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16 17 18 19	NORTHERN DISTING SAN MATEO COUNTY BOARD OF EDUCATION, and NANCY MAGEE, in her official capacity as San Mateo County Superintendent of Schools, Plaintiffs, v.	Case No. 4:23-cv-01108-YGR AMENDED COMPLAINT
16 17 18 19 20	NORTHERN DISTING SAN MATEO COUNTY BOARD OF EDUCATION, and NANCY MAGEE, in her official capacity as San Mateo County Superintendent of Schools, Plaintiffs, v. YOUTUBE, LLC; GOOGLE LLC;	Case No. 4:23-cv-01108-YGR AMENDED COMPLAINT 1. PUBLIC NUISANCE
116 117 118 119 220 221	NORTHERN DISTINGS INC.; NORTHERN DISTINGS INC.; NORTHERN DISTINGS INC.; NORTHERN DISTINCS INC.; SAN MATEO COUNTY BOARD OF EDUCATION, and NANCY MAGEE, in her official capacity as San Mateo County Superintendent of Schools, Plaintiffs, V. YOUTUBE, LLC; GOOGLE LLC; XXVI HOLDINGS INC.; ALPHABET INC.;	Case No. 4:23-cv-01108-YGR AMENDED COMPLAINT 1. PUBLIC NUISANCE 2. NEGLIGENCE
116 117 118 119 220 221 222	NORTHERN DISTING SAN MATEO COUNTY BOARD OF EDUCATION, and NANCY MAGEE, in her official capacity as San Mateo County Superintendent of Schools, Plaintiffs, v. YOUTUBE, LLC; GOOGLE LLC; XXVI HOLDINGS INC.; ALPHABET INC.; SNAP INC.; TIKTOK INC.;	Case No. 4:23-cv-01108-YGR AMENDED COMPLAINT 1. PUBLIC NUISANCE 2. NEGLIGENCE 3. RICO
116 117 118 119 220 221 222 233	NORTHERN DISTING SAN MATEO COUNTY BOARD OF EDUCATION, and NANCY MAGEE, in her official capacity as San Mateo County Superintendent of Schools, Plaintiffs, v. YOUTUBE, LLC; GOOGLE LLC; XXVI HOLDINGS INC.; ALPHABET INC.; SNAP INC.; TIKTOK INC.; BYTEDANCE INC.,	Case No. 4:23-cv-01108-YGR AMENDED COMPLAINT 1. PUBLIC NUISANCE 2. NEGLIGENCE 3. RICO 4. CONSPIRACY
116 117 118 119 220 221 222 233	NORTHERN DISTING SAN MATEO COUNTY BOARD OF EDUCATION, and NANCY MAGEE, in her official capacity as San Mateo County Superintendent of Schools, Plaintiffs, v. YOUTUBE, LLC; GOOGLE LLC; XXVI HOLDINGS INC.; ALPHABET INC.; SNAP INC.; TIKTOK INC.; BYTEDANCE INC., META PLATFORMS, INC.; FACEBOOK HOLDINGS, LLC;	AMENDED COMPLAINT 1. PUBLIC NUISANCE 2. NEGLIGENCE 3. RICO 4. CONSPIRACY 5. GROSS NEGLIGENCE
116 117 118 119 220 221	NORTHERN DISTI SAN MATEO COUNTY BOARD OF EDUCATION, and NANCY MAGEE, in her official capacity as San Mateo County Superintendent of Schools, Plaintiffs, v. YOUTUBE, LLC; GOOGLE LLC; XXVI HOLDINGS INC.; ALPHABET INC.; SNAP INC.; TIKTOK INC.; BYTEDANCE INC., META PLATFORMS, INC.; FACEBOOK HOLDINGS, LLC; FACEBOOK OPERATIONS, LLC; META PLATFORMS TECHNOLOGIES,	AMENDED COMPLAINT 1. PUBLIC NUISANCE 2. NEGLIGENCE 3. RICO 4. CONSPIRACY 5. GROSS NEGLIGENCE
116 117 118 119 220 221 222 223 224	NORTHERN DISTING SAN MATEO COUNTY BOARD OF EDUCATION, and NANCY MAGEE, in her official capacity as San Mateo County Superintendent of Schools, Plaintiffs, v. YOUTUBE, LLC; GOOGLE LLC; XXVI HOLDINGS INC.; ALPHABET INC.; SNAP INC.; TIKTOK INC.; BYTEDANCE INC., META PLATFORMS, INC.; FACEBOOK OPERATIONS, LLC;	AMENDED COMPLAINT 1. PUBLIC NUISANCE 2. NEGLIGENCE 3. RICO 4. CONSPIRACY 5. GROSS NEGLIGENCE 6. UNFAIR COMPETITION
16 17 18 19 20 21 22 23 24 25 26	NORTHERN DISTI SAN MATEO COUNTY BOARD OF EDUCATION, and NANCY MAGEE, in her official capacity as San Mateo County Superintendent of Schools, Plaintiffs, v. YOUTUBE, LLC; GOOGLE LLC; XXVI HOLDINGS INC.; ALPHABET INC.; SNAP INC.; TIKTOK INC.; BYTEDANCE INC., META PLATFORMS, INC.; FACEBOOK HOLDINGS, LLC; FACEBOOK OPERATIONS, LLC; META PLATFORMS TECHNOLOGIES, LLC; META PAYMENTS INC.; INSTAGRAM, LLC;	AMENDED COMPLAINT 1. PUBLIC NUISANCE 2. NEGLIGENCE 3. RICO 4. CONSPIRACY 5. GROSS NEGLIGENCE 6. UNFAIR COMPETITION
116 117 118 119 120 221 222 223 224 225	NORTHERN DISTINATION SAN MATEO COUNTY BOARD OF EDUCATION, and NANCY MAGEE, in her official capacity as San Mateo County Superintendent of Schools, Plaintiffs, V. YOUTUBE, LLC; GOOGLE LLC; XXVI HOLDINGS INC.; ALPHABET INC.; SNAP INC.; TIKTOK INC.; BYTEDANCE INC., META PLATFORMS, INC.; FACEBOOK HOLDINGS, LLC; FACEBOOK OPERATIONS, LLC; META PLATFORMS TECHNOLOGIES, LLC; META PAYMENTS INC.;	AMENDED COMPLAINT 1. PUBLIC NUISANCE 2. NEGLIGENCE 3. RICO 4. CONSPIRACY 5. GROSS NEGLIGENCE 6. UNFAIR COMPETITION

AMENDED COMPLAINT

1			TABLE OF CONTENTS	ъ		
2	I.	INTR	RODUCTION	Page 1		
3		A.	The Creation of a Mental Health Crisis	1		
4		B.	The Use of Artificial Intelligence Technology	1		
5		C.	The Monetizing of Misery	4		
6		D.	The Crisis in Our Schools	6		
7		E.	Focus on Youth	8		
8	II.	JURI	RISDICTION AND VENUE			
9	III.	DIVI	SIONAL ASSIGNMENT	9		
10	IV.	PAR	ΓΙΕS	10		
11		A.	Plaintiffs	10		
12		B.	The "YouTube Defendants" (Alphabet, XXVI Holdings, Google, and YouTube)	.10		
13		C.	The "Snap Defendant"	.11		
14		D.	The "TikTok Defendants" (TikTok and ByteDance)	.11		
15 16		E.	The "Meta Defendants" (Meta Platforms, Inc.; Facebook Holdings, Llc; Facebook Operations, Llc; Meta Platformstechnologies, Llc; Meta Payments Inc.; Instagram Llc; Siculus, Inc.; Whatsapp, Inc.)	ι,		
17	V.	FAC	CTUAL ALLEGATIONS			
18		A.	Significant Numbers of Youth Have Become Addicted, or Are Becoming Addicted to Social Media	, .14		
19		В.	Social Media Significantly Harms Youth Mental Health	18		
20		C.	There is a Mental Health Crisis Among the Youth	25		
21 22		D.	Defendants Intentionally Target Youth Because They Are Central to Defendants' Business Models	. 27		
23			1) YouTube Has Substantially Contributed to the Youth Mental Health			
24			Crisis by Intentionally Designing its Social Media Platform to be Manipulative and Addictive	30		
25			a. The YouTube Platform	30		
26			b. YouTube Aggressively Markets its Platform to Youth	31		
27			c. YouTube Intentionally Designs its Platform to Maximize the Time Youth Spend on its Platform	.32		
28			d. YouTube Knows its Algorithms are Manipulative	.32		
	AMEN	NDED (COMPLAINT			

1				e.	YouTube's Conduct in Designing and Operating Its Platform Has Significantly Harmed Youth Mental Health	34
3				f.	Schools Have Been Detrimentally Affected by the Youth Mental Health Issues Created and Exacerbated by YouTube	35
4			2)		hat has Substantially Contributed to the Youth Mental Health	
5					by Intentionally Designing its Social Media Platform to be ulative and Addictive	38
6				a.	The Snapchat Platform	38
7				b.	Snapchat is Aggressively Marketed to Youth	40
8				c.	Snap Employs Manipulative Algorithms to Intentionally Keep Youth Hooked on its Platform	43
10				d.	Snap's Conduct in Designing the Snapchat Platform has Caused Significant Harm to Youth Mental Health	46
11			3)		k has Substantially Contributed to the Youth Mental Health	
12				Crisis Manip	by Intentionally Designing its Social Media Platform to be ulative and Addictive	48
13				a.	The TikTok Platform	48
14				b.	TikTok Aggressively Markets its Platform to Youth	49
15				c.	TikTok Employs Manipulative Algorithms to Intentionally Keep Youth Hooked on its Platform	51
16 17				d.	TikTok's Design is Addictive, Feeds Harmful Content to Minors, and Significantly Harms Youth Mental Health	58
18 19			4)	by Inte	Has Substantially Contributed to the Youth Mental Health Crisis, entionally Designing its Social Media Platform to be ulative and Addictive	61
20				a.	Meta Markets Its Platforms to Youth	62
21				b.	Meta Intentionally Maximizes the Time Users Spend on its Platforms	64
22				c.	Meta's Algorithms Are Manipulative and Harmful	65
23				d.	Meta's Harmful "Feeds"	66
24				e.	Meta Has Known For Years That Its Platforms Harm Children	68
25 26	VI.		NTIFFS DUCT		E BEEN NEGATIVELY IMPACTED BY DEFENDANTS'	71
27		A.			by Social Media Use, Youth Mental Health Issues Detrimentally	71
28		B.	Plainti	ffs Hav	e Been Negatively Affected by Social Media	74

1		1) Social Media Caused Vandalism in San Mateo Schools	80
2		2) School Lock Downs Tied to Social Media in San Mateo Schools	82
3	VII.	DEFENDANTS' CONDUCT IS NOT SHIELDED BY THE COMMUNICATIONS DECENCY ACT	83
4	VIII.	CAUSES OF ACTION	
5		COUNT ONE	
6		PUBLIC NUISANCE	84
7		COUNT TWO NEGLIGENCE	89
8		COUNT THREE	
9		VIOLATIONS OF THE RACKETEER INFLUENCED AND CORRUPT	
10		ORGANIZATIONS ACT ("RICO") 18 U.S.C. § 1961, et seq	94
11		COUNT FOUR	
12		CONSPIRACY TO CONDUCT THE AFFAIRS OF THE ENTERPRISE THROUGH A PATTERN OF RACKETEERING ACTVITY	
		18 U.S.C. § 1962	100
13		COUNT FIVE	
14		GROSS NEGLIGENCE	102
15		COUNT SIX VIOLATIONS OF THE CALIFORNIA UNFAIR COMPETITION LAW	
16		Cal. Bus. & Prof. Code § 17200, et seq. (Injunctive Relief Only)	108
17			
18	IX.	PRAYER FOR RELIEF	
19	X.	JURY TRIAL DEMAND	112
20			
21			
22			
23			
24			
25			
26			
27			
28			
/X I			

I. INTRODUCTION

A. The Creation of a Mental Health Crisis

- 1. This case represents one of the most serious issues facing the nation's children, adolescents, and teenagers—perhaps the most serious mental health crisis they have ever faced. Powerful corporations who wield unmatched, highly concentrated technology in pursuit of profit are knowingly creating this unprecedented mental health crisis. YouTube, Snap, TikTok, Meta and their related companies have carefully cultivated the crisis, which is a feature—not a bug—of their social media products. Thanks to the U.S. Congress and concerned whistleblowers, critical facts have recently come to light. Even with only a small glimpse into what the YouTube, Meta, TikTok, and Snap companies know about this crisis, the public can now fairly conclude that the social media Defendants¹ conduct was no accident, but rather that Defendants acted knowingly, deliberately, and intentionally.
- 2. The full scale and depravity of the YouTube, TikTok, Snap and Meta companies' conduct in this case may only be fully understood after this Court issues injunctive relief addressing what President Biden recently referred to, in his 2023 State of the Union address, as the "experiment" that Defendants and other major social media companies "are running on our children for profit." In addition to injunctive relief restraining Defendants and their co-conspirators from further engaging in their unlawful conduct, this action seeks to recover San Mateo County schools' costs to address the youth mental health crisis caused by the YouTube, TikTok, Snap and Meta companies' conduct, and to compel Defendants to disgorge the profits of their unlawful conduct.

B. The Use of Artificial Intelligence Technology

3. Using perhaps the most advanced artificial intelligence and machine learning technology available in the world today, Defendants purposefully designed their platforms to be addictive and to deliver harmful content to youth. For the youth targeted by social media companies and for the adults charged with their care, the results have been disastrous. Across the country, including in San Mateo County, a youth mental health crisis has exploded. Excessive use of the YouTube, TikTok, Snap and Meta companies' platforms by children has become ubiquitous. And now there are more children struggling with mental health issues than ever before. Suicide is now the second leading cause of death

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¹ The "Youtube Defendants", "Snap Defendant", "TikTok Defendants" and "Meta Defendants," as defined in this Amended Complaint are referred to herein collectively as "Defendants."

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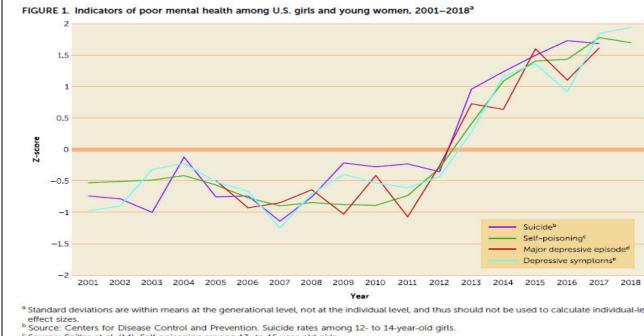
for youths. There is simply no historic analog to the crisis the nation's youth are now facing.

- 4. The national tragedy of youth mental health is captured in the Centers for Disease Control and Prevention's (CDC) most recent bi-annual Youth Risk Behavior Survey report. That report observes a steady and then accelerated increase in nearly all categories of risk between 2011 and 2021. This trend tracks precisely with the release and growing popularity of the YouTube, TikTok, Snap and Meta companies' platforms during the same period. The report concludes that although the pandemic added to risk factors for depression from isolation, there was a crisis brewing long before. And adoption of the YouTube, TikTok, Snap and Meta companies' platforms during the same period only increased otherwise. As one leading expert in child and adolescent psychiatry told the New York Times, there is "no question" that the dramatic increase in suicidal behavior and depression found in the CDC's report is linked to social media.²
- 5. "Young people are telling us that they are in crisis." While less than a third of high school age teenagers reported "persistent feelings of sadness or hopelessness" in 2011, today that number climbs closer to half of all teenagers, with no sign of retreating. In one stunning survey, one in ten teens reported having tried to kill themselves in 2021. The data for female teens and adolescents has rocketed nearly off the chart, with rates of hopelessness and depression double that of their male peers. One in three girls reported having "seriously contemplated suicide" compared to one in five teens overall. For gay, lesbian, and bisexual teens and adolescents, the levels of hopelessness and depression are, unsurprisingly, even worse, reaching nearly 70%.

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² Azeen Ghorayshi & Roni Caryn Rabin, *Teen Girls Report Record Levels of Sadness, C.D.C. Finds*, The New York Times (Feb. 13, 2023), https://www.nytimes.com/2023/02/13/health/teen-girls-sadness-suicide-violence.html.

 $^{^{3}}$ Id.



Standard deviations are within means at the generational level, not at the individual level, and thus should not be used to calculate individual-level

6. "We don't have enough therapists to care for all these kids." Nobody was ready for the unparalleled crisis that the YouTube, TikTok, Snap and Meta companies and their co-conspirators created, and nobody but the social media companies saw it coming. An emergency room in New York counted 8,000 visits in 2022 for children suffering from suicidal ideation or self-harm. In 2010, years before TikTok and Snap became universally popular, before Instagram was acquired by Meta and back when YouTube had only just begun to experiment with its feed algorithm, that number was 3,000. For context, the hospital had just 250 such emergency room visits in 1982. The number of teens and adolescents waiting in the emergency room for mental health treatment for suicide nationwide has tripled from 2019 to 2021.5

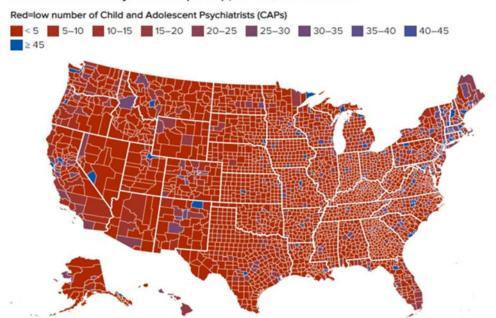
Source: Spiller et al. (14). Self-poisoning among 13- to 15-year-old girls.

Source: Twenge et al. (11). Major depressive episode among 14- to 15-year-old girls.

Sources: Keyes et al. (8) and Twenge et al. (9). Depressive symptoms among eighth-grade girls

⁵ Stephen Stock, *Children languish in emergency rooms awaiting mental health care*, CBS News (Feb. 27, 2023), https://www.cbsnews.com/news/emergency-rooms-children-mental-health/.

According to data from the American Academy of Child and Adolescent Psychiatry, most counties in the United States have a severe shortage of **Child and Adolescent Psychiatrists (CAPs)** per 100,000 children.



Map: Dilcia Mercedes, CBS News • Source: American Academy of Child and Adolescent Psychiatry

C. The Monetizing of Misery

7. In testimony before the Senate Judiciary Committee, Professor Jonathan Haidt concluded that "something changed in the lives of American teens around 2010" because of a "hockey stick" data trend of mental health issues at that time. Researchers observe the rise of smart phones and social media popularity during this time as the primary explanation.⁶

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⁶ Jonathan Haidt, *Teen Mental Health is Plummeting, and Social Media is a Major Contributing Cause*, Testimony before the Senate Judiciary Committee, Subcommittee on Technology, Privacy, and the Law (May 4, 2022), https://www.judiciary.senate.gov/imo/media/doc/Haidt%20Testimony.pdf.

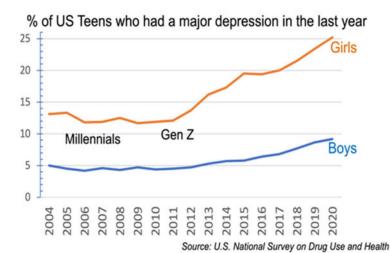


Figure 2: rates of major depression roughly doubled, for boys and for girls, from 2010 to 2020.

8. Social media companies are "monetizing misery." In 2017, for the first time in the world, a court found that social media was a contributing cause of the death of a child. A senior coroner in northwest London ruled that a 14-year-old girl "died from an act of self-harm while suffering from depression and the negative effects of online content." Declining to rule the death a suicide, the judicial officer found that social media's algorithms had forced a stream of unsolicited content to the girl that romanticized and glorified self-harm, and even instructed her not to seek any professional help. In just a matter of weeks preceding her death, the girl was fed thousands of individual pieces of content encouraging self-harm. A child psychiatrist described the content as "very disturbing" and told the court that she herself could not sleep for weeks after viewing it because it was so extreme. A young girl's life, full of promise and purpose, was cut tragically short by an algorithm broadcasting to her a relentless stream of dark and twisted, life-sucking content. The algorithm kept pursuing her like a methodical predator until she finally fulfilled its commands to end her own life. In exchange for this dystopian result, the social media company responsible might plan to collect its marginal advertising revenue for her final days on earth spent visiting their app, like a bounty for her life.

⁷ Dan Milmo, *Social media firms 'monetising misery'*, *says Molly Russell's father after inquest*, The Guardian (Sept. 30, 2022), https://www.theguardian.com/uk-news/2022/sep/30/molly-russell-died-while-suffering-negative-effects-of-online-content-rules-coroner.

⁸ Dan Milmo, *Psychiatrist 'unable to sleep' after seeing material viewed by Molly Russell*, The Guardian (Sept. 27, 2022), https://www.theguardian.com/uk-news/2022/sep/27/molly-russell-inquiry-hears-of-distressing-self-harm-content.

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27 28 Teenage Girl Tragically Takes Own Life, Coroner Blames Social Media Source: https://www.theguardian.com/uk-news/2022/sep/30/

Father Ian Russel's Comments

Source: https://nypost.com/202210/01/molly-russels-cause-of-death-ruled-a-suicide-resulting-from-social-media/



D. The Crisis in Our Schools

9. Charged with the care and education of the nation's children, educators in San Mateo County are on the frontlines and face the brunt of a crisis they are compelled to address. Like other schools across America, schools in San Mateo County have had to deploy extraordinary and unprecedented resources and measures to protect and restore the health and safety of children in their care. Our local schools have had to divert precious resources away from traditional pedagogical goals to address this immediate and pressing crisis. But a tragedy for some is a bonanza for others. As schools and families are dealing with an exploding crisis wreaking havoc on the health and safety of the nation's youth, social media companies enjoy an explosion of revenue. As more and more youth in San Mateo County become afflicted with mental and emotional illness than they otherwise would have, social media companies' userbase swells from millions to billions. While students have suffered direct harm to their mental health and schools have been left to address mental health problems, schools have also suffered concrete and tangible harm—for example, several schools in San Mateo County were vandalized in connection with the "Devious

Lick" TikTok "Challenge" which called on students to vandalize their schools, as shown below in a local high school newspaper:

Aragon outlook

TikTok "Devious Lick" challenge and vandalism around campus

Marlee Cherkas 3 October 28, 2021 3 min read



Kyle Delmo / Aragon Outlook

10. For the past decade, the YouTube, TikTok, Snap and Meta companies have watched and learned how adolescents and teens have used their platforms, studying their habits and their preferences. Adolescents and teens have unique neurological and psychological aspects distinct from those found in adults. As young people mature into adulthood, their still-developing brains are uniquely hardwired to prioritize seeking affirmation and social rewards as an evolutionary strategy to cultivate healthy social relationships and a sense of self as they develop social emotional skills. What nature has provided as a tool to foster healthy development, social media companies have identified as a powerful

means of exploitation and manipulation. Social media companies quickly realized that these unique vulnerabilities make young people an especially lucrative market because their reward pathways hardwired for healthy social development can be readily hijacked to keep them on their platforms for excessive periods of time. Over time and continuing to today, Defendants have adjusted and optimized the underlying algorithms and features of their platforms to exploit these vulnerabilities.

E. Focus on Youth

- 11. The YouTube, TikTok, Snap and Meta companies now focus almost exclusively on young people on their platforms because this market is existential to their business model. The end goal is to make young people engage with and stay on the platforms as long as possible, because that means they can sell more advertising. The YouTube, TikTok, Snap and Meta companies have learned that this is best accomplished by catering an endless flow of the lowest common denominator of content that is most provocative and toxic that they can get away with. The YouTube, TikTok, Snap and Meta companies have also adopted tactics like those used by casinos to entrap young people in dopamine-feedback loops. But while they have employed some tried and true tactics, their shadowy use of the most advanced artificial intelligence and machine learning technology is truly uncharted waters for childhood mental health. As President Biden said in his 2023 State of the Union Address, social media companies' tactics are an "experiment they are running on our children for profit" (emphasis added). This experiment must end now.
- 12. The YouTube, TikTok, Snap and Meta companies knowingly endanger the youth on their platforms, for profit. From whistleblowers and leaked documents, the public now knows that social media companies were keenly aware of the consequences of their tactics in targeting the vulnerabilities of children's brains. It is apparent that when the YouTube, TikTok, Snap and Meta companies were faced with a choice about making a change, they decided to stay the course. They simply put profit over the health and safety of children. Like the public health crisis caused by Big Tobacco, the YouTube, TikTok, Snap and Meta companies have endeavored to shift blame and shirk responsibility through a concerted effort to withhold and distort the facts. Despite their advanced knowledge of the disaster they are causing, the YouTube, TikTok, Snap and Meta companies have made no meaningful attempt to address this exploding crisis. As they look for new and ingenious way

to leverage their unmatched access to technology to keep children addicted to their platforms,

Defendants feed their own addiction, to profits and ever larger user bases. Due to the YouTube,

TikTok, Snap and Meta companies' unwillingness to address the crisis of their making, the San Mateo

Board of Education and its Superintendent feel they have no other choice than to bring this lawsuit to

ensure the health and safety of children in their care.

II. JURISDICTION AND VENUE

- 13. This Court has original subject-matter jurisdiction under 18 U.S.C. § 1964 and 28 U.S.C. § 1331 because this action arises, in part, under the federal Racketeer Influenced and Corrupt Organizations Act ("RICO").
- 14. The Court has personal jurisdiction over Defendants because they do business in the Northern District of California and have sufficient minimum contacts with the District. Defendants intentionally avail themselves of the markets in this State through the promotion, marketing, and operations of their platforms at issue in this lawsuit in California, and by retaining the profits and proceeds from these activities, to render the exercise of jurisdiction by this Court permissible under California law and the United States Constitution.
- 15. Venue is proper in this District under 28 U.S.C. § 1391 because, at all relevant times, Defendants have maintained substantial business operations and engaged in substantial business in this District; because Defendants entered into relevant transactions and received substantial ill-gotten gains and profits from users who reside in this District; because Plaintiffs reside and were harmed by Defendants' conduct in this District; and because a substantial part of the events, acts, and omissions giving rise to this action occurred in this District.

III. DIVISIONAL ASSIGNMENT

16. Under the Northern District of California's Local Civil Rule 3-2(c) and 3-2(d), assignment of this action to the San Francisco or Oakland Division is appropriate because a substantial part of the events or omissions giving rise to the claims in this action occurred in San Mateo County, and because a substantial part of the property that is the subject of this action is in San Mateo County. Plaintiffs serve schools located exclusively in San Mateo County.

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IV. **PARTIES**

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Plaintiffs A.

- 18. Plaintiffs San Mateo County Board of Education ("SMCBE") and Nancy Magee, in her official capacity as San Mateo County Superintendent of Schools ("SMC Superintendent") (collectively, "Plaintiffs") submit this Complaint against Defendants YouTube, LLC, Google LLC, Alphabet Inc., XXVI Holdings Inc., Snap, Inc., TikTok, Inc., and ByteDance, Inc. (collectively, "Defendants") for their conduct in causing and exacerbating a youth mental health crisis.
- 19. Plaintiffs allege that Defendants design, advertise, market, and operate their social media platforms and products to target children, adolescents, and teenagers, and that these platforms are intentionally and deliberately designed to prey on, exploit and cause minors to become addicted, which has caused harm to Plaintiffs.
- 20. Plaintiffs allege the following based on personal knowledge as to themselves and their own acts, and on information and belief as to all other matters based on the investigation of their counsel.
 - В. The "YouTube Defendants" (Alphabet, XXVI Holdings, Google, and YouTube)
- 21. Defendant Alphabet Inc. ("Alphabet") is a Delaware corporation with its principal place of business in Mountain View, California. Alphabet is the sole stockholder of Defendant XXVI Holdings Inc.
- 22. XXVI Holdings Inc. ("XXVI Holdings") is a Delaware corporation with its principal place of business in Mountain View, California. XXVI Holdings is a wholly owned subsidiary of Alphabet and the managing member of Defendant Google LLC.
- 23. Defendant Google LLC ("Google") is a limited liability company organized under the laws of the state of Delaware, and its principal place of business is in Mountain View, California. Google is a wholly owned subsidiary of XXVI Holdings, and the managing member of Defendant YouTube, LLC. Google regularly transacts and has transacted business in this District and throughout the United States. At all times material to this Complaint, acting alone or in concert with others, Google has advertised, marketed, and distributed its YouTube video sharing platform to consumers throughout the United States. At all times material to this Complaint, acting alone or in concert with Defendant

YouTube, LLC, Google formulated, directed, controlled, had the authority to control, or participated in the acts and practices set forth in this Complaint.

