

# CHRONICALLY ONLINE: APPORTIONING LIABILITY IN SOCIAL MEDIA LITIGATION BASED ON USER ENGAGEMENT

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*The average American teenager spends nearly five hours on social media every day. This result is by design: social media platforms like Instagram, Snapchat, and TikTok deploy persuasive technologies—including infinite scroll, personalized content recommendation feeds, and dark patterns—to capture and retain teen attention. These intentional design features exploit adolescent vulnerabilities to foster social media dependency. Accordingly, a growing body of scientific evidence links the extensive use of social media to the teen mental health crisis in the United States.*

*Despite these negative effects, social media companies have largely evaded accountability for the harm they have caused to teens. Recent lawsuits based on products liability theory offer a potential pathway for holding social media companies liable. Proving causation in these cases presents considerable challenges due to factors such as the inaccessibility of “black box” technologies, the difficulty of linking algorithmic-driven product features to specific teen injuries, and the reality that many teens habitually use multiple social media platforms.*

*This Note urges courts to look beyond traditional tort law principles to address the causation challenges posed by social media litigation. Specifically, this Note proposes using proportional share liability based on engagement data to apportion liability among social media defendants. Proportional share liability enables courts to allocate responsibility proportionate to each platform’s contribution to a specific teen’s injuries and the broader teen mental health crisis. In doing so, proportional share liability provides a fair and equitable mechanism for addressing the harms caused by social media’s addictive design.*

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Prior to attending Fordham Law, Rebecca worked at Snap Inc. All information used in this Note is nonconfidential and publicly available. All views expressed are solely those of the author and do not reflect the opinions or positions of Snap Inc.

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## INTRODUCTION

Picture this: a fifteen-year-old wakes up and immediately grabs their phone to check dozens of social media notifications delivered overnight. They then open another app to play background “buzz” while they are getting ready. During class, their phone continuously vibrates as notifications roll in, distracting them from the lecture. Later at home, they struggle to focus on their homework because they keep checking notifications and scrolling endlessly through content tailored to their interests and behaviors. At night, the teen opens social media once again to aimlessly scroll through photos and videos, message friends, and check notifications, unintentionally staying up past their bedtime. In total, the teen spends nearly eight hours on social media. The next day, this pattern repeats. Over time, a dependency develops, making it impossible for the teen to stay away from the apps. Soon, their mental health suffers, and the teen experiences depression, anxiety, and struggles with sleep deprivation. Nonetheless, they are unable to stop using social media.

This hypothetical highlights a teenager’s dependency on social media, drawing from various teen accounts that discuss social media addiction.<sup>1</sup> It

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1. See Jenna Bloom, *I Quit Social Media in College. This Is How My Life Changed.*, WASH. POST (May 28, 2023), <https://www.washingtonpost.com/lifestyle/2023/05/28/social-media-quit-teen-toxic/> [https://perma.cc/E57Y-2MVF]; Kate Romalewski, *I’m a Teen Who Used to Spend Hours a Day Scrolling. Here’s How I Curbed My Social Media Habit*, CHALKBEST N.Y. (Nov. 2, 2023, 4:22 PM), <https://www.chalkbeat.org/newyork/2023/11/2/23942334/smartphone-addiction-instagram-tiktok-snapchat-screentime-scrolling/> [https://perma.cc/SQ2E-N8V7]; COMMON SENSE MEDIA, *CONSTANT COMPANION: A WEEK IN THE LIFE OF A YOUNG PERSON’S SMARTPHONE USE 3* (2023); Basim Blunt & Regan Neil, *Offline: A Teenager Wants to Escape the ‘Deep Abyss’ of Social Media*, WYSO (Nov. 18, 2022, 1:39 PM), <https://www.wyso.org/arts-culture/2022-11-18/offline-a-teenager-wants-to-escape-the-deep-abyss-of-social-media> [https://perma.cc/HA7F-MDXH]; Howard Altschiller, *Teens Tell Their Truth About Social Media and Mental Health: ‘I Always Have My Phone’*, UNION LEADER (July 24, 2022), [https://www.unionleader.com/news/health/teens-tell-their-truth-about-social-media-and-mental-health-i-always-have-my-phone/article\\_f05a9204-7122-5820-8ced-df117ac99eab.html](https://www.unionleader.com/news/health/teens-tell-their-truth-about-social-media-and-mental-health-i-always-have-my-phone/article_f05a9204-7122-5820-8ced-df117ac99eab.html) [https://perma.cc/DS96-TD68]; Roxanne Vargas, *‘For My Own Good’: Teen Shares Rehab Journey amid Battle with Social Media Addiction*, NBC MIA. (July 9, 2024, 8:50 AM), <https://www.nbcmiami.com/news/local/for-my-own-good-teen-shares-rehab-journey-amid-battle-with-social-media-addiction/3352948/> [https://perma.cc/8JND-SK5R]. For a particularly impactful representation of teen social media use, see Mariana Myers, *Nomophobia- A Visual Essay*, YOUTUBE (Dec. 14, 2022), <https://www.youtube.com/watch?v=D3WziMAWXLM> [https://perma.cc/QK5A-Y4J5].

also raises important questions about the accountability of social media companies for the harm caused by their addictive designs.

