuous stream of information about other people’s accomplishments.¹²

20 44. Past research suggests that social comparisons occur automatically; when individuals
21 encounter information about another person, their own self-perceptions will be affected. The sheer
22 number of posts in a News Feed, each offering a thumbnail sketch of each person’s carefully curated
23 and predominantly ostentatious content, yields numerous opportunities for social comparison.

24
25 ¹⁰ *Id.*

26 ¹¹ Emily Bazelon, *Why Facebook is After Your Kids*, N.Y. Times (Oct. 12, 2011), <https://www.nytimes.com/2011/10/16/magazine/why-facebook-is-after-your-kids.html>.

27 ¹² Jin Kyun Lee, *The Effects of Social Comparison Orientation on Psychological Well-Being in Social
28 Networking Sites: Serial Mediation of Perceived Social Support and Self-Esteem*, *Current Psychology* (2020),
<https://link.springer.com/content/pdf/10.1007/s12144-020-01114-3.pdf>.

1 45. Although people do not typically post false information about themselves online, they
2 do engage in selective self-presentation and are more likely to post eye-catching content. Defendant’s
3 algorithms powerfully sort and promote the most eye-catching content, such as content flaunting
4 lifestyle, appearance, or success. As a result, individuals browsing their News Feeds are more likely
5 to see posts about friends’ exciting social activities rather than dull days at the office, affording
6 numerous opportunities for comparisons to seemingly better-off others. Individuals with vacillating
7 levels of self-esteem and certitude, characteristics notoriously endemic to the teenage cohort, are
8 particularly oriented to making frequent and extreme upward social comparisons on social media,
9 which in turn threatens their mental health. Social-media-induced social comparison often results in a
10 discrepancy between the ideal self and the real self, thus evoking a sense of depression, deprivation,
11 and distress, resulting in an overall aggravation of one’s mental state.¹³

12 46. Since the early 2000s, studies have shown that frequent upward social comparison
13 results in lower self-esteem and reduced overall mental health.¹⁴ It has also long been known that
14 individuals who are more likely to engage in self-comparison are likewise more likely to have negative
15 outcomes when using social media.

16 47. To cope with wavering self-esteem, digitally native adolescents often become envious
17 of others and resort to cyberbullying to deconstruct the point of comparison’s perceived superiority
18 and preserve an increasingly delicate ego. These natural dynamics in youth are exacerbated to
19
20

21 ¹³ This schism between the ideal self and the real self, and the attendant dissatisfaction with reality, is further
22 exacerbated by Meta’s use of physical-augmentation technology, which allows users to utilize photo and video
23 filters to make remove blemishes, make the face appear thinner, and lighten the skin-tone, all to make
24 themselves appear more “attractive.” Appearance-altering filters are widely-used across Defendants’ products.
25 Many filters are designed to make users appear more attractive, according to criteria developed by Defendants—
26 they remove blemishes, make the face appear thinner, and lighten skin-tone. Especially in combination with the
27 products’ general-feed algorithm, these filters can cause users to make false comparisons between their real-
28 life appearances and the appearances of the people they see in Facebook and Instagram content. These features
can also cause users to make negative comparison between their appearance with a filter and without one. As
discussed below, Meta has long been aware of the harm these features can cause.

¹⁴ Claire Midgley, *When Every Day is a High School Reunion: Social Media Comparisons and Self-Esteem*
(2020), https://www.researchgate.net/publication/342490065_When_Every_Day_is_a_High_School_Reunion_Social_Media_Comparisons_and_Self-Esteem.

1 psychologically injurious levels by Defendants’ products’ progressively toxic environment, which is
2 discussed in further detail below.

3 48. Defendants’ products contain image altering filters that cause mental health harms in
4 multiple ways.¹⁵ First, because of the popularity of these editing tools, many of the images teenagers
5 see have been edited by filters and it can be difficult for teenagers to remain cognizant of the use of
6 filters while viewing content, resulting in a false reality where all other users on the products appear
7 better looking than they are in fact, often in an artificial way. By comparing their real-life appearance
8 to the edited appearance of others online, teens’ perception of their physical features becomes negative.
9 Second, teenagers often prefer the way they look using filters, noticing an increase in interaction and
10 positive responses when their photos are edited with filters. Many young users believe they are only
11 attractive when their images are edited, not as they appear naturally. Third, the specific changes filters
12 make to individuals’ appearance can cause negative obsession or self-hatred surrounding aspects of
13 their appearance. The filters alter specific facial features such as eyes, lips, jaw, face shape, face
14 slimness, etc., features that often require medical intervention to alter in real life.

15 49. In a 2016 study, 52 percent of girls said they use image filters every day, and 80 percent
16 have used an app to change their appearance before the age of 13.¹⁶ In fact, 77 percent of girls reported
17 trying to change or hide at least one part of their body before posting a photo of themselves and 50
18 percent believe they did not look good without editing.¹⁷ Filters, especially in combination with other
19 product features, directly cause body image issues, eating disorders, body dysmorphia, and related
20 issues.¹⁸ As one study of 481 university students found, spending more time viewing selfies can

21
22 ¹⁵ Anna Haines, *From ‘Instagram Face’ To ‘Snapchat Dysmorphia’: How Beauty Filters Are Changing The*
23 *Way We See Ourselves*, Forbes (Apr. 27, 2021 at 1:19 PM EDT), <https://www.forbes.com/sites/annahaines/2021/04/27/from-instagram-face-to-snapchat-dysmorphia-how-beauty-filters-are-changing-the-way-we-see-ourselves/?sh=3c32eb144eff>.

24 ¹⁶ *Id.*

25 ¹⁷ Haines, *supra* note 15 (“In October, Instagram announced that it would be removing “all effects associated
26 with plastic surgery” from its filter arsenal, but this appears to mean all effects explicitly associated with plastic
surgery, such as the ones called “Plastica” and “Fix Me.” Filters that give you Instagram Face will remain.”).

27 ¹⁸ See Sian McLean, Susan Paxton, Eleanor Wertheim, & Jennifer Masters, *Photoshopping the selfie: Self photo*
28 *editing and photo investment are associated with body dissatisfaction in adolescent girls*, 48 Int’l J. of Eating
(footnote continued)

1 increase dissatisfaction with one’s own face, spending more time looking at selfies (and reviewing
2 their likes and comments) can cause users to draw more comparisons between themselves and others,
3 prompting even more self-criticism.¹⁹ Relatedly, a psychodermatologist stated, “these apps
4 subconsciously implant the notion of imperfection and ugliness generating a loss of confidence.”²⁰

5 50. In another recent study, even users that report a higher initial level of self-esteem felt
6 they looked 44 percent worse before their image was edited using a filter. When a filter increases a
7 gap between how individuals want to look and how they feel they actually look, it “reduces their self-
8 compassion and tolerance for their own physical flaws.”²¹

9 51. The dangers associated with teenager’s proclivity to engage in protracted upward social
10 comparison while on social media is compounded by Defendants’ deft and discreet construction of an
11 atmosphere capable of exploiting the impulse control issues of even the most mature adults, thereby
12 unleashing upon the public a product that is predictably highly addictive.

13 52. In sum, this perilous amalgamation of intense psychological vulnerability and targeted
14 exploitation foreseeably results in an increased risk of a variety of harms for today’s youth, including,
15 but not limited to, social media addiction, withdrawal—from friends, family, and social and academic
16 advancement—lack of focus, anxiety, body dysmorphia, eating disorders, death resulting from eating
17 disorders, depression, difficulty sleeping, fatigue, headaches, migraines, loss of vision, eye strain, self-
18 harm, and suicide among other harms.

20 Disorders 1132, 1133 (Aug. 27, 2015), <https://pubmed.ncbi.nlm.nih.gov/26311205/> (presenting a 2015 study
21 involving 101 adolescent girls, more time spent editing and sharing selfies on social media raised their risk of
22 experiencing body dissatisfaction and disordered eating habits.); Jing Yang, Jasmine Fardouly, Yuhui Wang,
23 & Wen Shi, *Selfie-Viewing and Facial Dissatisfaction among Emerging Adults: A Moderated Mediation Model
24 of Appearance Comparisons and Self-Objectification*, 17 Int’l J. of Env’t Res. and Pub. Health 672, 672 (Jan.
25 2020), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7013747/>; Scott Griffiths, Stuart Murray, Isabel Krug,
26 & Sian McLean, *The Contribution of Social Media to Body Dissatisfaction, Eating Disorder Symptoms, and
27 Anabolic Steroid Use Among Sexual Minority Men*, 21 Cyberpsychology Behavior, and Soc. Networking 149,
28 149 (Mar. 1, 2018), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5865626/>.

¹⁹ Yang et al., *supra* note 18.

²⁰ Genesis Rivas, *The Mental Health Impacts of Beauty Filters on Social Media Shouldn’t Be Ignored – Here’s
Why*, InStyle (Sept. 14, 2022 at 2:05PM), <https://www.instyle.com/beauty/social-media-filters-mental-health>.

²¹ Ana Javornik, Ben Marder, Marta Pizzetti, & Luk Warlop, *Research: How AR Filters Impact People’s Self-
Image*, Harvard Business Review (December 22, 2021), [https://hbr.org/2021/12/research-how-ar-filters-imp](https://hbr.org/2021/12/research-how-ar-filters-impact-peoples-self-image)

1 **3. Defendants designed their products to attract and addict youth.**

2 53. Instagram, Facebook, TikTok, Snap, and YouTube employ many similar defective and
3 dangerous product features that are engineered to induce more use by young people—creating an
4 unreasonable risk of compulsive use and addiction.²² For instance, all five products harvest user data
5 and use this information to generate and push algorithmically tailored “feeds” of photos and videos.
6 And all five include methods through which approval can be expressed and received, such as likes,
7 hearts, comments, shares, or reposts. This section explains the psychological and social mechanisms
8 exploited by these and other product defects.

9 54. First, Defendants’ products are designed and engineered to methodically, but
10 unpredictably, space out dopamine-triggering rewards with dopamine gaps. Unpredictability is key
11 because, paradoxically, intermittent variable rewards (or “IVR”) create stronger associations
12 (conditioned changes in the neural pathway) than fixed rewards. Products that use this technique are
13 highly addictive or habit forming. IVR is based on insights from behavioral science dating back to
14 research in the 1950s by Harvard psychologist B. F. Skinner. Skinner found that laboratory mice
15 respond most voraciously to unpredictable rewards. In one famous experiment, mice that pushed a
16 lever received a variable reward (a small treat, a large treat, or no treat at all). Compared with mice
17 who received the same treat every time, the mice who received only occasional rewards were more
18 likely to exhibit addictive behaviors such as pressing the lever compulsively. This exploitation of
19 neural circuitry is exactly how addictive products like slot machines keep users coming back.

20 55. The IVR aspect of slot machines is limited by the fact that they deliver rewards in a
21 randomized manner, irrespective of the person pulling the lever. By contrast, Defendants’ products
22 are designed to purposely withhold and release rewards on a schedule its algorithms have determined
23 is optimal to heighten a specific user’s craving and keep them using the product. For example, TikTok
24

25 _____
26 ²² See Kevin Hurler, *For Sites Like Instagram and Twitter, Imitation Is the Only Form of Flattery*, Gizmodo
27 (Aug. 16, 2022), <https://gizmodo.com/instagram-tiktok-snapchat-facebook-meta-1849395419> (“Over the last
28 decade, some of the most popular social media apps have blatantly ripped off features from some of the other
most popular social media apps, in a tech version of Capture the Flag where the only losers are the users who
are forced to persist through this cat- and-mouse game.”).

1 will at times delay a video it knows a user will like until the moment before it anticipates the user
2 would otherwise log out. Instagram’s notification algorithm will at times determine that a particular
3 user’s engagement will be maximized if the app withholds “Likes” on their posts and then later delivers
4 them in a large burst of notifications.

5 56. Defendants’ use of IVR is particularly effective and dangerous for adolescents, given
6 the incomplete aspects of their brain maturation—including lack of impulse control and reduced
7 executive functions.

8 57. There are multiple types of dopamine neurons that are connected with distinct brain
9 networks and have distinct roles in motivational control. Apart from the dopamine reward loop
10 triggered by positive feedback, other dopamine neurons are impacted by salient but non-rewarding
11 stimuli and even painful-aversive stimuli.²³ Defendants’ products capitalize on this by algorithmically
12 ranking photos and videos that “engage” users because they present a dopamine pay-off, including
13 novel, aversive, and alarming images.

14 58. Second, there are multiple types of dopamine neurons that are connected with distinct
15 brain networks and have distinct roles in motivational control. Apart from the dopamine reward loop
16 triggered by positive feedback, other dopamine neurons are impacted by salient but non-rewarding
17 stimuli and even painful-aversive stimuli.²⁴ Defendants’ products capitalize on this by algorithmically
18 ranking photos and videos that “engage” users because they present a dopamine pay-off, including
19 novel, aversive, and alarming images.

20 59. Third, dangerous and defective features in Defendants’ products manipulate young
21 users through their exploitation of “reciprocity”—the psychological phenomenon by which people
22 respond to positive or hostile actions in kind. Reciprocity means that people respond in a friendly
23 manner to friendly actions, and with negative retaliation to hostile actions.²⁵ Phillip Kunz best
24

25 _____
26 ²³ J.P.H. Verharen, Yichen Zhu, and Stephan Lammel, *Aversion hot spots in the dopamine system* 64
Neurobiology 46-52 (March 5, 2020) <https://doi.org/10.1016/j.conb.2020.02.002>.

27 ²⁴ *Id.*

28 ²⁵ Ernst Fehr & Simon Gächter, *Fairness and Retaliation: The Economics of Reciprocity*, 14(3) *J. Econ. Persps.*
159–81 (2000), <https://www.researchgate.net/profile/Ernst-Fehr->

1 illustrated the powerful effect of reciprocity through an experiment using holiday cards. Kunz sent
2 cards to a group of complete strangers, including pictures of his family and a brief note.²⁶ People
3 whom he had never met or communicated with before reciprocated, flooding him with holiday cards
4 in return.²⁷ Most of the responses did not even ask Mr. Kunz who he was—they simply responded to
5 his initial gesture with a reciprocal action.²⁸

6 60. Products like Instagram and Snapchat exploit reciprocity by, for example,
7 automatically telling a sender when their message is seen, instead of letting the recipient avoid
8 disclosing whether it was viewed. Consequently, the recipient feels more obligated to respond
9 immediately, keeping users on the product.²⁹

10 61. Fourth, Defendants’ products addict young users by preying on their already-
11 heightened need for social comparison and interpersonal feedback-seeking.³⁰ Because of their
12 relatively undeveloped prefrontal cortex, young people are already predisposed to status anxieties,
13 beauty comparisons, and a desire for social validation.³¹ Defendants’ products encourage repetitive
14 usage by dramatically amplifying those insecurities.

15 62. Mitch Prinstein, Chief Science Officer for the American Psychology Association, has
16 explained that online and real-world interactions are fundamentally different.³² For example, in the
17 real world, no public ledger tallies the number of consecutive days friends speak. Similarly, “[a]fter
18 you walk away from a regular conversation, you don’t know if the other person liked it, or if anyone
19

20 _____
21 ²⁶ Phillip R. Kunz & Michael Woolcott, *Season’s Greetings: From my status to yours*, 5(3) Soc. Sci. Rsch. 269–
22 78 (Sept. 1976), [https://doi.org/10.1016/0049-089X\(76\)90003-X](https://doi.org/10.1016/0049-089X(76)90003-X).

23 ²⁷ *Id.*

24 ²⁸ *Id.*

25 ²⁹ Von Tristan Harris, *The Slot Machine in Your Pocket*, Spiegel Int’l (July 27, 2016),
26 <https://www.spiegel.de/international/zeitgeist/smartphone-addiction-is-part-of-the-design-a-1104237.html>.

27 ³⁰ Jacqueline Nesi & Mitchell J Prinstein, *Using Social Media for Social Comparison and Feedback-Seeking: Gender and Popularity Moderate Associations with Depressive Symptoms*, 43 J. Abnormal Child Psych. 1427–
28 38 (2015), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5985443/>.

³¹ Susan Harter, *The Construction of the Self: Developmental and Sociocultural Foundations* (Guilford Press, 2d ed., 2012) (explaining how, as adolescents move toward developing cohesive self-identities, they typically engage in greater levels of social comparison and interpersonal feedback-seeking).

³² Zara Abrams, *Why young brains are especially vulnerable to social media*, Am. Psych. Ass’n (Aug. 25, 2022), <https://www.apa.org/news/apa/2022/social-media-children-teens>.

1 else liked it.”³³ By contrast, a product defect like the “Snap Streak” creates exactly such artificial forms
2 of feedback.³⁴ On Defendants’ apps, friends and even complete strangers can publicly deliver (or
3 withhold) dopamine-laced likes, comments, views, and follows.³⁵

4 63. The “Like” feature common to Defendants’ products has an especially powerful effect
5 on teenagers and can neurologically alter their perception of online posts. Researchers at UCLA used
6 magnetic resonance imaging to study the brains of teenage girls as they used Instagram. They found
7 that girls’ perception of a photo changed depending on the number of likes it had generated.³⁶ That an
8 image was highly liked—regardless of its content—instinctively caused the girls to prefer it. As the
9 researchers put it, teens react to perceived “endorsements,” even if likes on social media are often
10 fake, purchased, or manufactured.³⁷

11 64. The design of Defendants’ products also encourages unhealthy, negative social
12 comparisons, which in turn cause body image issues and related mental and physical disorders. Given
13 adolescents’ naturally vacillating levels of self-esteem, they are already predisposed to comparing
14 “upward” to celebrities, influencers, and peers they perceive as more popular.³⁸ Defendants’ products
15 turbocharge this phenomenon. On Defendants’ apps, users disproportionately post “idealized”
16 content,³⁹ misrepresenting their lives. That is made worse by appearance-altering filters built into
17 Defendants’ apps, which underscore conventional (and often racially biased) standards of beauty, by

18 ³³ *Id.*

19 ³⁴ A “Snap Streak” is designed to measure a user’s Snapchat activity with another user. Two users achieve a
20 “Snap Streak” when they exchange at least one Snap in three consecutive 24-hour periods. When successively
longer “Streaks” are achieved, users are rewarded with varying tiers of emojis. *See infra* p. 156.