24. Defendant YouTube, LLC ("YouTube") is a limited liability company organized under the laws of the state of Delaware, and its principal place of business is in San Bruno, California. YouTube is a wholly owned subsidiary of Google. YouTube transacts or has transacted business in this District and throughout the United States. At all times material to this Complaint, acting alone or in concert with Defendant Google, YouTube has advertised, marketed, and distributed its YouTube social media platform to consumers throughout the United States. At all times material to this Complaint, acting alone or in concert with Google, YouTube formulated, directed, controlled, had the authority to control, or participated in the acts and practices set forth in this Complaint.

C. The "Snap Defendant"

25. Defendant Snap Inc. ("Snap") is a camera and social media technology company, incorporated in Delaware, with its principal place of business in Santa Monica, California. Formerly Snapchat, the company was rebranded as Snap on September 14, 2016. Snap develops, maintains, markets, advertises, and distributes the Snapchat social media platform and multimedia instant messaging application, and has done so at all times material to this Complaint. Snap transacts business in this District and throughout the United States, and has done so at all times material to this Complaint. Snap has engaged in the acts set forth in the Factual Allegations section of this Complaint.

D. The "TikTok Defendants" (TikTok and ByteDance)

26. Defendant TikTok Inc. ("TikTok") is a video-sharing social media platform, owned by the Chinese company ByteDance Inc. TikTok was incorporated in California on April 30, 2015, having its principal place of business in Culver City, California. TikTok, known as Douyin in China, was internationalized (launched outside of China) in 2017. TikTok, acting alone or in conjunction with its parent company Defendant ByteDance Inc., develops, maintains, markets, advertises, and distributes the TikTok social media platform and multimedia instant messaging application, and has done so at all times material to this Complaint. TikTok, acting alone or in conjunction with its parent company Defendant ByteDance Inc., transacts business in this District and throughout the United States, and has done so at all times material to this Complaint. TikTok, acting alone or in conjunction with its parent

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company Defendant ByteDance Inc., has engaged in the acts set forth in the Factual Allegations section of this Complaint.

- 27. Defendant ByteDance Inc. ("ByteDance") is a Chinese company that has incorporated in Delaware, with its United States principal place of business in Mountain View, California. ByteDance, acting alone or in conjunction with its subsidiary TikTok, develops, maintains, markets, advertises, and distributes the TikTok social media platform and multimedia instant messaging application, and has done so at all times material to this Complaint. ByteDance, acting alone or in conjunction with its subsidiary TikTok, transacts business in this District and throughout the United States, and has done so at all times material to this Complaint. ByteDance, acting alone or in conjunction with its subsidiary TikTok, has engaged in the acts set forth in the Factual Allegations section of this Complaint.
 - Ε. The "Meta Defendants" (Meta Platforms, Inc.; Facebook Holdings, LLC; Facebook Operations, LLC; Meta Platform Technologies, LLC; Meta Payments Inc.; Instagram, LLC; Siculus, Inc.; Whatsapp, Inc.)
- 28. Defendant Meta Platforms, Inc. ("Meta"), known formerly as Facebook, Inc., is a Delaware corporation with its principal place of business in Menlo Park, California.
- 29. Defendant Meta develops and maintains Instagram, a social media and communications platform. Instagram is widely available to users in the United States. Defendant develops and maintains WhatsApp, an instant messaging and voice-over-IP service. Meta also develops and maintains other products and platforms, such as Facebook, Messenger, and Meta Ouest.
- 30. At all times material to this Complaint, acting alone or in concert with its subsidiaries (identified below), Meta has advertised, marketed, and distributed the Meta platforms to consumers throughout the United States. At all times material to this Complaint, Meta formulated, directed, controlled, had the authority to control, or participated in the acts and practices set forth in this Complaint. Meta transacts or has transacted business in this District and throughout the United States.
- 31. Defendant Meta has several subsidiaries, including but not limited to Facebook Holdings, LLC; Facebook Operations, LLC; Meta Payments Inc.; Meta Platforms Technologies, LLC; Instagram, LLC; and Siculus, Inc.

- 32. Defendant Facebook Holdings, LLC ("Facebook Holdings") is primarily a holding company. Facebook Holding's principal place of business is in Menlo Park, California. Defendant Meta is the sole member of Facebook Holdings. Facebook Holdings was organized under the laws of the state of Delaware on March 11, 2020, and is a wholly owned subsidiary of Meta Platforms, Inc.
- 33. Defendant Instagram, LLC ("Instagram") was founded by Kevin Systrom and Mike Krieger in October 2010 and is a social media platform designed for photo and video sharing. For a price of approximately \$1 billion, Meta purchased the company in April 2012. Instagram was reformed as a limited liability company under the laws of the state of Delaware on April 7, 2012, and the company's principal place of business is in Menlo Park, California. Defendant Meta is the sole member of Instagram.
- 34. Defendant WhatsApp Inc. ("WhatsApp") was founded by Brian Acton and Jan Koum in February 2009. WhatsApp is an instant messaging ("IM") and voice-over-IP ("VoIP") app. In February 2014, Meta purchased the company for \$19 billion. WhatsApp was incorporated under the laws of the state of Delaware on February 14, 2014, and the company's principal place of business is in Menlo Park, California. Defendant Meta is the sole member of WhatsApp.
- 35. Defendant Facebook Operations, LLC ("Facebook Operations") is a wholly owned subsidiary of Meta Platforms, Inc, and was organized under the laws of the state of Delaware on January 8, 2012. The principal place of business of Facebook Operations is in Menlo Park, California. Defendant Meta is the sole member of Facebook Operations.
- 36. Defendant Meta Payments Inc. ("Meta Payments") is a wholly owned subsidiary of Meta Platforms, Inc. Meta Payments processes and manages payments made through Meta. Meta Payments principal place of business is in Menlo Park, California. Meta Payments was incorporated in Florida on December 10, 2010, as Facebook Payments Inc. In July 2022, the entity's name was amended to Meta Payments Inc.
- 37. Defendant Meta Platforms Technologies, LLC ("Meta Technologies") was organized under the laws of the state of Delaware as "Oculus VR, LLC" on March 21, 2014, and acquired by Meta on March 25, 2014. In November 2018, the entity's name was amended to Facebook

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Technologies, LLC. In June 2022, the entity's name was amended again, this time to Meta Platforms Technologies, LLC. Meta Technologies develops Meta's virtual and augmented reality technology, such as the Meta Quest line of services, among other technologies related to Meta's platforms, and its principal place of business is in Menlo Park, California. Defendant Meta is the sole member of Meta Technologies.

38. Defendant Siculus, Inc. ("Siculus") was incorporated in Delaware on October 19, 2011. Siculus is a wholly owned subsidiary of Meta. Siculus constructs data facilities that support Meta platforms. Siculus's principal place of business is in Menlo Park, California.

V. FACTUAL ALLEGATIONS

- A. Significant Numbers of Youth Have Become Addicted, or Are Becoming Addicted, to Social Media
- 39. According to a Harvard University study, social media's effect on the brain is similar to the effect elicited by gambling or taking recreational drugs, in that the same neural pathways are stimulated. Social media's effect triggers the same reward area of the brain and positively reinforces the activity, keeping the user engaged in the social media product.⁹
- 40. Each Defendant has been successful in designing and marketing its social media products to be popular with youth. Social media use is prevalent among pre-teen and teen children.
- 41. As of 2018, before the Covid-19 pandemic, the **American Academy of Child and Adolescent Psychiatry** found the following regarding social media use among teens ages 13–17:
 - 99% had used social media;
 - 75% reported active social media profiles;
 - 51% visited social media daily;
 - 66% had their own mobile devices with internet capabilities; and
 - Teens are online for almost nine hours a day on average, not including time spent online for

AMENDED COMPLAINT

 $^{^9}$ Addiction Center, <code>Social Media Addiction</code>, https://www.addictioncenter.com/drugs/social-media-addiction/#:~:text=Due%20to%20the%20effect%20that,when%20taking%20an%20addictive%20subst ance.

homework.¹⁰

- 42. In October 2021, a University of Michigan Mott Poll found that 32% of parents of children ages 7–9, and 49% of children ages 10–12, reported that their children used media apps in the previous six months—figures that are likely lower than reality because the poll was of parents. ¹¹ Further the Mott Poll suggested that schools should be a key partner in addressing overuse of social media and unsafe use—placing a financial burden on schools.
- 43. Another key 2021 study, titled "The Common Sense Census: Media Use by Tweens and Teens, 2021," was based on data collected since 2015 and focused on changing social media use during the pandemic. This lengthy study looked not just at statistics about use, but also at negative impacts on children and whether children even enjoy using the products.¹²
- 44. The authors of the 2021 Common Sense Census noted that to their knowledge their study was the "the only nationally representative survey tracking media use patterns among a truly random sample of 8- to 18-year-olds in the United States." The study found that 38% of tweens (ages 8–12) use social media and 18% of tweens use social media daily, which led the study's authors to conclude that "social media use is going up among tweens, a group who are technically not supposed to be using social media in the first place." The study also found that 84% of teens (ages 13–19) use social media and that 62% of teens use social media daily. The study found that "[i]f forced to choose, teens say YouTube is the site that they wouldn't want to live without."
- 45. A recent Pew Research Center study found that 95% of teenagers use YouTube, making it the most popular social media platform. Emily Vogels et al., *Teens, Social Media and Technology 2022*, Pew Rsch. Ctr. (Aug. 10, 2022),

https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/ (the "2022 Pew Study"). The study also found that TikTok has quickly become one of the world's most

¹⁰ American Academy of Child & Adolescent Psychiatry, *Social Media and Teens* (Mar. 2018), https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Social-Media-and-Teens-100.aspx.

¹¹ C.S. Mott Children's Hospital, Univ. of Mich. Health, *Sharing Too Soon? Children and Social Media Apps* (Oct. 18, 2021), https://mottpoll.org/sites/default/files/documents/101821_SocialMedia.pdf.

¹² Victoria Ridgaut et al. The Common Songe Conguer Media Liga by Tweens and Toons, 2021 et 5.

¹² Victoria Rideout et al., The Common Sense Census: Media Use by Tweens and Teens, 2021 at 5, Common Sense Media (2022),

https://www.commonsensemedia.org/sites/default/files/research/report/8-18-census- integrated-report-final-web_0.pdf ("2021 Common Sense Census").

AMENDED COMPLAINT

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popular social media platforms, second only to YouTube, with 67% of children ages 13–17 having used the app, even though TikTok's terms of service state that a user must be at least 13 years old. However, TikTok has stated that more than a third of its users in the United States are 13 years old or younger, and that it does not know the age of a third of its users. About six-in-ten teens, aged 13-17, report that they use Instagram, making Instagram the third most popular social media platform, just behind TikTok.¹³

- 46. The study also found that 59% of children ages 13–17 report they have used the Snapchat app, making it more popular than Facebook among teenagers, and the fourth most popular social media platform.
- 47. Due to their addictive nature, many teenagers interact with social media sites compulsively and continuously, throughout the course of the day. As reported in the 2022 Pew Study, 97% of teens say they use the internet daily, and 52% of teens ages 15–17 say they use the internet almost constantly. A majority of teens (58%) visit TikTok daily, while about half say the same for Snapchat (51%) and Instagram (50%).
- 48. The 2022 Pew Study also found that teens use social media platforms, including YouTube, TikTok, Snapchat and Instagram steadily throughout the day. For example, 86% of TikTok and Snapchat users say they use these apps daily, and a quarter of teens who use these platforms say they use these apps almost constantly. Additionally, approximately 20% of teens are on the YouTube platform continually each day.
- 49. Young people find it extremely difficult to be moderate in their use of social media, even when they are conscious that they are using it too much. For example, the 2022 Pew Study found that 54% of teens say that it would be very hard or somewhat hard to give up social media. A majority of teens who reported that they use at least one social media site almost constantly also said it would be very difficult for them to give up social media.
- 50. Another major conclusion of the 2022 Pew Study is that some teens are more susceptible to compulsive social media use. For these teens, the more they use social media, the more they are drawn down the rabbit hole into further use, making it increasingly difficult for them to stop. The teens

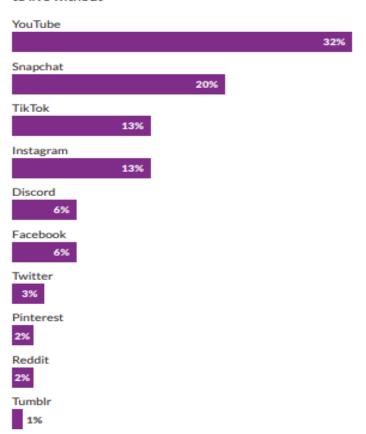
¹³ Emily Vogels *et al.*, *Teens, Social Media and Technology 2022*, Pew Rsch. Ctr. (Aug. 10, 2022), https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/.

who are admittedly aware that they spend too much time on social media also report that they would struggle to wean themselves off social media.

51. The 2021 Common Sense Census study found that teens ages 13–18 report there are some social media sites that they "wouldn't want to live without." Thirty-two percent (32%) of the teens surveyed felt this way about YouTube, 20% felt this way about Snapchat, and 13% felt this way about TikTok and Instagram:

FIGURE B. Site teens wouldn't want to live without, 2021

Among the 79% of 13- to 18-year-olds who are regular users of social media and online videos (use at least once a week), percent who choose each site as the one they wouldn't want to live without



52. Rampant use of social media among youth does not correlate to their enjoyment of it. The 2021 Common Sense Census study showed that while tweens and teens are regularly and increasingly interacting with social media on a daily basis, they are not necessarily doing so because they enjoy it. Only 34% of youth (27% of boys and 42% of girls, ages 8–18) saying they enjoy using

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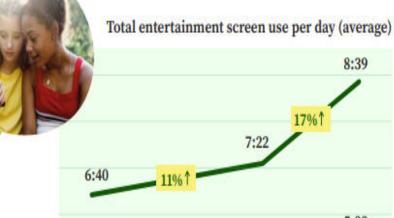
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social media "a lot," compared to the 57% of boys and 28% of girls who report using social media every day. The same study also reported that screen use is skyrocketing among youth, and that minority youth are disproportionally affected:

The Common Sense Census: Media Use by Tweens and Teens, 2021

Use of screen media is up 17% for tweens and teens since the start of the pandemic.



Media use grew faster in the last two years than it did in the four years prior to the pandemic.

Overall, boys use more screen media than girls.

Black and Hispanic/Latino children use screens more than White children.

And children in higher-income households use screens for entertainment less than children in middle- and lower-income households.



Average daily entertainment screen use, 2021

Tweens Teens

B. Social Media Significantly Harms Youth Mental Health

53. As said succinctly in his opening remarks before the February 2023 Senate Judiciary Committee's hearing on social media's impact on child, teen, and adolescents' mental health, Senator Blumenthal observed that America was gripped by "a public health emergency, egregiously and

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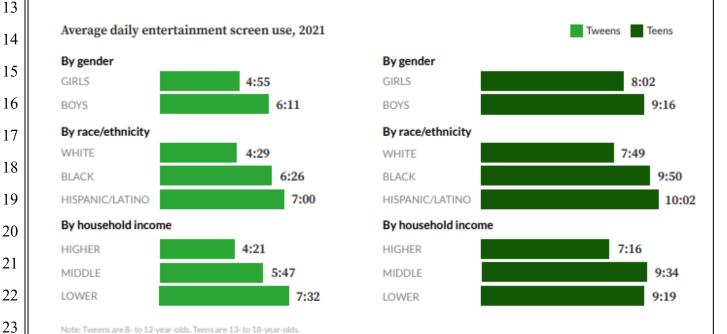
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knowingly exacerbated by Big Tech, aggravated by toxic content on eating disorders, bullying, even suicide—driven by Big Tech's black box algorithms leading children down dark rabbit holes."¹⁴

- 54. Numerous studies have concluded that excessive use of social media can have a significant detrimental effect on the mental well-being of young people. Social media use, especially compulsive or excessive use, can result in various psychological disorders, including behavioral, developmental, emotional, and mental disorders, such as anxiety, depression, thoughts of suicide, and eating disorders.
- 55. A 2018 study on the effect of screen time associated with the use of electronic devices, has shown that staring at electronic screens is not healthy, especially among adolescents. Jean M. Twenge & W. Keith Campbell, Associations between screen time and lower psychological well-being among children and adolescents: Evidence from a population-based study, 12 Preventive Med. Rep. 271–83 (2018), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6214874/. This study concluded:



"After 1 h[our]/day of use, more hours of daily screen time were associated with lower psychological well-being, including less curiosity, lower self-control, more distractibility, more difficulty making friends, less emotional stability, being more difficult to care for, and inability to finish tasks."

AMENDED COMPLAINT

¹⁴ Sen. Richard Blumenthal, Hearing on Child Internet Safety, C-SPAN (Feb. 14, 2013), available at https://www.c-span.org/video/?526011-1/hearing-child-internet-safety.

- Among teens aged 14 to 17, high users of screens (7+ hours/day) were more than twice as likely as low users of screens (1 hour/day) to ever have been diagnosed with depression or anxiety, ever have been treated by a mental health professional, or taken medication for a psychological or behavioral issue in the last 12 months.
- More hours of daily screen time were associated with lower psychological well-being, including less curiosity, lower self-control, more distractibility, more difficulty making friends, less emotional stability, being more difficult to care for, and inability to finish tasks.
- 56. A 2020 literature review and study in the Cureus Journal of Medical Science found that "social media are responsible for aggravating mental health problems," and concluded that "social media envy can affect the level of anxiety and depression in individuals." Fazida Karim et al., *Social Media Use and Its Connection to Mental Health: A Systemic Review*, 12(6) Cureus (June 15, 2020), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7364393/.
- 57. Adolescents are susceptible to the aggravation of mental health problems and other psychological disorders linked to the use of social media. Yet another study found a link between adolescent use of social media and detrimental mental health effects, including depression and suicide. 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), https://doi.org/10.1177/2167702617723376.
- 58. Social media platforms are a breeding ground for feelings of inadequacy and envy, among adolescents. The perpetual barrage of idealized photos posted by and endless conveyor belt of too many two-dimensional friends, as well as a bombardment of celebrities and influencers, portraying a heightened and unrealistic reality, can lead to negative comparisons and a negative self-image. A 2015 study provides "evidence that technology-based social comparison and feedback-seeking behaviors may be associated with depressive symptoms among adolescents," and that young people "use social media sites as a way to gauge themselves against their peers." 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. 1427–38 (2015), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5985443/; *see also* Nino Gugushvili et al., *Facebook*

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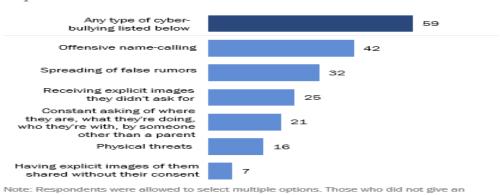
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use intensity and depressive symptoms: a moderated mediation model of problematic Facebook use, age, neuroticism, and extraversion at 3, BMC Psych. 10, 279 (2022), https://doi.org/10.1186/s40359-022-00990-7 (explaining that youth are particularly vulnerable because they "use social networking sites for construing their identity, developing a sense of belonging, and for comparison with others"). The same 2015 study found that because social media users, including young people, are putting forth idealized versions of themselves onto social media, this can lead to distorted views of peers and harmful upward comparisons, which are comparison with those believed to be of higher status.

- 59. Cyberbullying has become prevalent on social media. One study found that the more time an adolescent who identifies as male spends online, the more likely he may be to commit acts cyberbullying. Amanda Giordano et al., Understanding Adolescent Cyberbullies: Exploring Social Media Addiction and Psychological Factors, 7(1) J. Child & Adolescent Counseling 42–55 (2021), https://www.tandfonline.com/doi/abs/10.1080/23727810.2020.1835420?journalCode=u cac20.
- 60. A 2018 Pew Research Center survey found that 59% of teens have experienced some form of cyberbullying and the same amount say that it is a major problem for people their age. Monica Anderson, A Majority of Teens Have Experienced Some Form of Cyberbullying, Pew Rsch. Ctr. (Sept. 27, 2018), https://www.pewresearch.org/internet/2018/09/27/a-majority-of-teens-have-experiencedsome-form-of-cyberbullying/. As shown in the following chart, the study found that "the majority of teens have been the target of cyberbullying, with name-calling and rumor-spreading being the most common forms of harassment":

A majority of teens have been the target of cyberbullying, with name-calling and rumor-spreading being the most common forms of harassment % of U.S. teens who say they have experienced cellphone



answer or gave other response are not shown. Source: Survey conducted March 7–April 10, 2018. "A Majority of Teens Have Experienced Some Form

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- 61. A 2019 study published on the NIH's National Library of Medicine PubMed website found a clear association between social media usage and disordered eating cognitions and behaviors and confirmed that these relationships occur at a younger age than previously investigated. 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/. This study also found a correlation between a greater number of social media accounts, as well as a greater amount of daily time spent on social media, specifically Snapchat and Instagram to a higher incidence of eating disorders among young girls. *Id*.
- 62. There is evidence that social media use can cause sleep deprivation among young adults, which can be insightful in that young adults are arguably the first generation to grow up with social media. A 2016 study found that, among a sample group of young adults, "there were consistent, substantial, and progressive associations between SM [social media] use and sleep disturbance." Jessica C. Levenson et al., *The Association Between Social Media Use and Sleep Disturbance Among Young Adults*, 85 Preventive Med. 36–41 (Apr. 2016), https://www.sciencedirect.com/science/article/abs/pii/S0091743516000025. The study found that "the strong association between SM [social media] use and sleep disturbance has important clinical implications for the health and well-being of young adults."
- 63. The association between social media use and sleep disturbance also effects adolescents, according to one study finding that children under 12 may be losing the equivalent of one night's sleep per week due to social media use. "The study also found that 12.5% of the children surveyed were waking up in the night to check their notifications," and that FOMO (or the fear of missing out) driven by social media was directly affecting their sleep. See, e.g., Beatrice Nolan, Kids are waking up in the night to check their notifications and are losing about 1 night's worth of sleep a week, study suggests, Business Insider (Sept. 19, 2022), https://www.businessinsider.com/social-media-costing-children-one-night-sleep-study-2022-9 (approximately 12.5% of children report waking up to check social media notifications).
- 64. Another study finds that young people are more susceptible to developing neurotic behaviors or addiction-like symptoms because the adolescent brain, specifically the pre-frontal cortex, which is charge of self-regulation, is not fully developed until around the age of twenty-four. Nino

Gugushvili et al., Facebook use intensity and depressive symptoms: a moderated mediation model of problematic Facebook use, age, neuroticism, and extraversion at 3, BMC Psych. 10, 279 (2022), https://doi.org/10.1186/s40359-022-00990-7. Because the young person's brain is not fully developed, they may not possess sufficient self-control to deal with the overwhelming aspects of social media. The study found that this lack of self-control or good-judgment may lead to the young social media user to engage in risky and or addictive-like usage patterns.

- 65. The aforementioned study extended these findings by "suggesting that also on Facebook intense but non-addictive use of this social network site may gradually transform into an addictive usage pattern." *Id.* The study also found that increased intense social media usage tended to lead to problematic usage, which is associated with stress, anxiety, and depression. *Id.*
- 66. In her letter to Congress, a Meta whistleblower named Frances Haugen told lawmakers: "I saw Facebook repeatedly encounter conflicts between its own profits and our safety. Facebook consistently resolved those conflicts in favor of its own profits ... Facebook became a \$1 trillion company by paying for its profits with our safety, including the safety of our children. And that is unacceptable." More revelations from Frances Haugen are detailed herein.
- 67. In response to the shocking details from Ms. Haugen, Meta CEO Mark Zuckerberg responded in an open letter. Zuckerberg made an unapologetic denial of the allegations, declaring: "We care deeply about issues like safety, well-being and mental health." Zuckerberg admitted that Meta had "an industry-leading research program" that was responsible for the leaked information, and that Meta was not ignoring that research. Zuckerberg claimed that Meta uses its "industry-leading research" to help children in crisis. Zuckerberg represented that Meta would conduct more research into the areas of concern and make that research publicly available, explaining that it was "the right thing to do."
- 68. In sworn testimony before the Senate Subcommittee on Consumer Protection, Product Safety, and Data Security, executives from TikTok, Snap, and YouTube were asked by Senator Blumenthal and the committee whether they had conducted research on their platforms' harmful effects

¹⁵ U.S. Senate Committee on Commerce, Science, and Transportation, *Statement of Frances Haugen* (Oct. 4, 2021), https://www.commerce.senate.gov/services/files/FC8A558E-824E-4914-BEDB-3A7B1190BD49 (emphasis in original).

Mark Zuckerberg, I wanted to share a note I wrote to everyone at our company, Facebook (Oct. 5, 2021), https://www.facebook.com/zuck/posts/10113961365418581.
 AMENDED COMPLAINT

on children.¹⁷ Each company responded that they had and were conducting such research. The representative from Snap defiantly testified to the committee that the research Snap had conducted actually showed overwhelming feelings of happiness among its users. Senator Blumenthal followed-up by confirming each company's response, and asked if they would make that research publicly available. All three responded that they would make the research available. *Id.* All three companies also stated that they would make their research and technical details about their algorithms available to external, independent researchers outside of the companies, such as childhood mental health experts. *Id.*

- 69. To date, Defendants have not voluntarily and fully disclosed the results of any such research to the public.
- 70. On information and belief, Defendants and co-conspirators were and continue to be fully aware of the negative consequences of their platforms and their effects on minors' health. Defendants and co-conspirators intentionally designed their platforms to exploit children and leave them riddled with mental and emotional health issues. Defendants and co-conspirators have endeavored to shift blame and shirk responsibility through a concerted effort to withhold and distort the facts, saying one thing publicly while admitting privately that the mental health issues detailed herein are caused by their platforms. Defendants and co-conspirators have conducted research and analysis, and have compiled data and documentation further substantiating the harms they cause to minors, and have falsely represented that they would disclose this research. Defendants and co-conspirators have intentionally withheld this information from the American people in a coordinated campaign to protect their profits from public scrutiny.
- 71. Senator Blumenthal, intimately familiar with the matter having himself brought suit against Big Tobacco in groundbreaking fashion as Attorney General of Connecticut,¹⁸ drew a parallel between the conspiracy to mislead the public and government officials about the dangers of social media and Big Tobacco's:

After testimony from brave whistleblowers like Frances Haugen who presented documents, not just personal anecdotes, but *smoking gun proof* that Facebook

AMENDED COMPLAINT

¹⁷ Online Protection for Children, C-SPAN (Oct. 21, 2021), https://www.c-span.org/video/?515533-1/snapchat-tiktok-youtube-executives-testify-kids-online-safety.