Social media has become a fixture in everyday life, especially for adolescents, whose social lives are now inextricably linked with these platforms.<sup>2</sup> Three of the most popular social media platforms among teens are Instagram, Snapchat, and TikTok.<sup>3</sup> These companies design their applications to encourage usage and provoke engagement by employing the same product features, including infinite scroll, algorithmic recommendations, and dark patterns.<sup>4</sup> The platforms' revenues are dependent on capturing teen attention: the more time users spend on a platform, the higher a platform's earnings.<sup>5</sup> But at what cost?

The growing popularity of social media among teens has led to significant consequences.<sup>6</sup> Rates of mental health disorders among teens in the United States have skyrocketed.<sup>7</sup> Compared to when smartphones were first introduced in 2010, teenagers are socializing less and experiencing poorer sleep quality, which scholars attribute to social media use.<sup>8</sup>

In response to these harms, teens, parents, and the plaintiffs' bar are fighting back, seeking to hold social media companies accountable through innovative applications of tort law.<sup>9</sup> In recent years, plaintiffs have successfully brought products liability lawsuits against social media companies for causing teens' injuries.<sup>10</sup> In some cases, plaintiffs were able

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2. See Amanda Lenhart, *Teens, Technology and Friendships, Chapter 4: Social Media and Friendships*, PEW RSCH. CTR. (Aug. 6, 2015), <https://www.pewresearch.org/internet/2015/08/06/chapter-4-social-media-and-friendships/> [<https://perma.cc/L4J4-6FJ3>].

3. MICHELLE FAVERIO & OLIVIA SIDOTI, PEW RSCH. CTR., *TEENS, SOCIAL MEDIA AND TECHNOLOGY 2024*, at 2 (2024); MONICA ANDERSON, MICHELLE FAVERIO & JEFFREY GOTTFRIED, PEW RSCH. CTR., *TEENS, SOCIAL MEDIA AND TECHNOLOGY 2023*, at 2 (2023).

4. See FED. TRADE COMM'N, *A LOOK BEHIND THE SCREENS: EXAMINING THE DATA PRACTICES OF SOCIAL MEDIA AND VIDEO STREAMING SERVICES 1* (2024); Nancy Costello, Rebecca Sutton, Madeline Jones, Mackenzie Almassian, Amanda Raffoul, Oluwadunni Ojumu, Meg Salvia, Monique Santoso, Jill R. Kavanaugh & S. Bryn Austin, *Algorithms, Addiction, and Adolescent Mental Health: An Interdisciplinary Study to Inform State-Level Policy Action to Protect Youth from the Dangers of Social Media*, 49 AM. J.L. & MED. 135, 142, 146–47 (2023); *infra* Part I.B.1.i.

5. See FED. TRADE COMM'N, *supra* note 4, at 45.

6. See *infra* Part I.A.2.

7. U.S. SURGEON GEN., *SOCIAL MEDIA AND YOUTH MENTAL HEALTH: THE U.S. SURGEON GENERAL'S ADVISORY 6–8* (2023).

8. See *id.* at 7; Jonathan Haidt, Zach Rausch & Jean Twenge, *Social Media and Mental Health: A Collaborative Review 317–26* (Dec. 30, 2024) (unpublished manuscript) (on file with New York University); Jill Filipovic, *I Was Wrong About Trigger Warnings*, THE ATLANTIC (Aug. 14, 2023, 1:58 PM), <https://www.theatlantic.com/magazine/archive/2023/09/trigger-warnings-feminism-teen-girls-mental-health/674759/> [<https://perma.cc/6TJY-22KQ>]; Daniel de Visé, *Teens Are Spending Less Time Than Ever with Friends*, THE HILL (June 7, 2023, 6:00 AM), <https://thehill.com/blogs/blog-briefing-room/4037619-teens-are-spending-less-time-than-ever-with-friends/> [<https://perma.cc/BV3A-FEXC>].

9. See Isaiah Poritz, *Tech's Online Content Shield Dented by Product Liability Claims*, BLOOMBERG L. (July 22, 2022, 4:55 AM), <https://www.bloomberglaw.com/product/blaw/bloomberglawnews/bloomberglaw-news/X1ANQQAG000000#jcite> [<https://perma.cc/W3VB-2PEM>].