21 ³⁵ Abrams, *supra* note 32.

22 ³⁶ Lauren E. Sherman et al., *The Power of the Like in Adolescence: Effects of Peer Influence on Neural and*
Behavioral Responses to Social Media, 27(7) *Psychol Sci.* 1027 (2016), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5387999/>

23 ³⁷ *Id.*; *see also* Stuart Wolpert, The teenage brain on social media, UCLA Newsroom (May 31, 2016),
<https://newsroom.ucla.edu/releases/the-teenage-brain-on-social-media>.

24 ³⁸ Nesi & Prinstein, *supra* note 30 (“Upward comparison occurs when people compare themselves to someone
25 they perceive to be superior[.], whereas a downward comparison is defined by making a comparison with
26 someone perceived to be inferior[.]”); Jin- Liang wang, Hai-Zhen Wang, James Gaskin, & Skyler Hawk, *The*
Mediating Roles of Upward Social Comparison and Self-esteem and the Moderating Role of Social Comparison
Orientation in the Association between Social Networking Site Usage and Subjective Well-Being, *Frontiers in*
Psychology (May 2017), [https://www.frontiersin.org/articles/10.3389/fpsyg.2017.00771/full#:~:text=Social%20compariso%20can%20be%20upward,inferior%20\(Wills%2C%201981\)](https://www.frontiersin.org/articles/10.3389/fpsyg.2017.00771/full#:~:text=Social%20compariso%20can%20be%20upward,inferior%20(Wills%2C%201981)).

27 ³⁹ Nesi & Prinstein, *supra* note 30.

28

1 allowing users to remove blemishes, make bodies and faces appear thinner, and lighten skin-tone.
2 Defendants’ products provide a continuous stream of these filtered and fake appearances and
3 experiences.⁴⁰ That encourages harmful body image comparisons by adolescents, who begin to
4 negatively perceive their own appearance and believe their bodies, and indeed their lives, are
5 comparatively worse.⁴¹

6 65. Fifth, Defendants’ respective product features work in combination to create and
7 maintain a user’s “flow-state”: a hyper-focused, hypnotic state, where bodily movements are reflexive
8 and the user is totally immersed in smoothly rotating through aspects of the social media product.⁴²

9 66. As discussed in more detail below, defective features like the ones just described can
10 cause or contribute to the following injuries in young people: eating and feeding disorders; depressive
11 disorders; anxiety disorders; sleep disorders; trauma- and stressor-related disorders; obsessive-
12 compulsive and related disorders; disruptive, impulse-control, and conduct disorders; suicidal
13 ideation; self-harm; and suicide.⁴³ Students in Plaintiffs’ schools have suffered many of these injuries,
14 and continue to suffered from addiction and related injuries caused by defendants’ products.

15 **4. Millions of kids use Defendants’ products compulsively.**

16 67. Defendants have been staggeringly successful in their efforts to attract young users to
17 their apps. In 2021, 32% of 7- to 9-year-olds,⁴⁴ 49% of 10- to 12-year-olds,⁴⁵ and 90% of 13- to 17-
18 year-olds in the United States used social media.⁴⁶ A majority of U.S. teens use Instagram, TikTok,

19 ⁴⁰ Lee, *supra* note 12.

20 ⁴¹ *Id.*; See also Nino Gugushvili et al., *Facebook use intensity and depressive symptoms: a moderated mediation*
21 *model of problematic Facebook use, age, neuroticism, and extraversion* at 3, *BMC Psych.* 10, 279 (2022),
22 <https://doi.org/10.1186/s40359-022-00990-7> (explaining that youth are particularly vulnerable because they
“use social networking sites for construing their identity, developing a sense of belonging, and for comparison
with others”);

23 ⁴² See e.g., *What Makes TikTok so Addictive?: An Analysis of the Mechanisms Underlying the World’s Latest*
24 *Social Media Craze*, Brown Undergraduate J. of Pub. Health (2021), <https://sites.brown.edu/publichealthjournal/2021/12/13/tiktok/> (describing how IVR and infinite scrolling may induce a flow state in
users).

25 ⁴³ See, e.g., Gugushvili et al., *supra* note 41 (collecting sources).

26 ⁴⁴ *Sharing Too Soon? Children and Social Media Apps*, C.S. Mott Child’s Hosp. Univ. Mich. Health (Oct. 18,
2021), https://mottpoll.org/sites/default/files/documents/101821_SocialMedia.pdf.

27 ⁴⁵ *Id.*

28 ⁴⁶ *Social Media and Teens*, *Am. Acad. Child & Adolescent Psychiatry* (Mar. 2018), <https://www.aacap.org/>
(footnote continued)

1 Snapchat, and/or YouTube. Thirty-two percent say they “wouldn’t want to live without” YouTube,
2 while 20% said the same about Snapchat, and 13% said the same about both TikTok and Instagram.⁴⁷

3 68. U.S. teenagers who use Defendants’ products are likely to use them every day. Sixty-
4 two percent of U.S. children ages 13-18 use social media daily.⁴⁸ And daily use often means constant
5 use. About one-in-five U.S. teens visit or use YouTube “almost constantly,” while about one-in-six
6 report comparable usage of Instagram.⁴⁹ Nearly half of U.S. teens use TikTok at least “several times
7 a day.”⁵⁰ In one study, U.S. teenage users reported checking Snapchat thirty times a day on average.⁵¹

8 69. Teenagers know they are addicted to Defendants’ products: 36% admit they spend too
9 much time on social media.⁵² Yet they can’t stop. Of the teens who use at least one social media
10 product “almost constantly,” 71% say quitting would be hard. Nearly one-third of this population—
11 and nearly one-in-five of all teens—say quitting would be “very hard.”⁵³

12 70. Notably, the more teens use Defendants’ apps, the harder it is to quit. Teens who say
13 they spend too much time on social media are almost twice as likely to say that giving up social media
14 would be hard, compared to teens who see their social media usage as about right.⁵⁴

15 71. Despite using social media frequently, most young people don’t particularly enjoy it.
16 In 2021, only 27% of boys and 42% of girls ages 8-18 reported liking social media “a lot.”⁵⁵ Moreover,
17 one survey found that young people think social media is the main reason youth mental health is
18

19 _____
20 AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Social- Media-and-Teens-100.aspx; *see also*
21 Victoria Rideout et al., *The Common Sense Census: Media Use by Tweens and Teens*, 2021 at 5, Common
22 Sense Media (2022), https://www.common sense media.org/sites/default/files/research/report/8-18-census-integrated-report-final-web_0.pdf.

23 ⁴⁷ *Id.* at 31.

24 ⁴⁸ *Id.*

25 ⁴⁹ Emily Vogels et al., *Teens, Social Media and Technology 2022*, Pew Rsch. Ctr. (Aug. 10, 2022),
26 <https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/>.

27 ⁵⁰ *Id.*

28 ⁵¹ *Id.*

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ Victoria Rideout et al., *Common Sense Census: Media use by tweens and teens*, 2021 at 34, Common Sense
Media (2022), https://www.common sense media.org/sites/default/files/research/report/8-18-census-integrated-report-final-web_0.pdf.

1 getting worse.⁵⁶ About twice as many of the surveyed youth believed that social media is the main
2 reason for declining mental health than the next likely cause, and over seven times more believed it to
3 be the main cause rather than drugs and alcohol.⁵⁷

4 **5. Defendants’ products have created a youth mental health crisis.**

5 72. Nearly a decade of scientific and medical studies demonstrate that dangerous features
6 engineered into Defendants’ products—particularly when used multiple hours a day— can have a
7 “detrimental effect on the psychological health of [their] users,” including compulsive use, addiction,
8 body dissatisfaction, anxiety, depression, and self-harming behaviors such as eating disorders.⁵⁸

9 73. Addiction and compulsive use of Defendants’ products can entail a variety of
10 behavioral problems including but not limited to: (1) a lessening of control, (2) persistent, compulsive
11 seeking out of access to the product, (3) using the product more, and for longer, than intended, (4)
12 trying to cut down on use but being unable to do so, (5) experiencing intense cravings or urges to use,
13 (6) tolerance (needing more of the product to achieve the same desired effect), (7) developing
14 withdrawal symptoms when not using the product, or when the product is taken away, (8) neglecting
15 responsibilities at home, work, or school because of the intensity of usage, (9) continuing to use the
16 product even when doing so interferes and causes problems with important family and social
17 relationships, (10) giving up important or desirable social and recreational activities due to use, and
18 (11) continuing to use despite the product causing significant harm to the user’s physical and mental
19 health.

20 74. Many of these injuries can be long-lasting, if not lifelong. For example, the long- term
21 effects of eating disorders can include: (1) dermatological effects to the nails and hair; (2)
22 gastrointestinal illnesses, such as gastroparesis or hypomotility of the colon; (3) impacts to the

24 ⁵⁶ Headspace (2018) *National youth mental health survey 2018*, National Youth Mental Health Foundation
(2018), <https://headspace.org.au/assets/headspace-National-Youth-Mental-Health-Survey-2018.pdf>

25 ⁵⁷ *Id.*

26 ⁵⁸ See, e.g., Fazida Karim et al., *Social Media Use and Its Connection to Mental Health: A Systemic Review*,
Cureus Volume 12(6) (June 15, 2020), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7364393/>; Alexandra
27 R. Lonergan et al., Protect me from my selfie: Examining the association between photo-based social media
behaviors and self-reported eating disorders in adolescence, *Int. J. of Eating Disorders* 756 (Apr. 7, 2020),
28 <https://onlinelibrary.wiley.com/doi/epdf/10.1002/eat.23256>.

1 endocrine system, such as glycolic or metabolic conditions, bone loss, and hormonal conditions; (4)
2 nervous system effects, such as gray matter brain loss or atrophy; (5) skeletal system effects, such as
3 bone loss; (6) cardiovascular effects, such as structural heart damage, mitral valve prolapse, or fluid
4 around the heart; and (7) fertility issues.⁵⁹

5 75. Each Defendant has long been aware of this research but chose to ignore or brush it off.
6 Yet, as discussed at length below, Defendants conducted some of the research themselves—and then
7 hid their unfavorable findings from the public.

8 76. Scientists have studied the impacts of the overuse of social media since at least 2008,
9 with social media addiction recognized in literature around that time after a pervasive upsurge in
10 Facebook use.⁶⁰ The Bergen Social Media Addiction Scale assesses social media addiction along six
11 core elements: 1) salience (preoccupation with the activity), 2) mood modification (the behavior alters
12 the emotional state), 3) tolerance (increasing activity is needed for the same mood-altering effects), 4)
13 withdrawal (physical or psychological discomfort when the behavior is discontinued), 5) conflict
14 (ceasing other activities or social interaction to perform the behavior), and 6) relapse (resuming the
15 behavior after attempting to control or discontinue it).⁶¹

16 77. Beginning in at least 2014, researchers began demonstrating that addictive and
17 compulsive use of Defendants’ products leads to negative mental and physical outcomes for kids.

23 ⁵⁹ See, e.g., Anorexia Nervosa, *Cleveland Clinic*, <https://my.clevelandclinic.org/health/diseases/9794-anorexia-nervosa#outlook--prognosis>; Bulimia Nervosa; Cleveland Clinic <https://my.clevelandclinic.org/health/diseases/9795-bulimia-nervosa#symptoms-and-causes>.

24 ⁶⁰ Tim Davies & Pete Cranston, *Youth Work and Social Networking: Interim Report*, The National Youth
25 Agency (May 2008), https://www.researchgate.net/publication/233911484_Youth_Work_and_Social_Networking_Final_Research_Report.

26 ⁶¹ Cecilie Andreassen et al., *The relationship between addictive use of social media and video games and symptoms of psychiatric disorders: a large-scale cross-sectional study*, 30(2) *Psychol. of Addictive Behav.*, 252-262 (2016), <http://dx.doi.org/10.1037/adb0000160>.

1 78. In 2014, a study of 10- to 12-year-old girls found that increased use of Facebook was
2 linked with body image concerns, the idealization of thinness, and increased dieting.⁶² (This study was
3 sent to Mark Zuckerberg in 2018, in a letter signed by 118 public health advocates.)⁶³

4 79. In 2016, a study demonstrated that young people who frequently use Defendants’
5 products are more likely to suffer sleep disturbances than their peers who use them infrequently.⁶⁴
6 Defendants’ products, driven by IVR algorithms, deprive users of sleep by sending push notifications
7 and emails at night, prompting children to re-engage with the products when they should be sleeping.
8 Disturbed and insufficient sleep is associated with poor health outcomes,⁶⁵ including increased risk of
9 major depression—by a factor of more than three—⁶⁶ and future suicidal behavior in adolescents.⁶⁷
10 The American Academy of Sleep Medicine has recommended that, in a 24-hour period, children aged
11 6–12 years should regularly sleep 9–12 hours and teenagers aged 13–18 years should sleep 8–10
12 hours.⁶⁸

13 80. In another 2016 study, 52% of girls said they use image filters every day, and 80%
14 reported using an app to change their appearance before the age of 13.⁶⁹ In fact, 77% of girls reported
15

16 ⁶² Marika Tiggemann & Amy Slater, *NetTweens: The Internet and body image concerns in preteenage girls*,
17 34(5), *J. Early Adolesc.* 606-620 (June 2014), <https://journals.sagepub.com/doi/epub/10.1177/0272431613501083>.

18 ⁶³ Campaign for a Commercial-Free Childhood, *Letter to Mark Zuckerberg Re: Facebook Messenger Kids* (Jan.
19 30, 2018), <https://fairplayforkids.org/wp-content/uploads/archive/devel-generate/gaw/FBMessengerKids.pdf>.

20 ⁶⁴ Jessica C. Levenson et al., *The Association Between Social Media Use and Sleep Disturbance Among Young*
21 *Adults*, 85 *Preventive Med.* 36–41 (Apr. 2016), <https://www.sciencedirect.com/science/article/abs/pii/S0091743516000025>.

22 ⁶⁵ Jessica C. Levenson et al., *The Association Between Social Media Use and Sleep Disturbance Among Young*
23 *Adults*, 85 *Preventive Med.* 36–41 (Apr. 2016), <https://www.sciencedirect.com/science/article/abs/pii/S0091743516000025>; National Institute of Mental Health. 2016. The teen brain: 6 things to know, available at
24 <https://www.nimh.nih.gov/health/publications/the-teen-brain-still-under-construction/index.shtml>;

25 R. Sather & A. Shelat, *Understanding the teen brain*, <https://www.urmc.rochester.edu/encyclopedia/content.aspx?ContentTypeID=1&ContentID=3051>.

26 ⁶⁶ E. Roberts & H Doung, *The Prospective Association between Sleep Deprivation and Depression among*
27 *Adolescents Sleep*, Volume 37, Issue 2, 1 Feb. 2014.

28 ⁶⁷ X. Liu, D. Buysse, *Sleep and youth suicidal behavior: a neglected field*, *Current Opinion in Psychiatry* (May
2006).

⁶⁸ S. Paruthi, L. Brooks, C. D’Ambrosio, et al, *Consensus statement of the American Academy of Sleep Medicine*
29 *on the recommended amount of sleep for healthy children: methodology and discussion*, 12 *J Clin Sleep Med*
30 1549–61 (2016).

⁶⁹ Anna Haines, *From “Instagram Face” to “Snapchat Dysmorphia”*: *How Beauty Filters Are Changing the*
31 (footnote continued)

1 trying to change or hide at least one part of their body before posting a photo of themselves, and 50%
2 believe they did not look good enough without editing.⁷⁰

3 81. In 2017, British researchers asked 1,500 teens to rate how Instagram, Snapchat, and
4 YouTube affected them on certain well-being measures, including anxiety, loneliness, body image,
5 and sleep.⁷¹ Teens rated all three products as having a negative impact on body image, “FOMO” (fear
6 of missing out), and sleep. Teens also noted that Instagram and Snapchat had a negative impact on
7 anxiety, depression, and loneliness.

8 82. In 2018, a Journal of Social and Clinical Psychology study examined a group of college
9 students whose use of Instagram, Facebook, and Snapchat was limited to 10 minutes per day per
10 platform. The study found that this limited-use group showed “significant reductions in loneliness and
11 depression over three weeks” compared to a control group that used social media as usual.⁷²

12 83. In 2018, a systematic literature review of nine studies published in the Indian Journal
13 of Psychiatry concluded that dangerous features in social networking products “contribute to increased
14 exposure to and engagement in self-harm behavior, as users tend to emulate self- injurious behavior
15 of others online, adopt self-injurious practices from self-harm videos, or are encouraged and acclaimed
16 by others, thus normalizing self-injurious thoughts and behavior.”⁷³

17 84. A 2019 survey of American adolescents ages 12-14 found that a user’s displeasure with
18 their body could be predicted based on their frequency of using social media (including Instagram and
19 Facebook) and based on the extent to which they engaged in behaviors that adopt an observer’s point-

21 *Way We See Ourselves*, Forbes (Apr. 27, 2021), [https://www.forbes.com/sites/annahaines/2021/04/27/from-](https://www.forbes.com/sites/annahaines/2021/04/27/from-instagram-face-to-snapchat-dysmorphia-how-beauty-filters-are-changing-the-way-we-see-ourselves/?sh=3c32eb144eff)
22 [instagram-face-to-snapchat-dysmorphia-how-beauty-filters-are-changing-the-way-we-see-ourselves/?sh=3c32](https://www.forbes.com/sites/annahaines/2021/04/27/from-instagram-face-to-snapchat-dysmorphia-how-beauty-filters-are-changing-the-way-we-see-ourselves/?sh=3c32eb144eff)
23 [eb144eff](https://www.forbes.com/sites/annahaines/2021/04/27/from-instagram-face-to-snapchat-dysmorphia-how-beauty-filters-are-changing-the-way-we-see-ourselves/?sh=3c32eb144eff).