¹⁸ Katy Daigle, *Sate Files \$1 Billion Lawsuit Against 10 Tobacco Companies*, Hartford Courant (July 19, 1996), https://www.courant.com/1996/07/19/state-files-1-billion-lawsuit-against-10-tobacco-companies/.

calculatedly drove toxic content to draw more eyeballs, more clicks, more dollars, more profits. After Facebook hid this evidence from parents, even mislead us, in Congress. It's Big Tobacco's playbook all over again. ¹⁹

72. Because adolescents are navigating Defendants' social media platforms at a critical stage in the brain's development, they are especially susceptible to the negative potentialities of Defendants' social media products.

C. There is a Mental Health Crisis Among the Youth

- 73. Defendants' social media platforms have become constants in the everyday lives of today's youth, and the effects are pervasive. The compulsion to use social media has negative mental health consequences for today's youth. Defendants have driven this compulsion, and thus contributed to the wide array of detrimental mental health disorders facing today's youth, including anxiety, depression, eating disorders, and suicide.
- 74. There was a 117% increase in emergency room visits for anxiety disorders for children ages 5–17, from 2007 to 2016.²⁰
- 75. A 2021 United States Surgeon General advisory report states that mental, emotional, developmental, and or behavioral disorders are common among American children, with one in five children between the ages of 3–17, suffering from one or more of these disorders.²¹
- 76. The Surgeon General advisory addressed the youth mental health crisis in the wake of the Covid-19 pandemic.²² In issuing the advisory, the Surgeon General noted that, "in early 2021, emergency department visits in the United States for suspected suicide attempts were 51% higher for adolescent girls and 4% higher for adolescent boys compared to the same time period in early 2019."²³

¹⁹ Sen. Richard Blumenthal, *Hearing on Child Internet Safety*, C-SPAN (Feb. 14, 2013), *available at* https://www.c-span.org/video/?526011-1/hearing-child-internet-safety.

²⁰ Matt Richtel, *A Teen's Journey Into the Internet's Darkness and Back Again*, The New York Times (Aug. 22, 2022), https://www.nytimes.com/2022/08/22/health/adolescents-mental-health-technology.html.

²¹ U.S. Department of Health & Human Services, U.S. Surgeon General Issues Advisory on Youth Mental Health Crisis Further Exposed by COVID-19 Pandemic (Dec. 7, 2021),

https://www.hhs.gov/about/news/2021/12/07/us-surgeon-general-issues-advisory-on-youth-mental-health-crisis-further-exposed-by-covid-19-pandemic.html.

²² U.S. Department of Health & Human Services, *Protecting Youth Mental Health: The U.S. Surgeon General's Advisory* (Dec. 7, 2021), https://www.hhs.gov/sites/default/files/surgeon-general-youth-mental-health-advisory.pdf.

The Surgeon General further noted that, "in recent years, national surveys of youth have shown major increases in certain mental health symptoms, including depressive symptoms and suicidal ideation. From 2009 to 2019, the proportion of high school students reporting persistent feelings of sadness or hopelessness increased by 40%; the share seriously considering attempting suicide increased by 36%; and the share creating a suicide plan increased by 44%."²⁴ The Surgeon General further noted that the mental health of the youth was in crisis even before the pandemic. As stated above, mental, emotional, developmental, and or behavioral disorders are common among American children, with one in five children ages 3–17, suffering from one or more of these disorders.²⁵ The Surgeon General's advisory also stated that "mental health challenges in children, adolescents, and young adults are real, and they are widespread," and that "even before the COVID-19 pandemic, mental health challenges were the leading cause of disability and poor life outcomes in young people."²⁶

78. A 2021 joint declaration by the American Academy of Pediatrics, the American Academy of Child and Adolescent Psychiatry, and the Children's Hospital Association states that "rates of childhood mental health concerns and suicide rose steadily between 2010 and 2020 and by 2018 suicide was the second leading cause of death for youth ages 10–24," and "the pandemic has intensified this crisis." As a result, the organizations have declared a national state of emergency in children's mental health.²⁷

79. In his 2022 State of the Union address, President Biden noted that children were struggling even before the pandemic from the harms of social media. He further stated that "we must hold social media platforms accountable for the national experiment they're conducting on our children for profit."²⁸

²⁴ *Id*.

²⁵ *Id*.

²⁶ *Id*.

²⁷ American Academy of Pediatrics et al., *AAP-AACAP-CHA Declaration of a National Emergency in Child and Adolescent Mental Health* (Oct. 19, 2021), https://www.aap.org/en/advocacy/child-and-adolescent-healthy-mental-development/aap-aacap-cha-declaration-of-a-national-emergency-in-child-and-adolescent-mental-health/.

²⁸ President Joe Biden, *State of the Union Address* (Mar. 1, 2022), *available at* https://www.whitehouse.gov/state-of-the-union-2022/.

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D. **Defendants Intentionally Target Youth Because They Are Central to Defendants' Business Models**

- The youth mental health crisis described herein is not a coincidence. Defendants' willful 80. and intentional conduct has caused this crisis. Defendants designed and marketed their social media platforms towards youth for profit. The profits Defendants seek is a byproduct of a mental health crisis of their own creation. For them, this crisis is nothing more than profitable consumer behavior.
- 81. Defendants are social media companies, who run and operate various platforms. The core features of these platforms are somewhat uniform among the Defendants. For example, YouTube Snapchat and Instagram each use algorithms to deliver a feed of information to their users. These feeds are curated through collecting data from the users and how the users interact with content on the platform. If a user "likes" a piece of content, the algorithm will adjust the feed to deliver more of that content. The same is true for users who comment, share, repost, or otherwise interact with a piece of content. It is well-known that Defendants copy each other's designs and features.
- Defendants are in the business of advertising—they make their money by selling ad 82. space to advertisers and by directing users to those ads. Specifically, Defendants collect data from their users' habits and activities and use that data to inform their advertising activities. Youth are a particularly profitable target audience, and Defendants focus much of their advertising energies towards youth.
- 83. It is reported that 95% of children ages 13 to 17 have cellphones. An overwhelming portion (90%) of these same children use social media, and almost a third of them buy products and services through social media. Defendants recognize that youths, including even very young preadolescents, are their most lucrative advertising audience. Defendants view youth as a commodity, as they are central to their business model as a key demographic of users.
- 84. Defendants intentionally target young users with their platforms. Defendants' efforts to monitor, collect, and use information from young users is regulated by the Children's Online Privacy Protection Act ("COPPA")²⁹ for users under 13 years of age.

²⁹ See 15 U.S.C. §§ 6501–06.

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Even with COPPA regulations, Defendants have targeted pre-adolescent users with "kid 85. version" of their products in order to spur children's interest in the less regulated, adult versions.³⁰ COPPA requires that Defendants obtain parental consent before targeting children under 13 or if they have actual knowledge that their users are of such age. Before Defendants obtain this consent, the law forbids their collection or usage of information about these children. After having targeted younger users, Defendants have a common practice of simply ignoring the presence of younger users on their platforms or left those users to self-report their age, in total disregard for COPPA.

- 86. Defendants willfully and intentionally designed their social media platforms to exploit human psychology in order to extend and expand their users' engagement with their products. Because their primary targets are youth and children, Defendants exploit the still-developing brains of children. Defendants use artificial intelligence, machine learning, and complicated algorithms to promote users' extreme utilization. Defendants calibrate and optimize these methods on a continual basis. The goal is to maximize revenues.
- 87. Defendants use information "feeds" to promote maximum engagement by their users. These feeds deliver personalized content, including photos, videos, and other promoted subject matter to each user. The algorithms that personalize "feeds" for each user are designed to promote maximum engagement on an endless cycle. The endless cycle has been described by psychologists as a "flow state" that distorts a user's ability to perceive time. ³¹ Former Google design ethicist Tristan Harris has described this endless cycle as being intentionally designed to eliminate any reason for a consumer to pause or discontinue using the platform by replacing the traditional close-ended experience of consuming media with an infinite one.³²
- 88. Defendants manipulate human psychology through activating a powerful social phenomenon called "reciprocity." Reciprocity dictates that humans respond in kind to friendly or

³⁰ Leonard Sax, Is TikTok Dangerous for Teens?, Inst. for Family Studies (Mar. 29, 2022), https://ifstudies.org/blog/is-tiktok-dangerous-for-teens-.

³¹ Gino Gugushvili et al., Facebook use intensity and depressive symptoms: a moderated mediation model of problematic Facebook use, age, neuroticism, and extraversion at 3, BMC Psych. 10, 279 (2022), https://doi.org/10.1186/s40359-022-00990-7.

³² Von Tristan Harris, *The Slot Machine in Your Pocket*, Spiegel International (July 27, 2016), https://www.spiegel.de/international/zeitgeist/smartphone-addiction-is-part-of-the-design-a-1104237.html.

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27 28 hostile actions, even when those actions are from unknown or anonymous persons. Defendants tap into the "reciprocity" effect to keep their users psychologically compelled to stay on and engage with their platforms as long and as frequently as possible. Defendants such as Snapchat and Instagram automatically tell other users when you look at their messages or content, activating a sense through the reciprocity effect that you are obliged to immediately respond or engage. Defendants use send and receive receipts that prevent users from discretely engaging with other users' content, forcing the reciprocity effect to activate as much as possible.

- 89. Defendants manipulate human psychology using the same techniques deployed by casinos and slot machines. Intermittent variable rewards ("IVR") works by tapping into the human reward pathway that regulates dopamine production. Through IVR, Defendants space out dopamine triggering stimuli vis-à-vis staggering user rewards on their platforms. Users anticipate the next hit of dopamine, creating the same craving effect experienced by gambling addicts. IVR causes users to engage with the platform again and again, not disengaging because there is an anticipatory hit of dopamine right around the corner. Like a gambler at the blackjack table or at the slot machine waiting for the next pull of a lever or the next card to be dealt, users on Defendants' platforms scroll and refresh content to see what photo or video might come next, or whether they received a "like" on their own content. Defendants such as Instagram intentionally delay the loading time of content with each scroll or refresh to mimic the same anticipatory dopamine reward that casinos use in IVR. Defendants knowingly manipulate the reward pathways of users by giving a carefully engineered moment to build anticipation. This is the same strategy of the spinning of the reels or the shuffling of the cards in a casino. Whether user content receives a "like" or a "heart" or see provocative content, the platform provides a reward.
- 90. Defendants deliberately and intentionally employ these schemes against teens and even younger children because they are especially vulnerable due to their developing brains.³³ Science tells us that children undergo fundamental changes in their neurological reward pathways between ages 10 and 12 that promote extra dopamine and oxytocin rewards for socially advantageous behavior such as admiration, attention, and approval from others. Unlike adults with a more developed prefrontal cortex

³³ 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.

to regulate emotions and who have a more developed sense of self, developing adolescents have a limited capacity to resist emotional and social pressures where they have yet to form a solid personal identity or develop the emotional fortitude to regulate impulses. As a result, they seek admiration, attention, and approval from others with much more persistence than adults. Not only are adolescents particularly vulnerable to Defendants' psychological manipulations, but they are at much greater risk of developing mental disorders as a result.

- 91. Before Defendants began targeting children, these neurological changes that occur naturally in childhood development could incentivize constructive social activity. Young people could respond to the increased reward pathway activity by developing meaningful connections, healthy social skills, and self-betterment. But Defendants' platforms changed everything. This is in part because the stakes are much higher. These platforms act as a public ledger of identity formation and socialization because they count and display permanently the amount of admiration, attention, approval, or rejection that adolescents receive. Whereas adolescents could engage in traditional conversation without anyone keeping score, Defendants' platforms publicly deliver rewards in the form of likes, comments, views, follows, and mentions.
- 92. Defendants have knowingly, deliberately, and intentionally designed and managed their platforms in a way that endangers youths who use them. Defendants know that their platforms and social media harm youths, and yet they continue to develop increasingly sophisticated technologies and methods to ensure youths are engaged with their platforms more intensively and for longer periods. This is Defendants' business.
- 93. Defendants have been immensely successful in their strategies, and it has paid off. Most teenagers use Defendants' platforms.³⁴
 - 1) YouTube Has Substantially Contributed to the Youth Mental Health Crisis by Intentionally Designing its Social Media Platform to be Manipulative and Addictive
 - a. The YouTube Platform
- 94. YouTube became available publicly in December 2005. YouTube was acquired by Google in 2006. YouTube is a platform that allows users to post, share, view, and comment on video

³⁴ *Id*.

content.

- 95. Anyone can view YouTube content (regardless of age) because no registration is required. YouTube reports over 2 billion monthly users who have registered. YouTube users watch billions of hours of content each day.
- 96. Registered users on YouTube can publish their own content, comment on others' content, and express approval or disproval on others' content through "likes" and "dislikes."
- 97. Since 2008, YouTube has delivered content to its users through a feed of recommended videos. At first, YouTube simply recommended videos to its users that it believed were widely popular among other users, but YouTube found that that strategy did not induce enough user engagement. YouTube later deployed a sophisticated, machine-learning-driven recommendation feature that considered user behaviors, such as their engagement with content and the time they spent watching videos.
- 98. YouTube delivers its recommended videos to users on a continuous, automatic "autoplay" feature whereby a user is shown a new video after each video is completed by default.
- 99. YouTube relies on self-reporting of a user's age through account registration. But because no account is required to view YouTube content and because its recommendation algorithm is turned on by default, teenage users are exposed to YouTube's autoplay feature.

b. YouTube Aggressively Markets its Platform to Youth

- 100. In 2021, YouTube recorded \$19 billion in advertising revenues, which is its primary money-making enterprise. YouTube's business model is predicated on more viewers watching more content resulting in more advertising. YouTube's autoplay feature and accompanying algorithm-based recommended videos are key to this strategy.
- 101. YouTube has also long targeted young people as opposed to older populations. And young users can consume YouTube content without reporting their age because YouTube relies on registered accounts to self-report but does not require such accounts to view its content.
- 102. Despite its ineffectual and rudimentary system of verifying users' ages, YouTube sought advertising revenues from brands popular with children in recognition of the platform's extensive use by that demographic. YouTube made advertising pitches to companies such as Mattel and Hasbro,

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27 28 claiming that YouTube had become the most popular website of tweens. YouTube made a deliberate effort to attract children and teens to its platform, and the results are staggering—95% of teenagers of ages 13 to 17 use YouTube.

YouTube Intentionally Designs its Platform to Maximize the Time c. Youth Spend on its Platform

- 103. Google and YouTube created YouTube's features with the goal of maximizing user engagement and time spent on the platform (and therefore optimizing advertising revenues) by exploiting human psychology. Like the other Defendants, Google and YouTube willfully and intentionally use IVR to capitalize on the neurochemical rewards that come from approval and affirmation in the human brain. Google promotes its content creators and viewers to habitually engage with YouTube to make more and more content, likes, comments, and shared videos. When viewers engage with content, this acts as a reward system for creators, and these rewards have a heightened value because they are put on a public ledger for all to see.
- 104. Like YouTube, Google uses IVR to encourage viewers to view more content. YouTube has a feature where viewers can follow/subscribe to certain content creators or channels, and whenever new content is added, the viewer is notified and prompted to immediately go to YouTube to watch the content.
- Google also deploys a feed-type feature on YouTube to trap users in an endless flow of 105. content. Both on its homepage and on each video's "Up Next" panel, a list of recommended content automatically populates without any prompt or affirmative engagement from the user. YouTube's algorithm, like that deployed on the other Defendants' feed-features, is intended to keep a user consuming content on the platform.

YouTube Knows its Algorithms are Manipulative d.

Google's and YouTube's algorithms on YouTube that recommend content to a user are 106. intended by design to manipulate the user. These algorithms are responsible for selecting what content a user sees in the feed of recommended videos, on the homepage, and in search results. According to reporting, YouTube's stated goal is to "optimize" the amount of time a user consumes its content, attempting to keep them on the platform as long as possible. Former YouTube engineers have

confirmed that this is the highest priority.

- 107. The early iterations of YouTube's algorithm focused on the number of clicks on content, but a decision was made in 2012 to switch to watch time. YouTube collects data about how long a user watches videos in order to focus its efforts on delivering content through its algorithm that encourage users to spend more time watching videos and accompanying ads.
- 108. YouTube's recommendation algorithm uses a neural network that constantly collects and analyzes new data to learn about users and evolves its content based on the data it processes. The algorithm first filters a list of possible recommendation matches based ostensibly on the content and context of the video the user is actively engaged in consuming. The algorithm then applies what it has learned about the user's purported preferences and habits to rank the list it compiles based on a user's pattern of engaging with other content, likes, comments, follows, location, time of day, etc. YouTube's algorithm is believed to process 80 billion data points or more each day to learn about each user. The recommendation and ranking algorithm uses a weight system on the data factors it collects on users. This weight system teaches YouTube which data factors to ascribe more weight to in optimizing how to deliver content in a way that maximizing how long a user spends on the platform. This weight system is how YouTube can highly personalize its hyper specific recommendations and rankings.
- 109. YouTube's dynamically developing algorithm is constantly working to narrow down and more precisely find content that will keep a user watching videos as long as possible. Google's engineers make updates to optimize the recommendation and ranking algorithms' inner machinery on an ongoing basis.
- 110. As a result of Google's and YouTube's manipulative tactics, YouTube's algorithms have been incredibly successful. According to YouTube executives, in 2018, 70% of all YouTube content consumed by users was recommended to users by YouTube. The same algorithms are responsible for keeping mobile device users on YouTube watching videos for an average of 60 minutes at a time. Thus, of the more than a billion hours of YouTube content that people watch daily, hundreds of millions of hours are attributable to YouTube's algorithms.

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YouTube's Conduct in Designing and Operating Its Platform Has e. Significantly Harmed Youth Mental Health

- 111. YouTube's focus on maximizing the amount of time users spend watching videos through its manipulative algorithm has caused harm to youths' mental health.
- YouTube's algorithm is likely to push its young users towards dangerous and harmful 112. content, because just like other Defendants, YouTube understands that this destructive content is most likely to trigger a user response, user engagement, and more time spent on the platform. This harmful content will tend to contain violent, sexual, or self-harm encouraging subject matter. The term "YouTube Rabbit Hole" is a well-known idiom for when YouTube's recommendation algorithm sends a user far from the original video they sought to watch and into a tangent of broodingly negative, violent, and destructive content.
- Researchers have found that YouTube Kids, an iteration of the platform specifically designed for young children, contains content involving drugs, guns, and anorexia-inducing subject matter. For example, researchers found guides for children on how to conceal a gun, how to bleach one's skin, and workout videos encouraging weight loss. The researchers concluded that this content was being actively pushed on children by YouTube's algorithms.
- 114. Other content dangerous to children was found by child safety advocates who went undercover on YouTube Kids. After just an hour on a child's YouTube profile, the adult was exposed to videos instructing children how to have "sexier" clothes, a video bullying a young girl for her weight, and a cartoon of an animated dog pulling objects out of an unconscious animal's anus. Similar content found by other adults on a child's account showed recommended videos encouraging the child to commit suicide. According to the Pew Research Center, 46% of parents say their child has encountered inappropriate videos on YouTube. Again, because 70% of content is delivered to users by YouTube's recommendations and not of the user's volition, YouTube is the one feeding this inappropriate content to children.
- 115. The PBS Newshour reported about a tragic case where a child was admitted to rehab due to her compulsive YouTube watching, which ultimately resulted in a suicide attempt. In that story, a seemingly normal middle-school girl watched YouTube videos each day after school and, over time,

became seriously depressed. She then used YouTube to search for videos instructing her on how to commit suicide and got the idea to swallow a bottle of Tylenol to trigger an overdose.

- 116. The disturbing content pushed onto children by YouTube's algorithms have been a source of concern among mental health experts, who warn of growing anxiety and inappropriate sexual behavior linked to YouTube content among children under the age of 13. Researchers have warned that repeated trauma caused by exposure to extreme content from YouTube can cause underdevelopment of a child's prefrontal cortex, which governs executive function.
- 117. Reporting has shown that YouTube's algorithms feed users videos with misinformation, hate speech, violence, and content violative of YouTube's own policies. In a survey of 37,000 YouTube users in 2021, the data showed that 71% of negative experiences from YouTube content came from videos recommended to users by YouTube and its algorithm.
- 118. Like its co-Defendants, YouTube's harmful content that its algorithms prefer to force on children is the most reactive because violent or disturbing videos release dopamine in the user, triggering a reward system response through IVR, and therefore increased user engagement.
- 119. Across the country, mental health professionals have reported increase in childhood mental health issues stemming from YouTube content. These include cases of anxiety, loss of appetite, sleeplessness, crying fits, and general fear because of videos that a child saw on YouTube. YouTube is also consistently associated with sleep disorders among children and teens, which aggravates other mental health issues and social disorders.
- 120. Google continues to manipulate its users through YouTube's designs to maximize user engagement despite overwhelming evidence that children are being disproportionately harmed by its tactics. Google has harmed millions of youths in ways that are simply unprecedented.
 - f. Schools Have Been Detrimentally Affected by the Youth Mental Health Issues Created and Exacerbated by YouTube
- 121. During the Covid-19 pandemic, due to lockdowns, remote schooling, and physical isolation from friends, young people drastically increased their use of social media. One study explained its findings: "adolescents augmented their social media use, including general screen time. Also[,] higher levels of digital media addiction were reported during the pandemic. In general, higher

social media use and media addiction were related to higher ill-being. Hence, adolescents are particularly at risk of experiencing mental health problems due to the augmented exposure to screen time and social media during the pandemic."

- 122. This use of social media is accompanied by detrimental mental health effects. According to a systematic review, summarizing evidence from thirty studies, "most studies have reported an association between ill-being and social media use."
- 123. Youth mental health services are provided through most public schools. As one of the primary providers of these services, public schools have been inundated by the increase in youth mental health issues, many associated with increased social media use. In the 2021–22 school year, nearly all public schools (96%) reported providing mental health services to their students. Fifty-six percent (56%) reported that they moderately agree or strongly agree that they can effectively provide mental health serviced to all students in need. Unfortunately, only a small percentage (8–10%) of schools were confident enough to say that they could effectively provide sufficient mental health services to all students in need, with a whopping eighty-eight (88%) of schools saying they do not strongly agree it is possible to meet the demand for such services. These schools sounded an alert, reporting that there is an insufficient number of mental health professionals to manage the school's caseload, inadequate access to licensed health professionals, and inadequate funding.
- 124. Since the start of the Covid-19 pandemic, public schools have seen an increase in mental health issues among their students. Seventy percent (70%) of public schools reported an increase in the percentage of their students seeking help for mental health issues, 76% reported an increase in staff voicing concerns about students exhibiting symptoms of depression, anxiety, and trauma, and 67% of public schools reported having increased the amount of mental health services they provide.
- 125. The combination of the pandemic and the proliferation of social media use created a perfect storm, exacerbating the youth mental health crisis. In the 2021–22 school year, 64% of public schools reported that the pandemic played a major role in students performing below grade level. In 2022–23, public schools reported that 36% of their students on average were performing below grade level prior to the pandemic, while at the beginning of both the 2021–22 and 2022–23 school years, public schools reported that on average half of their students were performing below grade level.

- 126. Absenteeism also became a problem during the Covid-19 pandemic. Public schools reported both student and teacher chronic absenteeism increased compared to prior school years. Seventy-two percent (72%) of schools reported an increase in chronic student absenteeism compared to pre-pandemic school years.
- 127. More than 8 in 10 public school reported that, due to the pandemic, students exhibited stunted behavioral and socioeconomical development. Sixty-one percent (61%) of schools perceived that general misconduct had increased. Schools reported substantial increases in the frequency of tardiness, skipping class, rowdiness, bullying, fighting, threats of fighting, use of electronic devices during class, and other classroom disruptions. Thirty-six percent (36%) of schools recorded an increase in vandalism.
- 128. One study surveyed nearly 300,000 students, from 845 schools, across 20 states, to provide insight into their perceptions of happiness, suicide, bullying, counseling programs, and the availability of access to help with mental health issues at school. The study found that "depression, stress, and anxiety is the most prevalent obstacle to learning" for students in grades six through twelve. Shockingly, 13% of middle school students and 14% of high school students had dealt with thoughts of suicide or reported that they had considered suicide in the last year. Over 50% of students at every grade level cited depression, stress, and anxiety as an obstacle to learning.
- 129. A survey of adolescents who received mental health services in an educational setting found that, when asked why they received mental health treatment, 44.3% reported receiving services because they felt depressed and 15.8% reported thinking about or attempting suicide. The Anxiety and Depression Association of America reports that anxiety disorders affect 31.9% of adolescents ages 13 to 18, and that research shows that untreated anxiety disorders in teenagers presents a higher risk that they will perform poorly in school, miss out on important social experiences, and engage in substance abuse.
- 130. As discussed in sections above, researchers and mental health professionals are identifying a link between social media use and sleep deprivation. Two-thirds of U.S. high school students say they sleep less than eight hours per night on school nights. Insufficient sleep among both adolescents and younger children is linked to a variety of maladies, including obesity, diabetes, poor

mental health, ADHD, or attention deficit/hyperactivity disorder, behavioral issues, and poor academic performance.

- 131. Like other school districts, Plaintiffs bear the cost of the increased need for youth mental health services. Operating under pre-crisis budgets, Plaintiffs have scrambled to reallocate resources to address the mental health crisis. Plaintiffs have diverted time and funds to hire additional health care professionals, to train teachers and staff on how to educate students on their mental health, to develop mental health curriculum and materials, and to keep students and parents notified and informed about mental health issues that arise.
- 132. Plaintiffs incur not only increased expenses to provide more mental health services, but also increased expenses to deal with a variety of collateral issues caused by the mental health crisis.

 Plaintiffs have diverted time and funds to deal with increased incidence of vandalism, property damage, investigation of crime, increased need for student discipline, and increased school security.
 - 2) Snapchat has Substantially Contributed to the Youth Mental Health Crisis by Intentionally Designing its Social Media Platform to be Manipulative and Addictive

a. The Snapchat Platform

- 133. Evan Spiegel, Reggie Brown, and Bobby Murphy created Snapchat in 2011, while they were students at Stanford University. The company changed its name from Snapchat to Snap in 2016, while keeping the name "Snapchat" for its social media app. Evan Spiegel currently serves as Snap's CEO, and Bobby Murphy serves as Snap's CTO.³⁵ Reggie Brown was ousted from the company shortly after its 2011 launch.
- 134. At its inception, Snapchat was a camera and photo-sharing app that allowed users to send photos that would disappear after a certain amount of time. The concept of self-destructing ephemeral photos was unique in that it created a sense of urgency, which encouraged users to react and interact quickly. The app was minimalist and easy to use; the app opened directly to the device's camera with most of the functionality hidden until the user sought to discover it.³⁶ The Snapchat app

³⁵ Katie Benner, *How Snapchat is Shaping Social Media*, The New York Times (Nov. 30, 2016), https://www.nytimes.com/2016/11/30/technology/how-snapchat-works.html.

³⁶ Nick Routley, *Timelines: Looking Back at 10 Years of Snapchat*, Technology (July 18, 2021), https://www.visualcapitalist.com/timeline-looking-back-at-10-years-of-snapchat/#:~:text=Snapchat %20originally%20began%20its%20life,a%20certain%20amount%20of%20time.

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quickly gained popularity and momentum online and transitioned from a photo-sharing app to a social media powerhouse. Snapchat evolved continuously by adding new social media features along the way, including the Stories, Video-Sharing, Geofilters, Lenses, Discover, and Spotlight features. Snapchat later offered physical products, such as Spectacles in 2016, which are smartglasses that record video.