23 ⁷⁰ *Id.*

24 ⁷¹ Royal Society for Public Health, *#StatusOfMind*, [https://www.rsph.org.uk/static/uploaded/d125b27c-0b62-](https://www.rsph.org.uk/static/uploaded/d125b27c-0b62-41c5-a2c0155a8887cd01.pdf)
25 [41c5-a2c0155a8887cd01.pdf](https://www.rsph.org.uk/static/uploaded/d125b27c-0b62-41c5-a2c0155a8887cd01.pdf); see also Jonathan Haidt, *The Dangerous Experiment on Teen Girls*, The Atlantic
26 (Nov. 21, 2021), available at [https://www.theatlantic.com/ideas/archive/2021/11/facebooks-dangerous-](https://www.theatlantic.com/ideas/archive/2021/11/facebooks-dangerous-experiment-teen-girls/620767/)
27 [experiment-teen-girls/620767/](https://www.theatlantic.com/ideas/archive/2021/11/facebooks-dangerous-experiment-teen-girls/620767/).

26 ⁷² Melissa G. Hunt et al., *No More FOMO: Limiting Social Media Decreases Loneliness and Depression*, 37 J.
27 of Social & Clinical Psych. (Dec. 5, 2018), <https://guilfordjournals.com/doi/epdf/10.1521/jscp.2018.37.10.751>.

27 ⁷³ Aksha Memon et al., *The role of online social networking on deliberate self-harm and suicidality in*
28 *adolescents: a systematized review of literature*, 60(4) Indian J Psychiatry 384-392 (Oct-Dec 2018),
http://10.4103/psychiatry.IndianJPsychiatry_414_17.

1 of-view (such as taking selfies or asking others to “rate one’s looks”). This effect was more
2 pronounced among girls than boys.⁷⁴

3 85. A third study in 2019 of more than 6500 American adolescents ranging in age from 12
4 to 15 years old found that those who used social media for 3 hours or more per day were more likely
5 to suffer from mental health problems such as anxiety and depression.⁷⁵ Notably, this association
6 remained significant even after adjusting for demographics, past alcohol and marijuana use, and
7 history of mental health problems.⁷⁶

8 86. In 2020, a study of Australian adolescents found that investment in others’ selfies
9 (through likes and comments) was associated with greater odds of meeting criteria for
10 clinical/subclinical bulimia nervosa, clinical/subclinical binge-eating disorder, night eating syndrome,
11 and unspecified feeding and eating disorders.⁷⁷

12 87. In 2020, a longitudinal study investigated whether “Facebook Addiction Disorder”
13 predicted suicide-related outcomes, and found that children and adolescents addicted to Facebook are
14 more likely to engage in self-injurious behavior, such as cutting and suicide.⁷⁸

15 88. In 2020, clinical research demonstrated an observable link between youth social media
16 use and disordered eating behavior.⁷⁹ The more time young girls spend using Defendants’ products,
17

18 ⁷⁴ Ilyssa Salomon & Christia Spears Brown, *The Selfie Generation: Examining the Relationship Between Social
19 Media Use and Early Adolescent Body Image*, Journal of Early Adolescence (Apr. 21, 2018),
20 <https://journals.sagepub.com/doi/abs/10.1177/0272431618770809>.

21 ⁷⁵ Kira Riehm et al., *Associations between time spent using social media and internalizing and externalizing
22 problems among US youth*, 76(12) JAMA Psychiatry (2019), [https://jamanetwork.com/journals/jamapsychiatry
23 /fullarticle/2749480](https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2749480).

24 ⁷⁶ Kira Riehm et al., *Associations between time spent using social media and internalizing and externalizing
25 problems among US youth*, 76(12) JAMA Psychiatry (2019), [https://jamanetwork.com/journals/jamapsychiatry
26 /fullarticle/2749480](https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2749480).

27 ⁷⁷ Alexandra R. Lonergan et al., *Protect Me from My Selfie: Examining the Association Between Photo-Based
28 Social Media Behaviors and Self-Reported Eating Disorders in Adolescence*, Int’l J. of Eating Disorders (Apr.
7, 2020), <https://onlinelibrary.wiley.com/doi/epdf/10.1002/eat.23256>.

⁷⁸ See, e.g., Julia Brailovskaia et al., *Positive mental health mediates the relationship between Facebook
addiction disorder and suicide-related outcomes: a longitudinal approach*, 00(00) Cyberpsychology, Behavior,
and Social Networking (2020), <https://doi.org/10.1089/cyber.2019.0563>; 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 Psych. Sci. 3–17 (2018).

⁷⁹ Simon M. Wilksch et al., *The relationship between social media use and disordered eating in young
adolescents*, 53 Int’l J. Eating Disorders 96–106 (2020), <https://pubmed.ncbi.nlm.nih.gov/31797420/>.

1 the more likely they are to develop disordered eating behaviors.⁸⁰ And the more social media accounts
2 adolescents have, the more disordered eating behaviors they exhibit.⁸¹

3 89. Eating disorders often occur simultaneously with other self-harm behaviors such as
4 cutting and are often associated with suicide.⁸²

5 90. In a 2021 study, female undergraduates were randomly shown thinspiration (low body
6 mass index and not muscular), fitspiration (muscular and exercising), or neutral photos.⁸³
7 Thinspiration and fitspiration images lowered self-esteem, even in those with a self-perceived healthy
8 weight.⁸⁴

9 91. A 2022 study of Italian adolescent girls (12-17) and young women (18-28) found that
10 Instagram's image editing and browsing features, combined with an emphasis on influencer
11 interactions, promulgated unattainable body ideals that caused users to compare their bodies to those
12 ideals.⁸⁵ These trends were more prominent among adolescent girls, given their higher susceptibility
13 to social pressures related to their bodies and given the physical changes associated with puberty.

14 92. In 2023, a study of magnetic resonance images demonstrated that compulsive use of
15 Defendants' products measurably alters children's brains.⁸⁶ This study measured fMRI responses in
16 12-year-old adolescents who used Facebook, Instagram, and Snapchat over a three-year period and
17 found that neural patterns diverged. Specifically, those who engaged in high social media checking
18
19

20 ⁸⁰ *Id.*

21 ⁸¹ *Id.*

22 ⁸² Sonja Swanson et al., *Prevalence and correlates of eating disorders in adolescents*, 68(7) Arch Gen
Psychiatry 717-723 (2011), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5546800/>.

23 ⁸³ Karikarn Chansiri & Thipkanok Wongphothiphan, *The indirect effects of Instagram images on women's self-*
esteem: The moderating roles of BMI and perceived weight, 00(0) New Media & Society 1-23 (2021),
24 <https://journals.sagepub.com/doi/epub/10.1177/14614448211029975>.

25 ⁸⁴ *Id.*

26 ⁸⁵ Federica Pedalino and Anne-Linda Camerini, *Instagram use and body dissatisfaction: The mediating role of*
upward social comparison with peers and influencers among young females, 19(3) Int'l J of Environmental
Research and Public Health 1543 (2022), <https://www.mdpi.com/1660-4601/19/3/1543>.

27 ⁸⁶ Maria Maza et al., *Association of habitual checking behaviors on social media with longitudinal functional*
brain development, JAMA Ped., (Jan. 3, 2023), [https://jamanetwork.com/journals/jamapediatrics/article-](https://jamanetwork.com/journals/jamapediatrics/article-abstract/2799812)
28 [abstract/2799812](https://jamanetwork.com/journals/jamapediatrics/article-abstract/2799812).

1 behavior “showed lower neural sensitivity to social anticipation” than those who engaged in low to
2 moderate checking behavior.⁸⁷

3 93. From 2009 to 2019, the rate of high school students who reported persistent sadness or
4 hopelessness increased by 40% (to one out of every three kids).⁸⁸ The share of kids who seriously
5 considered suicide increased by 36%, and those that created a suicide plan increased by 44%.⁸⁹

6 94. From 2007 to 2019, suicide rates among youth aged 10-24 in the United States
7 increased by 57%.⁹⁰

8 95. From 2007 to 2016, emergency room visits for youth aged 5-17 rose 117% for anxiety
9 disorders, 44% for mood disorders, and 40% for attention disorders.⁹¹

10 96. By 2019, one-in-five children aged 3-17 in the United States had a mental, emotional,
11 developmental, or behavioral disorder.⁹² Mental health issues are particularly acute among females.⁹³

12 97. On December 7, 2021, the United States Surgeon General issued an advisory on the
13 youth mental health crisis.⁹⁴ The Surgeon General explained, “[m]ental health challenges in children,
14 adolescents, and young adults are real and widespread. Even before the pandemic, an alarming number
15 of young people struggled with feelings of helplessness, depression, and thoughts of suicide—and
16
17
18

19 ⁸⁷ *Id.*

20 ⁸⁸ *Supra* note 1.

21 ⁸⁹ *Id.*

22 ⁹⁰ *Id.*

23 ⁹¹ Charmaine Lo, *Children’s mental health emergency department visits: 2007-2016*, 145(6) *Pediatrics*
e20191536 (June 2020), <https://doi.org/10.1542/peds.2019-1536>

24 ⁹² *U.S. Surgeon General Issues Advisory on Youth Mental Health Crisis Further Exposed by COVID-19*
Pandemic, U.S. Dep’t Health & Hum. Servs. (Dec. 14, 2021), <https://adasoutheast.org/u-s-surgeon-general-issues-advisory-on-youth-mental-health-crisis-further-exposed-by-covid-19-pandemic/>; *see also* 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 Psych. Sci.* 3–17 (2017),
25 <https://doi.org/10.1177/216770261772337> (noting that mental health issues are particularly acute among females).

26 ⁹³ *U.S. Surgeon General Issues Advisory on Youth Mental Health Crisis Further Exposed by COVID-19*
Pandemic, U.S. Dep’t Health & Hum. Servs. (Dec. 14, 2021), <https://adasoutheast.org/u-s-surgeon-general-issues-advisory-on-youth-mental-health-crisis-further-exposed-by-covid-19-pandemic/>

27 ⁹⁴ *Id.*

28

1 rates have increased over the past decade.”⁹⁵ Those “mental health challenges were the leading cause
2 of disability and poor life outcomes in young people.”⁹⁶

3 98. On February 13, 2023, the CDC released new statistics revealing that, in 2021, one in
4 three girls seriously considered attempting suicide.⁹⁷

5 **6. Defendants could have avoided harming Plaintiffs and their students.**

6 99. Each Defendant solicited customers, including Plaintiffs’ students, on the open market
7 and encouraged the use of their defective apps.

8 100. Each Defendant offers its app to the consuming public with dangerous, standardized
9 features and designs (discussed below) that users, like Plaintiffs’ students, cannot bargain to change.

10 101. Plaintiffs’ students (along with millions of other U.S. users) confer a benefit on each
11 Defendant in exchange for using their respective products.

12 102. Each Defendant could have, but purposefully failed to, design its products to protect
13 and avoid injury to kids and adolescent users, such as Plaintiffs’ students.

14 103. Each Defendant knew or should have known that adolescents’ developing brains leave
15 them relatively less able to delay gratification, control impulses, or resist immediately pleasurable
16 social rewards.

17 104. Each Defendant knew or should have known that the more children use social media,
18 the harder it is to quit.

19 105. Each Defendant knew or should have known that excessive use of its products has
20 severe and wide-ranging effects on youth mental and physical health.

21 106. Each Defendant knew or should have known that youth are especially vulnerable to
22 long-term harm from its addictive products.

23 107. Each Defendant knew or should have known that many of its users are under the age
24 of 13, despite the limitations set out in COPPA.

25 _____
26 ⁹⁵ *Id.*

27 ⁹⁶ *Id.*

28 ⁹⁷ Azeen Ghorayashi & Roni Caryn Rabin, *Teen Girls Report Record Levels of Sadness, C.D.C. Finds*, N.Y. Times (Feb. 13, 2023), <https://www.nytimes.com/2023/02/13/health/teen-girls-sadness-suicide-violence.html>.

1 108. Despite all that, each Defendant failed to adequately warn Plaintiffs' students of the
2 known risks and harms of using its products. Each Defendant avoided design changes that would have
3 increased youth safety. And each Defendant pressed ahead with changes designed to keep kids hooked,
4 even though they knew or should have known those changes were risky.

5 109. Each Defendant was in a superior position to control the risks of harm, ensure the safety
6 of its apps, insure against the defects, and spread the costs of any harm resulting from the defects.

7 110. Plaintiffs and the consuming public did not have, and could not have had, as much
8 knowledge as Defendants about Defendants' products and how they were defectively designed.

9 111. Consumers, including Plaintiffs' students, could not have inspected the products before
10 accepting them to learn of the defects or the harms that flow from the defects.

11 **7. Plaintiffs expressly disclaim any and all claims seeking to hold Defendants liable as the**
12 **publisher or speaker of any content provided, posted, or created by third parties.**

13 112. Plaintiffs seek to hold Defendants accountable for their own alleged acts and omissions.
14 Plaintiffs' claims arise from Defendants' status as the designer and marketer of dangerously defective
15 social media products, not as the speaker or publisher of third-party content.

16 113. Plaintiffs allege that Defendants failed to warn minor users and their parents of known
17 dangers arising from anticipated use of their social media products. None of Plaintiffs' claims rely on
18 treating Defendants as the publisher or speaker of any third-party's words. Plaintiffs' claims seek to
19 hold Defendants accountable for their own allegedly wrongful acts and omissions, not for the speech
20 of others or for any attempts by Defendants to restrict access to objectionable content.

21 114. Plaintiffs are not alleging that Defendants are liable for what third parties have said,
22 but for what Defendants did or did not do.

23 115. None of Plaintiffs' claims for relief set forth herein require treating Defendants as a
24 speaker or publisher of content posted by third parties. Rather, Plaintiffs seek to hold Defendants liable
25 for their own speech, deliberate decisions, and their own silence in failing to warn of foreseeable
26 dangers arising from the anticipated use of their products. Defendants could manifestly fulfill their
27 legal duty to design reasonably safe products and furnish adequate warnings of foreseeable dangers
28

1 arising out of their products, without altering, deleting, or modifying the content of a single third-party
2 post or communication.

3 **B. FACTUAL ALLEGATIONS AS TO META**

4 116. Meta knowingly exploits its most vulnerable users—children throughout the world—
5 to drive corporate profit. Meta operates the world’s largest family of social networks, enabling billions
6 of users worldwide to connect, view, and share content through mobile devices, personal computers,
7 and virtual reality headsets. A user does not have to pay to create an account on any Meta products.
8 Instead of charging account holders to access the platform, Meta became one of the world’s most
9 valuable companies from the sale of advertisement placements to marketers across its various products
10 and applications.

11 117. For example, upon information and belief, Meta generated \$69.7 billion from
12 advertising in 2019, more than 98% of its total revenue for the year. Meta can generate such revenues
13 by marketing its user base to advertisers. Meta collects and analyzes data to assemble virtual dossiers
14 on its users, covering hundreds if not thousands of user-specific data segments. This data collection
15 and analysis allows advertisers to micro-target advertising to very specific categories of users, who
16 can be segregated into pools or lists using Meta’s data segments. Only a fraction of these data segments
17 come from content that is explicitly designated by users for publication or explicitly provided by users
18 in their account profiles. Many of these data segments are collected by Meta through surveillance of
19 each user’s activity on the platform and off the platform, including behavioral surveillance that users
20 are not even aware of, like navigation paths, watch time, and hover time. As Meta’s user database
21 grows, Meta can more efficiently addict users. As users spend more time on the platform, Meta creates
22 increasingly detailed information about the users. At bottom, Meta uses this information to aim its
23 paid marketing tools and increase its profits.

24 118. Two Meta products, Facebook and Instagram, rank among the most popular social
25 networking products, with more than two billion combined users worldwide. It is estimated that nine
26 out of ten teens use social media, with the average teen using social media roughly three hours per
27 day. Given the delicate, developing nature of the teenage brain and Meta’s creation of social media
28

1 products designed to be addictive, it comes as no surprise that we are now grappling with the
2 ramifications of Meta’s growth-at-any-cost approach, to wit, a generation of children physiologically
3 entrapped by products the effects of which collectively result in long-lasting adverse impact on their
4 rapidly evolving and notoriously precarious mental health.

5 **1. The Facebook Product**

6 119. Facebook is a social networking product designed, developed, and maintained by Meta.
7 Facebook was founded in 2004 and has become the largest social network in the world. As of October
8 2021, Facebook had approximately 2.9 billion monthly active users, approximately 2 billion of whom
9 use Facebook every day.⁹⁸

10 120. When Facebook was founded in 2004, only students at certain colleges and universities
11 could use the social media platform, and verification of college enrollment was required to access
12 Facebook.

13 121. In 2005, Facebook expanded and became accessible to students at more universities
14 around the world, after which Meta launched a high school version of Facebook that also required an
15 invitation to join.

16 122. Meta later expanded eligibility for Facebook to employees of several companies,
17 including Apple and Microsoft, and added more universities to its network.

18 123. In September 2006, Facebook became available to all internet users. At the time, Meta
19 claimed that it was open only to persons aged 13 and older with a valid email address; however, on
20 information and belief, Meta did not in fact require verification of a user’s age or identity and did not
21 actually verify users’ email addresses, such that underage users could easily register an account with
22 and access Facebook.

23 124. Since its earliest forms, Facebook has undergone a campaign of design alterations
24 aimed at increasing user engagement and platform growth, without regard to user safety.

25
26
27 ⁹⁸ See *id.*; S. Dixon, *Number of Daily Active Facebook Users Worldwide as of 3rd Quarter 2022* (in Millions),
Statista (Oct. 27, 2022), <https://www.statista.com/statistics/346167/facebook-global-dau/>.

28

1 **2. The Instagram Product**

2 125. Instagram is a social media platform that launched in 2010, which Meta acquired for
3 \$1 billion in April 2012.

4 126. Instagram enables users to share photos and videos with other users and to view other
5 users’ photos and videos. These photos and videos appear on users’ Instagram “feeds,” which are
6 virtually bottomless, scrollable lists of content.

7 127. After being acquired by Meta, Instagram experienced exponential user growth,
8 expanding from approximately 10 million monthly active users in September 2012 to more than one
9 billion monthly active users worldwide today, including approximately 160 million users in the United
10 States.⁹⁹

11 128. Instagram’s user growth was driven by design and development changes to the
12 Instagram platform that increased engagement at the expense of the health and well-being of
13 Instagram’s users—especially the children using the platform.

14 129. For example, in August 2020, Instagram began hosting and recommending short videos
15 to users, called Reels.¹⁰⁰ Like TikTok, Instagram allows users to view an endless feed of Reels that
16 are recommended and curated to users by Instagram’s algorithm.

17 130. Instagram has become the most popular photo sharing social media platform among
18 children in the United States—approximately 72 percent of children aged 13–17 in the United States
19 use Instagram.¹⁰¹

20 **3. Meta’s Products are Addictive and Harmful to Youth**

21 131. Meta’s products, as originally conceived, ostensibly functioned like enormous virtual
22 bulletin boards, where content was published by authors. But Meta’s products have evolved over time
23 with the addition of numerous features and products designed by Meta to engage and addict users. The
24

25 ⁹⁹ S. Dixon, *Number of Instagram Users Worldwide from 2020 to 2025 (in Billions)*, Statista (May 23, 2022),
<https://www.statista.com/statistics/183585/instagram-number-of-global-users/>.

26 ¹⁰⁰ *Introducing Instagram Reels*, Instagram (Aug. 5, 2020), <https://about.instagram.com/blog/announcements/introducing-instagram-reels-announcement>.

27 ¹⁰¹ Katherine Schaeffer, *7 Facts About Americans and Instagram*, Pew Rsch. Ctr. (Oct. 7, 2021), <https://www.pewresearch.org/fact-tank/2021/10/07/7-facts-about-americans-and-instagram/>.

28

1 most visible of these are curated recommendations, which are pushed to each user in a steady stream
2 as the user navigates the website, and in notifications sent to the user’s smartphone and email addresses
3 when the user is disengaged with the platform. These proprietary Meta products include, but are not
4 limited to, News Feed (a newsfeed of stories and posts published on the platform, some of which are
5 posted by your connections, and others that are suggested for you by Meta), People You May Know
6 (introductions to persons with common connections or background), Suggested for You, Groups You
7 Should Join, and Discover (recommendations for Meta groups to join).

8 132. These curated and bundled recommendations are developed through sophisticated
9 algorithms. As distinguished from the earliest search functions that were used to navigate websites
10 during the Internet’s infancy, Meta’s algorithms are not based exclusively on user requests or even
11 user inputs. Meta’s algorithms combine the user’s profile (e.g., the information posted by the user on
12 the platform) and the user’s dossier (the data collected and synthesized by Meta to which Meta assigns
13 categorical designations), make assumptions about that user’s interests and preferences, make
14 predictions about what else might appeal to the user, and then make very specific recommendations
15 of posts and pages to view and groups to visit and join based on rankings that will optimize Meta’s
16 key performance indicators.

17 133. A user’s “feed” on both Facebook and Instagram is comprised of an endless series of
18 photos, videos, text captions, and comments posted by accounts that the user follows, along with
19 advertising and content specifically selected and promoted by Instagram and Facebook.

20 134. Instagram also features a “discover” page where a user is shown an endless feed of
21 content that is selected by an algorithm designed by Instagram based upon the users’ data profile:
22 demographics, prior activity in the platform, and other data points. Meta has added similar features to
23 Facebook on the product’s “menu” and “watch” sections.

24 135. Engineered to meet the evolving demands of the “attention economy,”¹⁰² a term used
25 to describe the supply and demand of a person’s attention, which is a highly valuable commodity for
26

27 ¹⁰² The business model is simple: The more attention a platform can pull from its users, the more effective its
28 advertising space becomes, allowing it to charge advertisers more.

1 internet websites, in February 2009, Meta introduced perhaps its most conspicuous effort to addict
2 users—intermittent variable rewards (“IVR”): its “Like” button; Instagram launched that same year
3 and came ready-made with a like function shaped as a heart. Additional features of Meta’s IVR include
4 its delay-burst notification system, comments, posts, shares, and other dopamine-triggering content.
5 Instagram’s notification algorithm delays notifications to deliver them in spaced-out, larger bursts.
6 Facebook likely uses a similar feature. As introduced above, these designs take advantage of users’
7 dopamine-driven desire for social validation and optimize the balance of negative and positive
8 feedback signals to addict users.

9 136. IVR is a design used to addict a user to an activity by spacing out dopamine triggering
10 stimuli with dopamine gaps—a design that allows for anticipation and craving to develop and
11 strengthens the addiction with each payout. The easiest way to understand this term is by imagining a
12 slot machine. The users pull the lever (intermittent action) with the hope of winning a prize (variable
13 reward). Slot machines distribute rewards on a calculated schedule (variance in timing and value of
14 reward) to manipulate users’ dopamine seeking systems and drive into addiction. In the same way,
15 users refresh Defendants’ feeds, endure the brief delay, and then see a new assorted of content. Users
16 are notified on their devices throughout their days and nights and compulsively check the notification
17 to learn if anyone has tagged them in a photo, mentioned them in a post, sent them a message, or liked,
18 commented on, or shared either of their posts. As explained below, Meta (and, upon information and
19 belief, all Defendants) space out notifications into multiple bursts (dopamine gaps), rather than
20 notifying users in real time, to maximize the products’ addictiveness.

21 137. Over the past decade or so, Meta has added features and promoted the use of auto-
22 playing short videos and temporary posts on Facebook and Instagram, with the former being referred
23 to as “Reels,” while the latter is referred to as Instagram “Stories.”

24 138. Facebook and Instagram notify users through text and email of activity that might be
25 of interest, which is designed to and does prompt users to open Facebook and Instagram and be
26 exposed to content selected by the products to maximize the length of time and amount of content
27
28

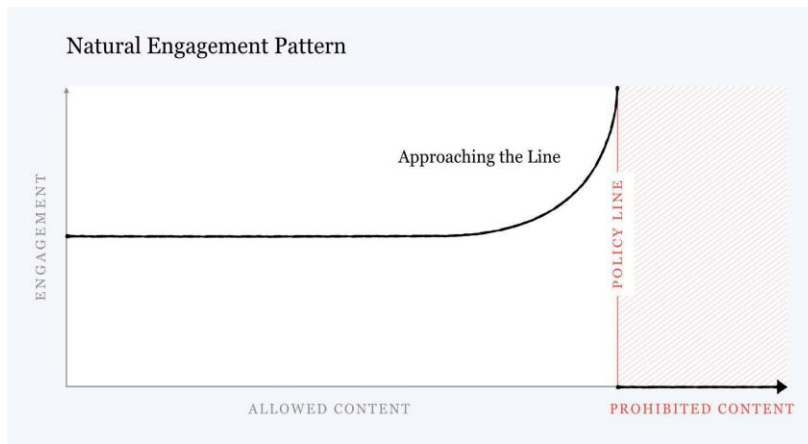
1 viewed by the user. Facebook and Instagram include many other harm causing features, as discussed
2 below.

3 139. Equipped with ample information about the risks of social media, the ineffectiveness
4 of its age-verification protocols, and the mental processes of teens, Meta has expended significant
5 effort to attract preteens to its products, including substantial investments in designing products that
6 would appeal to children ages 10-to-12. Meta views pre-teens as a valuable, unharnessed commodity,
7 so valuable that it has contemplated whether there is a way to engage children during play dates.¹⁰³
8 Meta’s unabashed willingness to target children—in the face of its conscious, long-standing, plainly
9 deficient age-verification protocols—demonstrates the depths to which Meta is willing to reach to
10 maintain and increase its profit margin.

11 140. Faced with the potential for reduction in value due to its declining number of users, in
12 or around early 2018, Meta revamped its interface to transition away from chronological ranking,
13 which organized the interface according to when content was posted or sent, to prioritize Meaningful
14 Social Interactions, or “MSI,” which emphasizes users’ connections’ interactions, e.g., likes and
15 comments, and gives greater significance to the interactions of connections that appeared to be the
16 closest to users. To effectuate this objective, Facebook developed and employed an “amplification
17 algorithm” to execute engagement-based ranking, which considers a post’s likes, shares, and
18 comments, as well as a respective user’s past interactions with similar content, and exhibits the post
19 in the user’s newsfeed if it otherwise meets certain benchmarks. The algorithm covertly operates on
20 the proposition that intense reactions invariably compel attention. As it measures reactions and
21 contemporaneously immerses users in the most reactive content, and negative content routinely elicits
22 passionate reactions, the algorithm effectively works to steer users toward the most negative content.

23
24
25
26
27 ¹⁰³ Georgia Wells and Jeff Horwitz, *Facebook’s Effort to Attract Preteens Goes Beyond Instagram Kids,*
28 *Documents Show* (2021), <https://www.wsj.com/articles/facebook-instagram-kids-tweens-attract-11632849667>.

1 141. Meta CEO Zuckerberg publicly recognized this in a 2018 post, in which he
2 demonstrated the correlation between engagement and sensational content that is so extreme that it
3 impinges upon Meta’s own ethical limits, with the following chart:¹⁰⁴



11 142. The algorithm controls what appears in each user’s News Feed and promotes content
12 that is objectionable and harmful to many users. In one internal report, Meta concluded that “[o]ur
13 approach has had unhealthy side effects on important slices of public content, such as politics and
14 news,” with one data scientist noting that “[t]his is an increasing liability.” In other internal memos,
15 Meta concluded that because of the new algorithm, “[m]isinformation, toxicity, and violent content
16 are inordinately prevalent.”¹⁰⁵ Other documents show that Meta employees also discussed Meta’s
17 motive for changing its algorithm—namely, that users began to interact less with the platform, which
18 became a worrisome trend for Meta’s bottom line.¹⁰⁶ Meta found that the inflammatory content that
19 the new algorithm was feeding to users fueled their return to the platform and led to more engagement,
20 which, in turn, helped Meta sell more of the digital ads that generate most of its revenue. All told,
21 Meta’s algorithm optimizes for angry, divisive, and polarizing content because it will increase its
22 number of users and the time users stay on the platform per viewing session, which thereby increases
23 its appeal to advertisers, thereby increasing its overall value and profitability.

25 ¹⁰⁴ Mark Zuckerberg, *A Blueprint for Content Governance and Enforcement*, FACEBOOK, <https://www.facebook.com/notes/751449002072082/> (last visited January 8, 2022).

26 ¹⁰⁵ Keach Hagey, *Facebook tried to Make Its Platform a Healthier Place. It Got Angrier Instead*, (Sep 15,
27 2021 at 9:26 AM ET) <https://www.wsj.com/articles/facebook-algorithm-change-zuckerberg-11631654215>.

28 ¹⁰⁶ *Id.*

1 143. Upon information in belief, at least as far back as 2019, Meta initiated, *inter alia*, a
2 Proactive Incident Response experiment, which began researching the effect of Meta on the mental
3 health of today’s youth.¹⁰⁷ Meta’s own in-depth analyses show significant mental-health issues
4 stemming from the use of Instagram among teenage girls, many of whom linked suicidal thoughts and
5 eating disorders to their experiences on the app.¹⁰⁸ Meta’s researchers have repeatedly found that
6 Instagram is harmful for a sizable percentage of teens that use the platform. In an internal presentation
7 from 2019, Meta researchers concluded that “[w]e make body issues worse for one in three teen girls,”
8 and “[t]eens blame Instagram for increases in the rate of anxiety and depression.”¹⁰⁹ Similarly, in a
9 March 2020 presentation posted to Meta’s internal message board, researchers found that “[t]hirty-
10 two percent of teen girls said that when they feel bad about their bodies, Instagram made them feel
11 worse.”¹¹⁰ Sixty-six percent of teen girls and forty-six percent of teen boys have experienced negative
12 social comparisons on Instagram.¹¹¹ Thirteen-and-one-half percent of teen-girl Instagram users say the
13 platform makes thoughts of “suicide and self-injury” worse.¹¹² Seventeen percent of teen-girl
14 Instagram users say the platform makes “[e]ating issues” worse.¹¹³ Instagram users are twice as likely
15 to develop an eating disorder as those who do not use social media.

16 144. Meta is aware that teens often lack the ability to self-regulate. Meta is further aware
17 that, despite the products’ adverse impact to teenage users’ well-being, the absence of impulse control
18 often renders teens powerless to oppose the products’ allure. Meta is conscious of the fact that the
19 platform dramatically exacerbates bullying and other difficulties prevalent within the high school

20
21 ¹⁰⁷ See *Protecting Kids Online: Testimony from a Facebook Whistleblower*, United States Senate Committee
22 on Commerce, Science, & Transportation, Sub-Committee on Consumer Protection, Product Safety, and Data
23 Security, <https://www.c-span.org/video/?515042-1/whistleblower-frances-haugen-calls-congress-regulate-face-book>.

23 ¹⁰⁸ See Wall Street Journal Staff, *The Facebook Files*, WSJ (2021), <https://www.wsj.com/articles/the-facebook-files-11631713039?mod=bigtop-breadcrumb>.

24 ¹⁰⁹ Georgia Wells, Jeff Horwitz, Deepa Seetharaman, *Facebook Knows Instagram Is Toxic for Teen Girls,*
25 *Company Documents Show*, (Sep 14, 2021 at 7:59 AM ET) <https://www.wsj.com/articles/facebook-knows-instagram-is-toxic-for-teen-girls-company-documents-show-11631620739#:~:text=%E2%80%9CWe%20make%20body%20image%20issues,and%20consistent%20across%20all%20groups.%E2%80%9D>.

26 ¹¹⁰ *Id.*

27 ¹¹¹ *Id.*

28 ¹¹² *Id.*

¹¹³ *Id.*

1 experience, as the reach of the same now affects users within the ideally otherwise safe confines of
2 the home. The advent of social media largely occurred after today’s parents became adults, the
3 consequence being a large swath of parents that lack the context needed to appreciate the contemporary
4 perils of Meta and Instagram, who are likewise ill-equipped to offer advice sufficient to effectively
5 mitigate against it.

6 145. The shift from chronological ranking to the algorithm modified the social networking
7 environment in such a way that it created a new iteration of the Meta experience, one that is profoundly
8 more negative, one that exploits some of the known psychological vulnerabilities of Facebook’s most
9 susceptible patronage, to wit, juveniles, resulting in a markedly enlarged threat to the cohort’s mental
10 health and the related frequency of suicidal ideation.

11 146. Meta professes to have implemented protective measures to counteract the well-
12 established dangers of its sites’ customized, doggedly harmful content; however, its protocols apply
13 only to content conveyed in English and removes only three-to-five percent of harmful content. Meta
14 knows its quality-control and age-verification protocols are woefully ineffective, but Meta is either
15 unwilling or incapable of properly managing its products. This is consistent with its established pattern
16 of recognizing, and subsequently ignoring, the needs of its underage users and its obligation to create
17 a suitable environment accessible only by its age-appropriate users, all in the interest of reaping
18 obscene profit.

19 147. Instead of providing warnings at sign-up or during use, Meta provides no warning at
20 all. Rather, the most accessible and full information regarding the mental and physical health risks of
21 Meta’s products comes from third parties. Meta has a “Youth Portal” website that does not appear to
22 be widely promoted by Meta or even recommended to teen users on its products.¹¹⁴ Although the
23 website claims to be comprehensive in its coverage of safety information for the products, it fails to
24 directly address any of the features or health risks listed above.

25
26
27 _____
28 ¹¹⁴ *Safety Center*, Facebook, <https://www.facebook.com/safety/youth> (last visited Sept. 20, 2022).

1 148. Meta’s Facebook and Instagram products contain the defects outlined above in Section
2 IV.A.4, and the depth of Meta’s internal research regarding the harmful impact and manipulation of
3 its adolescent users through UX and algorithmic design will be uncovered further in the discovery
4 phase of this litigation.

5 149. Sean Parker, Meta’s first President, explained in a 2017 interview:

6 The thought process that went into building these applications, Facebook being the first
7 of them, to really understand it was all about: “How do we consume as much of your
8 time and conscious attention as possible?” And that means that we need to sort of give
9 you a little dopamine hit every once in a while, because someone liked or commented
10 on a photo or a post or whatever. And that’s going to get you to contribute more content,
11 and that’s going to get you, you know, more likes and comments. It’s a social-validation
12 feedback loop that that it’s exactly the kind of thing that a hacker like myself would
13 come up with, because you’re exploiting a vulnerability in human psychology. The
14 inventors, creators — it’s me, it’s Mark [Zuckerberg], it’s Kevin Systrom on Instagram,
15 it’s all of these people — understood this consciously. And we did it anyway.¹¹⁵

16 150. “God only knows what it’s doing to our children’s brains,” Mr. Parker went on to
17 remark in the same interview.¹¹⁶

18 **C. FACTUAL ALLEGATIONS AS TO SNAP**

19 151. Snap owns and operates the Snapchat social media platform, an application that is
20 widely marketed by Snap and available to users throughout the United States. Snapchat is a platform
21 for engaging in text, picture, and video communication. The platform is also for editing and
22 dissemination of content. The app contains a discovery page and a TikTok-like short video feed that
23 algorithmically presents endless content to users. The primary objective of the platform is to maximize
24 the frequency and length of each user’s viewing sessions. 59 percent of teenagers in the U.S. actively
25 use Snapchat.¹¹⁷ 22 percent of parents in the U.S. know their child between the ages of 9 and 11 uses
26 Snapchat.¹¹⁸

25 ¹¹⁵ Mike Allen, *Sean Parker unloads on Facebook: “God only knows what it’s doing to our children’s brains,”*
26 *Axios* (Nov. 9, 2017), <https://www.axios.com/2017/12/15/sean-parker-unloads-on-facebook-god-only-knows-what-its-doing-to-our-childrens-brains-1513306792>.