- Snap added the Video-Sharing feature in 2012.³⁷ The Video-Sharing features works similar to the photo-sharing features, but allows users to send "video-snaps," which were originally limited to 10 seconds but later increased to 60 seconds.
- Snap also added the "Stories" feature in 2012.³⁸ The Stories feature is a collection of 136. photos or "snaps" collected within the last 24 hours, which creates a "story" of the user's day, which is visible to the user's friends and can be shared with others. About a year later, Snap created an instant text and video messaging feature.
- The following year, Snap added the "Our Story" feature, which is different than the Stories feature, in that it is not limited to a 24-hour period and can have varying timeframes. The Our Story feature can be used to create a broad view of an event or place. And Snapchat has been creative in its efforts to market the Our Stories feature to young people. For example, "Snapchat went a step further to make Our Story more appealing to college students by creating Campus Stories for select campuses."39
- 138. All of these features can be adorned with "Geofilters," which are location-specific visual effects that users can add to enhance photos or videos that they take through the app. Geofilters are also location-restricted, which means they are only available to people within a certain radius of a given location.40
 - Snap added the "Discover" feature in 2015. This feature allows a user to select videos 139.

https://www.businessnewsdaily.com/10477-make-snapchat-geofilter-for-business.html.

³⁷ J.J. Colao, Snapchat Adds Video, Now Seeing 50 Million Photos A Day, Forbes (Dec. 14, 2012), https://www.forbes.com/sites/jjcolao/2012/12/14/snapchat-adds-video-now-seeing-50-million-photosa-day/?sh=55425197631b.

³⁸ Nick Routley, *Timelines: Looking Back at 10 Years of Snapchat*, Technology (July 18, 2021), https://www.visualcapitalist.com/timeline-looking-back-at-10-years-of-snapchat/#:~:text=Snapchat %20originally%20began%20its%20life,a%20certain%20amount%20of%20time.

³⁹ Basego Segaetsho, Snapchat: What is "Our Story" Explained & How to Add Your Own Snaps, Screenrant (Aug. 23, 2020), https://screenrant.com/snapchat-our-story-add-snaps-explained/. ⁴⁰ Max Freedman, *How to Make a Snapchat Geofilter*, Business News Daily (Jan. 23, 2023),

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AMENDED COMPLAINT

presented in curated feed, based on the user's app history. The Discover feature presents scrolling content from News outlets, TV shows, and other professional content created by brands and influencers.⁴¹

- 140. Previously, Snapchat users only saw feeds from their friends or content posted by publishers from the Discovery feature. The 2020 introduction of the "Spotlight" feature changed this by providing an endless stream of content from "the top snaps that have been submitted for consideration by the app's more than 249 million daily users in a feed that they can swipe or tap through." The Spotlight feature "presents an opportunity for Snap to exponentially expand the amount of entertaining content available" on the platform.⁴²
- 141. In a January 2023 Investor Presentation, Snap estimates that the Snapchat platform has an average of 375 million daily active users, with about 100 million users in America.⁴³

b. Snapchat is Aggressively Marketed to Youth

- 142. Snap's January 2023 Investor Presentation touts Snapchat's reach of 90% of people ages 13–24 in over twenty countries. The Investor Presentation also states Snap's view that the 13–34 age range "is critical" because "between the ages of 13 and 34, people experience many common milestones in life."
- 143. A massive amount of Snap's marketing is geared towards teenagers. This includes marketing by Snap itself to promote its platform and the ad space on its platform that it sells to advertisers. DataReportal.com states that "data published in Snapchat's self-service advertising tools in July 2022 indicated that marketers could reach the following worldwide audience using ads on Snapchat:121.9 million users aged 13–17 (20.5% of Snapchat's total Ad audience)."⁴⁵
 - 144. Snapchat began selling ads on its platform in 2014. Snapchat's advertising revenue has

⁴¹ Steven Tweedie, *How to Use Snapchat's New 'Discover' Feature*, Business Insider (Jan. 27, 2015), https://www.businessinsider.com/how-to-use-snapchat-discover-feature-2015-1.

⁴² Salvador Rodriguez, *Snap is launching a competitor to TikTok and Instagram Reels*, CNBC (Nov. 23, 2020), https://www.cnbc.com/2020/11/23/snap-launching-a-competitor-to-tiktok-and-instagram-reels.html.

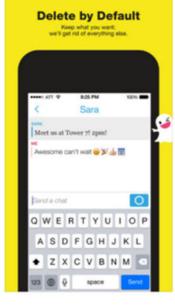
Snap Inc., *January 2023 Investor Presentation* at 5 (Jan. 31, 2023), https://s25.q4cdn.com/442043304/files/doc_presentations/2023/01/Snap-Inc.-Q4-2022-Investor-Deck.pdf.
 Id.

⁴⁵Snapchat Statistics and Trends, DataReportal.com (updated Aug.15, 2022), https://datareportal.com/essential-snapchat-stats#:~:text=121.9%20million%20users%20aged%2013,of%20Snapchat's%20total%20ad%20audience.

continually increased since it first implemented the advertising business model. In 2015, Snap made about \$59.2 million in ad revenue.⁴⁶ By 2021, Snapchat's advertising revenue was \$3.1 billion, and this figure is expected to grow to \$5.9 billion by 2026.⁴⁷ In April 2022, Reuters reported that Snap expected to generate \$4.86 billion in Snapchat advertising revenue in 2022.⁴⁸

145. Some of Snap's marketing material appears to be geared towards a younger audience:







146. A 2017 article in the Financial Times sheds light on Snapchat's youth-centric position in the social media market, stating that "for teens and increasingly for young adults, Snapchat is a very, very sticky platform" and that "they also like that Snapchat is a bit hard for older folks to figure out." Snapchat's minimalist interface is esoteric by design. Snap kept most of the functionality hidden until users discovered it or were shown by more savvy peers. The esoteric design is meant to act as an

⁴⁶ Sara Fischer, *A timeline of Snap's advertising, from launch to IPO*, Axios (Feb. 3, 2017), https://www.axios.com/2017/12/15/a-timeline-of-snaps-advertising-from-launch-to-ipo-1513300279.
⁴⁷ *Advertising Revenue Generated by Snapchat Worldwide from 2017 to 2026*, Statista.com (Jan. 6, 2023), https://www.statista.com/statistics/603550/snapchat-worldwide-advertising-revenue/.
⁴⁸ Bhanyi Stajia, *TikTok's ad rayanya to syrpass Twitter and Snapchat combined in 2022*. Reuters (Axional Action 1997).

⁴⁸ Bhanvi Staija, *TikTok's ad revenue to surpass Twitter and Snapchat combined in 2022*, Reuters (Apr. 11, 2022), https://www.reuters.com/technology/tiktoks-ad-revenue-surpass-twitter-snapchat-combined-2022-report-2022-04-11/.

⁴⁹ Hannah Kuchler & Tim Bradshaw, *Snapchat's Youth Appeal Puts Pressure on Facebook*, Financial Times (Aug. 21, 2017), https://www.ft.com/content/07e4dc9e-86c4-11e7-bf50-e1c239b45787.

⁵⁰ Nick Routley, *Timelines: Looking Back at 10 Years of Snapchat*, Technology (July 18, 2021), https://www.visualcapitalist.com/timeline-looking-back-at-10-years-of-snapchat/#:~:text=Snapchat %20originally%20began%20its%20life,a%20certain%20amount%20of%20time.

incorporeal barrier to less tech-savvy older people. Whether or not the cliché' that older people tend to be tech-illiterate is true or not, older people were dissuaded from navigating the minimalist, almost non-existent, interface of the Snapchat app.



- 147. Snap's CEO, Evan Spiegel's statement that "we've made it very hard for parents to embarrass their children," is an implicit admission that Snapchat targets the youth. This statement epitomizes Snapchat's strategy to create a parent-free zone that appeals to the youth.⁵¹
- 148. Like a recorded mission briefing from the show Mission Impossible, Snapchat photos and videos are scheduled for self-destruction. Permanent erasure of a digital paper trail appeals to teenagers who may not want their parents to discover evidence of what they have been doing or saying online. Kids used to build forts to have their own space or to hide from their parents, and perhaps they still do. The ability to hide content on Snapchat creates a digital fortress where children can hide and be secluded from their parents' watchful eyes.
- 149. In 2016, Snap acquired Bitstrips, makers of the comic-style illustrations called Bitmojis, which are cartoon avatars that can be designed to resemble the user.⁵² Cartoons are a form of entertainment that have traditionally been targeted towards young people and Snap employs Bitmojis

⁵¹ Max Chafkin & Sarah Frier, *How Snapchat Built a Business by Confusing Olds*, Bloomberg (Mar. 3, 2016), https://www.bloomberg.com/features/2016-how-snapchat-built-a-business/.

⁵² Kif Leswing, *Snapchat just introduced a feature it paid more than \$100 million for*, Business Insider (July 19, 2016), https://www.businessinsider.com/snapchat-just-introduced-a-feature-it-paid-more-than-100-million-for-2016-7.

for precisely that reason, in order to attract teens and tweens onto its platform.

- Snapchat, or the kids' version of the app, was actually part of the Snapchat app and not a separate app itself. It was purported to be a sandbox, a safe environment isolated from the rest of the app, that children under 13 could sign up for, presumably to groom them to later be full-fledged users of the app. Upon turning 13, they would gain full access to all features of the Snapchat app. Kids could not use Snapchat to share images or video with anyone, however, the SnapKidz feature allowed kids to take snaps, draw on them and save them locally on the device. The SnapKidz feature was discontinued, and Snap does not allow users under the age of thirteen (13) to use the Snapchat app.
- 151. Although Snap purports to not allow users under the age of thirteen (13) on Snapchat, Snap admits that they have no way to enforce age-verification on its app. If a child under the age of thirteen enters a false birthdate and signs up for a Snapchat account, Snap will not have an effective way of detecting or policing this and will not likely be aware that a child under the age of thirteen has created an account.⁵⁴
- 152. Snap has successfully marketed the Snapchat app to young people, and not just teenagers, but also tweens. As set forth in Section IV.A above, recent studies have shown that 13% of children ages 8–12 used Snapchat in 2021,⁵⁵ and that 59% of children ages 13–17 used Snapchat in 2021. This is an 18% increase from 2014–2015, when 41% of children ages 13–17 reported using Snapchat.⁵⁶

c. Snap Employs Manipulative Algorithms to Intentionally Keep Youth Hooked on its Platform

153. Snap seeks to keep young users hooked on its platform by employing manipulative

⁵³ Larry Magid, *Snapchat Creates SnapKidz – A Sandbox for Kids Under 13*, Forbes (June 23, 2013), https://www.forbes.com/sites/larrymagid/2013/06/23/snapchat-creates-snapkidz-a-sandbox-for-kids-under-13/?sh=7c682a555e5a.

⁵⁴ Isobel Asher Hamilton, *Snapchat admits its age verification safeguards are effectively useless*, Business Insider (Mar. 19, 2019), https://www.businessinsider.com/snapchat-says-its-age-verification-safeguards-are-effectively-useless-2019-3.

⁵⁵ Victoria Rideout et al., *Common Sense Census: Media use by tweens and teens, 2021* at 5, Common Sense Media (2022), https://www.commonsensemedia.org/sites/default/files/research/report/8-18-census-integrated-report-final-web 0.pdf.

⁵⁶ Emily Vogels et al., *Teens, Social Media and Technology 2022*, Pew Rsch. Ctr. (Aug. 10, 2022), https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/.

algorithms that draw the young user in. These algorithms collect data about the user and determines how to keep the user engaged. Snap's goal is to maximize the time the user spends on the platform.

154. Snap exploits phenomena such as FOMO, or the fear of missing out, to keep users perpetually interacting on the platform. Snapchat's quickly disappearing messages or videos create a sense of urgency that prompt a user to respond immediately because if they don't, the user may not remember what the snap said and may lose the opportunity to respond. Snap also employs "SnapStreak," which keeps count of how many consecutive days a user and a friend have sent a snap. If a user doesn't send a snap within 24 hours, the "streak" ends. The ephemeral nature of snaps compels a user to respond and to keep the "streak" going. The "SnapStreak" feature is extremely effective at preying upon teenagers' susceptibility to peer pressure and strong desire to fit in. For many teens, "streaks are a vital part of using the app, and of their social lives as a whole." According to one source, some teens become obsessed with maintaining a SnapStreak. 58



155. When users receive a Snap they feel obligated to respond. This is because humans have a need to respond to a positive action with another positive action.⁵⁹ Snaps are designed to act upon this basic human tendency to reciprocate in kind, known as the rule of reciprocation.⁶⁰ The impetus to

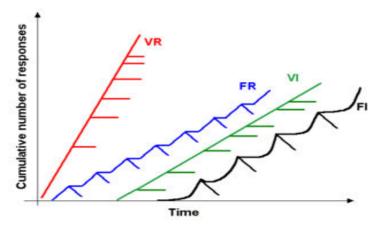
⁵⁷ Avery Hartmans, *These are the sneaky ways apps like Instagram, Facebook, Tinder lure you in and get you 'addicted'*, Business Insider (Feb. 17 2018), https://www.businessinsider.com/how-app-developers-keep-us-addicted-to-our-smartphones-2018-1#snapchat-uses-snapstreaks-to-keep-you-hooked-13; *see generally* Cathy Becker, *Experts warn parents how Snapchat can hook in teens with streaks*, ABC News (July 27, 2017), https://abcnews.go.com/Lifestyle/experts-warn-parents-snapchat-hook-teens-streaks/story?id=48778296.

⁵⁸ Caroline Knorr, *How to resist technology addiction*, CNN (Nov. 9, 2017), https://www.cnn.com/2017/11/09/health/science-of-tech-obsession-partner/index.html.

⁶⁰ Nir Eyal, *The Secret Psychology of Snapchat*, Nir & Far (Apr. 14, 2015), https://www.nirandfar.com/psychology-of-snapchat/.

respond is further reenforced by push notifications sent by Snap that alert or remind a user that there is a message waiting for a response. Also, the ephemeral nature of the Snap message creates a sense of urgency which strongly encourages an immediate response.

156. Snap employs "rewards" as positive reinforcement for engaging with the platform. These rewards are divvied out intermittently in just the right amount, calculated by Snap's algorithms, in order to maximize the amount of screen time the user spends on the platform. This method of reward incentive and distribution is known as an "intermittent variable reward" ("IVR"). Partially randomizing the rewards gets a user more likely to repeat a behavior. In the graph below, we observe the highest number of responses with the red line, which distributes "variable rewards" at a random frequency over time. 61



157. Snapstreaks, which keep count of how many consecutive days a user has sent a snap to another user, and SnapScores, which keep count of how many snaps a user has sent or received, are two methods of IVR that incentivize a user, and especially a young user, to stay monomaniacally fixed on the Snapchat platform.

158. Snap employs features, such as lenses and filters, in order to keep users engaged with its platform. Lenses are augmented reality ("AR") effects that alter a photo or video that is taken with the Snapchat camera. It can add effects, transform the appearance of a user's eyes, face, mouth, or surrounding environment. Filters are creative effects that a user can add after taking the photo or video, which can highlight the user's location (Geofilters) or what the user is doing at the time (Moment

⁶¹ Mike Brooks, Ph.D., *The "Vegas Effect" of Our Screens*, Psychology Today (Jan. 4, 2019), https://www.psychologytoday.com/us/blog/tech-happy-life/201901/the-vegas-effect-our-screens.

Filters). Snap allows users to personalize filters. To further ensuare users, Snap collects data about these personalized filters, as well as about the most popular filters, in order to develop new filters tailored to a user's tastes, based on the collected data. In 2016, Snap began embedding games in many of its filters, "creating an addicting new Snapchat feature that also inspires competition between friends and could become a powerful ad revenue driver."

159. Snapchat employs a variety of algorithms, which collect data about a user and then make recommendations to the user, based on that collected data. Snapchat's "Quick Add," "Discover," and "Spotlight" features all employ manipulative algorithms to keep users interacting with the platform. The Quick Add feature uses an algorithm to suggest new friends to a Snapchat user. The Discover feature purports to curate content for the user. The Discover feature is basically an algorithm, which calculates a user's preferences from extracted data, collected from the user's history of activity within the platform. The Spotlight feature, which is also based on an algorithm, presents and endless stream of the most entertaining snaps. Again, based on the user's prior activity, the algorithm determines what content to present the user. The purpose of these algorithms is to determine what content will keep a particular user engaged, to tailor that content to each specific user, and to dupe the user into spending entirely too much time on the platform.

d. Snap's Conduct in Designing the Snapchat Platform has Caused Significant Harm to Youth Mental Health

160. A large part of Snap's business model preys upon the impressionability of youth.

Because young minds are not fully developed, young people do not possess a fully developed sense of self and may find it more difficult to resist influence. Young people are susceptible to a variety of psychological challenges, including peer pressure, fear-of-missing-out, the fear of not fitting in with peers, lack of self-restraint, and shorter attention spans, to name several. Snap has capitalized on the

⁶² Snap Inc., How We Use Your Information, https://snap.com/en-US/privacy/your-information.

⁶³ Josh Constine, *Now Snapchat Has 'Filter Games'*, TechCrunch (Dec. 23, 2016), https://techcrunch.com/2016/12/23/snapchat-games/.

⁶⁴ Steven Tweedie, *How to Use Snapchat's New 'Discover' Feature*, Business Insider (Jan. 27, 2015), https://www.businessinsider.com/how-to-use-snapchat-discover-feature-2015-1.

⁶⁵ Sara Fischer, *Snapchat launches Spotlight, a TikTok competitor*, Axios (Nov. 23, 2020), https://www.axios.com/2020/11/23/snapchat-launches-spotlight-tiktok-competitor; Snap Inc., *How We Use Your Information*, https://snap.com/en-US/privacy/your-information.

challenges that young people face by designing a platform that exploits these challenges.

- 161. By designing Snapchat's algorithms to keep youth perpetually engaged with its platform, Snapchat has caused harm to young people. Snapchat's immersive and addictive social media platform has caused youth to suffer a variety of ills, including anxiety, depression, disordered eating, sleep deprivation, cyberbullying, and increased risk of suicide.
- 162. Snap intentionally designed Snapchat to keep young people engaged in the platform via various exploitive mechanisms targeting their potential vulnerabilities, and therefore, Snapchat is aware of the harm that its platform inflicts on young people. Snap employs algorithm-based features, such as Quick Adds, and IVR-based features, such as SnapScores and SnapStreaks, to keep young users' eyes monomaniacally fixed to the Snapchat app.
- 163. The Journal of the American Medical Association has identified a new disorder it calls "Snapchat Dysmorphia," which describes young people who seek plastic surgery because they consider their real-life appearance to be inferior in comparison to how they appear through Snapchat filters.⁶⁶ These beauty enhancement filters can make teeth whiter, skin clearer, make a person look thinner, or make a person appear to have larger eyes or lips.⁶⁷
- 164. In October 2021, **the United States Senate held a Congressional hearing** to question Snapchat, YouTube, and TikTok about whether they were doing enough to keep children safe online. During a four-hour hearing, lawmakers pressed officials from these three social media companies about their role in facilitating, cyberbullying, eating disorders, and other reckless behavior online. An article covering the hearing states that "lawmakers expressed deep worry about the platforms having the ability to hurt users' self-image and contribute to other mental health issues." One Senator introduced

⁶⁶ 'Snapchat Dysmorphia': When People Get Plastic Surgery To Look Like A Social Media Filter, WBUR (Aug. 29, 2018), https://www.wbur.org/hereandnow/2018/08/29/snapchat-dysmorphia-plastic-surgery.

⁶⁷ Nathan Smith & Allie Yang, *What happens when lines blur between real and virtual beauty through filters*, ABC News (May 1, 2021), https://abcnews.go.com/Technology/lines-blur-real-virtual-beauty-filters/story?id=77427989.

⁶⁸ Bobby Allyn, *4 Takeaways from the Senate child safety hearing with YouTube, Snapchat and TikTok*, Nat'l Pub. Radio (Oct. 26, 2021), https://www.npr.org/2021/10/26/1049267501/snapchat-tiktok-youtube-congress-child-safety-hearing.

a bill that would ban the "SnapStreak" feature.⁶⁹ In light of these Congressional hearing and the calls for Congressional oversight, Snap cannot claim to be unaware of the harm that it is causing the youth. And yet, after all the Congressional testimony under oath, Snap has failed to modify its conduct and continues to employ addictive algorithms and features that keep young people psychologically chained to its platform.

- 165. Although Snap is aware that its Snapchat platform is having a widespread detrimental effect on the mental health of the youth, Snap continues to push its business model because it is financially successful. Snap's business model is to employ manipulative algorithms and features to keep users engaged in the platform, preferably to the point of addiction, so that users are exposed to more ads, which increased Snap's ad revenue.
 - 3) TikTok has Substantially Contributed to the Youth Mental Health Crisis by Intentionally Designing its Social Media Platform to be Manipulative and Addictive

a. The TikTok Platform

- 166. TikTok is a social media platform where users can create and watch short-form mobile videos.
- 167. TikTok evolved from the merger of two apps, the Musical.ly app, launched in 2014, and the international TikTok app launched in 2017, by the Chinese company, ByteDance, TikTok's parent company. The apps were similar in that they both allowed users to create short videos (Musical.ly's videos were limited to 15 seconds) of themselves, usually dancing and or lip-syncing to music. Although Musical.ly's original business model was education-based, Musical.ly's co-founder and CEO, Alex Zhu, pivoted to an entertainment-based model when he realized the education model did not appeal to kids and was thus, "doomed to be a failure." The following appeals to kids and was thus, "doomed to be a failure."

⁶⁹ See Abigal Clukey, Lawmaker Aims To Curb Social Media Addiction With New Bill, Nat'l Pub. Radio (Aug. 3, 2019), https://www.npr.org/2019/08/03/747086462/lawmaker-aims-to-curb-social-media-addiction-with-new-bill; Social Media Addiction Reduction Technology Act, S. 2314, 116th Cong. (2019); Kids Internet Design and Safety Act, S. 2918, 117th Cong. (2021).

⁷⁰ Paresh Dave, *China's ByteDance scrubs Musical.ly brand in favor of TikTok*, Reuters (Aug. 1, 2018), https://www.reuters.com/article/us-bytedance-musically/chinas- bytedance-scrubs-musical-ly-brand-infavor-of-tiktok-idUSKBN1KN0BW.

⁷¹ Biz Carson, *How a failed education startup turned into Musical.ly, the most popular app you've probably never heard of*, Business Insider (May 28, 2016), https://www.businessinsider.com/what-ismusically-2016-5.

168.	ByteDance acquired Musical.ly to access the United States youth market, of
approximately	60 million monthly active users ("MAUs"), at the time. In 2017, ByteDance acquired
Musical.ly an	d merged the two apps under the name TikTok. ⁷²

- 169. TikTok has since evolved into a multi-faceted social media platform. TikTok curates videos through its "For You" feed.⁷³ The feed employs algorithms that learn from a user's activity and are designed to push content that keeps users scrolling and viewing videos. Like most social media sites, TikTok employs the endless scroll feature, encouraging users to scroll the video content ad infinitum. TikTok states that the "For You" feature is where most users spend their time on the platform.⁷⁴
 - 170. In addition, TikTok has increased the limit on videos from 15 seconds to 10 minutes.
- 171. These tweaks and additions to the original launch of TikTok have been very successful and TikTok has grown to about 1.53 Billion users across 154 countries, with over 1 Billion videos watched per day, as of January 2023. One source, Wallaroo Media, estimates that there are about 80 million monthly active users in the United States, as of January 2023.⁷⁵

b. TikTok Aggressively Markets its Platform to Youth

- 172. TikTok's efforts to market to a youth demographic are clandestine, but obvious. TikTok's intend is revealed by numerous examples, set forth in this section.
- 173. TikTok's target audience is revealed by the default year entered in the birthdate field upon account sign up. In 2016, the default year was 2000, making the default age 16 years old upon sign-up, unless another birthdate was entered. ⁷⁶
 - 174. Since Musical.ly CEO, Alex Zhu, pivoted from an education-based to an entertainment-

⁷² 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*, The Wall Street Journal (Nov. 10, 2017), https://www.wsj.com/articles/lip-syncing-app-musical-ly-is-acquired-for-as-much-as-1-billion-1510278123.

⁷³ *How TikTok recommends videos #ForYou*, TikTok (June 18, 2020), https://newsroom.tiktok.com/enus/how-tiktok-recommends-videos-for-you.

⁷⁴ *Id.*

⁷⁵ Brandon Doyle, *TikTok Statistics: Updated Jan 2023*, Wallaroo Media (Jan. 20, 2023), https://wallaroomedia.com/blog/socialmedia/tiktokstatistics/#:~:text=U.S.%20Audience%20%E2%80%93%20As%20we%20mentioned,users%20in%20the%20United%20States.

⁷⁶ Melia Robinson, *How to use Musical.ly, the app with 150 million users that teens are obsessed with*, Business Insider (Dec. 7, 2016), https://www.businessinsider.com/how-to-use-musically-app-2016-12.

AMENDED COMPLAINT

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based business model, TikTok has been designed and marketed towards a youth demographic, including tweens and teenagers.

175. Musical.ly's CEO, Alex Zhu, intended that TikTok's predecessor, Musical.ly, cater to a youth demographic. Zhu realized immediately after launching Musical.ly in 2014 that it would not be successful because it was educated-based, not entertaining, and didn't attract teens. But shortly thereafter, sometime in 2014–2015, Zhu had an epiphany while observing teens interact with each other on a train. He realized that the app would be a success if he combined music, videos, and social networking, and presented content in a short, 15-second format, that was long enough to convey an anecdote or draw a laugh, but not so long that teens got bored and diverted their attention to something else. Zhu felt like Musical.ly "could be like the next MTV."⁷⁷

In 2019, TikTok agreed to pay \$5.7 million to settle Federal Trade Commission ("FTC") 176. allegations that TikTok illegally collected information on children younger than 13 years of age, in violation of the Children's Online Privacy Protection Act ("COPPA"). 78 This was the largest ever civil penalty under COPPA. The FTC further alleged that the app was geared towards child-oriented activities and featured celebrities that would mainly appeal to teenagers and tweens. The complaint also alleged that TikTok was aware that a significant percentage of its users were under the age of 13,79 which Zhou had actually acknowledged to a "TechCrunch Disrupt London" audience in December 2016. 80 And yet, TikTok allegedly collected data on users under the age of 13, in violation of COPPA.

There is other evidence that strongly suggests that TikTok focuses its marketing on a youth demographic. After the settlement with the FTC, TikTok introduced a child-under-13 version of

⁷⁷ Biz Carson, How a failed education startup turned into Musical.lv, the most popular app you've probably never heard of, Business Insider (May 28, 2016), https://www.businessinsider.com/what-ismusically-2016-5.

⁷⁸ United States v. Musical.ly, No. 2:19-cv- 01439-ODW-RAO, Dkt. No. 1, Complaint for Civil Penalties, Permanent Injunction, and Other Equitable Relief ¶ 26–27 (C.D. Cal. Feb. 27, 2019) ("Musical.ly Complaint").

⁸⁰ Jon Russell, Muscal.ly defends its handling of young users, as it races past 40M MAUs at 8:58-11:12, TechCrunch (Dec. 6, 2016), https://techcrunch.com/2016/12/06/musically-techcrunch-disruptlondon/.