27 ¹¹⁶ *Id.*

28 ¹¹⁷ Vogels et al., *supra* note 13.

¹¹⁸ Schaeffer, *supra* note 2.

1 152. Snapchat was founded in 2011, by three Stanford college students, Reggie Brown, Evan
2 Spiegel, and Bobby Murphy. It began as a simple application designed to allow a user to send a picture
3 to a friend that would later disappear. Having gained only 127 users a few months after its launch,
4 Snapchat began to market to high school students. Within the following year, Snapchat grew to more
5 than 100,000 users.

6 153. Snapchat became well-known for the ephemeral nature of its content, which, in effect,
7 removes all accountability for sent content. Specifically, Snapchat allows users to form groups and
8 share posts or “Snaps” that disappear after being viewed by the recipients. However, the Snapchat
9 social media product quickly evolved from there, as its leadership made design changes and rapidly
10 developed new product features intended to and successfully did increase Snapchat’s popularity
11 among minors.

12 154. In 2012, Snapchat added video capabilities to its product, pushing the number of Snaps
13 to 50 million per day. In 2013, Snapchat added “Stories” and “Chat” features; in 2014, live video chat
14 capabilities, text conversations, “Our Story,” Geofilters, and Snapcash; in 2015, Discovery, QR code
15 incorporation, and facial recognition software; and in 2016, Memories and Snapchat Groups.

16 155. By 2015, advertisements were pervasive on Snapchat, and by 2018, 99% of Snapchat’s
17 total revenue came from advertising. In 2022, Snap’s revenue was approximately \$4.6 billion.¹¹⁹ Like
18 Meta and Defendants in general, Snapchat decided to monetize its userbase, and changed its product
19 in ways that made it more harmful for users yet resulted in increased engagement and profits for
20 Snapchat. By 2015, Snapchat had over 75 million active users and was the most popular social media
21 application amongst American teenagers in terms of number of users and time spent using the product.

22 156. To further expand its userbase, Snapchat incorporates several product features that
23 serve no purpose other than to create dependency on Snapchat’s social media product. These features,
24 in turn, result in sleep deprivation, anxiety, depression, shame, interpersonal conflicts, and other
25 serious mental and physical harms. Snapchat knows, or should know, that its product is harmful to

26 _____
27 ¹¹⁹ Snap Inc. *Form 10-K* at 18 (Dec. 31, 2022), <https://d18rn0p25nwr6d.cloudfront.net/CIK-0001564408/c22ae9bd-7418-456e-82d4-48129de1df54.pdf>.
28

1 adolescents, but, as with Defendants in general, it consistently opts for increased profit at the expense
2 of the well-being of its clientele. Defendants’ products are used by millions of children every day,
3 children who have become addicted to these products because of their design and product features, to
4 the point that parents cannot remove all access to the products without minor users adamantly
5 protesting, often engaging in self-harm, threatening hunger strikes and/or suicide, and other
6 foreseeable consequences of withdrawal from these products, where such cessation would require
7 professional intervention.

8 157. Snap has tailored every aspect of its Snapchat product to children rather than adults.
9 Snap designed and implemented dangerous features in Snapchat that exploit children’s need for social
10 acceptance and rewards by pushing its users to maximize their use of and engagement with the app.
11 Snap built Snapchat using manipulative techniques to compel young users to send an ever-increasing
12 number of photographs and videos, and to reward users who maximize their engagement with elevated
13 status. Snap also dangerously encourages adolescents to increase engagement on the app
14 indiscriminately, pushing tools to share sensitive material with an ever-expanding group of friends
15 and strangers.

16 158. Snapchat’s design features cause its young users to suffer increased anxiety,
17 depression, disordered eating, sleep deprivation, suicide, and other severe mental and physical injuries.
18 Snap knows or should have known this. Snap intentionally designed Snapchat to prey on the
19 neuropsychology and behavioral patterns of children to maximize their engagement and increase
20 Snap’s advertising revenue. Despite this knowledge, Snap continues to update its product and add
21 features intentionally designed to entice, exploit, and addict kids, including Snap Streaks, trophies,
22 social signifiers and reward systems, quickly disappearing messages, filters, lenses, and games.

23 159. Snap specifically promotes Snapchat to children because they are a key demographic
24 for Snap’s advertising business. In its first post on its website, Snapchat observed that “[t]o get a better
25 sense of how people were using Snapchat and what we could do to make it better, we reached out to
26 some of our users. We were thrilled to hear that most of them were high school students who were
27
28

1 using Snapchat as a new way to pass notes in class—behind-the-back photos of teachers and funny
2 faces were sent back and forth throughout the day.”¹²⁰

3 160. Once Snap entices children to use its product, it uses a series of product features that
4 are designed to addict children. In addition to the types of features discussed above, such as algorithmic
5 recommendation, appearance altering image and video filters, and IVR notifications, Snapchat’s
6 defective, addictive, harm-causing features also include (1) Snapchat streaks, (2) limited availability
7 content (3) Trophies, (4) Snapscore, (5) Snapmap (6) image filters, (7) Spotlight, (8) general user
8 interface, and (9) many other design features.

9 161. Snapchat streaks provide a reward to users based on how many consecutive days they
10 communicate with another user. In other words, the longer two users are able to maintain a streak by
11 exchanging a communication (a “snap”) at least once a day, the more rewarded the users are. The
12 reward comes in the form of a cartoon emoji appearing next to the conversation within Snapchat’s
13 interface. The longer the streak is maintained, the more exciting the emoji. Eventually, the emoji will
14 change to a flame, and the number of days the streak has lasted will be positioned next to the flame.
15 If the streak is about to end, the emoji changes to an hourglass to add pressure on users to maintain
16 the streak and reengage with the platform.¹²¹

17
18
19
20
21
22
23
24
25 ¹²⁰ Team Snapchat, *Let’s Chat*, Snapchat Blog at <http://blog.snapchat.com> (May 9, 2012), <https://web.archive.org/web/20120518003029/http://blog.snapchat.com:80/>.

26 ¹²¹ Lizette Chapman, *Inside the Mind of a Snapchat Streaker*, Bloomberg (Jan. 30, 2017 at 5:00 AM CST),
27 <https://www.bloomberg.com/news/features/2017-01-30/inside-the-mind-of-a-snapchat-streaker?leadSource=uverify%20wall>.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

What Snapchat's Emojis Mean

-  Best Friends. This means you're each other's fave person to send Snaps.
-  You've been each other's best friend for 2 weeks+.
-  Gettin' serious. You've been each other's best friend for 2 months+.
-  Jealous much? Your best friend is also this person's best friend.
-  You're close. Not best-friends close, but you dig each other enough to count.
-  It's cool. You run in the same circles and share a close friend.
-  You have the upper hand. They send you more Snaps than anyone, but you send more Snaps to others.
-  Snapstreak. This appears with a # of days you and your friend have sent each other Snaps within 24 hours. Keep it going and watch the number (and pressure to continue) rise.
-  Warning! You both better send each other a Snap, or you'll kill your streak.

162. This feature hijacks teens' craving for social success and connectedness and causes teen users to feel pressure to use Snapchat daily or suffer social consequences. As some academics and mental health treatment providers have described, streaks "provide a validation for the relationship. . . . Attention to your streaks each day is a way of saying 'we're OK.' . . . The makers built into the app a system so you have to check constantly or risk missing out," said Nancy Colier, a psychotherapist and author of *The Power of Off*. "It taps into the primal fear of exclusion, of being out of the tribe and not able to survive."¹²² For teens, streaks can become a metric for self-worth and popularity. By design, the user's mental wellbeing becomes connected to performance in defendant's

¹²² *Id.*

1 product.¹²³ Some teenagers even provide their log in information to others to maintain their streaks for
2 them when they know they will not be able to do so for a time.

3 163. Time limited content also creates a pressure to use the platform daily. Users can post
4 stories that will only be available for 24 hours. Snap’s Stories feature includes a running view count
5 and list of viewers for each Story, both of which provide users with dopamine-triggering feedback that
6 encourages users to make their Stories visible to everyone in order to increase the view count. The
7 view count, view list, and ephemeral nature of Stories also reinforces the principle of reciprocity and
8 compels users to monitor Stories, so they do not miss out. Many teens feel an obligation to view all
9 their contact’s stories each day before the content disappears, or risk hurting the feelings of friends or
10 “missing out.”

11 164. Trophies, recently renamed “Charms”, are awarded to users based on actions performed
12 in the app, such as reaching streaks of certain milestone lengths or using different portions of the app.
13 Each trophy is a unique badge to display on a user’s profile. Snap designed each of these features to
14 function as rewards for increased engagement, exploit underage users’ desire for social validation, and
15 ultimately compel them to use Snapchat excessively. Because many of these rewards and scores are
16 visible to others, these features tap into adolescents’ deep-seated need for acceptance. By exploiting
17 this need, Snap increases time spent engaging with its product and thereby its profits.

18 165. All users receive a “Snapscore”, based on their total number of snaps sent and received.
19 Users can see the scores of friends, causing blows to the self-esteem of many young users and an
20 addictive drive to increase the score.

21 166. “Snap Map,” a feature of Snapchat that shows the location of other users on a map, also
22 causes self-esteem and mental health damage to teens. The human desire to belong to an “ingroup” is
23 powerfully connected to self-worth, especially within teens. In a recent study, young respondents
24
25

26 ¹²³ Yael Klein, *How Snapchat Streaks Are Getting Teens Addicted to the App*, Evolve Treatment Centers,
27 <https://evolvreatment.com/blog/snapchat-streaks-addicted-teens/> (last visited Sept. 9, 2022) (quoting one
28 teen, “having more streaks makes you feel more popular.”).

1 reported that they check Snap Map to see where their friends were to avoid exclusion, followed by an
2 increased amount of anxiety.

3 Snap Map allows users to view content constantly with minimal effort and to check the
4 application to see what they potentially are missing out on. [A]dolescent users reported
5 feeling “sad,” “inadequate,” and “isolated” after checking Snap Map, even if they were
6 attempting to avoid these feelings in the first place. [P]articipants who were unsure of
7 their friends’ whereabouts or felt excluded (the uncertain situation), were compelled to
8 check Snap Map and reported experiencing higher levels of anxiety and low-self
9 esteem after doing so. This evaluation of self-worth translates to the participant
10 checking Snap Map to confirm or deny their beliefs, and then experiencing negative
11 emotional responses after making a comparison to their friends’ location. Snap Map . .
12 . [is] associated with increased feelings of jealousy and anger in users. Participants
13 expressed how immediate access to locational information directly impacted their
14 mood, especially when they saw something that confirmed their doubts. Something
15 interesting to note is that even when participants were aware of the negative feelings
16 that could arise after checking Snap Map, their desire to confirm or deny self-doubt
17 exceeded concerns over these potential consequences.¹²⁴

18 167. Moreover, this feature can be dangerous for naïve users in that predators can easily
19 locate targeted victims at any given moment.

20 168. Snapchat also includes many appearance changing and face altering image filters that
21 have inflicted profound body image issues upon teenagers, especially females.

22 169. In November 2020, Snapchat launched “Spotlight.” This portion of the platform
23 functions and appears nearly identical to TikTok, with similar addictive qualities and harm infliction.
24 Snapchat also has a “Discover” page that presents a mosaic of algorithmically recommended content.
25 Once a user subscribes to another user based on what they see on the Discover page, they can see the
26 other user’s stories from that point forward. Unsurprisingly, one study of over 2,000 UK residents
27 found 68 percent of respondents who used Snapchat reported that “the platform prevented them from
28 sleeping.”¹²⁵

25 ¹²⁴ Jenna Sachs, *Psychological Repercussions of Location-Based Social Networks in Today’s Youth*, 9 *Elon J.*
26 *of Undergraduate Res. in Comm.* 64, 73 (2018), <https://eloncdn.blob.core.windows.net/eu3/sites/153/2018/12/06-Sachs.pdf>.

27 ¹²⁵ Frazer Deans, *Curb Your Snapchat Addiction*, <https://www.wholesome.design/advent-2018/2-curb-your-snapchat-addiction/> (last visited Sept. 20, 2022).

1 170. In addition to Snapchat’s in-app features, Snap also sends push notifications and emails
2 to encourage addictive engagement and increase use. Notifications are triggered based on information
3 Snap collects from, and about, its users. Snap “pushes” these communications to users excessively and
4 at disruptive times of day. Snap has even designed the format of these notifications to pull users back
5 onto its app by preying on their fear of missing out—never mind the consequences to their health and
6 well-being.

7 171. Snap has intentionally and defectively designed its products so child users face
8 significant navigational obstacles and hurdles when trying to delete or deactivate their Snapchat
9 accounts, despite the ease with which a user can create one. For example, when a user elects to delete
10 their account, they cannot do so on demand. The data and the account are preserved for 30 days. In
11 addition, after initiating the deletion process, the user is presented with a black screen depicting a
12 crying emoji and a message that reads, “Your account will be deactivated, which means friends won’t
13 be able to contact you on Snapchat. You’ll also lose any Chats you’ve saved and Snaps and Chats you
14 haven’t opened.”¹²⁶ This cumbersome process prioritizes user retention and continued use over the
15 wellbeing of Snapchat’s users.

16 172. Snapchat contains many if not all of the defects outlined above in Section IV.A.4, and
17 the depth of Snap’s internal data regarding the harmful impact and ingenious manipulation of its users
18 through UX and algorithmic design will be uncovered further in the discovery phase of this litigation.

19 **D. FACTUAL ALLEGATIONS AS TO TIKTOK**

20 173. TikTok is known as a video-sharing application, where users can create, share, and
21 view short video clips, and is highly integrated with its Chinese parent company ByteDance. TikTok
22 hosts a variety of short-form user videos from genres/themes like pranks, stunts, DIY (“Do It
23 Yourself”) tutorials, satire, opinions, dances, and entertainment, with durations from 15 seconds to ten
24 minutes.

25
26
27 ¹²⁶ See Snapchat Support, *How do I delete my Snapchat account?*, <https://support.snapchat.com/en-US/a/delete-my-account1>
28

1 174. TikTok’s predecessor, Musical.ly, launched in 2014 as a place where people could
2 create and share 15-second videos of themselves lip-syncing or dancing to music.¹²⁷

3 175. In 2017, ByteDance launched an international version of a similar platform that also
4 enabled users to create and share short lip-syncing videos that it called TikTok.¹²⁸

5 176. That same year, ByteDance acquired Musical.ly to leverage its young user base in the
6 United States, of almost 60 million monthly active users.¹²⁹

7 177. Months later, the products were merged under the TikTok brand.¹³⁰

8 178. The primary feature of TikTok is its “For You” page, which presents users with an
9 endless stream of algorithmically selected content. The primary objective of the platform is to
10 maximize the frequency and length of each user’s viewing sessions. 67 percent of teenagers in the
11 U.S. actively use TikTok.¹³¹ 30 percent of parents in the U.S. know their child between the ages of 9
12 and 11 uses TikTok.¹³² TikTok has been downloaded more than 130 million times in the United States
13 and is regarded as the most-visited website in 2021 according to some metrics. In July 2020, TikTok
14 reported that more than one-third of its 49 million daily users in the United States were 14 or
15 younger.¹³³

16 179. TikTok’s capture of the American youth market is no accident, but instead the result of
17 a carefully executed campaign. Early on, Alex Zhu, one of TikTok’s creators, recognized that

18
19
20 ¹²⁷ Biz Carson, *How a failed education startup turned into Musical.ly, the most popular app you’ve probably never heard of*, Bus. Insider (May, 28, 2016), <https://www.businessinsider.com/what-is-musically-2016-5>.

21 ¹²⁸ Pares Dave, *China’s ByteDance scrubs Musical.ly brand in favor of TikTok*, Reuters (Aug. 1, 2018),
22 [https://www.reuters.com/article/us-bytedance-musically/chinas-bytedance-scrubs-musical-ly-brand-in-favor-](https://www.reuters.com/article/us-bytedance-musically/chinas-bytedance-scrubs-musical-ly-brand-in-favor-of-tiktok-idUSKBN1KN0BW)
23 [of-tiktok-idUSKBN1KN0BW](https://www.reuters.com/article/us-bytedance-musically/chinas-bytedance-scrubs-musical-ly-brand-in-favor-of-tiktok-idUSKBN1KN0BW). Case 2:23-cv-00172-SMM Document 1 Filed 01/26/23 Page 56 of 111

24 ¹²⁹ Liza Lin & Rolfe Winkler, *Social-Media App Musical.ly Is Acquired for as Much as \$1 Billion; With 60 million monthly users, startup sells to Chinese maker of news app Toutiao*, Wall St. J. (Nov. 10, 2017),
25 <https://www.wsj.com/articles/lip-syncing-app-musical-ly-is-acquired-for-as-much-as-1-billion-1510278123>.

26 ¹³⁰ Pares Dave, *China’s ByteDance scrubs Musical.ly brand in favor of TikTok*, Reuters (Aug. 1, 2018),
27 [https://www.reuters.com/article/us-bytedance-musically/chinas-bytedance-scrubs-musical-ly-brand-in-favor-](https://www.reuters.com/article/us-bytedance-musically/chinas-bytedance-scrubs-musical-ly-brand-in-favor-of-tiktok-idUSKBN1KN0BW)
28 [of-tiktok-idUSKBN1KN0BW](https://www.reuters.com/article/us-bytedance-musically/chinas-bytedance-scrubs-musical-ly-brand-in-favor-of-tiktok-idUSKBN1KN0BW).

¹³¹ Vogels et al., *supra* note 13.

¹³² Schaeffer, *supra* note 2.

¹³³ Raymond Zhong & Sheera Frenkel, *A Third of TikTok’s U.S. Users May Be 14 or Under, Raising Safety Questions*, N.Y. Times (Aug. 14, 2020), <https://www.nytimes.com/2020/08/14/technology/tiktok-underage-users-ftc.html>.

1 “[t]eenagers in the U.S. [were] a golden audience” for this emerging social media product.¹³⁴ To cash
2 in on this gold, ByteDance implemented a series of product features designed to attract and addict
3 young users. As Zhu explained in 2019, “[e]ven if you have tens of millions of users, you have to keep
4 them always engaged.”¹³⁵ This engagement has come at the cost of young users’ health.

5 180. The initial iteration of TikTok allowed users to lip sync pop music by celebrities who
6 appealed primarily to teens and tweens (e.g., Selena Gomez and Ariana Grande). It labeled folders
7 with names attractive to youth (e.g., “Disney” and “school”); and included in those folders songs such
8 as “Can You Feel the Love Tonight” from the movie “The Lion King,” “You’ve Got a Friend in Me”
9 from the movie “Toy Story,” and other renditions covering school-related subjects or school-themed
10 television shows and movies.¹³⁶

11 181. ByteDance also specifically and intentionally excluded videos that would not appeal to
12 young Americans, instructing TikTok moderators that videos of “senior people with too many
13 wrinkles” should not be permitted on users’ “For You” pages because such content was “much less
14 attractive [and] not worth[] . . . recommend[ing].”¹³⁷

15 182. Even TikTok’s sign-up process demonstrates that young users are what ByteDance
16 values most. In 2016, the birthdate for those signing up for the app defaulted to the year 2000 (i.e.,
17 16 years old).¹³⁸

18 183. TikTok’s revenue is heavily dependent on the amount of time users spend on the
19 product and their level of engagement. The more time users spend on TikTok, the more advertising
20

21 ¹³⁴ Paul Mozur, *Chinese Tech Firms Forced to Choose Market: Home or Everywhere Else*, N.Y.
22 Times (Aug. 9, 2016), <https://www.nytimes.com/2016/08/10/technology/china-homegrowninternet-companies-rest-of-the-world.html>.

23 ¹³⁵ Biz Carson, *How A Failed Education Startup Turned into Musical.ly, The Most Popular App
24 You’ve Probably Never Heard Of*, Bus. Insider (May 28, 2016), <https://www.businessinsider.com/what-is-musically-2016-5> (emphasis added).

25 ¹³⁶ Complaint for Civil Penalties, Permanent Injunction, and Other Equitable Relief (“Musical.ly Complaint”)
at p. 8, ¶¶ 26–27, United States v. Musical.ly, 2:19-cv-01439-ODW-RAO (C.D. Cal. Feb. 27, 2019) Dkt. # 1.

26 ¹³⁷ Sam Biddle et al., *Invisible Censorship: TikTok Told Moderators to Suppress Posts by “Ugly” People and
the Poor to Attract New Users*, Intercept (Mar. 15, 2020), <https://theintercept.com/2020/03/16/tiktok-app-moderatorsusers-discrimination/>.

27 ¹³⁸ Melia Robinson, *How to Use Musical.ly, The App With 150 million Users That Teens Are Obsessed With*,
28 Bus. Insider (Dec. 7, 2016), <https://www.businessinsider.com/how-to-use-musically-app-2016-12>.

1 revenue TikTok reaps. Upon knowledge, information, and belief, formed after a reasonable inquiry
2 under the circumstances, TikTok has designed its algorithms to addict users through advanced
3 analytics that create a variable reward system, thereby causing users to spend increased amounts of
4 time on the product. Upon opening the TikTok application, users are automatically shown an endless
5 stream of videos selected by an algorithm(s). Further, TikTok markets itself as an artificial intelligence
6 company:

7 The most obvious clue is right there when you open the app: the first
8 thing you see isn't a feed of your friends, but a page called 'For You.'
9 It's an algorithmic feed based on videos you've interacted with, or even
10 just watched. It never runs out of material. It is not, unless you train it
11 to be, full of people you know, or things you've explicitly told it you
12 want to see. It's full of things that you seem to have demonstrated you
13 want to watch, *no matter what you actually say you want to watch . . .*
14 Imagine a version of Facebook that was able to fill your feed before
15 you'd friended a single person. That's TikTok.¹³⁹

16 184. TikTok's algorithms are designed to begin working the minute a user opens the app.
17 The FYP shows the user a single, full-screen stream of videos, then records how the user reacts. "A
18 second of viewing or hesitation indicates interest; a swipe suggests a desire for something else."¹⁴⁰
19 With each data point collected, TikTok's algorithm winnows a mass of content to a single feed,
20 continually refined to keep users engaging often and at length.

21 185. TikTok's powerful machine-learning algorithms dictate the content of each user's FYP.
22 An estimated 90-95% of the content viewed on TikTok comes from its algorithms (as opposed to user
23 selection), the highest among Defendants' products.¹⁴¹

24 ¹³⁹ John Herman, *How TikTok is Rewriting the World*, N.Y. Times (Mar. 10, 2019),
25 <https://www.nytimes.com/2019/03/10/style/what-is-tik-tok.html> (emphasis added).

26 ¹⁴⁰ *Investigation: How TikTok's Algorithm Figures Out Your Deepest Desires*, Wall St. J. (Jul. 21,
27 2021), <https://www.wsj.com/video/series/inside-tiktoks-highly-secretive-algorithm/investigationhow-tiktok-algorithm-figures-out-your-deepest-desires/6C0C2040-FF25-4827-8528-2BD6612E3796>; *see also How TikTok recommends videos #ForYou*, TikTok Newsroom, <https://newsroom.tiktok.com/en-us/how-tiktok-recommends-videos-for-you>.

28 ¹⁴¹ *Inside TikTok's Algorithm: A WSJ Video Investigation*, Wall St. J. (July 21, 2021), <https://www.wsj.com/articles/tiktok-algorithm-video-investigation-11626877477>.

1 186. The algorithm encourages use of the product, regardless of whether that use is
2 enjoyable or healthy. From TikTok’s perspective, it doesn’t matter whether you’re engaging with a
3 video because you’re horrified or angry or upset—the engagement itself is the end goal.

4 187. As the algorithm continues to refine what users see, they are “more likely to encounter
5 harmful content.”¹⁴² Indeed, TikTok’s quest to monopolize user attention often forces users down
6 “rabbit holes” of harmful content. Users end up in these rabbit holes, and become trapped in them,
7 because TikTok has optimized its algorithm’s design for retention and time spent on the app.¹⁴³ TikTok
8 wants to keep users coming back as often as possible for as long as possible.

9 188. TikTok’s algorithms often work in concert with other social media products, like
10 Meta’s. A teen may learn about a harmful topic through Meta’s recommendation technologies on
11 Instagram, which is feasibly subsequently identified by TikTok’s algorithm(s), and TikTok will then
12 amplify and promote the same harm through a series of how-to videos. Like Meta, TikTok has tried
13 to boost engagement and keep young users hooked to its social media product by any means necessary.
14 Indeed, TikTok similarly sends push notifications and emails to encourage addictive behavior, to
15 increase use of their product. TikTok’s communications are triggered through information its
16 algorithms collect about users, communications that are then “pushed” to users frequently throughout
17 the day.

18 189. Other product features that work in combination to cause addiction and other harms
19 include: (1) a platform-imposed limit to the length of video content. Initially, the maximum video time
20 was 60 seconds. The limit was later increased to 3 minutes and is currently 10 minutes. This limit is
21 imposed to keep users in a flow-like focused state involving variety of content and variable rewards.
22 A user is more likely to become bored and end their session during a long video than during several
23 varying videos. Video length limits in defendants’ products have conditioned users to have a shorter
24 attention span across years of use. (2) Until a subsequent change, the TikTok app sent notifications to
25

26 ¹⁴² Ben Smith, *How TikTok Reads Your Mind*, N.Y. Times (Dec. 5, 2021), <https://www.nytimes.com/2021/12/05/business/media/tiktok-algorithm.html>.

27 ¹⁴³ Kaitlyn Tiffany, *I’m Scared of the Person TikTok Thinks I Am*, The Atlantic (June 21, 2021),
28 <https://www.theatlantic.com/technology/archive/2021/06/your-tiktok-feed-embarrassing/619257/>.

1 the devices of children well after normal bedtime hours, disrupting sleep patterns and causing
2 psychological injury. Recently, TikTok reportedly stopped the platform from sending notifications to
3 users between the age of 13 and 15 after 9 p.m. (3) The interface of TikTok positions buttons on the
4 bottom right of the screen, to avoid the milliseconds of delay of discomfort that could disrupt the flow-
5 like state of right-handed users tapping the like or comment buttons if placed elsewhere on the screen.
6 (4) Unlike other products, TikTok continues to play a video’s audio, and the top quarter of the video,
7 while users view comments on the video. This design decision avoids disrupting a user’s heightened
8 focused “flow-state” of consuming TikTok content. (5) TikTok’s interface places buttons and profiles
9 overlaid on top of the videos, rather than in a separate area. This design prevents there from being any
10 barrier between videos (such as a horizontal bar across the screen on the bottom of one video and on
11 top of the next) and prevents users from having any pause time between videos to evaluate whether
12 they should continue using the app in that moment before more algorithmically selected content is
13 played on their screen. (6) Videos automatically start playing as a user scrolls. Videos automatically
14 restart once they conclude. In some circumstances, such as when a user sends a link of a video on
15 TikTok to another user that views it in a web browsing app, the next video after that video will
16 automatically play without the user scrolling. (7) Upon opening the app, users’ view of the first video
17 loaded is obstructed with a message saying “swipe for more” and a graphic of a hand and figure
18 swiping up. The user must scroll down to see an unobstructed video. This design feature trains users
19 to reflexively scroll to the next video once one video ends. Thus, addiction is initiated by the app
20 before the user even sees the first piece of content.

21 190. As research conducted by the Brown University School of Public Health has
22 determined, these features work in concert to lull users into a hypnotic, hyper-focused “flow-like
23 state”:

24 [T]he infinite scroll and variable reward pattern of TikTok likely
25 increase the addictive quality of the app as they may induce a flow-like
26 state for users that is characterized by a high degree of focus and
27 productivity at the task at hand[]. Once immersed in the flow-like state,
28 users may experience a distorted sense of time in which they do not
realize how much time has passed. Furthermore, the app interface itself

1 is straightforward and user-friendly, with only a limited number of
2 buttons and sections of the app for users to navigate, which further
3 enables entrance into “flow.” . . . When they play, they consume the
4 entire device screen, which creates an immersive experience for users. .
5 . . . Although the similarity may not be immediately evident, analysis of
6 social media apps reveals that they are designed to function like slot
7 machines — the “swipe down” feature required to refresh one’s feed
8 mirrors pulling a slot machine lever, and the variable pattern of reward
9 in the form of entertaining videos on TikTok simulates the intermittent
10 reward pattern of winning or losing on a slot machine; this pattern keeps
11 individuals engaged under the impression that the next play might be
12 “the one.” . . . Provided that social media apps are functionally akin to
13 slot machines, it is likely that the use of these apps is just as addictive
14 as slot machines and fosters social media addiction, much like how slot
15 machines contribute to gambling addiction.¹⁴⁴

16 191. Other researchers have compared the fine-tuned TikTok experience to hypnosis.
17 “You’ll just be in this pleasurable dopamine state, carried away. It’s almost hypnotic, you’ll keep
18 watching and watching. . . . You keep scrolling, she says, because sometimes you see something you
19 like, and sometimes you don’t. And that differentiation—very similar to a slot machine in Vegas—is
20 key.”¹⁴⁵ TikTok also provides its own set of beauty enhancing filters, which cause insecurities and
21 psychological injury in teens leading to body dysmorphia, eating disorder, self-harm, and in more
22 severe cases, suicide.

23 192. ByteDance designed TikTok with image-altering filters that harm users. These filters
24 allow children to artificially change their appearance, for example by lightening their skin and eyes,
25 giving them glowing tan skin, changing facial structure, or giving them larger lips or fluttering
26 eyelashes.

27 193. Young people often then compare the filtered images to their real-life appearance,
28 developing a negative self-image based on unrealistic, artificial images.¹⁴⁶ Many young girls use

24 ¹⁴⁴ *What Makes TikTok so Addictive?: An Analysis of the Mechanisms Underlying the World’s Latest Social*
25 *Media Craze*, Brown Undergraduate J. of Pub. Health (2021), <https://sites.brown.edu/publichealthjournal/2021/12/13/tiktok/>.

26 ¹⁴⁵ John Koetsier, *Digital Crack Cocaine: The Science Behind TikTok’s Success*, Forbes (Jan. 18, 2020 at 2:04
27 PM EST), <https://www.forbes.com/sites/johnkoetsier/2020/01/18/digital-crack-cocaine-the-science-behind-tiktoks-success/?sh=4bcc645f78be>.

28 ¹⁴⁶ Haines, *supra* note 15.

1 image-altering filters every day, harming their mental health. Those filters subconsciously make girls
2 feel imperfect and ugly, “reduc[ing] their self-compassion and tolerance for their own physical
3 flaws.”¹⁴⁷

4 194. So compelling is the desire to resemble more closely the filtered ideal that there are
5 online tutorials explaining how to recreate certain filters using makeup. Children’s idealization of their
6 filtered image is externally reinforced when the filtered images receive more likes, comments, and
7 other interaction. Young people also compare these interaction “scores” to those of friends and
8 celebrities who use filters, reinforcing the idea that beauty depends on matching a digital ideal.

9 195. Filters, retouching, and other editing tools available on TikTok often alter specific
10 facial features, such as the shape of a person’s eyes and lips, in ways that would require medical
11 intervention to alter in real life. Children, particularly girls, are thus striving for a standard of beauty
12 that is functionally impossible to achieve, with every TikTok filter creating a test that they are doomed
13 to fail.

14 196. Even if a user escapes the addictiveness of TikTok’s design and decides to delete their
15 account, ByteDance makes doing so a lengthy and complex undertaking. The deletion process is
16 defectively designed to encourage users to retain their accounts, even if their stated reason for deletion
17 is that the product is endangering their safety or health.

18 197. TikTok contains many if not all of the defects outlined above in Section IV.A.4, and
19 the depth of ByteDance’s internal data regarding the harmful impact and ingenious manipulation of
20 its users through UX and algorithmic design will be uncovered further in the discovery phase of this
21 litigation.

22 **E. FACTUAL ALLEGATIONS AS TO GOOGLE (YOUTUBE)**

23 198. YouTube is an American online video sharing social media product headquartered in
24 San Bruno, California. YouTube is the second most visited website, after Google Search, and has more
25 than 2.5 billion monthly users who collectively watch more than one billion hours of videos on
26

27 ¹⁴⁷ *Id.*
28

1 YouTube each day. Surveys by the Pew Research Center in 2022 found that 95% of American
2 teenagers used YouTube and that one in five American teenagers reported that they used YouTube
3 almost constantly.¹⁴⁸

4 199. Like Meta, YouTube earns the bulk of its YouTube revenue through advertisements.
5 Its design allows YouTube to embed targeted advertising directly into the video clips that its users
6 watch, as well as promote featured content.¹⁴⁹

7 200. YouTube partners with channel owners who, upon crossing a viewership threshold, can
8 elect to monetize the channel to deliver advertisements to viewers. YouTube then takes a 45% cut of
9 the advertising revenue and passes the rest to the channel.¹⁵⁰ YouTube also offers systems, policies,
10 and features to encourage creators to post more content and earn rewards that can be converted into
11 cash.

12 201. Moreover, advertising on YouTube’s channels can either be contextual (informed by
13 the particular channel or video) or behavioral (informed by the behavior of the device owner as tracked
14 across different websites, apps, and devices). YouTube has long allowed channel owners to turn off
15 default behavioral advertising and serve instead contextual advertising that does not track viewers, but
16 vanishingly few content creators would elect to do so, in no small part because they receive warnings
17 that disabling behavioral advertising can “significantly reduce your channel’s revenue.” In short, both
18 YouTube and the channels have a strong financial incentive to use behavioral advertising.

19 202. In the fiscal years 2021 and 2022, YouTube generated total advertising revenues of
20 \$28.8 billion and \$29.2 billion respectively. In stark contrast, the advertising revenues for fiscal year
21 2017 was \$8.1 billion.

22 203. YouTube uses several features and techniques to serve its goal of fueling usage by
23 minors (and ad revenues to YouTube), and does so by fueling compulsive, addictive use of YouTube
24 by minors and push users into dangerous “rabbit hole” experiences.

25
26 ¹⁴⁸ Vogels et al, *supra* note 49.

27 ¹⁴⁹ Andrew Beattie, *How YouTube Makes Money Off Videos*, Investopedia, Oct. 31, 2021,
<https://www.investopedia.com/articles/personal-finance/053015/how-youtube-makesmoney-videos.asp>.

28 ¹⁵⁰ See *In the Matter of Google LLC and YouTube, LLC*, (F.T.C. Sept. 4, 2019), at 2 (citation omitted).

1 204. YouTube has developed proprietary algorithms and uses those to push content to users
2 based on secret formulas YouTube refuses to disclose. In a 2021 post on YouTube’s official blog,
3 Cristos Goodrow, VP of Engineering at YouTube, described the algorithm in general terms as follows,

4 To provide such custom curation, our recommendation system doesn’t operate off of a
5 ‘recipe book’ of what to do. It’s constantly evolving, learning every day from over 80
6 billion pieces of information we call signals. That’s why providing more transparency
7 isn’t as simple as listing a formula for recommendations, but involves understanding
8 all the data that feeds into our system. A number of signals build on each other to help
9 inform our system about what you find satisfying: clicks, watch time, survey responses,
10 sharing, likes, and dislikes.¹⁵¹

11 205. At the same time, YouTube has actual knowledge that its algorithms are promoting and
12 amplifying violent and harmful content. According to YouTube and Google insiders, YouTube
13 employees have notified leadership of these defects in the YouTube algorithm and, each time such
14 notice is provided, they are told by YouTube leadership “Don’t rock the boat.”¹⁵² In other words,
15 YouTube is prioritizing engagement over user safety, despite actual knowledge of the harms it is
16 causing.