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child-under-13 version of TikTok is a training-wheels version, meant to fuel interest and groom children for the over-13 or "grown-up" version.⁸² Zhu's comments on the Chinese versus the United States markets, is another example of 178. TikTok obviously being intended for a youth demographic. Zhu stated that kids in China don't have time to engage with social media app like TikTok because they are too busy studying. Zhu further stated that youth culture does not exist in China to the extreme that it does in the United States and that

TikTok, a purported attempt to come into compliance with COPPA.⁸¹ The child-under-13 version had

limited functionality, in that the child user could not post a video. However, the child user could still

record videos onto their device and watch videos from curated feed. At least one source states that the

to engage in social media, such as TikTok. TikTok's clandestine but obvious campaign to market to a youth demographic has been

the United States is an ideal market for TikTok. 83 Obviously, Zhu considers the United States an ideal

market because of his perception that the youth in the United States study less and have more idle time

successful. TikTok is now the second most popular social media platform with 67% of children ages 13–17 having used the app.⁸⁴

c. TikTok Employs Manipulative Algorithms to Intentionally Keep Youth Hooked on its Platform

180. TikTok seeks to keep users, especially young users, hooked on its platform by employing manipulative algorithms that draw the user in. These algorithms are designed to collect data about users in order to determine how to keep users engaged. TikTok's goal is to condition users to maximize the time they spend on the platform. Such unrestrained conditioning can and has led to social media addiction in vulnerable youths.

⁸¹ Dami Lee, TikTok stops young users from uploading videos after FTC settlement, Verge (Feb. 27, 2019), https://www.theverge.com/2019/2/27/18243510/tiktok-age-young-user-videos-ftc-settlement-13-childrens-privacy-law.

⁸² Leonard Sax, Is TikTok Dangerous for Teens?, Inst. for Family Studies (Mar. 29, 2022), https://ifstudies.org/blog/is-tiktok-dangerous-for-teens-.

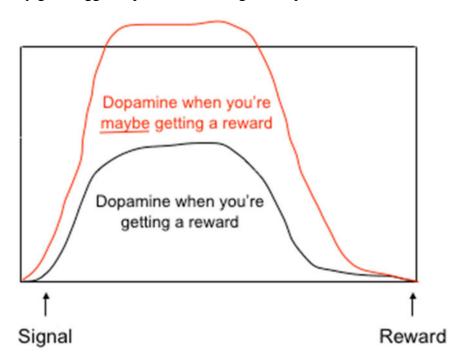
⁸³ Paul Mozur, Chinese Tech Firms Forced to Choose Market: Home or Everywhere Else, The New York Times (Aug. 9, 2016), https://www.nytimes.com/2016/08/10/technology/chinahomegrown-internet-companies-rest-of-the-world.html.

⁸⁴ Emily Vogels et al., *Teens, Social Media and Technology 2022*, Pew Rsch. Ctr. (Aug. 10, 2022), https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/.

181. TikTok engineers design TikTok's algorithms, which are based on machine-learning principles, with human psychology in mind. TikTok exploits elements of human psychology, partially based on the basic conditioning and randomized reward theory described by B.F. Skinner, and partially based on the rule of reciprocity theory, described by psychologist Robert Cialdini, to manipulate users.

182. Randomized or intermittent variable reward ("IVR") theory describes the psychological phenomenon observed in humans, wherein a subject is more likely to repeat a behavior when the behavior is reinforced by rewards that are randomized. "Partially randomizing the rewards get them even more likely to repeat this behavior. The uncertainty of the reward schedule makes it more attractive and is even the base of addiction." The reward is the brain's release of the neurotransmitter, dopamine.

183. The intermittent spacing of rewards creates "dopamine gaps," which reinforces the behavior through anticipation. It was observed by psychologist B.F. Skinner, that when engaging in an already established behavior, as opposed to when learning a behavior, "uncertainty boosts dopamine", and subjects actually get a bigger dopamine hit through anticipation.⁸⁶



⁸⁵ Julien le Nestour, *Positive Reinforcer: Partially Randomized Rewards (aka Intermittent Variable Rewards)*, https://julienlenestour.com/behavioral/positive-reinforcer-partially-randomized-rewards-aka-intermittent-variable-rewards/.

⁸⁶ Patrik Edblad, *Intermittent Reinforcement: How to Get Addicted to Good Habits*, https://patrikedblad.com/habits/intermittent-reinforcement/.

184. Studies have shown that the brain releases dopamine when a young person receives the approval of their peers.⁸⁷ Studies have also shown that release of dopamine through the use of social media can cause addiction by creating a feedback loop mechanism acting on the dopamine reward system. In this scenario, dopamine is released repeatedly, presumably until depleted, in parallel with a user's continuous engagement with social media.⁸⁸

- 185. Reciprocation theory simply describes the human tendency to respond in kind to a friendly act, and vice versa, meaning that a user feels compelled to reciprocate a gesture from another user. Thus, when one user shares a Tiktok video with another, the receiving user will have the tendency to feel compelled to share a video in response. This tendency for a user to reciprocate is exploited by TikTok features, such as the "Duet" feature, where one user is prompted to post a video next to the video of another user to create a tandem or side-by-side video.
- 186. In general, TikTok algorithms collect data about a user, learn the preferences and habits of a user, and the adjust output in a manner that encourages the user to continue engaging with the platform. The algorithms will incrementally nudge a user toward ever-increasing engagement with the platform. Unconstrained, TikTok algorithms will persist, perpetually encouraging a user to engage more and more, with no regard to what is excessive.
- 187. TikTok algorithms recognize patterns in user behavior and continually adjust to this behavioral data. TikTok begins feeding the user content as soon as the user opens it and immediately begins to track and analyze scrolling behavior, as well as location and the time of day. According to a 2021 Wall Street Journal investigation, "the app takes note of subtle cues, such as how long you linger on a video, to zero in on what users really want to watch. Over time, the video choices become less mainstream, less vetted by moderators and sometimes more disturbing."

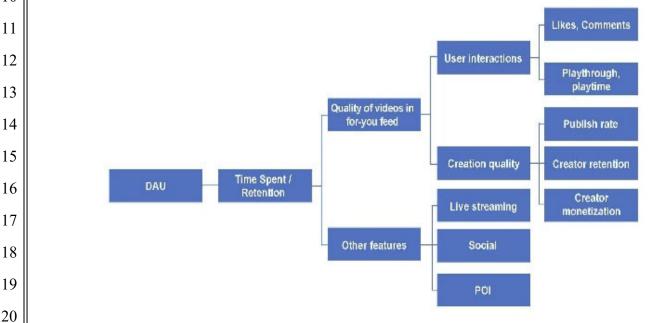
⁸⁷ See, e.g., Lauren E. Sherman et al., *The Power of the Like in Adolescence: Effects of Peer Influence on Neural and Behavioral Responses to Social Media*, 27(7) Psych. Sci. 1027–35 (July 2016), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5387999/.

⁸⁸ Rasan Burhan & Jalal Moradzadeh, *Neurotransmitter Dopamine (DA) and its Role in the Development of Social Media Addiction*, 11(7) J. Neurology & Neurophysiology 507 (2020), https://www.iomcworld.org/open-access/neurotransmitter-dopamine-da-and-its-role-in-the-development-of-social-media-addiction.pdf.

⁸⁹ Jia Tolentino, *How TikTok Holds Our Attention*, The New Yorker (Sept. 30, 2019), https://www.newyorker.com/magazine/2019/09/30/how-tiktok-holds-our-attention.

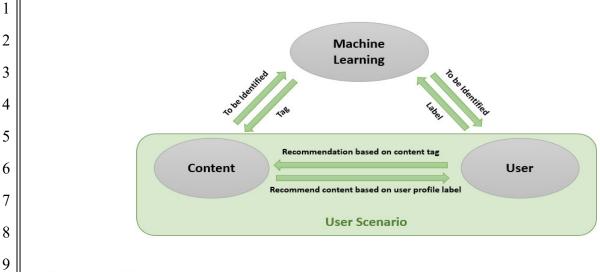
⁹⁰ WSJ Staff, *Inside TikTok's Algorithm: A WSJ Video Investigation*, The Wall Street Journal (July 21, 2021), https://www.wsj.com/articles/tiktok-algorithm-video-investigation-11626877477.

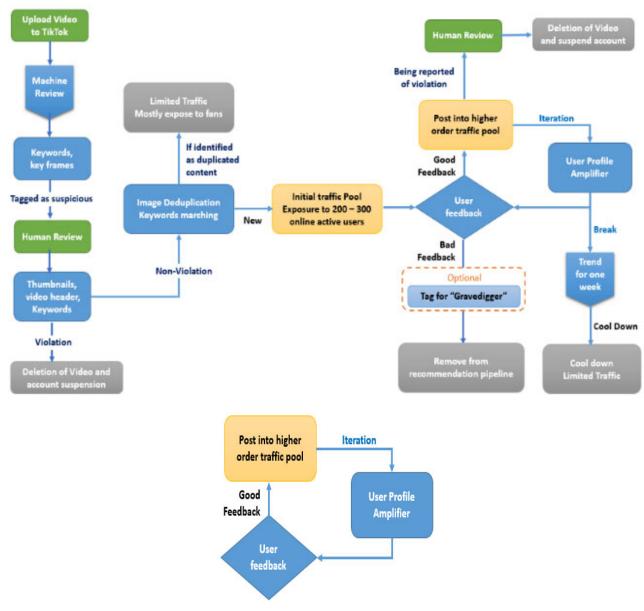
188. TikTok recommends videos to users via its "For You" feed, which is a curated feed of videos that streams in perpetuity. TikTok's algorithms analyze a variety of criteria to rank and assemble a user's personalized "For You" feed. Criteria includes user interactions, such as the videos a user likes or shares, accounts a user follows, comments, content a user has created, preferences expressed through interaction with the app or at account set-up, how long a user lingers on a video, and other video information, such as captions, sounds, and hashtags. 91 TikTok employs machine-learning algorithms to tailor the "For You" feed to each user, optimizing their screen time. The TikTok algorithms are extremely complex. Below is one researcher's interpretation, ascertained through reverse engineering, of the internal machinations of TikTok's recommendation workflow⁹²:



⁹¹ TikTok, How TikTok recommends videos #ForYou (June 18, 2020), https://newsroom.tiktok.com/en-

us/how-tiktok-recommends-videos-for-you. ⁹² Catherine Wang, Why TikTok Made its User So Obsessive? The AI Algorithm that got You Hooked (June 7, 2020), https://towardsdatascience.com/why-tiktok-made-its-user-so-obsessive-the-aialgorithm-that-got-you-hooked-7895bb1ab423.





⁹⁶ *Id*.

189. Surely, TikTok seeks to increase its user base, but TikTok is laser focused on increasing the screen time of its current user base. Alex Zhu has stated of TikTok's predecessor, Musical.ly, "while many social platform teams focus on growing the number of users or downloads of their app, musical.ly has been focused primarily on increasing the engagement of existing users." 93

190. A TikTok internal document, leaked to the New York Times, provides "a revealing glimpse both of the app's mathematical core and insight into the company's understanding of human nature." The article describes that, "the document explains frankly that in the pursuit of the company's 'ultimate goal of adding daily active users, it has chosen to optimize for two closely related metrics in the stream of videos it serves: 'retention' — that is, whether a user comes back — and 'time spent.' The app wants to keep you there as long as possible." The article quotes Guillaume Chaslot, a former YouTube engineer who worked on YouTube's algorithm and later founded an algorithm transparency group, who stated, ""This system means that watch time is key. The algorithm tries to get people addicted[.]"

191. Additionally, as with other social media sites, TikTok employs the infinite scroll feature, which encourages users to continue scrolling the "For You" feed ad infinitum. The infinite scroll feature encourages users to scroll excessively, beyond the point of satiation. Endless scrolling is a technique used to prolong usage time, wherein the user gets in a zone or a "flow" and loses track of time. The endless scroll feature exploits IVR principles: "By endlessly scrolling down, the user is getting more and more immersed (perhaps also on a motor level as perceiving the scrolling as a playful activity) while not coming to a natural stop, where he/she might easily reconsider to quit or change the platform. The behavior of endless scrolling is enhanced, because the user finds from time to time something rewarding (e.g., a funny or interesting video), hence intermittent conditioning principles are

⁹³ Joseph Steinberg, *Meet Musical.ly, the Video Social Network Quickly Capturing the Tween and Teen Markets*, Inc. Magazine (June 2, 2016), https://www.inc.com/joseph-steinberg/meet-musically-the-video-social-network-quickly-capturing-the-tween-and-teen-m.html.

⁹⁴ Ben Smith, *How TikTok Reads Your Mind*, The New York Times (Dec. 5, 2021), https://www.nytimes.com/2021/12/05/business/media/tiktok-algorithm.html. ⁹⁵ *Id*.

⁹⁷ Christian Montag et al., *Addictive Features of Social Media/Messenger Platforms and Freemium Games against the Background of Psychological and Economic Theories*, 16(14) Int'l J. Env't Rsch. & Pub. Health 2612 (July 23, 2019), https://doi.org/10.3390/ijerph16142612.

observed here."98

192. Like Snapchat, TikTok employs playful, youth-oriented features, such as games, filters, lenses, and youth culture music, to keep young people engaged in the platform. TikTok algorithms keep track of user interaction with these features to further personalize, tailor, and hone user experience, to manufacture, given enough time, a perfect consumer of TikTok.

193. TikTok uses algorithms based on machine-learning that have the ability to track and analyze user behavior and then present back a torrent of videos that is both refined and regurgitated, personalized and yet overwhelmingly impersonal, in order to optimize user engagement in the platform. The platform "collect[s] data that the company aggregates and uses to refine its algorithms, which the company then uses to refine its platforms; rinse, repeat. This feedback loop, called the 'virtuous cycle of A.I.,' is what each TikTok user experiences in miniature."

standards and its public shaming and promises made before Congress, TikTok continues to advance its campaign to manipulate and exploit teens and adolescents using unparalleled technology. As widely reported, TikTok has deployed a new filter feature called "Bold Glamour" that appears to use a machine learning technology previously believed to be only available in laboratories. (https://www.washingtonpost.com/technology/2023/03/08/tiktok-bold-glamour-filter-effect-generative-ai/). According to AI researchers, unlike previous filter iterations, this new technology provides an unprecedented capacity to augment the user's facial features in a hyper-realistic way that leaves practically zero trace of its presence. (*Id.*). Whereas users viewing older such technology could see when beauty standards were being manipulated in some cases, this new technology makes that all but impossible. This does not just augment reality but seemingly replaces it entirely. "Bold Glamour" has been downloaded 16 million times as of the date of filing of this complaint. (*Id.*).

⁹⁸ Id

⁹⁹ Jia Tolentino, *How TikTok Holds Our Attention*, The New Yorker (Sept. 30, 2019), https://www.newyorker.com/magazine/2019/09/30/how-tiktok-holds-our-attention.

TikTok also has filters to allow users (often youth) to see how they would look if they were skinnier or fatter.



d. TikTok's Design is Addictive, Feeds Harmful Content to Minors, and Significantly Harms Youth Mental Health

- 195. Studies have shown that social media use, including TikTok use, can cause sleep deprivation¹⁰⁰ and can be addictive.¹⁰¹ Perhaps sleep deprivation is an unintended malady, or collateral side-effect of TikTok use, but not so for addiction. TikTok intentionally designed its platform to be addictive.
- 196. Not only is TikTok designed to be addictive, the algorithmic mechanisms by which users are fed videos trend toward harmful content. TikTok's algorithms direct the "For You" feature to focus on expressed interests of the user, which in and of itself can be good, bad, or neutral. However, for reasons discussed below, harmful content tends to be magnified, sending young users down a rabbit-hole of harmful content, sometimes to the point where a user's video stream becomes composed entirely of one harmful subject.
- 197. For young users of TikTok, algorithm directed curation of content tends to focus content to the lowest-common denominator—harmful and exploitive content, such as gambling, drugs, porn,

¹⁰⁰ Jessica C. Levenson et al., *The Association Between Social Media Use and Sleep Disturbance Among Young Adults*, 85 Preventive Med. 36–41 (Apr. 2016), https://www.sciencedirect.com/science/article/abs/pii/S0091743516000025.

¹⁰¹ Rob Barry et al., *How TikTok Serves up Sex and Drug Videos to Minors*, The Wall Street Journal (Sept. 8, 2021), https://www.wsj.com/articles/tiktok-algorithm-sex-drugs-minors-11631052944.

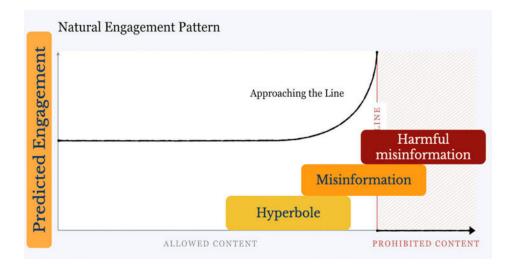
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extreme diets, misinformation, hate-speech, violence, self-harm and or depression. Although it is not entirely clear why this trend exists, it is observably true, as Facebook CEO, Mark Zuckerberg has noted in Facebook's research into this phenomenon. Zuckerberg coined the term "natural engagement pattern," which refers to the tendency for people to gravitate towards more provocative content when left to their own devices.



198. The company's response is to blame the victim. Zuckerberg stated that "when left unchecked, people will engage disproportionately with more sensationalist and provocative content. Our research suggests that no matter where we draw the lines for what is allowed, as a piece of content gets close to that line, people will engage with it more on average—even when they tell us afterwards they don't like the content." ¹⁰² In short, content that is more likely to violate Meta's standards is more likely to attract traffic, because the algorithms that maximize engagement reward inflammatory content.

199. The problem with algorithm directed curation is that looking at harmful content, even just a limited number of times, will tell the algorithm to push more content in that direction, creating a snowball effect. By this mechanism, a relatively innocent inquiry, given time, can be directed toward an all-encompassing preoccupation, fueled by an overwhelming bombardment of TikTok videos that are all focused on one specific harmful form of content.

¹⁰² Mark Zuckerberg, A Blueprint for Content Governance and Enforcement, Facebook (May 5, 2021), https://www.facebook.com/notes/751449002072082/.

200. In an internal TikTok document leaked to the New York Times, that author states that "a recent Wall Street Journal report demonstrated how TikTok relies heavily on how much time you spend watching each video to steer you toward more videos that will keep you scrolling, and that process can sometimes lead young viewers down dangerous rabbit holes, in particular toward content that promotes suicide or self-harm."¹⁰³ The person who provided the document stated that he/she "was disturbed by the app's push toward 'sad' content that could induce self-harm."¹⁰⁴

201. A 2021 Wall Street Journal (WSJ) investigative report created over 100 automated "bot" TikTok accounts, each with its own specific "interest" to simulate an individual's interest, but did not tell TikTok. The bots registered as users aged 13 to 15. The bots watched hundreds of thousands of videos to see how TikTok's algorithms responded. The report found that "some of the accounts ended up lost in rabbit holes of similar content, including one that just watched videos about depression. Others were served videos that encouraged eating disorders, sexualized minors and discussed suicide." The report observed that even bots that did initially linger on provocative content, eventually gravitated to more fringe content, stating that "[bots] with general mainstream interests got pushed to the margin as recommendations got more personalized and narrow." 106

202. The WSJ followed up on its investigation a couple of months later with an analysis of the videos served to the "bot" accounts. The analysis found that "through its powerful algorithms, TikTok can quickly drive minors—among the biggest user of the app—into endless spools of content about sex and drugs." One account served 569 videos about drug use to an account that the bot had registered as a 13-year-old. TikTok showed more than 100 videos from accounts recommending pornography sites and sex shops, while other videos encouraged eating disorders and glorified alcohol use. The WSJ showed TikTok 974 videos containing illicit subject matter, including drugs, pornography, allusions to pedophilia, and other adult content, which was served to accounts that the

¹⁰³ Ben Smith, *How TikTok Reads Your Mind*, The New York Times (Dec. 5, 2021), https://www.nytimes.com/2021/12/05/business/media/tiktok-algorithm.html. ¹⁰⁴ *Id*

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

¹⁰⁷ Rob Barry et al., *How TikTok Serves up Sex and Drug Videos to Minors*, The Wall Street Journal (Sept. 8, 2021), https://www.wsj.com/articles/tiktok-algorithm-sex-drugs-minors-11631052944.

bots had registered as users aged 13 to 15. Hundreds of these videos were served consecutively and in rapid succession.¹⁰⁹

203. In a subsection entitled, "the Addiction Machine," the September 2021 WSJ report referenced the earlier July 2021 investigative report, in which the WSJ observed "that TikTok only needs one important piece of information to figure out what a user wants: the amount of time you linger over piece of content. Every second you hesitate or rewatch, the app tracks you." According to Guillaume Chaslot, the former YouTube engineer who worked on YouTube's algorithm, stated that the problems seen on YouTube are "due to engagement-based algorithms, and on TikTok it's exactly the same—but it's worse," because, "TikTok's algorithms can learn much faster." 111

204. The linger-time metric is a powerful tool for TikTok, but it is dangerous for young users. Through analysis of the amount of time a user lingers on or watches a video, TikTok's algorithms have the power to learn about users' emotions, which may be hidden or possibly unarticulated emotions. TikTok's force-feeding of a never-ending stream of videos can "drive users of any age deep into rabbit holes of content—in which feeds are heavily dominated by videos about a specific topic or theme."

As articulated by Zuckerberg's "natural engagement pattern," discussed above, this type of algorithm directed curation rewards and gravitates toward more sensationalist, provocative, or inflammatory content.

205. Although TikTok is aware that its platform is amplifying and directing harmful content toward youth, TikTok continues with its business model because it maximizes the amount of screen time youth spend on the platform, which allows TikTok to sell more ads and increase its revenues.

4) Meta Has Substantially Contributed to the Youth Mental Health Crisis, by Intentionally Designing its Social Media Platform to be Manipulative and Addictive

206. The Meta platform, which includes Instagram, boasts more than 3.6 billion users worldwide. 113

 $^{^{109}}$ *Id*.

¹¹⁰ *Id*.

¹¹¹ *Id*.

¹¹² *Id*.

¹¹³ Felix Richter, *Meta Reaches 3.6 Billion People Each Month*, Statista (Oct. 29, 2021), https://www.statista.com/chart/2183/facebooks-mobile-users/.

207. Meta acquired Instagram, a social media platform launched in 2010, for \$1 billion in April 2012.

208. Instagram empowers users to share photos and videos with other users and to view other users' photos and videos on a user's "feed." An Instagram feed is an endless, virtually infinite stream of content.

- 209. Instagram experienced exponential user growth after being acquired by Meta. This period accounting for an explosion of users, from approximately 10 million monthly active users in September 2012 to more than one billion monthly active users worldwide today. In the United States, this accounts for approximately 160 million users.¹¹⁴
- 210. At the expense of the health and well- being of Instagram's users—especially the children using the platform—Instagram's user growth was driven by design and development changes to the Instagram platform that increased engagement.
- 211. In August 2020, Instagram began hosting and recommending short videos to users, called Reels. Like TikTok, Instagram allows users to view an endless feed of Reels that are recommended and curated to users by Instagram's algorithm.

Approximately 72 percent of children aged 13–17 in the United States use Instagram. ¹¹⁶ Instagram is without a doubt the most popular photo sharing platform in the United States among children.

a. Meta Markets Its Platforms to Youth

- 212. Met has expended significant resources to attract youth, teens, and preteens to its platform in an effort to maximize revenue and advertisement profits. Meta considers teenagers as a gateway to other customers including parents and younger siblings. Meta focuses its efforts in attracting youth by designing platform features and products designed to appeal to them.
- 213. Meta unambiguously targets teenagers. In 2018, Instagram committed nearly its entire \$390 million annual marketing budget towards teens. Internal Instagram marketing materials

AMENDED COMPLAINT

¹¹⁴ 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/.

¹¹⁵ Introducing Instagram Reels, Instagram (Aug. 5, 2020), https://about.instagram.com/blog/announcements/introducing-instagram-reels-announcement.

¹¹⁶ 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/.

reportedly show that Meta considered teens to be the "pipeline" for growth in the United States and that their continued use of Instagram was existentially important to the platform's future.¹¹⁷ Meta also targets preteens, whom it views as an untapped audience. Meta has endeavored to expand its platform audience to capture preteen users.

- 214. Internal Meta documents show that Meta has spent hundreds of millions of dollars in finding ways to appeal to children and maximize the time they spend on their platforms, including Instagram. Meta has dedicated research, analysis, and marketing efforts tasked specifically with this goal in mind. Instagram concentrates on the time that teens spend on the platform as a key data point in evaluating the success of its features.
- 215. When Meta acquired Instagram, the primary motivation was to make up for the decline of young audiences on Facebook. Meta understood that capturing children into its platform ecosystem was essential for its survival. Meta considered the decline of child user son Facebook to be an "existential threat" to the company in 2018, as reported from internal marketing materials. ¹¹⁸ In 2019, Meta indicated in internal documents that Instagram would be positioned to win young users and that growth could be secured if it kept up with that trajectory. ¹¹⁹
- 216. Meta maintains lax controls that prevent preteens from registering for its platforms. But Meta has routinely shirked any responsibility to prevent preteens from gaining access to its platform. Ostensibly, preteens cannot access the platform if they truthfully disclose their age. But Meta, despite launching scores of new features to attack, have made no meaningful efforts to provide for an effective age verification protocol. .¹²⁰ Meta acknowledges that preteens can simply

¹¹⁷ Sheera Frenkel *et al.*, *Instagram Struggles with Fears of Losing Its 'Pipeline': Young Users*, N.Y. Times (Oct. 26, 2021), https://www.nytimes.com/2021/10/16/technology/instagram-teens.html. ¹¹⁸ Georgia Wells *et al.*, *Facebook Knows Instagram Is Toxic for Teen Girls, Company Documents Show; Its own in-depth research shows a significant teen mental-health issue that Facebook plays down in public*, Wall St. J. (Sept. 14, 2021), https://www.wsj.com/articles/facebook-knows-instagram-is-toxic-for-teen-girls-company-documents-show-11631620739.

Georgia Wells et al., Facebook Knows Instagram Is Toxic for Teen Girls, Company Documents Show; Its own in-depth research shows a significant teen mental-health issue that Facebook plays down in public, Wall St. J. (Sept. 14, 2021), https://www.wsi.com/articles/facebook knows instagram is toxic for teen girls, company

https://www.wsj.com/articles/facebook-knows-instagram-is-toxic-for-teen-girls-company-documents-show-11631620739.

¹²⁰ Georgia Wells & Jeff Horwitz, Facebook's Effort to Attract Preteens Goes Beyond Instagram Kids, Documents Show; It has investigated how to engage young users in response to competition

lie about their age and register an account. Meta even has agreements with cell phone manufacturers and retailers to preinstall their platforms on devices with no regard for whether such devices will end up in preteens' hands. Meta indiscriminately promotes its platforms to teens and preteens.

217. Meta's has been wildly successful in attracting teens to its platform. In one study, it was reported that 62 percent of children ages 13–17 use the Instagram app.

b. Meta Intentionally Maximizes the Time Users Spend on its Platforms

- 218. Meta platforms, including Instagram, are optimized to exploit the neurochemical reward pathways of users. Children's underdeveloped brains are especially subject to these exploits. Children's increased desire for social development, affirmation and approval from others leads them to the bottomless, endless cycle of feed strolling, liking, posting, commenting, and reciprocating.
- 219. Meta employs IVR on its platforms in part through push notifications, emails, and other prompts to encourage users to be open its apps and be exposed to more content and advertising. Mets intentionally creates gaps in these notifications through multiple bursts rather than real time in order to exploit the neurological effects of IVR. These techniques are specifically designed to exploit users regardless of their mental health or welfare.
- 220. Meta's utilization of its "Like" button is at the core of its IVR strategy. Meta understands that the "Like" button receipts that people receive are a means of social comparison among users this process is described below.
- 221. Meta has instituted other IVR inspired features on its platforms, including Instagram, such as posting, stories, comments, tagging, and the "pull to refresh" button. Like a casino lever, a user can "pull to refresh" their feed to receive a batch of content and potential rewards.
- 222. Meta has instituted other featured on its platforms, including Instagram, that are inspired by reciprocity. These include read and write receipts, which reflect when a user is writing a message or had written a message. These features tap into the psychological impulse to remain engaged and to reciprocate information from other users.
 - 223. Meta platforms, including Instagram, are specifically designed to maximize user

from Snapchat, TikTok; 'Exploring playdates as a growth lever, Wall St. J. (Sept. 28, 2021), https://www.wsj.com/articles/facebook-instagram-kids-tweens-attract-11632849667.

engagement through likes, comments, and interacting with each other's content. Instagram populates each user's feed with content designed to induce a dopamine response. When users interact with another's content, the dopamine response is even greater because it generates the sort of affirmation and social reward the human brain is hardwired to pursue. Users are rewarded and encouraged to produce more and more content that will generate more responses and social rewards. This design creates chain reaction where users post popular content, receive rewards, and other users mimic this activity with their own content. Youth especially become trapped in "little dopamine loops," where there is a perpetual cycle of psychological compulsion to make more and more content.¹²¹

c. Meta's Algorithms Are Manipulative and Harmful

- 224. Through its use of complex algorithms, artificial intelligence and machine learning, Meta tries to make its platforms including Instagram as habit forming as possible. These algorithms produce user-specific content and recommendations that are bespoke for each individual user based on their activity. These algorithms produce the "feed" feature, suggested connections and people to follow, and other content. These recommendations and algorithm-based features are pushed relentlessly onto every user through their app, their devices, and other means of communications including email.
- 225. Meta's algorithms it deploys on Instagram make selective choices on what content to deliver to a user based on an array of factors and data points. Meta assumes, for example, that the user will spend more time on the platform if certain content correlated to other users of the same demographics is delivered to the user. Meta uses artificial intelligence to predict what a user's interests and preferences will be based on all its data points. Meta then delivers that data, prioritized by rank, based on what it learns and what it assumes about a user.
- 226. Meta's algorithms are designed and used chiefly to maximize user engagement and time of their platforms, including Instagram. Whereas Meta had previously organized its content chronologically on its platforms based on the recency of the content, now Meta instead prioritizes

¹²¹ Allison Slater Tate, *Facebook whistleblower Frances Haugen says parents make 1 big mistake with social media*, Today (Feb. 7, 2022), https://www.today.com/parents/teens/facebook-whistleblower-frances-haugen-rcna15256.

content based on a users' connections and their interactions with different content types. This method emphasizes social interaction and amplifies content based on the amount of engagement it receives. Meta considers whether content has been shared, liked, or commented on, whether a user has engaged with similar content or interacted with the content sharer in the past.

- 227. Meta's algorithms corral users into viewing the most intense and provocative content possible because that content causes the most user engagement due to its reactivity. This predominately includes negative content because such content is the most provocative. Thus, Meta drives its users towards negative content.
- 228. Meta knowingly promotes offensive, objectionable, and harmful content because it is profitable. Meta considers these content types to be its most valuable because they result in more emotional responses from users, which in turn results in more engagement and more time spent on the platform. But this content also harms users, especially children, as described further below. Meta is well aware of the negative effects of the content it deems to be most engaging, but it has deliberately prioritized its advertising sales and revenue over the wellbeing of its users. As described further below, Instagram delivers an endless flow of inflammatory and harmful content to its users via Meta's algorithm. Meta knows this, and the deliberately do nothing to stop it.
- 229. Child users of Meta's platforms, including Instagram, have a diminished decision making ability, reduced impulse control, emotional immaturity, and general lack of personal identity and psychological fortitude that comes with a fully developed brain. Meta has designed Instagram and its other platforms to target these vulnerabilities because they result in habit-forming behaviors that are lucrative for the company. Meta's algorithm-curated content is profoundly dangerous and harmful to children.

d. Meta's Harmful "Feeds"

- 230. Instagram shows each user an algorithm generated "feed" of specific content. A user's "feed" contains a sequence of photos, videos, and written content, together with advertising, based on a user's engagement with content on the platform. Meta specifically selects and targets a user with advertisements based on its algorithm.
 - 231. Meta's feed it deploys on Instagram is an endless stream of content with no start or

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end points, encouraging a user to not stop scrolling. The purpose of the endless stream is to remove the natural end points that terminate engagement with traditional mediums, such as those found in television shows, reading materials, video games, etc.

- 232. Meta uses ranking systems, escalation loops, and promotion of advertising to promote user engagement in carefully planned and assessed campaigns, informed by Meta's algorithm, to exercise even more control over a user's feed.
- 233. Meta's algorithm encourages excessive use and promotes harmful content, emphasizing the number and total time of engagement rather than the content or quality of each interaction. Meta uses private information it collects from child users to target them with precisely orchestrated content and recommendations. Meta's end goal is to provoke a reaction by its child users, even if it means delivering destructive content promoting harmful or dangerous behavior, such as content known to promote anorexia and depression. Meta's algorithm amplifies the most provocative content, so that a teenager who is just looking for a healthy recipe could be very quickly swept up into a rabbit hole of body image shaming content.
- In 2021, some members of the U.S. Senate created test accounts to examine for themselves whether Meta's algorithm was harmful to children. The results were staggering. Within just an hour of attributing their accounts to appear to be teenage girls, all the recommended content from Meta promoted pro-anorexia and eating disorder content, diets and plastic surgery. 122
- 235. Instagram features a special feed of photos and videos that users can only access during a temporary, 24-hour window. These "Stories" are designed to maximize user engagement by their ephemeral nature, because users feel like they do not want to "miss out." They also encourage more and more content creation because it introduces a temporal element to the reward system of likes and views.
- 236. Instagram also features a tool whereby users can view content by users they don't follow. This "Explore" feature uses a Meta algorithm to maximize user engagement through the content it selectively presents to the user. "Explore" is a kind of feed that can be perpetually

¹²² Vanessa Romo, 4 Takeaways from Senators' Grilling of Instagram's CEO About Kids and Safety, NPR (Dec. 8, 2021, 10:13 PM),

https://www.npr.org/2021/12/08/1062576576/instagrams-ceo-adam-mosseri-hears-senatorsbrush-aside-his-promises-to-self-poli.

scrolled with no natural endpoint, encouraging prolonged use.

237. Instagram also features a feed that presents short video posts by users not previously followed. This "Reels" feed play automatically and its content is selected by a Meta algorithm designed to maximize engagement time.

e. Meta Has Known For Years That Its Platforms Harm Children

238. In 2021, a former Meta employee and whistleblower leaked documents to journalists at the *Wall Street Journal* and government officials. These documents showed that Meta was aware as early as 2019 that Instagram caused body image issues to worsen for at least one third of teenage girls on the platform based on its own research and analysis. These documents settled what scientists had long suspected about Instagram's harmful impact on children, in addition to confirming that Meta was completely aware of this issue based on Meta's own studies. The leak confirmed that Meta designed Instagram in a way to risk the mental and physical health of children because that is what makes Meta profitable.

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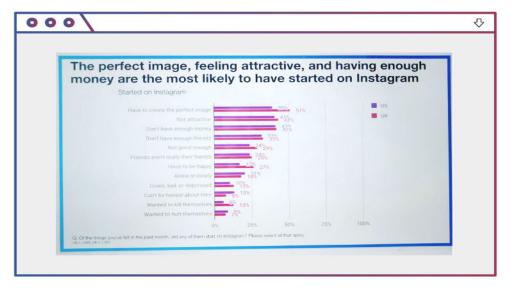
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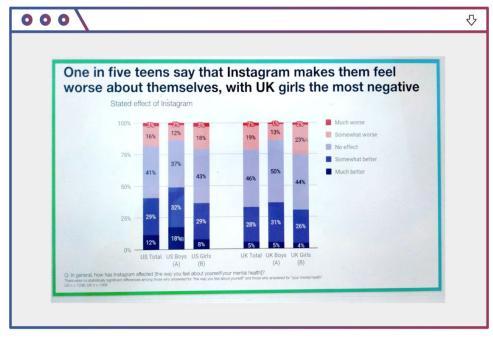
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¹²³ The *Wall Street Journal* and *Digital Wellbeing* published several of these documents in November 2021. *See* Paul Marsden, *The 'Facebook Files' on Instagram Harms—All Leaked Slides on a Single Page*, Digit. Wellbeing (Oct. 20, 2021), https://digitalwellbeing.org/the-facebook-files-on-instagram-harms-all-leaked-slides-on-a-single-page. Gizmodo also started publishing these documents in November 2021. *See* Dell Cameron *et al.*, *Read the Facebook Papers for Yourself*, Gizmodo (Apr. 18, 2022), https://gizmodo.com/facebook-papers-how-to-read-1848702919.

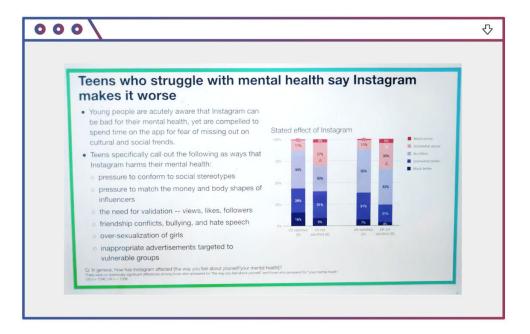
239. According to the testimony of a Meta whistleblower, at least as far back as 2019, Meta initiated a Proactive Incident Response experiment, which began researching the effect of Meta on the mental health of today's children. Meta's reporting showed a significant pattern of mental health issues in teenage girls who use Instagram. Those issues included suicidal ideation and eating disorders, which Meta's own research directly linked to the teenager's usage of Instagram. Meta refers to its prime target audience of tweens as "herd animals" who "want to find communities where they fit."





¹²⁴ See Facebook Whistleblower Testifies on Protecting Children Online, C-SPAN (Oct. 5, 2021), https://www.c-span.org/video/?515042-1/whistleblower-frances-haugen-calls-congress-regulate-facebook.

AMENDED COMPLAINT



- 240. Research (including Meta's own studies) has shown that teens blame Instagram for increases in anxiety and depression. Twenty percent of teens report that Instagram makes them feel worse about themselves, while forty percent say they felt unattractive after using Instagram. Of teens reporting suicidal ideation, six percent traced their thoughts of killing themselves to Instagram.
- 241. According to reports from Meta's own research, thirty-two percent of responding teenage girls said Instagram made them feel even worse when they had negative thoughts about their bodies. Similarly, sixty percent of teenage girls and forty percent of teenage boys reported experiencing negative social harm from Instagram. Approximately thirteen percent of teenage girls say Instagram has made them think of suicide or self-harm. Seventeen percent of teenage girls reported eating issues stemming from Instagram. Meta's own research and reporting makes plain that Meta was completely aware of these alarming trends.
- 242. Meta was not just aware of the alarming child mental illness trends tied to Instagram. Whistleblower documents show Meta knew specifically that the features it designed to encourage

¹²⁵ See Georgia Wells et al., Facebook Knows Instagram Is Toxic for Teen Girls, Company Documents Show, Wall St. J. (Sept. 14, 2021, 7:59 AM), https://www.wsj.com/articles/facebook-knows-instagram-is-toxic-for-teen-girls-company-documents-show-11631620739?mod=hp-lead-pos7&mod=article-inline.

maximum user engagement through psychological manipulation were key to the social harm Meta's platform was responsible for creating. Meta called the collection of its various features a "perfect storm" for teenager mental illness because of the "unprecedented scale" of social comparison related anxiety and depression they each generated. Meta was aware that each of these features intensified each other. The result was a finely tuned machine that made Meta incredibly wealthy and sent teen mental illness from social media skyrocketing.

VI. PLAINTIFFS HAVE BEEN NEGATIVELY IMPACTED BY DEFENDANTS' CONDUCT

A. Exacerbated by Social Media Use, Youth Mental Health Issues Detrimentally Affect Schools

- 243. During the Covid-19 pandemic, due to lockdowns, remote schooling, and physical isolation from friends, young people drastically increased their use of social media. One study explained its findings: "adolescents augmented their social media use, including general screen time. Also[,] higher levels of digital media addiction were reported during the pandemic. In general, higher social media use and media addiction were related to higher ill-being. Hence, adolescents are particularly at risk of experiencing mental health problems due to the augmented exposure to screen time and social media during the pandemic."
- 244. This use of social media is accompanied by detrimental mental health effects. According to a systematic review, summarizing evidence from thirty studies, "most studies have reported an association between ill-being and social media use.
- 245. Youth mental health services are provided through most public schools. As one of the primary providers of these services, public schools have been inundated by the increase in youth mental health issues, many associated with increased social media use. In the 2021–22 school year, nearly all public schools (96%) reported providing mental health services to their students. Fifty-six percent (56%) reported that they moderately agree or strongly agree that they can effectively provide mental health serviced to all students in need. Unfortunately, only a small percentage (8–10%) of schools were confident enough to say that they could effectively provide sufficient mental health services to all

¹²⁶ Teen Girls Body Image and Social Comparison on Instagram—An Exploratory Study in the U.S. at 34, Wall St. J. (Sept. 29, 2021), https://digitalwellbeing.org/wp-content/uploads/2021/10/Facebook-Files-Teen-Girls-Body-Image-and-Social-Comparison-on-Instagram.pdf.

students in need, with a whopping 88% of schools saying they do not strongly agree it is possible to meet the demand for such services. These schools sounded an alert, reporting that there is "an insufficient number of mental health professionals to manage the school's caseload, inadequate access to licensed health professionals, and inadequate funding."

- 246. Since the start of the Covid-19 pandemic, public schools have seen an increase in mental health issues among their students. Seventy percent (70%) of public schools reported an increase in the percentage of their students seeking help for mental health issues, 76% reported an increase in staff voicing concerns about students exhibiting symptoms of depression, anxiety, and trauma, and 67% of public schools reported having increased the amount of mental health services they provide.
- 247. The combination of the pandemic and the proliferation of social media use created a perfect storm, exacerbating the youth mental health crisis. In the 2021–22 school year, 64% of public schools reported that the pandemic played a major role in students performing below grade level. In 2022–23, public schools reported that 36% of their students on average were performing below grade level prior to the pandemic, while at the beginning of both the 2021–22 and 2022–23 school years, public schools reported on average half of their students were performing below grade level.
- 248. Absenteeism also became a problem during the Covid-19 pandemic. Public schools reported both student and teacher chronic absenteeism increased compared to prior school years. Seventy-two percent (72%) of schools reported an increase in chronic student absenteeism compared to pre-pandemic school years.
- 249. More than 8 in 10 public school reported that, due to the pandemic, students exhibited stunted behavioral and socioeconomical development. Sixty-one percent (61%) of schools perceived that general misconduct had increased. Schools reported substantial increases in the frequency of tardiness, skipping class, rowdiness, bullying, fighting, threats of fighting, use of electronic devices during class, and other classroom disruptions. Thirty-six percent (36%) of schools recorded an increase in vandalism.
- 250. One study surveyed nearly 300,000 students, from 845 schools, across 20 states, to provide insight into their perceptions of happiness, suicide, bullying, counseling programs, and the availability of access to help with mental health issues at school. The study found that "depression,

stress, and anxiety is the most prevalent obstacle to learning" for students in grades six through twelve. Shockingly, 13% of middle school students and 14% of high school students had dealt with thoughts of suicide or reported that they had considered it in the last year. Over 50% of students at every grade level cited depression, stress, and anxiety as an obstacle to learning.

- 251. A survey of adolescents who received mental health services in an educational setting found that, when asked why they received mental health treatment, 44.3% reported receiving services because they felt depressed and 15.8% reported thinking about or attempting suicide. The Anxiety and Depression Association of America reports that anxiety disorders affect 31.9% of adolescents between the ages of 13 and 18 years old and that research shows that untreated anxiety disorders in teenagers presents a higher risk that they will perform poorly in school, miss out on important social experiences, and engage in substance abuse.
- 252. As discussed in sections above, researchers and mental health professionals suspect there is a link between social media use and sleep deprivation, given the common symptoms they share. Two-thirds of U.S. high school students say the sleep less than eight hours per night on school nights. Insufficient sleep among both adolescents and younger children is linked to a variety of maladies, including obesity, diabetes, poor mental health, ADHD or attention deficit/hyperactivity disorder, behavioral issues, and poor academic performance.
- 253. Plaintiffs school districts bear the cost of the increased need for youth mental health services. Operating under pre-crisis budgets, Plaintiffs have scrambled to reallocate resources to address the mental health crisis. Plaintiffs have diverted time and funds to hire additional health care professionals, to train teachers and staff on how to educate students on their mental health, to develop mental health curriculum and materials, and to keep students and parents notified and informed about any mental health issues that arise.
- 254. Plaintiffs not only incur increased expenses to provide more mental health services, Plaintiffs also incur expenses to deal with a variety of collateral issues that have occurred as a result of the mental health crisis. Plaintiffs have diverted time and funds to deal with increased incidence of vandalism, property damage, investigation of crime, increased need for student disciplinary action, and increased security at the school site.

B. Plaintiffs Have Been Negatively Affected by Social Media

- 255. Plaintiff SMCBE is comprised of seven members who are elected to a four-year term. Among other essential tasks, the SMCBE approves policies, regulations, and curriculum for schools and education programs operated by the County Superintendent of Schools. County boards of education are established by the California Constitution. The SMCBE meets at the offices of the San Mateo County Office of Education ("SMCOE"), which are located on Twin Dolphin Drive in Redwood City, San Mateo County, California.
- 256. Plaintiff SMC Superintendent oversees the SMCOE. Plaintiff SMC Superintendent provides support to 23 school districts in San Mateo County and serves as an advocate and champion for public education. County superintendents of schools are established under the California Constitution and are considered county officers. Gov. Code § 24000.
- 257. Education Code Section 48645.2 states that the "county board shall provide for the administration and operation of juvenile court schools" either "by the county superintendent" or "by contract with the respective governing boards of the school districts in which the juvenile court school is located." Court schools are to be conducted in a manner prescribed by the county board of education to best accomplish the statutory purpose. The board adopts the curriculum and evaluates the educational program. Educ. Code § 48645.3.
- 258. County community schools generally serve those students who have been removed from school districts, whether by expulsion or referral. The county board has the discretionary authority to establish these community schools (Educ. Code § 1980). Once established, the county superintendent administers the schools, and the county board adopts the curriculum (Educ. Code §§ 1983, 1984).
 - 259. Thus, both the Plaintiffs are responsible for the Court and Community Schools.
- 260. The Court Schools Program operates two programs (Hillcrest School and Margaret J. Kemp Girls Camp) in partnership with the San Mateo County Probation Department. Court Schools serve students who have been ordered by the Court to Probation Department programs. The Community Schools program operates Gateway Community School and Canyon Oaks Youth Center, serving at-risk students from across the county. The Community Schools Program is designed for students who can benefit from an alternative school setting.

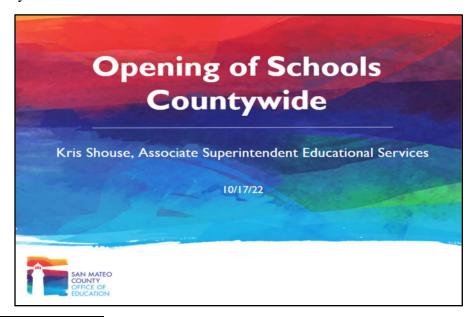
261. Plaintiffs' schools have been directly impacted by the mental health crisis among youth in its community.

262. Plaintiffs' communities are experiencing an unprecedented flood of cases of cases where youth report serious mental and emotional issues. These include but are not limited to uncontrollable anxiety, feelings of extreme sadness and hopelessness, depression, lack of interest in activities that used to give joy, suicidal ideation, and plans/attempts at suicide.

263. Suicide among young people is the second leading cause of death in California. 127 California is following a national trend where suicide is replacing homicide as the second leading cause of death nationally after decades of holding that grim distinction unchallenged. 128

264. Behavioral problems in Plaintiffs' schools have increased because of growing anxiety and depression caused by Defendants' platforms.

265. For this reason, Plaintiffs' schools have had to commit additional resources than they otherwise would have, including more counselors and mental health resources, to address the surge in mental, emotional, and social issues among students. In response to the struggles of San Mateo's student population the San Mateo County Office of Education launched training and support as the 2022–23 school year started:



United Health Foundation, America's Health Rankings: Health of Women and Children (2022),
 https://www.americashealthrankings.org/explore/health-of-women-and-children/measure/teen_suicide/state/CA.
 Alicia VanOrman & Beth Jarosz, Suicide Replaces Homicide as Second-Leading Cause of Death Among U.S. Teenagers, Public Reference Bur. (June 9, 2016), https://www.prb.org/resources/suicide-replaces-homicide-as-second-leading-cause-of-death-among-u-s-teenagers/

Welcoming Students Back

"We all may have been in the same storm but we have have different boats by which we experienced that storm."

- National Education Association
 - o 214,000 children lost a parent (grieving and missing guidance)
 - o 17 million children struggling with food, up 6 million from before pandemic
- Mental Health America (Youth Data Ranking 2022) CA Data:
 - One major depressive episode 15.2%, 459,000
 - Severe depressive episode 9.8%, 284,000

Preparing to Support through Trainings

- Big 5 Protocols 15 districts, 26 private/charters, and 12 community partners
- Student Threat Assessment and Sucide Prevention Trainings- 12 districts, 3 public/charters, 2 community partners
- 504's, Investigations, Creating Safe Schools, Respect 24/7, Restorative Practices
- We have trained more districts/agencies then the number of school days this year

Portion of Start of School Year Presentation

- 266. In addition to the aforementioned resources, Plaintiffs' schools increased the number of onsite providers, universal screeners, and wellness counselors, a step funded with resources allocated in the Mental Health Student Service Act. This action aims to address student stress and trauma through social-emotional learning, resiliency building programs, and specialized school-site behavioral health services.
- 267. Upon seeking assistance from the Bay Area Urban Areas Security Initiative ("BAUASI"), Plaintiffs' schools were further granted a sum of nearly \$707,000 to facilitate threat assessment case management tool development and enhance the functioning of their anonymous reporting system.
- 268. Plaintiffs' schools have also had an all-time increase in absenteeism, which they have had to address by expending additional resources than they otherwise would have. The chronic absenteeism rates across Plaintiffs' schools are as follows: Redwood City Elementary School (27.4%); Cabrillo Elementary School (15.7%); and Pescadero Elementary School (33.1%). Schools in San Mateo-Foster City recorded 20.8% absenteeism and those in South San Francisco recorded a shocking 24.7% of all students showing chronic absenteeism.
- 269. The magnitude of youth mental health issues has reached crisis levels in the United States and California public schools have felt the effects. Plaintiffs' students confront mental health

issues now more than ever before.

- 270. According to the Public Policy Institute of California, a self-described independent, objective and non-partisan research group, about one-third of California adolescents ages 12–17 experienced serious psychological distress between 2019 and 2021, and adolescent suicide among Californians ages 12–17 increased in the first year of the pandemic. Suicide was the second leading cause of death of children and young people ages 10–24 in California in 2020. Suicide was the second leading
- 271. Plaintiffs do not have sufficient resources to effectively deal with the increased occurrence of mental health issues among the youth, but is attempting to make do by reallocating resources, developing additional resources, and raising additional funds. To address students' mental health issues, resources that were intended to deliver education services have been diverted by Plaintiffs, in order to: increase training for teachers and staff to identify symptoms and warning signs of students exhibiting mental health issues; train teachers, staff, parents, and the community about the potential and inherent dangers of social media use; educate students about the dangers of using Defendants' social media products; update school policies and materials to address use of Defendants' social media products; and in order to hire additional personnel, including counselors and medical professionals to address students' mental health issues.
- 272. Due to Defendants' conduct, the number of Plaintiffs' students facing behavioral, emotional, social, and mental health disorders, has proliferated markedly. This increase in mental health issues is associated with additional collateral effects, such as misconduct, vandalism, bullying, fighting, harassment, absenteeism, both among staff and students, and students' diversion of attention from the classroom to Defendants' social media products. There is an increased incidence of students paying attention to Defendants' social media products, while in class, in lieu of being mentally present in the classroom.
- 273. Aside from the expenses associated with managing youth mental health issues, Plaintiffs must also expend resources to deal with the increased frequency of these collateral effects.

¹²⁹ Shalini Mustala & Paulette Cha, *Investing in Schools to Address Covid-19's Toll on Youth Mental Health*, Public Policy Inst. of California (Dec. 5, 2022), https://www.ppic.org/blog/investing-in-schools-to-address-covid-19s-toll-on-youth-mental-health/.

¹³⁰ United Health Foundation, *America's Health Rankings: Health of Women and Children* (2022), https://www.americashealthrankings.org/explore/health-of-women-and-children/measure/teen_suicide/state/CA. AMENDED COMPLAINT

Consequently, Plaintiff schools have had and or will have to reallocate resources in order to: pay staff to devote more time addressing bullying and fighting; increase security on school grounds; respond to and or investigate vandalism, threats, or other crimes; increase disciplinary services, such as detention; divert time that teachers and staff devote to providing education to time spent policing the classroom; make sure students are not engaging in social media during class; confiscating mobile devices on which students engage in Defendants social media products; divert time to meet with students and parents to keep parents informed of students' misconduct; and repair property damage that may result from students acting out.

- 274. Plaintiffs do not have enough mental health professionals to keep up with the mental health needs of their students. As previously detailed, there is a nationwide shortage of child and adolescent psychiatrists according to the American Academy of Child and Adolescent Psychiatry. The school counselors at our local schools are struggling to address the harms brought by social media.
- 275. Plaintiffs have been pushed to the brink of is its capacity to effectively manage the youth mental health crisis in its district. Plaintiffs' staff makes a valiant effort to cope with increased demand for mental health services. If Plaintiffs have not already reached the limit of its capacity to handle the crisis, it is soon approaching a breaking point.
- 276. Most egregiously, since 2020, Plaintiffs' schools have had 72 Student Threat Assessment Training ("STAT") Level 2 cases, 12 of which (16.7%) were a direct result of negative social media use.
- 277. Lawmakers in California are aware of the effect social media platforms have on youth mental health and are beginning to take action. On August 30, 2022, the California state legislature passed Assembly Bill 2273, the Age-Appropriate Design Code Act ("AADCA"). Governor Newsom signed the bill into law on September 22, 2022. This bill is aimed at protecting the privacy of children under 18 years of age and applies to any website or online service that is likely to be accessed by a child under 18 years of age. It is important to note that the California AADCA defines children as consumers who are under 18 years of age, and protects broader age range than the Federal Children's

¹³¹ The California Age-Appropriate Design Code Act, A.B. 2237, 117th Cong. (2022), https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB2273.

Online Privacy Protection Act ("COPPA"), which defines children as individuals under the age of 13.