17 206. According to YouTube insiders, “The company spent years chasing one business goal
18 above others: ‘Engagement,’ a measure of the views, time spent and interactions with online videos.
19 Conversations with over twenty people who work at, or recently left, YouTube reveal a corporate
20 leadership unable or unwilling to act on these internal alarms for fear of throttling engagement.”¹⁵³

21 207. In 2012, YouTube concluded that the more people watched, the more ads it could run—
22 and that recommending videos, alongside a clip or after one was finished, was the best way to keep
23 eyes on the site. So YouTube, then run by Google veteran Salar Kamangar, set a company-wide
24 objective to reach one billion hours of viewing a day, and rewrote its recommendation engine to
25 maximize for that goal.¹⁵⁴

26 ¹⁵¹ Cristos Goodrow, *On YouTube’s recommendation system*, Inside YouTube, Sept. 15, 2021, <https://blog.youtube/inside-youtube/on-youtubes-recommendation-system/>.

27 ¹⁵² Mark Bergen, *YouTube Executives Ignored Warnings, Letting Toxic Videos Run Rampant*, Bloomberg, (Apr. 2, 2019), available at <https://www.bloomberg.com/news/features/2019-04-02/youtube-executives-ignored-warnings-letting-toxic-videos-run-rampant>.

28 ¹⁵³ *Id.*

¹⁵⁴ *Id.*

1 208. YouTube doesn't give an exact recipe for virality. But in its race to one billion hours,
2 a formula emerged: Outrage equals attention. That is, YouTube re-designed itself to maximize
3 addiction and stayed the course on programming its algorithm to prioritize engagement over user
4 safety, despite its knowledge that such programming was harming a significant number of its users –
5 including children and teens.

6 209. Nor is YouTube's algorithm-driven experience a small part of its functionality. On the
7 contrary, "YouTube has described its recommendation system as artificial intelligence that is
8 constantly learning which suggestions will keep users watching. These recommendations, it says, drive
9 70 percent of views, but the company does not reveal details of how the system makes its choices."¹⁵⁵

10 210. YouTube's automated recommendation system drives most of the experience users
11 have on the platform by telling users, like Plaintiffs' students, what they should watch next. It pushes
12 videos to minor users and exposes them to content they otherwise would not see.

13 211. As with Defendant Meta, Snap, and TikTok, YouTube's algorithms determine the
14 content that gets directed and/or populates its user experience on the YouTube social media platform.
15 YouTube, not the creator, generates the URLs for the content and the resulting list of URLs pushed to
16 users. This includes content sent directly from YouTube to its users, for YouTube's own purposes,
17 and outside of any specific user search or request for such content. As with Defendants Meta, Snap,
18 and TikTok, YouTube knows that its algorithms are promoting and amplifying harmful content to
19 children and teens and are operating with a degree of algorithmic discrimination that is particularly
20 harmful to YouTube's most vulnerable user groups, like Plaintiffs' students.

21 212. YouTube knows that underage users are on its YouTube platform and has deliberately
22 designed its platform in a manner intended to evade parental authority and consent.

23 213. YouTube is used by many millions of children every day, including students in
24 Plaintiffs' schools, who have become addicted to it and suffered other severe mental harms as a result
25 of how Alphabet has designed, setup, and operates its platform design and features.

26
27 ¹⁵⁵ Max Fisher & Amanda Taub, *On YouTube's Digital Playground, an Open Gate for Pedophiles*, N.Y. Times,
28 (June 3, 2019), available at <https://www.nytimes.com/2019/06/03/world/americas/youtube-pedophiles.html>.

1 214. YouTube contains many if not all of the defects outlined above in Section IV.A.4, and
2 the depth of Google’s internal data regarding the harmful impact and ingenious manipulation of its
3 users through UX and algorithmic design will be uncovered further in the discovery phase of this
4 litigation.

5 **F. PLAINTIFF-SPECIFIC ALLEGATIONS**

6 **1. The Effect of Social Media Use in Schools**

7 215. The youth mental health crisis caused by social media in turn harms school districts, as
8 educators are one of the main providers of mental health services for children.¹⁵⁶ Over 3.1 million
9 children ages 12-17 received mental health services through an educational institution in 2020, more
10 than any other non-specialty mental health service setting.¹⁵⁷

11 216. Most schools provide mental health treatment for students, but many struggle to
12 sufficiently meet their students’ needs. While 96 percent of public schools reported offering at least
13 one type of mental health service to their students in the 2021-22 school year,¹⁵⁸ 88 percent of public
14 schools did not strongly agree that they could effectively provide mental health services to all students
15 in need.¹⁵⁹ The most common barriers to providing effective mental health services are (1) an
16 insufficient number of mental health professionals; (2) inadequate access to licensed mental health
17 professionals; and (3) inadequate funding.¹⁶⁰ Even students report that their schools are unable to
18 provide adequate mental health services. Less than a quarter of students in grades 6–12 report
19 accessing counseling or psychological services when they are upset, stressed, or having a problem.¹⁶¹

22 _____
23 ¹⁵⁶ *National Survey on Drug Use and Health*, SAMHSA (2019 & 1st & 4th Qs. 2020),
<https://www.samhsa.gov/data/report/2020-nsduh-detailed-tables>.

24 ¹⁵⁷ *Id.*

25 ¹⁵⁸ *Roughly Half of Public Schools Report That They Can Effectively Provide Mental Health Services to All
Students in Need*, Nat’l Ctr. Educ. Stat. (May 31, 2022), [https://nces.ed.gov/whatsnew/press_releases/
05_31_2022_2.asp](https://nces.ed.gov/whatsnew/press_releases/05_31_2022_2.asp).

26 ¹⁵⁹ *Id.*

27 ¹⁶⁰ *Id.*

28 ¹⁶¹ *Insights From the Student Experience, Part I: Emotional and Mental Health* at 2, YouthTruth (2022),
https://youthtruthsurvey.org/wp-content/uploads/2022/10/YouthTruth_EMH_102622.pdf.

1 When students do access mental health services, only 41 percent of middle schoolers and 36 percent
2 of high schoolers are satisfied with the services they receive.¹⁶²

3 217. Schools are struggling to provide adequate mental health services, in part, because of
4 the increase in students seeking these services. More than two-thirds of public schools reported an
5 increase in the percent of students seeking mental health services from school since 2020.¹⁶³ During
6 this period, adolescents increased their social media use and levels of excessive and problematic use
7 of digital media.¹⁶⁴ These higher rates of social media use are related to higher “ill-being.”¹⁶⁵ This
8 increase in adolescent social media use has caused an increase in adolescents experiencing mental
9 health problems.

10 218. School staff agree that youth mental health is suffering. Over 75 percent of public
11 schools reported an increase in staff expressing concerns about student depression, anxiety, and other
12 disturbances since the start of the pandemic.¹⁶⁶ Students receiving mental health services in
13 educational settings predominately do so because they “[felt] depressed,” “[t]hought about killing
14 [themselves] or tried to” or “[felt] very afraid and tense.”¹⁶⁷

15 219. Anxiety disorders are also up, affecting 31.9 percent of adolescents between 13 and 18
16 years old.¹⁶⁸ “Research shows that untreated teenagers with anxiety disorders are at higher risk to
17 perform poorly in school, miss out on important social experiences, and engage in substance abuse.”¹⁶⁹

18 220. Schools are struggling not only to provide students with mental health services but also
19 to deliver an adequate education because of the youth mental health crisis. Students in grades 6–12

20 ¹⁶² *Id.*

21 ¹⁶³ *Supra* note 158.

22 ¹⁶⁴ Laura Marciano et al., *Digital Media Use and Adolescents' Mental Health During the Covid-19 Pandemic: A Systematic Review and Meta-Analysis*, *Frontiers Pub. Health* (Feb. 2022), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8848548/>.

23 ¹⁶⁵ *Id.*

24 ¹⁶⁶ *Supra* note 158.

25 ¹⁶⁷ Rachel N. Lipari et al., *Adolescent Mental Health Service Use and Reasons for Using Services in Specialty, Educational, and General Medical Settings*, SAMHSA (May 5, 2016), [https://www.samhsa.gov/data/sites/default/files/report_1973/ShortReport-1973.html#:~:text=The percent20Substance percent20Abuse percent20and percent20Mental,273 percent20TALK percent20\(8255\)](https://www.samhsa.gov/data/sites/default/files/report_1973/ShortReport-1973.html#:~:text=The percent20Substance percent20Abuse percent20and percent20Mental,273 percent20TALK percent20(8255)).

26 ¹⁶⁸ *Anxiety Disorders: Facts and Statistics, Anxiety & Depression Ass'n Am.*, <https://adaa.org/understanding-anxiety/facts-statistics> (last visited Dec. 8, 2022).

27 ¹⁶⁹ *Id.*

28

1 identify depression, stress, and anxiety as the most prevalent obstacles to learning.¹⁷⁰ Most middle
2 school and high school students also fail to get enough sleep on school nights, which contributes to
3 poor academic performance.¹⁷¹ These negative mental health outcomes are the most common
4 symptoms of excessive social media use.

5 221. The youth mental health crisis has also caused a wide range of other behavioral issues
6 among students that interfere with schools' ability to teach. In 2022, 61 percent of public schools saw
7 an increase in classroom disruptions from student misconduct compared to school years before the
8 pandemic.¹⁷² Fifty-eight percent of public schools also saw an increase in rowdiness outside of the
9 classroom, 68 percent saw increases in tardiness, 27 percent saw increases in students skipping classes,
10 55 percent saw increases in the use of electronic devices when not permitted, 37 percent saw an
11 increase in bullying, 39 percent saw an increase in physical fights between students, and 46 percent
12 saw an increase in threats of fights between students.¹⁷³

13 222. Further exacerbating schools' struggle to teach is the fact students are not showing up
14 to school. Indeed, student absenteeism has greatly increased. In the 2021–22 school year, 39 percent
15 of public schools experienced an increase in chronic student absenteeism compared to the 2020–21
16 school year, and 72 percent of public schools saw increased chronic student absenteeism compared to
17 school years before the pandemic.¹⁷⁴ Following suit, vandalism has increased in 2022, with 36 percent
18 of public schools reporting increased acts of student vandalism on school property.¹⁷⁵ The youth
19 mental health crisis spurred by Defendants products produces absenteeism and vandalism.

20 223. School districts have borne increased costs and expenses in response to the youth
21 mental health crisis. These costs include:

22
23
24 ¹⁷⁰ *Supra* note 161.

25 ¹⁷¹ Anne G. Wheaton et al., *Short Sleep Duration Among Middle School and High School Students-United States*, 2015, 67(3) *Morbidity & Mortality Wkly. Rpt.* 85–90 (Jan. 26, 2018), <http://dx.doi.org/10.15585/mmwr.mm6703a1>.

26 ¹⁷² *2022 School Pulse Panel*, U.S. Dep't Educ., Inst. Educ. Sci. (2022), <https://ies.ed.gov/schoolsurvey/spp/>.

27 ¹⁷³ *Id.*

28 ¹⁷⁴ *Id.*

¹⁷⁵ *Id.*

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

1. hiring additional mental health personnel (41 percent of public schools added staff to focus on student mental health);¹⁷⁶
2. developing additional mental health resources (46 percent of public schools created or expanded mental health programs for students, 27 percent added student classes on social, emotional, and mental health and 25 percent offered guest speakers for students on mental health);¹⁷⁷
3. training teachers to help students with their mental health (56 percent of public schools offered professional development to teachers on helping students with mental health);¹⁷⁸
4. increasing disciplinary services and hiring additional personnel for disciplinary services in response to increased bullying and harassment over social media;
5. addressing property damaged as a result of students acting out because of mental, social, and emotional problems Defendants’ conduct caused;
6. diverting time and resources from instruction activities to notify parents and guardians of students’ behavioral issues and attendance;
7. investigating and responding to threats made against schools and students over social media;
8. updating its student handbook to address use of Defendants’ products; and
9. updating school policies to address the use of Defendants’ products.

224. Plaintiff BCPS has incurred these costs, as elaborated below, in pursuit of its vision “to foster a nurturing environment with high expectations for students to achieve their potential and graduate with countless opportunities.”¹⁷⁹

¹⁷⁶ *Id.*
¹⁷⁷ *Id.*
¹⁷⁸ *Id.*
¹⁷⁹ *About Baldwin County Alabama*, Baldwin County Public Schools, <https://www.bcbe.org/domain/73> (last visited Mar 13, 2023 at 5:17 PM CT).

1 225. Plaintiff TCS has incurred these costs, as elaborated below, in pursuit of its mission “to
2 be a premier, innovative school system where each and every student graduates and is fully prepared
3 for life and career success.”¹⁸⁰

4 226. Plaintiff MPS has incurred these costs as well, as elaborated below, in pursuit of its
5 mission to “engage, educate and inspire our students to succeed in college, career and beyond!”¹⁸¹

6 **2. Impact of Social Media on Plaintiffs**

7 227. Plaintiffs, three prominent school districts in Alabama, have been directly impacted by
8 the mental health crisis among youth in its community caused by Defendants’ products.

9 228. The mental health needs of Alabama students, especially in Plaintiffs’ schools, is
10 pronounced. In 2020, suicide was the second leading cause of death among ages 10-14 across the U.S.
11 The share of U.S. high school students who seriously considered attempting suicide was 19.9% in
12 2020,¹⁸² and 1 in 6 U.S. youth aged 6-17 experience a mental health disorder each year.¹⁸³ At least
13 54,000 Alabamians age 12-17 have major depression.¹⁸⁴ Yet, a February 2021 study reported that
14 61.8% of Alabamians age 12-17 who have depression did not receive care in the last year.¹⁸⁵ Another
15 study reported that only 36.7 percent of youth in Alabama who experienced a major depressive episode
16 in the past year received treatment (average per year, across 2016-2019).¹⁸⁶

17 229. As the National Alliance on Mental Illness Alabama reported, “An inadequate mental
18 health system affects individuals, families and communities.”¹⁸⁷ Across the state, schools are

19
20 ¹⁸⁰ *Understanding Our Purpose*, Tuscaloosa City School, <https://www.tuscaloosacityschools.com/Page/195>
(last visited Mar 13, 2023 at 5:57 PM CT).

21 ¹⁸¹ *Mission and Values*, Montgomery Public Schools (MPS), <https://www.mps.k12.al.us/domain/159> (last
22 visited Mar 24, 2023 at 11:06 AM CT).

23 ¹⁸² Sherry Jones, et. al., *Mental Health, Suicidality, and Connectedness Among High School Students During
the COVID-19 Pandemic — Adolescent Behaviors and Experiences Survey, United States, January–June 2021*,
(Apr 1, 2022) <https://www.cdc.gov/mmwr/volumes/71/su/su7103a3.htm>.

24 ¹⁸³ *Mental Health in Alabama*, National Alliance on Mental Illness (NAMI),
<https://www.nami.org/NAMI/media/NAMI-Media/StateFactSheets/AlabamaStateFactSheet.pdf> (Reporting
25 data from February 2021).

26 ¹⁸⁴ *Alabama*, Hopeful Futures Campaign, <https://hopefulfutures.us/action-alabama/> (last visited Mar 3, 2023 at
5:44 PM CT).

27 ¹⁸⁵ *Id.*

¹⁸⁶ *Id.*

28 ¹⁸⁷ *Supra* note 182.

1 struggling to meet their student’s mental health needs; the ratio of school counselors to students in
2 Alabama is 1:418.¹⁸⁸ Defendants must shoulder the financial burden of treating the growing youth
3 mental crisis in Plaintiffs’ schools spurred by their products.

4 230. Indeed, there has been a surge in the proportion of youth in Plaintiffs’ communities
5 who say they cannot stop or control their anxiety, who feel so sad and hopeless that they stop doing
6 the activities that they used to love, who are considering suicide, who made plans to commit suicide,
7 and who have attempted to commit suicide.

8 231. These increases in anxiety, depression, and suicidal behavior have contributed to
9 students’ increased behavioral problems in Plaintiffs’ schools.

10 232. The pandemic and corresponding increase in time youth spend on Defendants’ products
11 have intensified the youth mental health crisis and the behavioral issues Plaintiffs’ students are
12 experiencing.

13 233. The current youth mental health crisis has led to a marked increase in the number of
14 Plaintiffs’ students in crisis, acting out, and in need of mental health services.

15 234. To address the decline in students’ mental, emotional, and social health, Plaintiffs have
16 been forced to divert resources and expend additional resources to:

- 17 1. hire additional personnel, including counselors and medical professionals to
18 address mental, emotional, and social health issues;
- 19 2. develop additional resources to address mental, emotional, and social health
20 issues;
- 21 3. increase training for teachers and staff to identify students exhibiting symptoms
22 affecting their mental, emotional, and social health;
- 23 4. train teachers, staff, and members of the community about the harms caused by
24 Defendants’ wrongful conduct;

25
26
27 _____
28 ¹⁸⁸ *Supra* note 184.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

5. develop lesson plans to teach students about the dangers of using Defendants’ products;
6. educate students about the dangers of using Defendants’ products;
7. update its student handbook to address use of Defendants’ products; and
8. update school policies to address use of Defendants’ products.