- 278. The AADCA very likely applies to all Defendants' social media platforms because the law applies to all online sites "likely to be accessed by children." ¹³²
- 279. The AADCA requires online businesses with annual revenues of over \$25 million to complete a Data Protection Impact Assessment ("DPIA") to identify the material risk of new online products, services, or features. These assessments are meant to determine whether the design of an online product, services, or feature could expose children to harm, including "whether algorithms used by the online product, service, or feature could harm children."¹³³
- 280. Certain clauses of the assembly bill provide clear evidence that lawmakers are aware of the dangers that online media pose to the mental health and well-being of young people. The bill states, "as children spend more of their time interacting with the online world, the impact of the design of online products and services on children's well-being has become a focus of significant concern."¹³⁴
- 281. Furthermore, lawmakers recognize that the "design" of online products, including their secretive algorithms, are of great concern. This is evidenced by the reference to "dark patterns" in the following clause: "A business that provides an online service, product, or feature likely to be accessed by children shall not ... [u]se dark patterns to lead or encourage children to provide personal information beyond what is reasonably expected to provide that online service, product, or feature to forego privacy protections, or to take any action that the business knows, or has reason to know, is materially detrimental to the child's physical health, mental health, or well-being."¹³⁵
- 282. President Biden's State of the Union addresses, both in 2022 and 2023, acknowledged that there is a mental health crisis in America. In his 2022 State of the Union address, President Biden emphasized the need to "get all Americans the mental health services they need." He reemphasized this in his 2023 State of the Union address, repeating a line nearly identical to what he said a year earlier: "[w]e must finally hold social media companies accountable for the experiment they are

¹³² *Id*.

¹³³ *Id*.

¹³⁴ *Id*. ¹³⁵ *Id*.

¹³⁶ President Joe Biden, *State of the Union Address* (Mar. 1, 2022), https://www.whitehouse.gov/state-of-the-union-2022/.

running on our children for profit."¹³⁷ Further mirroring statements from his 2022 address, President Biden acknowledged that young people are struggling with mental health issues, including "bullying, violence, trauma, and the harms of social media," adding that "we owe them greater access to mental health care at their schools."¹³⁸ President Biden reiterated his 2022 statement, that it's time to strengthen privacy protections, ban targeted advertising to children, and stop tech companies from collecting person data on children.¹³⁹

283. That American lawmakers have acknowledged social media's link to the mental health crisis gives credence to and substantiates Plaintiffs claims. Legislation regarding social media's effect on youth mental health has been enacted. But today, as it stands, Plaintiffs are presently suffering from insufficient resources to deal with the youth mental health crisis that Defendants' have greatly contributed to. Rather than the public bearing the burden, Defendants must compensate Plaintiffs for the harm that they have caused.

1) Social Media Caused Vandalism in San Mateo Schools

284. As noted, the harm caused by social media companies to schools and students is not confined to student social media addiction. Plaintiffs' schools, like other schools across America have become plagued with never-before-seen levels of mental and emotional health incidents, disciplinary and attendance issues, and a pervasive social breakdown. As one example of specific harm to San Mateo County schools, San Mateo Schools were vandalized as a result of the TikTok "Devious Lick" Challenge that went viral on TikTok in early September. The so-called "Devious Lick" Challenge encouraged students to damage and steal school property. The "Challenge" started with a video of children stealing masks, which escalated to stealing mirrors, bathroom equipment and much more. Aragon High School, which is part of San Mateo Union High School District was vandalized at the start of the 2022–23 school year and the boys' bathrooms were closed to be cleaned of the vandalism (and to prevent more damage) between the weeks of September 23 and October 18. The school paper

¹³⁷ President Joe Biden, *State of the Union Address* (Feb. 7, 2023), https://www.whitehouse.gov/state-of-the-union-2023/).

¹³⁸ *Id*.

¹³⁹ President Joe Biden, *State of the Union Address* (Mar. 1, 2022), https://www.whitehouse.gov/state-of-the-union-2022/.

ran a report and illustration: 140

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New York Post: The 24 craziest TikTok challenges so far – and the ordeals they've caused

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AThe AGON OUTLOOK

TikTok "Devious Lick" challenge and vandalism around campus

Marlee Cherkas 3 October 28, 2021 3 min read



Kyle Delmo / Aragon Outlook

2) School Lock Downs Tied to Social Media in San Mateo Schools

285. In addition to vandalism, social media has been tied to active shooter hoaxes. In October 2022, two San Mateo County high schools—Woodside High School and South San Francisco High School—had to go into lockdown when hoax phone calls to police departments reported possible active shooters on the campuses.

Hoax calls send schools into lockdown, 2 in San Mateo County

Bay Area law enforcement responds to multiple false emergency reports

Staff and wire report Oct 13, 2022 💂 0

286. Several school officials made statements highlighting the trauma caused to the students and faculty. John Baker, President of the South San Francisco Unified School District Board of Trustees, stated:

Now that I am done processing my relief, I need time to process my anger. We have students, families and staff that have suffered real hurt today in terms of their mental health.... We had first responders on campus, under stress as well. What if there'd been a friendly fire incident? This incident, while a hoax, could've been the cause of actual physical harm.¹⁴¹

287. Unfortunately, false reports of school shootings were called into numerous Bay Area schools and schools through the area were placed on heightened alert.

VII. DEFENDANTS' CONDUCT IS NOT SHIELDED BY THE COMMUNICATIONS DECENCY ACT

- 288. Defendants may raise as a defense section 230 of the Communications Decency Act ("CDA"), which provides: "No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider." 47 U.S.C. § 230(c)(1). Section 230 is not a defense here.
- 289. The activities of a "publisher," within the meaning of Section 230, generally involve traditional editorial functions. Plaintiffs expressly disavows any claims or allegations that attempt to hold Defendants liable as the publisher or speaker of any information provided by third parties.
- 290. Section 230 does not bar Defendants from being held liable for their conduct alleged in this Complaint. Plaintiffs are not alleging Defendants are liable for publishing third-party content on their platforms but, rather, for Defendants' own actions. Defendants have knowingly designed their platforms to recommend, promote, and otherwise aggressively push harmful third-party content to youth, and also to manipulate youth into remaining on Defendants' platforms (and thereby exposing youth to the harmful content recommended and promoted by Defendants) for as long as possible. Plaintiffs' claims do not seek to hold Defendants liable as "publisher[s]" of third-party content because recommending and promoting third-party content is not a traditional editorial function.

https://www.smdailyjournal.com/news/local/hoax-calls-send-schools-into-lockdown-2-in-san-mateo-county/article 515c34aa-4aad-11ed-827f-cbf46d757796.html.

291. Plaintiffs' claims arise from Defendants' roles as designers and marketers of harmful social media platforms that have injured the health of its community. The nature of Defendants' platforms at issue in this case centers around Defendants' use of algorithms and other design features that promotes users to become addicted to their platforms. The algorithms Defendants employ adapt to the social media activity of individual users to promote whatever content will trigger a particular user's attention in order to maximize their time on Defendants' platforms. For the purposes of Section 230, Defendants' algorithms are procedural rather than substantive based-content and are content-neutral.

292. Defendants are liable for the content they create. Defendants' recommendations of third-party content are Defendants' own content, not the content of third parties. Defendants also create other content, such as Snapchat filters (which alter body features) and Defendants' emails and notifications to youth including material they create which often promotes certain harmful content. Plaintiffs do not seek to hold Defendants liable as publishers of information provided by third party content providers, but rather Plaintiffs seek to hold Defendants liable for distributing material they know or should know that the material is harmful and/or unlawful.

VIII. CAUSES OF ACTION

COUNT ONE

PUBLIC NUISANCE

- 293. Plaintiffs incorporate by reference all preceding paragraphs as though set forth fully herein.
 - 294. Plaintiffs bring this claim under California public nuisance law as to all Defendants.
- 295. Under California law, "anything which is injurious to health ... or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property ... is a nuisance." Cal. Civ. Code § 3479. "A public nuisance is one which affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal." *Id.* § 3480.
- 296. Plaintiffs, in the operation of their schools, have a right to be free from conduct that endangers their health and safety, and the health and safety of their employees and students.

- 297. Defendants have caused a mental health crisis in Plaintiffs' schools.
- 298. Because of the mental health crisis caused by Defendants, Plaintiffs' schools can no longer operate, use, or enjoy their property free from injury or interference. This injury and interference is both substantial and unreasonable.
- 299. Defendants have engaged in conduct, acts, and omissions which unreasonably and injuriously interfere with the public health and safety of Plaintiffs schools and community. This conduct created substantial and unreasonable annoyance, inconvenience, and injury to the public, endangered or injured the health and safety of Plaintiffs' employees and students. This conduct resulted from Defendants' continued operation, management, and promotion of their respective platforms, which have been directed at Plaintiffs' students and in a manner that substantially interferes with the functions and operations of Plaintiffs' schools, students, employees, and the communities Plaintiffs serve.
 - 300. Plaintiffs did not consent to Defendants' conduct.
- 301. Each Defendant has created or assisted in the creation of a condition, or permitted a condition to exist that is injurious to the health and safety of Plaintiffs' schools and their students and employees, interfering with the comfortable enjoyment of Plaintiffs' property, as well as the life and property of the Plaintiffs' employees, students, and the communities Plaintiffs serve.
- 302. The health and safety of the Plaintiffs' students and employees, including those who use, have used, or will use Defendants' platforms, as well as those affected by others' use of their platforms, are matters of substantial public interest and of legitimate concern to Plaintiff.
- 303. Defendants' conduct has affected and continues to affect a substantial number of people within Plaintiffs' schools and is likely to continue causing significant harm.
- 304. Defendants' conduct has directly caused a significant interference and disruption of public health, safety, and order. Defendants' conduct is ongoing and continues to produce permanent and long-lasting damage.
- 305. The harm to youth mental health and the corresponding impacts to public health, safety, and the welfare of the Plaintiffs' schools, students, employees, and the communities Plaintiffs serve outweighs any social utility of Defendants' wrongful conduct.

306. The rights, interests, and inconvenience to Plaintiffs' schools, students, employees, and the communities Plaintiffs serve far outweighs the rights, interests, and inconvenience to Defendants. Indeed, Defendants have profited tremendously from their wrongful conduct.

- 307. But for Defendants' actions, Plaintiffs' students would not use social media platforms as regularly or for such periods of time, would not be overwhelmed with manipulative features and harmful content to the same degree, and the public health crisis that exists currently as a result of Defendants' conduct would have been avoided.
- 308. Defendants knew or reasonably should have known that their acts and omissions involved in the development, maintenance and promotion of their platforms would cause students to use their platforms excessively. Defendants knew or reasonably should have known that their tactics to encourage user engagement with their platforms were designed to appeal to youth, and that their acts and omissions intended to increase youth use of their platforms were causing harm to youth and to schools, including to Plaintiffs and Plaintiffs' students.
 - 309. Defendants' conduct described herein violated the following state laws:
 - (a) the California Consumer Legal Remedies Act, Cal. Civ. Code § 1750 et seq.
 ("CLRA"), which prohibits "methods of competition and unfair or deceptive acts
 or practices undertaken by any person in a transaction intended to result or which
 results in the sale or lease of goods or services to any consumer";
 - (b) the California Unfair Competition Law, Cal. Bus. & Prof. Code § 17200 et seq. ("UCL"), which prohibits unlawful or unfair acts or practices, which constitute unfair competition; and
 - (c) the California False Advertising Law, Cal. Bus. & Prof. Code § 17500 et seq. ("FAL"), which prohibits the making or dissemination of information which is untrue or misleading with the intent to induce reliance in connection the disposition of property or services.
- 310. The public nuisance caused by Defendants was reasonably foreseeable, including the injuries to Plaintiffs. Among those reasonably foreseeable injuries are financial and economic losses incurred by Plaintiffs. Defendants knew or reasonably should have known that their acts and omissions

would create a public nuisance.

- 311. Alternatively, each Defendant's conduct was a substantial factor in bringing about the public nuisance described herein. By knowingly developing and operating their platforms in a manner intended to maximize the time youth spend on their respective platforms, Defendants directly enabled the widespread, excessive, and habitual use of their platforms and the resulting public nuisance affecting Plaintiffs and Plaintiffs' schools and communities. By profiting from and further facilitating these conditions and the public nuisance that it caused, Defendants each made direct contributions to the public health crisis and injury to Plaintiffs.
- 312. Defendants each permitted the conditions to exist that caused the allegations described herein.
 - 313. Defendants directly facilitated the spread of the youth suicide crisis.
- 314. Defendants' conduct is especially injurious to Plaintiffs because, as a direct and proximate cause of Defendants' conduct creating or substantially contributing to a public nuisance, Plaintiff and their students and employees have sustained and will continue to sustain substantial injuries.
- 315. Plaintiffs have taken numerous steps to mitigate the harm and disruption caused by Defendants' conduct:
 - (a) Providing additional staff training to recognize and build awareness of Defendants' harmful platforms and their harmful consequences;
 - (b) Hiring additional staff and personal to alleviate the youth mental health crisis, including mental, emotional, and social harm caused to students and members of the community;
 - (c) Building new lesson plans and additional efforts to build awareness and educate students and members of the community about Defendants' harmful platforms and related negative consequences;
 - (d) Remediating damaged to property proximately caused by Defendants' platforms;
 - (e) Providing additional staff training to identify and address students in crisis or otherwise negatively harmed by Defendants' platforms;

- (f) Mitigating negative effects to traditional pedagogical goals and academics proximately caused by Defendants' platforms;
- (g) Identifying and confiscating devices containing Defendants' platforms where banned from school, including meeting with parents to address said issues;
- (h) Addressing the growing personal safety risks caused by bullying, threats, and other antisocial behaviors proximately caused by Defendants' platforms;
- (i) Deploying and repurposes supplementary resources to alleviate and address mental, emotional, and social health issues;
- (j) Diverting or obtaining more resources to address growing disciplinary issues and anti-bullying campaigns;
- (k) Performing administrative tasks, amending policy, etc., to address the hazards and disruptions caused by Defendants' platforms in school; and
- (l) Addressing the increased incidence of vandalism, property damage, investigation of crime, increased need for student discipline including detention, and increased school security.

Fully abating the nuisance resulting from Defendants' conduct will require much more than these steps.

- 316. Plaintiffs respectfully requests an order providing for abatement of the public nuisance that Defendants have created or assisted in the creation of, and enjoining Defendants from future conduct contributing to the public nuisance described above.
- 317. Plaintiffs also seek actual, compensatory, and all other available damages, as well as the maximum statutory and civil penalties permitted by law.
- 318. Defendants are jointly and severally liable because they have acted in concert with each other and because Plaintiffs are not at fault.
- 319. Defendants' conduct, as described above, was intended to serve their own interests despite knowing or having reason to know and consciously disregarding a substantial risk that their conduct was likely to significantly injure the rights of others, including Plaintiffs.
- 320. Defendants had full knowledge that their platforms endangered youth. Indeed,
 Defendants quantified their successful business strategy based on the level of excessive engagement by

youth on their platforms with a conscious understanding of the resulting substantial risk and danger that would be imposed on youths. Defendants made a deliberate choice not to take any action, to warn, or to inform the unsuspecting public, including Plaintiffs and Plaintiffs' students, about this known risk and danger. Defendants' willful, knowing, and reckless conduct therefore warrants, and Plaintiffs seek, an award of aggravated or punitive damages.

COUNT TWO

NEGLIGENCE

- 321. Plaintiffs incorporate by reference all preceding paragraphs as though fully set forth herein.
- 322. Defendants owed Plaintiffs a duty to not expose Plaintiffs to an unreasonable risk of harm, and to act with reasonable care as a reasonably careful person and/or company would act under the circumstances.
- 323. At all times relevant to this Complaint, Defendants owed a duty to consumers and the general public, including Plaintiffs, to exercise reasonable care in the creation, production, maintenance, distribution, management, marketing, promotion, and delivery of Defendants' social media platforms, including the duty to take all reasonable steps necessary to design, research, market, advertise, promote, operate, and distribute their platforms in a way that is not unreasonably dangerous to consumers users, including children.
- 324. At all times relevant to this Complaint, Defendants owed a duty to consumers and the general public, including Plaintiffs, to exercise reasonable care in the creation, production, maintenance, distribution, management, marketing, promotion, and delivery of their social media platforms. This duty included a duty to provide accurate, true, and correct information about the harms and risks of using Defendants' platforms. This duty also included a duty to give accurate and complete warnings about the potential adverse effects of users including youth engaging in extended use of Defendants' platforms, and the dangers and risks from their algorithm-driven content recommendations and other harmful features.
- 325. At all times relevant to this Complaint, Defendants knew or, in the exercise of reasonable care, should have known of the hazards and dangers of their respective social media

platforms and specifically, the health hazards their platforms posed to youth in particular, especially prolonged use of such platforms where exposure to harmful content was forseeably likely.

- 326. Accordingly, at all times relevant to this Complaint, Defendants knew or, in the exercise of reasonable care, should have known that use of Defendants' social media platforms by youth would create a dangerous and unreasonable risk of injury to Plaintiffs.
- 327. Defendants also knew or, in the exercise of reasonable care, should have known that users and consumers of Defendants' social media platforms were unaware of the risks associated with the use of Defendants' platforms, or the magnitudes of such risks. These risks include, but are not limited to, the risks of excessive social media use and the risks stemming from the likelihood that algorithm-based recommendations would expose teen and adolescent users to content that is violent, sexual, or encourages self-harm, among other types of harmful content, or that mental and emotional illness could result.
- 328. As such, Defendants, by actions and inactions, representations and omissions, breached their duty of reasonable care, failed to exercise ordinary care, and failed to act as a reasonably careful person and/or company would act under the circumstances in the creation, production, maintenance, distribution, management, marketing, promotion, and delivery of their social media platforms, in that Defendants' creation, production, maintenance, distribution, management, marketing, promotion, and delivery social media platforms that Defendants knew or had reason to know would negatively impact the mental health of consumers, particularly youth, and the schools they attend, and failed to prevent or adequately warn of these risks and injuries.
- 329. Despite their opportunity, ability, and means to investigate, study, and test their social media platforms and to provide adequate warnings, Defendants failed to take these actions. Defendants have wrongfully concealed information and have made false and/or misleading statements concerning the safety and use of Defendants' social media platforms.
 - 330. Defendants' negligence includes, but is not limited to:
 - (a) Creating, producing, maintaining, distributing, managing, marketing, promoting, and delivering their platforms to the general public and Plaintiffs' students without thorough and adequate pre- and post-market testing;

- (b) Failing to sufficiently study and conduct necessary tests to determine whether or not their platforms were safe for youth users;
- (c) Failing to use reasonable and prudent care in the creation, production,
 maintenance, distribution, management, marketing, promotion, and delivery of
 their platforms to avoid exposure to risk and danger, such as excessive usage by
 youth and exposure to harmful content;
- (d) Failing to act on data, reports, analysis, opinions, or information known, or that which should have been known in the exercise of reasonable diligence, pertaining to Defendants' platform and the risks and hazards posed to youth.
- (e) Designing their social media platforms to encourage excessive amounts of time that users spend on their platforms and causing mental and emotional harm, particularly among youth, by way of algorithm-based feeds, social reciprocity, and IVR;
- (f) Failing to employ adequate safeguards in the creation, maintenance, and operation of their platforms to ensure they would not encourage excessive and harmful use;
- (g) Failing to take reasonably adequate steps to prevent their platforms from being promoted, distributed, and used by minors under the age of 13;
- (h) Designing, engineering, developing, and maintaining their platforms to appeal to children, adolescents and teens, where such minors lack the same cognitive development as adults and are particularly vulnerable to social reward-based manipulative tactics like IVR and social reciprocity.
- (i) Failing to disclose to or warn Plaintiffs, users, consumers, and the general public of the negative mental and emotional health consequences associated with their platforms and social media generally, especially for children and adolescents;
- (j) Failing to provide reasonably adequate warnings to child and adolescent users or the parents of such minors, where Defendants could reasonably foresee such minors would use their platforms;

- (k) Failing to disclose to Plaintiffs, users, consumers, and the general public that Defendants' platforms are designed to maximize the time users, particularly youth, spend on Defendants' platforms and that such platforms cause negative mental, emotional, and social health consequences;
- (l) Failing to warn users and the general public, including Plaintiffs and students at Plaintiffs' schools, of the true risks of using Defendants' platforms;
- (m) Advertising, marketing; and recommending Defendants' platforms while concealing and failing to disclose or warn of the dangers known by Defendants to be associated with, or caused by, youth use of Defendants' platforms;
- (n) Continuing the creation, production, maintenance, distribution, management, marketing, promotion, and delivery of Defendants' platforms with knowledge that Defendants' platforms are unreasonably unsafe, addictive, and dangerous to youth mental and emotional health;
- (o) Failing to change Defendants' algorithms, which are used to recommend content to users, in a manner that would no longer concentrate on maximizing the amount of time users spend on Defendants' platforms notwithstanding the reasonably foreseeable mental and emotional safety risks this posed to Defendants' youth users;
- (p) Failing to adequately limit Defendants' algorithm-based recommendations to filter out content that expose child and adolescent users to content that is violent, sexual, or encourages self-harm, among other types of harmful content;
- (q) Representing that Defendants' platforms were safe for children, adolescent, and teen users when, in fact, Defendants knew or should have known that the platforms presented a clear and present danger for youth's mental and emotional health; and
- (r) Committing other failures, acts, and omissions set forth herein.
- 331. Defendants knew or should have known that it was foreseeable that Plaintiffs would suffer injuries as a result of Defendants' failure to exercise reasonable care in creating, producing,

maintaining, distributing, managing, marketing, promoting, and delivering Defendants' platforms, particularly when Defendants' platforms were intentionally and deliberately designed, maintained, and marketed to maximize the time youth spend on Defendants' platforms.

- 332. The scale and magnitude of injuries caused by the intended usage of Defendants' platforms could not be known by Plaintiffs.
- 333. Defendants' negligence helped to and did produce, and was the proximate cause of, the injuries, harm, and economic losses that Plaintiffs suffered and will continue to suffer. Such injuries, harm, and economic losses would not have happened but for Defendants' negligence as described herein.
- 334. The mental health crisis caused and/or significantly contributed to by Defendants has caused a major disruptive behavioral situation in Plaintiffs' schools, and Plaintiffs have had to take steps to mitigate the harm and disruption caused by Defendants' conduct, including the following:
 - (a) Providing additional staff training to recognize and build awareness of Defendants' harmful platforms and their harmful consequences;
 - (b) Hiring additional staff and personal to alleviate the youth mental health crisis, including mental, emotional, and social harm caused to students and members of the community;
 - (c) Building new lesson plans and additional efforts to build awareness and educate students and members of the community about Defendants' harmful platforms and related negative consequences;
 - (d) Remediating damaged to property proximately caused by Defendants' platforms;
 - (e) Providing additional staff training to identify and address students in crisis or otherwise negatively harmed by Defendants' platforms;
 - (f) Mitigating negative effects to traditional pedagogical goals and academics proximately caused by Defendants' platforms;
 - (g) Identifying and confiscating devices containing Defendants' platforms where banned from school, including meeting with parents to address said issues;
 - (h) Addressing the growing personal safety risks caused by bullying, threats, and

other antisocial behaviors proximately caused by Defendants' platforms;

- (i) Deploying and repurposes supplementary resources to alleviate and address mental, emotional, and social health issues;
- (j) Diverting or obtaining more resources to address growing disciplinary issues and anti-bullying campaigns;
- (k) Performing administrative tasks, amending policy, etc., to address the hazards and disruptions caused by Defendants' platforms in school; and
- (l) Addressing the increased incidence of vandalism, property damage, investigation of crime, increased need for student discipline including detention, and increased school security.
- 335. Defendants' conduct, as described above, was intended to serve their own interests despite having reason to know and consciously disregarding a substantial risk that their conduct was likely to significantly injure the rights of others, including Plaintiffs, Defendants have consciously pursued a course of conduct knowing that it created a substantial risk of significant harm to others, including Plaintiffs. Defendants regularly risk the health of consumers and users of their platforms, including youth, with full knowledge of the dangers of their platforms. Defendants consciously decided not to redesign, warn, or inform the unsuspecting public, including Plaintiffs and Plaintiffs' students. Defendants' willful, knowing, and reckless conduct therefore warrants, and Plaintiffs seek, an award of aggravated or punitive damages.

COUNT THREE

VIOLATIONS OF THE RACKETEER INFLUENCED AND CORRUPT ORGANIZATIONS ACT ("RICO")

18 U.S.C. § 1961, et seq.

- 336. Plaintiffs incorporate by reference all preceding paragraphs as though if fully set forth herein.
- 337. This claim is brought by Plaintiffs against all Defendants (the "RICO Defendants" for purposes of this Count III and Count IV) for actual damages, treble damages, and equitable relief under 18 U.S.C. § 1964, for violations of RICO, 18 U.S.C. § 1961 et seq.

- 338. RICO makes it "unlawful for any person employed by or associated with any enterprise engaged in, or the activities of which affect, interstate or foreign commerce, to conduct or participate, directly or indirectly, in the conduct of such enterprise's affairs through a pattern of racketeering activity." 18 U.S.C. § 1962(c).
- 339. At all relevant times, each RICO Defendant is and has been a "person" within the meaning of 18 U.S.C. § 1961(3), because they are capable of holding, and do hold, "a legal or beneficial interest in property."
- 340. Each RICO Defendant conducted the affairs of an enterprise through a pattern of racketeering activity, in violation of 18 U.S.C. § 1962(c), as described herein.
- 341. Each Plaintiff is a "person" within the meaning of 18 U.S.C. § 1961(3), and has standing to sue under 18 U.S.C. § 1964(c) because they were and are injured in their business and/or property "by reason of" the RICO violations described herein.
 - 342. Plaintiffs demand all applicable relief set forth below in the Prayer for Relief.
- 343. <u>The Enterprise.</u> Section 1961(4) defines an enterprise as "any individual, partnership, corporation, association, or other legal entity, and any union or group of individuals associated in fact although not a legal entity." 18 U.S.C. § 1961(4).
- 344. RICO Defendants form an association-in-fact for the common and continuing purpose described herein and constitute an enterprise within the meaning of 18 U.S.C. § 1961(4) engaged in the conduct of their affairs through a continuing pattern of racketeering activity. The members of the enterprise functioned as a continuing unit with an ascertainable structure separate and distinct from that of the conduct of the pattern of racketeering activity. There may also be other members of the enterprise who are unknown to Plaintiffs at this time.
- 345. Alternatively, each of the RICO Defendants is a corporation, company, or other legal entity, and therefore an enterprise within the meaning of 18 U.S.C § 1961(4).
- 346. The enterprise functioned as a continuing unit to achieve shared goals through unlawful means, including the following: (1) to preserve and enhance the market for its social media platforms and RICO Defendants' own profits, regardless of the truth, the law, or the health consequences to the American people, including Plaintiffs' students and the communities Plaintiffs serve; (2) to deceive

28

consumers, especially children, adolescents, and teenagers and their parents, into using their platforms by falsely maintaining that there is doubt as to whether their platforms are responsible for the apparent mental or emotional health consequences to children, adolescents, and teenagers, despite that RICO Defendants knew otherwise; (3) to deceive consumers, especially children, adolescents, and teenagers and their parents, into using their platforms by falsely maintaining that RICO Defendants could mitigate the mental or emotional health consequences to children, adolescents, and teenagers, despite that RICO Defendants knew that these negative consequences were inherent to its platforms' features and technology; (4) to deceive consumers, especially c children, adolescents, and teenagers, into becoming or staying addicted to their platforms by maintaining that their platforms were not addictive or that any addictive consequences could be mitigated, despite the fact that RICO defendants knew that their platforms were inherently addictive by design; (5) to deceive consumers, particularly parents and children, adolescents, and teenagers, by claiming that they did not market to children, adolescents, and teenagers, while engaging in marketing and manipulation of their platform algorithms with the intent of causing children, adolescents, and teenagers to engage in excessive use of their platforms, regardless of the health or safety concerns; and (6) to deceive consumers about the mental and emotional health risks to children, adolescents, and teenagers associated with RICO Defendants' platforms, including that their platforms were intentionally and deliberately designed to target children, adolescents, and teenagers and to encourage excessive and harmful behavior, and that RICO Defendants had the ability to manipulate and did manipulate their platforms to be highly addictive, and that RICO Defendants targeted children, adolescents, and teenagers specifically.