235. Additionally, more students have been acting out because of the decline Defendants caused in students’ mental, emotional, and social health. Plaintiffs have been forced to divert resources and expend additional resources to:

1. repair property damaged because of the exploitive and harmful content Defendants directed to students;
2. increase disciplinary services and time spent addressing bullying, harassment, and threats;
3. confiscate devices on which students were compelled by Defendants’ conduct to use while in class or school campuses to access Defendants’ products;
4. meet with students and the parents of students caught using Defendants’ products at school;
5. divert time and resources from instructional activities to notify parents and guardians of students’ behavioral issues and attendance; and
6. investigate and respond to threats made against schools and students over social media.

236. Plaintiff BCPS has been directly impacted by the mental health crisis among youth in its community caused by Defendants’ products.

237. As BCPS explains on the “School Counseling” page of its website, “a comprehensive school counseling program is an integral component of the school’s academic mission. Comprehensive school counseling programs, driven by student data and based on standards in

1 academic, career, and personal/social development, promote and enhance the learning process for all
2 students.”¹⁸⁹

3 238. BCPS participates in several statewide initiatives to support mental health and has
4 implemented its own efforts. BCPS, to support the needs of its large student population, deepened
5 from the injuries inflicted by Defendant’s products, maintains a costly student counseling framework.
6 BCPS employees 82 counselors, and has several programs aimed at treating the mental health and
7 wellbeing of students, including:

- 8 • School counseling program
- 9 • School social work program
- 10 • On-campus suspension program
- 11 • Safe and Drug-Free Schools and Communities Program
- 12 • At-Risk Program
- 13 • At Risk Budget
- 14 • Coastal Alabama Community College Career Fair
- 15 • Peer Helpers
- 16 • Neglected and Delinquent Program
- 17 • Section 504 Services
- 18 • Homebound Services¹⁹⁰

19 239. BCPS explains the role of its counselors on its website as follows: “School counselors
20 design and deliver comprehensive school counseling programs in three critical areas: academic,
21 personal/social, and career. These three areas, which promote student achievement, are designed to
22 help students resolve emotional, social, or behavioral problems, and they also help students develop a
23 clearer focus or sense of direction.”¹⁹¹

24 240. Plaintiff MPS has been directly impacted by the mental health crisis among youth in
25 its community caused by Defendants’ products.

26 241. MPS participates in several statewide initiatives to support mental health and has
27 implemented its own efforts. MPS, to support the needs of its large student population, deepened from
28

¹⁸⁹ *Overview of the Department*, Baldwin County Public Schools, <https://www.bcbe.org/Domain/121> (last visited Mar 13, 2023 at 5:37 PM CT).

¹⁹⁰ *Id.*

¹⁹¹ *Id.*

1 the injuries inflicted by Defendant’s products, maintains a costly yet insufficient student counseling
2 framework. The vision and mission of MPS’ school counselors, as stated on its website, is that:

3 All students are kind, creative, knowledgeable lifelong learners who are equipped to
4 reach their highest potential. They know how to seek out support systems when various
5 challenges arise and are successful individuals with the drive, determination, cultural
6 awareness, and the ability to produce positive outcomes in the global community. . . .
7 The mission of all MPS comprehensive school counseling programs is to provide
8 equitable access to all students in acquiring the skills, knowledge, and attitude needed
9 to become successful individuals with the ability to produce positive outcomes in the
10 global community. Engaging students in activities that will promote positive,
11 successful academic, career, and social/emotional development is a mission goal of
12 every MPS counseling program.¹⁹²

9 MPS also deploys efforts such as summer programs, Prevention & Awareness for Total Health
10 (PATH) curriculum (“teaching students concepts related to social, emotional, and behavioral health”),
11 and information guides and resources available on its website to students, staff, and parents.

12 242. MPS also maintains a Student Support Services Office, which strives to:

- 14 • Support students
- 15 • Support schools in assisting with student attendance.
- 16 • Support schools in assisting with maintaining a safe and orderly learning
17 environment on all campuses.
- 18 • Support[] families by assisting with providing links to community agencies.
- 19 • Work as a collaborative unit to graduate each student that passes through the
20 doors of MPS.¹⁹³

19 243. MPS has implemented more measures, since the introduction of Defendants’ products
20 into its student population, to assist its students with the resulting mental health harm. All of MPS’
21 teachers, administrators, and staff have assisted in responding to this crisis, taking away time, energy,
22 and resources which would otherwise be used for the enrichment of students.

23 244. Plaintiff TCS has been directly impacted by the mental health crisis among youth in its
24 community caused by Defendants’ products.

25
26 ¹⁹² *School Counseling*, Montgomery Public Schools (MPS), <https://www.mps.k12.al.us/Page/2094> (last visited
Mar 24, 2023 at 11:12 AM CT).

27 ¹⁹³ *Student Support Services*, Montgomery Public Schools (MPS), <https://www.mps.k12.al.us/Domain/386> (last
28 visited Mar 24, 2023 at 11:12 AM CT).

1 245. TCS participates in several statewide initiatives to support mental health and has
2 implemented its own efforts. TCS summarizes its efforts to treat student mental health on its website
3 as follows:

- 4 • TCS Learning Supports Department includes a Mental Health Services Social
5 Worker to coordinate the mental health services and initiatives available to our
6 students and their families.
- 7 • Students with emotional and behavioral needs may receive additional classroom
8 support through their Response to Intervention (RTI) Team.
- 9 • TCS has eleven licensed School Social Workers who are trained mental health
10 professionals with specific expertise in child and adolescent mental health issues.
- 11 • The Journey school-based counseling program provides individual therapy to
12 students at their local school as a part of their school day.
- 13 • TCS counselors provide classroom lessons on social-emotional learning, character
14 education, peer relationships, and healthy coping skills.
- 15 • Suicide prevention training is a requirement for all TCS employees.
- 16 • TCS has a suicide protocol and crisis intervention plan to address students who are
17 experiencing a mental health crisis.
- 18 • TCS offers Youth Mental Health First Aid Training to employees.¹⁹⁴

19 246. TCS also provides, on its website, “The Calming Space”, a “curated collection of
20 sensory and calming activities will help students, parents, and employees find tools to center their
21 mind, bodies, and emotions.”¹⁹⁵ TCS operates a blog, “Mental Health Monthly”, to keep its staff aware
22 of mental health treatment efforts and related events.¹⁹⁶ TCS has implemented more measures, since
23 the introduction of Defendants’ products into its student population, to assist its students with the
24 resulting mental health harms. All of TCS’ teachers, administrators, and staff have assisted in
25 responding to this crisis, taking away time, energy, and resources which would otherwise be used for
26 the enrichment of students.

27 247. But even with these resources, Plaintiffs cannot keep up with the increased need for
28 mental health services. As stated, only 36.7 percent of youth in Alabama who experienced a major

25 ¹⁹⁴ *Student Mental Health FAQ*, Tuscaloosa City Schools, <https://www.tuscaloosacityschools.com/Page/2954>
(last visited Mar 13, 2023 at 6:01 PM CT).

26 ¹⁹⁵ *The Calming Space*, Tuscaloosa City Schools, <https://www.tuscaloosacityschools.com/Page/2730> (last
visited Mar 13, 2023 at 6:02 PM CT).

27 ¹⁹⁶ Tesney Davis, *October 2021 Mental health Monthly*, Tuscaloosa City Schools, (Oct 6, 2021)
28 <https://www.tuscaloosacityschools.com/Page/2526>

1 depressive episode in the past year received treatment (average per year, across 2016-2019).¹⁹⁷ This
2 volume leaves Plaintiffs with a gap in meeting the mental needs of its students. As a result, the rest of
3 Plaintiffs' staff must fill in the cracks to help students with mental health concerns.

4 248. Plaintiffs require significant and long-term funding to address the nuisance Defendants
5 have created and amplified. Such funding should not fall at the foot of the legislature and, in turn, the
6 public. Rather, Defendants must bear the burden of remedying their wrongs.

7 V. CAUSES OF ACTION

8 FIRST CAUSE OF ACTION—ALL DEFENDANTS 9 PUBLIC NUISANCE

10 249. Plaintiffs incorporate by reference each preceding and succeeding paragraph as though
11 set forth fully at length herein.

12 250. Plaintiffs bring this claim under Alabama public nuisance law as to all Defendants.

13 251. Under Alabama law, a public nuisance is an unreasonable interference with a right
14 common to the general public.

15 252. Plaintiffs and their students have a right to be free from conduct that endangers their
16 health and safety. Yet Defendants have engaged in conduct and omissions which unreasonably and
17 injuriously interfered with the public health and safety in Plaintiffs' communities and created
18 substantial and unreasonable annoyance, inconvenience, and injury to the public by negligently
19 designing, developing, promoting, and maintaining their products with features and algorithms as
20 described above that specifically are addictive, harmful and appeal to youth in Plaintiffs' school
21 districts, who were particularly unable to appreciate the risks posed by the product. Defendants'
22 actions and omissions have substantially, unreasonably, and injuriously interfered with Plaintiffs'
23 functions and operations and affected the public health, safety, and welfare of Plaintiffs' communities.

24 253. Each Defendant has created or assisted in the creation of a condition that is injurious to
25 the health and safety of Plaintiffs and their students and interferes with the comfortable enjoyment of
26 life and property of Plaintiffs' communities.

27 _____
28 ¹⁹⁷ *Supra* note 180.

1 254. Defendants' conduct has directly caused a severe disruption of the public health, order,
2 and safety. Defendants' conduct is ongoing and continues to produce permanent and long-lasting
3 damage.

4 255. This harm to Plaintiffs and the public is substantial, unreasonable, widespread, and
5 ongoing. It outweighs any potential offsetting benefit of the Defendants' wrongful conduct because
6 Defendants' conduct violates Alabama's public policy against inflicting injury to minors through
7 defective products and deceptive business practices.

8 256. Defendants' conduct substantially and unreasonably interfered with public health,
9 safety and the right to a public education in a safe and healthy environment. In that regard, and in other
10 ways discussed herein, the public nuisance created or maintained by Defendants was connected to
11 Plaintiffs' property, including but not limited to school buildings.

12 257. The health and safety of the youth of Plaintiffs' school districts, including those who
13 use, have used, or will use Defendants' products, as well as those affected by others' use of
14 Defendants' products, are matters of substantial public interest and of legitimate concern to Plaintiff,
15 as well as to Plaintiffs' communities.

16 258. Defendants' conduct has affected and continues to affect a substantial number of people
17 within Plaintiffs' school districts and is likely to continue causing significant harm.

18 259. But for Defendants' actions and social media products, the youth mental health crisis
19 that currently exists because of Defendants' conduct would have been significantly mitigated.

20 260. Defendants were the proximate cause of the harms suffered by Plaintiffs as outlined.
21 The injuries suffered by youth in Plaintiffs' schools and the harms in turn suffered by Plaintiffs were
22 the foreseeable result of Defendants' defective and addictive social media products. Defendants knew
23 or should have known that their conduct would create a public nuisance. Defendants knew or
24 reasonably should have known that their design of defective and addictive social media products
25 caused harm to youth and to municipalities, schools, and counties, including youth in Plaintiffs' school
26 districts and to Plaintiffs themselves.

27
28

1 261. Thus, the public nuisance caused by Defendants was reasonably foreseeable, including
2 the financial and economic losses incurred by Plaintiff.

3 262. Alternatively, Defendants' conduct was a substantial factor in bringing about the public
4 nuisance even if a similar result would have occurred without it.

5 263. Plaintiffs have taken steps to address the harm caused by Defendants' conduct,
6 including, but not limited to, those listed in Section V above.

7 264. Fully abating the harm to youth mental health and education resulting from Defendants'
8 conduct will require much more than these steps.

9 265. As detailed herein, Plaintiffs have suffered special damage different in kind or quality
10 from that suffered by the public in common. The damages suffered by Plaintiffs have been greater in
11 degree and different in kind than those suffered by the general public including, but not limited to,
12 those arising from expending, diverting and increasing resources to provide mental health resources
13 and personnel to students, as well as resolve student disciplinary issues.

14 266. Plaintiffs therefore request all the relief to which it is entitled in its own right and
15 relating to the special damage or injury it has suffered, and not in any representative or *parens patriae*
16 capacity on behalf of students, including damages in an amount to be determined at trial and an order
17 providing for the abatement of the public nuisance that Defendants have created or assisted in the
18 creation of, and enjoining Defendants from future conduct contributing to the public nuisance
19 described above.

20 267. Defendants' conduct, as described above, was outrageous, malicious, vindictive,
21 wanton, willful, oppressive, and showed reckless indifference to the rights and interests of others,
22 including Plaintiff, thus entitling Plaintiffs to punitive damages to punish Defendants for their conduct
23 and to discourage Defendants and others from acting in a similar way in the future. Defendants
24 regularly risk the lives and health of consumers and users of their products with full knowledge of the
25 dangers of their products. Defendants made conscious decisions not to redesign, re-label, warn, or
26 inform the unsuspecting public, including Plaintiffs' students or Plaintiffs. Defendants' willful,
27 knowing and reckless conduct therefore warrants an award of aggravated or punitive damages.

28

SECOND CAUSE OF ACTION—ALL DEFENDANTS
NEGLIGENCE

1
2
3 268. Plaintiffs incorporate by reference each preceding and succeeding paragraph as though
4 set forth fully at length herein.

5 269. At all relevant times, Defendants designed, developed, managed, operated, marketed,
6 advertised, promoted, disseminated, made publicly available, and/or benefited from their products,
7 and therefore owed a duty of reasonable care to avoid causing harm to those that used it, such as the
8 students in Plaintiffs' schools.

9 270. Each Defendant has breached, and continues to breach, its duties of care owed to
10 Plaintiffs through its affirmative malfeasance, actions, business decisions, and policies in the
11 development, setup, management, maintenance, operation, marketing, advertising, promotion,
12 supervision, and control of its respective products.

13 271. As alleged above, each Defendant knew, or in the exercise of reasonable care, should
14 have known of the hazards and dangers of Defendants' products, specifically the addictive,
15 compulsive, and excessive use of, Defendants' products, which foreseeably can lead to a cascade of
16 negative effects, including but not limited to dissociative behavior, withdrawal symptoms, social
17 isolation, damage to body image and self-worth, increased risk behavior, exposure to predators, sexual
18 exploitation, suicidal ideation, and profound mental health issues for students including but not limited
19 to depression, body dysmorphia, anxiety, suicidal ideation, self-harm, insomnia, eating disorders,
20 death, and other harmful effects.

21 272. Each Defendant knew, or in the exercise of the reasonable care, should have known
22 that their conduct violated the duty of care to Plaintiffs and their students, including providing
23 accurate, true, and correct information concerning the risks of using Defendants' products and
24 appropriate, complete, and accurate warnings concerning the potential adverse effects of using the
25 social media platform.

26 273. Each Defendant knew, or in the exercise of reasonable care, should have known that
27 their conduct could be remedied and abated.
28

1 274. As a direct and proximate cause of each Defendant unreasonable and negligent conduct,
2 Plaintiffs have suffered and will continue to suffer harm, and is entitled to damages in an amount
3 determined at trial.

4 275. Defendants made conscious decisions not to warn or inform the public, including
5 Plaintiffs and Plaintiffs' students, even as the evidence mounted of the severe harms Defendants'
6 products were inflicting on the nation's school children.

7 **VI. DEMAND FOR A JURY TRIAL**

8 276. Plaintiffs hereby demands a trial by jury.

9 **VII. PRAYER FOR RELIEF**

10 WHEREFORE, Plaintiffs pray for judgment as follows:

11 277. Entering an Order that the conduct alleged herein constitutes a public nuisance under
12 Alabama law;

13 278. Entering an Order that Defendants are jointly and severally liable;

14 279. Entering an Order requiring Defendants to abate the public nuisance described herein
15 and to deter and/or prevent the resumption of such nuisance;

16 280. Enjoining Defendants from engaging in further actions causing or contributing to the
17 public nuisance as described herein;

18 281. Awarding equitable relief to fund prevention education and addiction treatment;

19 282. Awarding actual and compensatory damages;

20 283. Awarding punitive damages;

21 284. Awarding statutory damages in the maximum amount permitted by law;

22 285. Awarding reasonable attorneys' fees and costs of suit;

23 286. Awarding pre-judgment and post-judgment interest; and

24 287. Such other and further relief as the Court deems just and proper under the
25 circumstances.
26
27
28

1 DATED: March 28, 2023

CUTTER LAW P.C.

2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

By: 

C. Brooks Cutter
Jennifer S. Domer
CUTTER LAW P.C.
401 Watt Avenue
Sacramento, CA 95864

Joseph G. VanZandt (*pro hac vice*)*
Davis Vaughn (*pro hac vice*)*
Jennifer Emmel (*pro hac vice*)*
Clinton Richardson (*pro hac vice*)*
Seth Harding (*pro hac vice*)*
**BEASLEY ALLEN CROW
METHVIN PORTIS & MILES, LLC**
234 Commerce Street
Montgomery, AL 36103
Tel: (334) 269-2343
Email: Joseph.VanZandt@BeasleyAllen.com
Email: Davis.Vaughn@BeasleyAllen.com
Email: Jennifer.Emmel@BeasleyAllen.com
Email: Clinton.Richardson@BeasleyAllen.com
Email: Seth.Harding@BeasleyAllen.com

Thomas P. Cartmell (*pro hac vice*)*
Jonathan P. Kieffer (*pro hac vice*)*
WAGSTAFF & CARTMELL LLP
4740 Grand Avenue, Suite 300
Kansas City, MO 64112
Tel: (816) 531-2372
Email: tcartmell@wcllp.com
Email: jpkieffer@wcllp.com

Kirk J. Goza (*pro hac vice*)*
Bradley D. Honnold (*pro hac vice*)*
GOZA & HONNOLD LLC
9500 Nall Avenue, Suite 400
Overland Park, KS 66207-2950
Tel: (913) 451-3433
Email: kgoza@gohonlaw.com
Email: bhonnold@gohonlaw.com

Attorneys for Plaintiffs

**PRO HAC VICE APPLICATIONS TO BE FILED*