- 347. The enterprise has pursued a course of conduct of deceit and misrepresentation and conspiracy to make misrepresentations to the public, to withhold from the public facts material to the decision to use or permit children, adolescents, and teenagers to use RICO Defendants' platforms, to promote and maintain sales from RICO Defendants' platforms, and the profits derived therefrom, as well as to shield themselves from public, judicial, and governmental scrutiny.
- 348. Each enterprise has engaged in, and their activities have affected, foreign and interstate commerce.
 - 349. Pattern of Racketeering Activity. RICO Defendants, each of whom are persons

associated with, or employed by, the enterprise, did knowingly, willfully and unlawfully conduct or participate, directly or indirectly in the affairs of the enterprise through a pattern of racketeering activity within the meaning of 18 U.S.C. § 1961(1), 1961(5), and 1962(c). The racketeering activity was made possible by each RICO Defendant's regular and repeated use of the facilities and services of the enterprise. Each RICO Defendant had the specific intent to engage in the substantive RICO violations alleged herein.

- 350. RICO Defendants controlled the resources and instrumentalities of the enterprise and used that control to perpetrate numerous misleading schemes involving the use of mail and wires. Foremost, separate and apart from their regular business dealings, RICO Defendants misled and continue to mislead the public on the mental health dangers for youth on their platforms.
- 351. RICO Defendants had the common purpose of preserving and enhancing the market for their platforms and for youth as consumers for RICO Defendants' own profits, regardless of the truth, the law, or the health consequences to the American people, including Plaintiffs' students and the communities Plaintiffs serve.
- 352. RICO Defendants deceived consumers to use RICO Defendants' platforms while concealing and/or suppressing the relevant findings and research. RICO Defendants deceived consumers, particularly parents and children, adolescents, and teenagers, by claiming that they did not market to children, adolescents, and teenagers, while engaging in marketing and manipulation of their platform algorithms with the intent of causing children, adolescents, and teenagers to engage in excessive use of their platforms, regardless of the health or safety concerns.
- 353. RICO Defendants achieved their common purpose through co-conspirators' actions in deceiving consumers, regulators, and the general public about the dangerous nature of their platforms. Through the enterprise, RICO Defendants engaged in a pattern of racketeering activity consisting of numerous acts of racketeering in the Northern District of California and elsewhere, including mail fraud and wire fraud, indictable offenses under 18 U.S.C. §§ 1341, 1343.
- 354. RICO Defendants are each an enterprise that is engaged in and affects interstate commerce because the companies sold and continue to sell products across the United States, as alleged herein.

- 355. Predicate Acts: Use of Mails and Wires to Mislead the Public in Violation of 18
 U.S.C. §§ 1341, 1343. From a time unknown and continuing until the time of filing of this complaint, in the Northern District of California and elsewhere, RICO Defendants and others known and unknown did knowingly and intentionally devise and intend to devise a scheme and artifice to mislead, and obtain money and property from, members of the public by means of material false and misleading pretenses, representations, and promises, and omissions of material facts, knowing that the pretenses, representations, and promises, were false when made.
- 356. It was part of said scheme and artifice that the RICO Defendants would represent that their platforms pose no substantial risk of mental or emotional health concern to children, adolescents, and teenagers, and were not addictive, when in fact, their platforms did pose such risks, and that their platforms were intentionally and deliberately designed to target children, adolescents, and teenagers and encourage excessive and harmful behavior.
- 357. It was further part of said scheme and artifice that RICO Defendants and their coconspirators would and did maintain sales and profits of their platforms, by concealing, and suppressing
 material information regarding the mental and emotional health risks to children, adolescents, and
 teenagers associated with their usage, including that their platforms were intentionally and deliberately
 designed to target children, adolescents, and teenagers and to encourage excessive and harmful
 behavior, and that they had the ability to manipulate and did manipulate their platforms to be highly
 addictive, and that RICO Defendants targeted children, adolescents, and teenagers specifically.
- 358. It was further part of said scheme and artifice that, in order to conceal the health risks of their platforms, RICO Defendants and their co-conspirators would and did make false representations and misleading statements to the public, and would and did falsely represent that Defendants would fund and conduct objective, scientific research, and disclose the results of such research, to resolve concerns about mental and emotional health related issues to youth, and would and did falsely represent that RICO Defendants did not target children, adolescents, and teenagers, and would and did suppress and hide adverse research results, would and did misrepresent and fail to disclose their ability to manipulate and the manipulation of their platforms and their addictive qualities, and would and did misrepresent their actions to government personnel and others.

AMENDED COMPLAINT

359. It was a further part of said scheme and artifice that RICO Defendants and their coconspirators would and did misrepresent, conceal, and hide and cause to be misrepresented, concealed, and hidden, the purpose of, and acts done in furtherance of, the scheme.

- 360. It was a further part of said scheme and artifice, and in furtherance thereof, that RICO Defendants would and did communicate with each other and with their co-conspirators and others, in person, by mail, and by telephone and other interstate and foreign wire facilities, regarding the true nature of their platforms and the mental and emotional health risks to children, adolescents, and teenagers.
- 361. It was further part of said scheme and artifice that RICO Defendants' made communications directed toward government officials and to the public in furtherance of their conspiracy to deceive the public by means of telephone, mail, internet, wire transmissions, and other forms of interstate commerce and communications.
- 362. For purposes of executing and attempting to execute that scheme and artifice, RICO Defendants and their co-conspirators would and did knowingly transmit and cause to be transmitted in interstate and foreign commerce by means of wire, radio and television communication writings, signs, signals, pictures and sounds (collectively "transmissions") in violation of 18 U.S.C. §§ 1343.
- 363. For the purpose of executing and attempting to execute the scheme and artifice described herein, RICO Defendants and their co-conspirators would and did: knowingly place and cause to be placed in any post office or authorized depository for mail matter, matters and things to be sent and delivered by the United States Postal Service (and its predecessor, the United States Post Office Department); took and received therefrom such matters and things; and knowingly caused to be delivered by mail according to the direction thereon, and at the place at which it is directed to be delivered by the person to whom it is addressed, any such matter and thing, in violation of 18 U.S.C. § 1341.

COUNT FOUR

CONSPIRACY TO CONDUCT THE AFFAIRS OF THE ENTERPRISE THROUGH A PATTERN OF RACKETEERING ACTVITY

18 U.S.C. § 1962

- 364. Plaintiffs incorporate the allegations set forth above as if fully set forth herein.
- 365. From a time unknown and continuing until the time of filing of this Complaint, in the Northern District of California and elsewhere, RICO Defendants and others known and unknown did unlawfully, knowingly and intentionally combine, conspire, confederate, and agree together with each other, and others whose names are both known and unknown, to conduct and participate, directly and indirectly, in the conduct of the affairs of the aforementioned enterprise, which was engaged in the activities of which affected, interstate and foreign commerce, through a pattern of activity consisting of multiple acts indictable under 18 U.S.C. §§ 1341 and 1343, in violation of 18 U.S.C. § 1962(d).
- 366. Each of the RICO Defendants agreed that at least two acts of racketeering activity would be committed by a member of the conspiracy in furtherance of the conduct of the enterprise. It was part of the conspiracy that RICO Defendants and their co-conspirators would commit numerous acts of racketeering activity in the conduct of the affairs of the enterprise, including but not limited to, acts of racketeering set forth below.
- 367. From a time unknown and continuing until the time of filing of this complaint, in the Northern District of California and elsewhere, RICO Defendants and others known and unknown did knowingly and intentionally devise and intend to devise a scheme and artifice to mislead, and obtain money and property from, members of the public by means of material false and mislead pretenses, representations, and promises, and omissions of material facts, knowing that the pretenses, representations, and promises, were false when made.
- 368. It was part of said scheme and artifice that the RICO Defendants would represent that their platforms pose no substantial risk of mental or emotional health concern to children, adolescents, and teenagers, and were not addictive, when in fact, their platforms did pose such risks, and that their platforms were intentionally and deliberately designed to target children, adolescents, and teenagers and encourage excessive and harmful behavior.

- 369. It was further part of said scheme and artifice that RICO Defendants and their coconspirators would and did maintain sales and profits of their platforms, by concealing, and suppressing
 material information regarding the mental and emotional health risks to children, adolescents, and
 teenagers associated with their usage, including that their platforms were intentionally and deliberately
 designed to target children, adolescents, and teenagers and to encourage excessive and harmful
 behavior, and that they had the ability to manipulate and did manipulate their platforms to be highly
 addictive, and that RICO Defendants targeted children, adolescents, and teenagers specifically.
- 370. It was further part of said scheme and artifice that, in order to conceal the health risks of their platforms, RICO Defendants and their co-conspirators would and did make false representations and misleading statements to the public, and would and did falsely represent that Defendants would fund and conduct objective, scientific research, and disclose the results of such research, to resolve concerns about mental and emotional health related issues to youth, and would and did falsely represent that RICO Defendants did not target children, adolescents, and teenagers, and would and did suppress and hide adverse research results, would and did misrepresent and fail to disclose their ability to manipulate and the manipulation of their platforms and their addictive qualities, and would and did misrepresent their actions to government personnel and others.
- 371. It was a further part of said scheme and artifice that RICO Defendants and their coconspirators would and did misrepresent, conceal, and hide and cause to be misrepresented, concealed, and hidden, the purpose of, and acts done in furtherance of, the scheme.
- 372. It was a further part of said scheme and artifice, and in furtherance thereof, that RICO Defendants would and did communicate with each other and with their co-conspirators and others, in person, by mail, and by telephone and other interstate and foreign wire facilities, regarding the true nature of their platforms and the mental and emotional health risks to children, adolescents, and teenagers.
- 373. It was further part of said scheme and artifice that RICO Defendants' made communications directed toward government officials and to the public in furtherance of their conspiracy to deceive the public by means of telephone, mail, internet, wire transmissions, and other forms of interstate commerce and communications.

374. For purposes of executing and attempting to execute that scheme and artifice, RICO Defendants and their co-conspirators would and did knowingly transmit and cause to be transmitted in interstate and foreign commerce by means of wire, radio and television communication writings, signs, signals, pictures and sounds (collectively "transmissions") in violation of 18 U.S.C. §§ 1343.

375. For the purpose of executing and attempting to execute the scheme and artifice described herein, RICO Defendants and their co-conspirators would and did: knowingly place and cause to be placed in any post office or authorized depository for mail matter, matters and things to be sent and delivered by the United States Postal Service (and its predecessor, the United States Post Office Department); took and received therefrom such matters and things; and knowingly caused to be delivered by mail according to the direction thereon, and at the place at which it is directed to be delivered by the person to whom it is addressed, any such matter and thing, in violation of 18 U.S.C. § 1341.

COUNT FIVE

GROSS NEGLIGENCE

- 376. Plaintiffs incorporate by reference all preceding paragraphs as though fully set forth herein.
- 377. Defendants were grossly negligent in designing, manufacturing, supplying, distributing, inspecting (or not inspecting), testing (or not testing), marketing, promoting, advertising, packaging, and/or labeling Defendants' platforms.
- 378. Defendants owed Plaintiffs a duty to not expose Plaintiffs to an unreasonable risk of harm, and to act with reasonable care as a reasonably careful person and/or company would act under the circumstances.
- 379. At all times relevant to this Complaint, Defendants owed a duty to consumers and the general public, including Plaintiffs, to exercise reasonable care in the creation, production, maintenance, distribution, management, marketing, promotion, and delivery of Defendants' social media platforms, including the duty to take all reasonable steps necessary to design, research, market, advertise, promote, operate, and distribute their platforms in a way that is not unreasonably dangerous to consumers and users, including youth.

- 380. At all times relevant to this Complaint, Defendants owed a duty to consumers and the general public, including Plaintiffs, to exercise reasonable care in the creation, production, maintenance, distribution, management, marketing, promotion, and delivery of their social media platforms. This included a duty to provide accurate, true, and correct information about the harms and risks of using Defendants' platforms, including the harms and risks to youth. This also included a duty to give accurate and complete warnings about the potential adverse effects of extended use of Defendants' platforms by youth, and the dangers and risks from their platform's features, such as algorithm-driven harmful content recommendations.
- 381. At all times relevant to this Complaint, Defendants knew or, in the exercise of reasonable care, should have known of the hazards and dangers of their respective social media platforms and specifically, the health hazards their platforms posed to youth in particular, especially prolonged use of such platforms where exposure to harmful content was likely.
- 382. Accordingly, at all times relevant to this Complaint, Defendants knew or, in the exercise of reasonable care, should have known that use of Defendants' social media platforms by youth would create a dangerous and unreasonable risk of injury to Plaintiffs.
- 383. Defendants also knew or, in the exercise of reasonable care, should have known that youth and other users and consumers of Defendants' social media platforms were unaware of the risks associated with the use of Defendants' platforms, or the magnitudes of such risks. These risks include, but are not limited to, the risks of excessive social media use and the risks stemming from the likelihood that algorithm-based recommendations would expose youth users to content that is violent, sexual, or encourages self-harm, among other types of harmful content, or that mental and emotional illness could result.
- 384. As such, Defendants, by action and inaction, representation and omission, breached their duty of reasonable care, failed to exercise ordinary care, and failed to act as a reasonably careful person and/or company would act under the circumstances in the creation, production, maintenance, distribution, management, marketing, promotion, and delivery of their social media platforms, in that Defendants' creation, production, maintenance, distribution, management, marketing, promotion, and delivery social media platforms that Defendants knew or had reason to know would negatively impact

the mental health of consumers, particularly youth, and failed to prevent or adequately warn of these risks and injuries.

- 385. Despite their opportunity, ability and means to investigate, study, and test their social media platforms and to provide adequate warnings, Defendants failed to take these actions. Defendants have wrongfully concealed information and have made false and/or misleading statements concerning the safety and use of Defendants' social media platforms.
- 386. Defendants engaged in willful and/or wanton conduct that lacked any care and amounted to an extreme departure from what a reasonably careful person would do in the same situation to prevent harm to others. Defendants' willful and wanton conduct caused Plaintiffs to suffer harm.
 - 387. Defendants' willful and wanton conduct includes, but is not limited to:
 - (a) Creating, producing, maintaining, distributing, managing, marketing, promoting, and delivering their platforms to the general public and Plaintiffs' students without thorough and adequate pre- and post-market testing;
 - (b) Failing to sufficiently study and conduct necessary tests to determine whether or not their platforms were safe for youth users;
 - (c) Failing to use reasonable and prudent care in the creation, production, maintenance, distribution, management, marketing, promotion, and delivery of their platforms to avoid exposure to risk and danger, such as excessive usage by youth and exposure to harmful content;
 - (d) Failing to act on data, reports, analysis, opinions, or information known, or that should have been known in the exercise of reasonable diligence, pertaining to Defendants' platform and the risks and hazards posed to youth.
 - (e) Designing their social media platforms to encourage excessive amounts of time that users spend on their platforms and causing mental and emotional harm, particularly to youth, by way of algorithm-based feeds, social reciprocity, and IVR;
 - (f) Failing to employ adequate safeguards in the creation, maintenance, and operation of their platforms to ensure they would not encourage excessive and

harmful use; 1 2 (g) Failing to take reasonably adequate steps to prevent their platforms from being 3 promoted, distributed, and used by minors under the age of 13; 4 (h) Designing, engineering, developing, and maintaining their platforms to appeal to 5 children, adolescents and teens, where such minors lack the same cognitive 6 development as adults and are particularly vulnerable to social reward-based 7 manipulative tactics like IVR and social reciprocity. 8 (i) Failing to disclose to or warn Plaintiffs, users, consumers, and the general public of the negative mental and emotional health consequences associated with their 9 10 platforms and social media generally, especially for youth; Failing to provide reasonably adequate warnings to youth users or the parents or 11 (j) 12 guardians of such minors, where Defendants could reasonably foresee such 13 minors would use their platforms; 14 (k) Failing to disclose to Plaintiffs, users, consumers, and the general public that 15 Defendants' platforms are designed to maximize the time youth and other users 16 spend on Defendants' platforms and that such platforms cause negative mental, 17 emotional, and social health consequences, particularly among youth; 18 (1) Failing to warn users and the general public, including Plaintiffs and Plaintiffs' 19 students, of the true risks of using Defendants' platforms; 20 (m) Advertising, marketing, and recommending Defendants' platforms while 21 concealing and failing to disclose or warn of the dangers known by Defendants 22 to be associated with, or caused by, youth use of Defendants' platforms; 23 (n) Continuing the creation, production, maintenance, distribution, management, 24 marketing, promotion, and delivery of Defendants' platforms with knowledge 25 that Defendants' platforms are unreasonably unsafe, addictive, and dangerous to 26 youth, and otherwise harmful to youth mental and emotional health; 27 Failing to change Defendants' algorithms, which are used to recommend content (o) 28 to users, in a manner that would no longer concentrate on maximizing the

- amount of time users spend on Defendants' platforms notwithstanding the reasonably foreseeable mental and emotional safety risks this posed to Defendants' youth users;
- (p) Failing to adequately limit Defendants' algorithm-based recommendations to filter out content that exposes youth users to content that is violent, sexual, or encourages self-harm, among other types of harmful content; and
- (q) Representing that Defendants' platforms were safe for child, adolescent, and teen users when, in fact, Defendants knew or should have known that the platforms presented a clear and present danger for youth's mental and emotional health.
- 388. Defendants knew or should have known that it was foreseeable that Plaintiffs would suffer injuries as a result of Defendants' failure to exercise reasonable care in designing, researching, developing, testing, marketing, supplying, promoting, advertising, operating, and distributing Defendants' platforms, particularly when Defendants' platforms were designed, developed, operated and marketed to maximize the time youth spend on Defendants' platforms.
- 389. Plaintiffs did not know the nature and extent of the injuries that could result from the intended use of Defendants' social media platforms by Plaintiffs' students.
- 390. Defendants' negligence helped to and did produce, and was the proximate cause of, the injuries, harm, and economic losses that Plaintiffs suffered and will continue to suffer. Such injuries, harm, and economic losses would not have happened without Defendants' negligence as described herein.
- 391. The mental health crisis caused and/or significantly contributed to by Defendants has caused a major disruptive behavioral situation in Plaintiffs' schools, and Plaintiffs has had to take steps to mitigate the harm and disruption caused by Defendants' conduct, including the following:
 - (a) Providing additional staff training to recognize and build awareness of Defendants' harmful platforms and their harmful consequences;
 - (b) Hiring additional staff and personal to alleviate the youth mental health crisis, including mental, emotional, and social harm caused to students and members of the community;

- (c) Building new lesson plans and additional efforts to build awareness and educate students and members of the community about Defendants' harmful platforms and related negative consequences;
- (d) Remediating damaged to property proximately caused by Defendants' platforms;
- (e) Providing additional staff training to identify and address students in crisis or otherwise negatively harmed by Defendants' platforms;
- (f) Mitigating negative effects to traditional pedagogical goals and academics proximately caused by Defendants' platforms;
- (g) Identifying and confiscating devices containing Defendants' platforms where banned from school, including meeting with parents to address said issues;
- (h) Addressing the growing personal safety risks caused by bullying, threats, and other antisocial behaviors proximately caused by Defendants' platforms;
- (i) Deploying and repurposing supplementary resources to alleviate and address mental, emotional, and social health issues;
- (j) Diverting or obtaining more resources to address growing disciplinary issues and anti-bullying campaigns;
- (k) Performing administrative tasks, amending policy, etc., to address the hazards and disruptions caused by Defendants' platforms in school; and
- (l) Addressing the increased incidence of vandalism, property damage, investigation of crime, increased need for student discipline including detention, and increased school security.
- 392. Defendants breached the duties they owed to Plaintiffs and in doing so, were wholly unreasonable. Defendants' conduct, as described above, was intended to serve their own interests despite having reason to know and consciously disregarding a substantial risk that their conduct was likely to significantly injure the rights of others, including Plaintiffs. Defendants consciously pursued a course of conduct knowing that it created a substantial risk of significant harm to others, including Plaintiffs and Plaintiffs' students.
 - 393. As a foreseeable consequence of Defendants' breaches of their duties, Plaintiffs have

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suffered and will continue to suffer direct and consequential economic and other injuries as a result of dealing with the youth mental health crisis in Plaintiffs' schools, as described herein, including but not limited to expending, diverting, and increasing resources to address this crisis.

- 394. Defendants engaged in conduct, as described above, that constitutes malice, and oppression, , with intent to cause injury and/or with willful and knowing disregard of the rights or safety of another, being fully aware of the probable dangerous consequences of the conduct and deliberately failing to avoid those consequences.
- Defendants' conduct constituting malice, and oppression, was committed by one or 395. more officers, directors, or managing agents of Defendants, who acted on behalf of Defendants; was authorized by one or more officers, directors, or managing agents of Defendants, and adopted or approved that conduct by one or more of such officers, directors, or managing agents after the conduct occurred.
- 396. Defendants regularly risk the lives and health of youth and other consumers and users of their platforms with full knowledge of the dangers of their platforms. Defendants made conscious decisions not to redesign, re-label, warn, or inform the unsuspecting public, including Plaintiffs and Plaintiffs' students. Defendants' willful, knowing and reckless conduct therefore warrants, and Plaintiffs seek, an award of aggravated or punitive damages.

COUNT SIX

VIOLATIONS OF THE CALIFORNIA UNFAIR COMPETITION LAW

Cal. Bus. & Prof. Code § 17200, et seq.

(Injunctive Relief Only)

- 344. Plaintiffs incorporate the allegations set forth above as if fully set forth herein.
- 345. Plaintiffs bring claims against all Defendants under California's Unfair Competition Law ("UCL"), which prohibits Defendants from engaging in "any unlawful [or] unfair ... business act or practice." Cal. Bus. & Prof. Code § 17200.
 - Each Plaintiff and each Defendant is a "person" within the meaning of the UCL. 346.
- 347. Plaintiffs have suffered injury in fact and have lost money or property as a direct and proximate result of Defendants' violations of the UCL, including but not limited to additional time,

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costs, and expenses that Plaintiffs have incurred—and will continue for the foreseeable future to incur—for the following:

- (a) Providing additional staff training to recognize and build awareness of Defendants' harmful platforms and its consequences;
- (b) Hiring additional staff and personal to alleviate the youth mental health crisis, including mental, emotional, and social harm caused to students and members of the community;
- (c) Building new lesson plans and additional efforts to build awareness and educate students and members of the community about Defendants' harmful platforms and related negative consequences;
- (d) Remediating damaged to property proximately caused by Defendants' platforms;
- (e) Providing additional staff training to identify and address students in crisis or otherwise negatively harmed by Defendants' platforms;
- (f) Mitigating negative effects to traditional pedagogical goals and academics proximately caused by Defendants' platforms;
- (g) Identifying and confiscating devices containing Defendants' platforms where banned from school, including meeting with parents to address said issues;
- (h) Addressing the growing personal safety risks caused by bullying, threats, and other antisocial behaviors proximately caused by Defendants' platforms;
- (i) Deploying and repurposes supplementary resources to alleviate and address mental, emotional, and social health issues;
- (j) Diverting or obtaining more resources to address growing disciplinary issues and anti-bullying campaigns;
- (k) Performing administrative tasks, amending policy, etc., to address the hazards and disruptions caused by Defendants' platforms in school; and

 Addressing the increased incidence of vandalism, property damage, investigation of crime, increased need for student discipline including detention, and increased school security.

348. Each Defendant's conduct alleged in this Complaint was and is "unlawful" under the UCL because Defendants' conduct: (a) was and is unlawful under each of the laws, and for each of the reasons, set forth above in Plaintiffs' prior causes of action; (b) violates the CLRA, Cal. Civ. Code § 1750 et seq., because it constitutes "methods of competition and unfair or deceptive acts or practices undertaken by any person in a transaction intended to result or which results in the sale ... of goods or services to any consumer," including because Defendants' conduct violates the CLRA's specific prohibitions on misrepresentations of goods and services set forth in Cal. Civ. Code § 1770(a), including but not limited those set forth in § 1770(a)(2), (3), (5), (7), and (17); (c) violates the FAL, Cal. Bus. & Prof. Code § 17500 et seq., because it constitutes the making or dissemination of information which is untrue or misleading with the intent to induce reliance in connection with the disposition of property or services; and (d) violates COPPA, 15 U.S.C. §§ 6501–06, and regulations promulgated thereunder.

349. Each Defendant's conduct alleged in this Complaint also was and is "unfair" under the UCL, including but not limited to each Defendant's conduct of (a) designing its social media platforms to be manipulative and addictive, (b) intentionally targeting youth even though Defendants know that doing so causes youth to become addicted to social media and otherwise significantly harms youth mental health, (c) aggressively marketing their social media platforms to youth, (d) continuing to use and strengthen their algorithms even though Defendants know their algorithms are manipulative and have myriad serious negative effects on youth mental health, and (e) otherwise designing and marketing their social media platforms in a way that foreseeably causes significant harm to the mental health of individual youth that use their platforms and to the nation's youth collectively, including the youth residing in San Mateo County that are among Plaintiffs' more than 90,000 students. Defendants' conduct was and is unfair under the UCL because it violated and continues to violate established public policy of the State of California, including but not limited to public policy set forth in the California AADCA that passed into law in 2022 and set to take effect in

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2024, and because such conduct was and is immoral, unethical, oppressive, or unscrupulous and causes injury to Plaintiffs, Plaintiffs' students, and other consumers, in a manner that significantly outweighs the benefits of such conduct.

- Defendants' unlawful and unfair business acts and practices under the UCL are continuing in nature and are the result of a systematic, coordinated, and ongoing policy and practice engaged in by Defendants to target youth, addict youth to their social media platforms and otherwise maximize the time youth spend on their social media platforms at the expense of youth mental health, and otherwise generate revenue and profit in a manner that significantly harms youth mental health and causes foreseeable monetary and other harms to school districts including Plaintiffs.
- 351. Plaintiffs have no adequate remedy at law and thus seek preliminary and permanent injunction relief to enjoin Defendants' harmful conduct alleged herein, and as set forth below in the Prayer for Relief.
- 352. Plaintiffs further seek an award of their litigation costs, expert fees, and attorneys' fees under Cal. Code Civ. Proc. § 1021.5 and any other applicable law.

IX. PRAYER FOR RELIEF

WHEREFORE, Plaintiffs pray for judgment against Defendants as follows:

- Ordering that Defendants' conduct alleged herein constitutes a public nuisance under A. California law;
- B. Ordering that Defendants are jointly and severally liable for the harm caused by their conduct alleged herein;
- C. Ordering Defendants to abate the public nuisance described herein and to deter and/or prevent the resumption of such nuisance;
- D. Enjoining Defendants from engaging in further actions causing or contributing to the public nuisance as described herein;
- E. Awarding equitable relief to fund prevention education and treatment for excessive and problematic use of social media;
 - F. Awarding all applicable injunctive relief;
 - Awarding actual, compensatory, punitive, and all other available damages, in an amount G.

1	to be determined at trial;				
2		H.	Awarding statutory damages i	n the maximum amount permitted by law;	
3		I.	Awarding Plaintiffs their reason	onable attorneys' fees and costs of suit;	
4		J.	Awarding pre-judgment and post-judgment interest; and		
5		K.	Such other and further relief as the Court deems just and proper.		
6	X.	JUR	URY TRIAL DEMAND		
7		Plaintiffs hereby demand a trial by jury on all issues so triable.			
8				Respectfully submitted,	
9	Dated	l: Marc	ch 22, 2023	COTCHETT, PITRE & McCARTHY LLP	
10				By: /s/ Joseph W. Cotchett	
11				JOSEPH W. COTCHETT ANNE MARIE MURPHY	
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AMENDED COMPLAINT