10. See *id.*

to identify the platform that caused the adolescent's injury.<sup>11</sup> In cases involving thousands of plaintiffs, however, identifying the specific platform and product feature that caused each teen's injury is more complex.<sup>12</sup> This issue is compounded by teenagers' use of multiple social media platforms, each of which contributes to their harm.<sup>13</sup> Consequently, courts overseeing ongoing litigation related to social media's addictive design face challenges in fairly assigning liability among platforms when plaintiffs cannot show but-for causation.<sup>14</sup>

This Note proposes the use of proportional share liability to apportion liability among social media defendants based on user engagement data.<sup>15</sup> Building upon the concept of market-share liability, proportional share liability extends beyond traditional tort law frameworks to address the unique causation challenges posed by algorithmic-based harms.<sup>16</sup> By using engagement metrics, courts can allocate liability proportionate to each platform's contribution to a teen's harm, as well as the larger teen mental health crisis.<sup>17</sup>

#### I. THE RISE OF SOCIAL MEDIA AND ITS IMPACT ON TEENS

Since its inception, social media promised to connect the world by allowing its users to share updates about their lives and keep up with their friends.<sup>18</sup> And in many ways, it has done just that.<sup>19</sup> Social media has transformed the ways millions of Americans communicate, work, and learn.<sup>20</sup> But social media has also created dangers that accompany unfettered technological growth and information access.<sup>21</sup>

Part I.A reviews the social media landscape and the integral role social media plays in the lives of teenagers. It also examines the negative impacts of social media use on teens and how regulation efforts have failed to mitigate these harms.<sup>22</sup> Part I.B explores the attention economy and how three social media platforms—Instagram, Snapchat, and TikTok—capture and compete

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11. *See generally* Lemmon v. Snap, Inc., 995 F.3d 1085, 1087 (9th Cir. 2021) (suing Snap Inc. for its negligent design of Snapchat); Anderson v. TikTok, Inc., 16 F.4th 180, 181 (3d Cir. 2024) (suing TikTok for the defective design of its algorithmic recommendation system).

12. *See infra* Part II.C.

13. *See infra* Part II.C.

14. *See infra* Parts I.C, II.C.

15. *See infra* Part III.

16. *See infra* Part III.

17. *See infra* Parts II.D.2, III.

18. *See* Arash Javanbakht, *Social Media Promised to Connect Us, but Made Us Isolated and Tribal Instead*, FAST CO. (Nov. 13, 2020), <https://www.fastcompany.com/90574907/social-media-promised-to-connect-us-but-made-us-isolated-and-tribal-instead> [<https://perma.cc/97XQ-WWLK>].

19. *See* Moody v. NetChoice, LLC, 144 S. Ct. 2383, 2422–23 (2024) (Alito, J., concurring).

20. *See id.*

21. *See* *Key Issues Overview*, CTR. FOR HUMANE TECH., <https://www.humanetech.com/key-issues> [[perma.cc/V86G-NX38](https://perma.cc/V86G-NX38)] (last visited Mar. 7, 2025).

22. *See infra* Part I.A.

for teen attention.<sup>23</sup> Additionally, it assesses specific design features that these platforms deploy to retain teen attention and increase user engagement.<sup>24</sup> Finally, Part I.C provides an overview of various theories of liability within tort law that inform Parts II and III, and considers how products liability has evolved in response to advancements in technology and manufacturing.<sup>25</sup>

A. *The Ubiquity of Social  
Media in Teens' Lives*

Social media revolutionized how we stay connected, build community, purchase goods, digest news, and consume media.<sup>26</sup> For teenagers, social media is essential to their social fabric, with the average American teen spending 4.8 hours a day using popular social media apps.<sup>27</sup> Instagram, Snapchat, and TikTok (the “companies”) are the most popular among thirteen-to-seventeen-year-olds.<sup>28</sup> Nearly half of teens report being online “almost constantly.”<sup>29</sup>

23. See *infra* Part I.B.

24. See *infra* Part I.B. Engagement refers to either a technical business metric or an economic ideology. See Neil Richards & Woodrow Hartzog, *Against Engagement*, 104 B.U. L. REV. 1151, 1154 (2024). As a business metric, engagement is a “measure of the time, attention, degree of exposure, and other interactions with a service.” *Id.* As an economic ideology, engagement is when business models extract “attention of their human customers, and data about those customers that is used to attract that attention.” *Id.* at 1154–55, 1158. Consumer data and attention is then monetized. See *id.* at 1159. Professors Neil Richards and Woodrow Hartzog propose a third understanding of engagement, which is a “legal concept suitable for regulation.” *Id.* at 1155. In a legal sense, engagement can be understood as “actions that encourage people to spend more time, attention, or effort in a way that disproportionately benefits the party stimulating the engagement and burdens the engaged.” *Id.*

25. See *infra* Part I.C.

26. See Gaia Bernstein, *A Window of Opportunity to Regulate Addictive Technologies*, 5 WIS. L. REV. 64, 67 (2022).

27. See Tori DeAngelis, *Teens Are Spending Nearly 5 Hours Daily on Social Media. Here Are the Mental Health Outcomes*, 55 AM. PSYCH. ASS’N 80, 80 (2024); ANDERSON ET AL., *supra* note 3; Deborah Glasofer & Claude Mellins, *Just How Harmful Is Social Media?: Our Experts Weigh-In.*, COLUM. U. MAILMAN SCH. OF PUB. HEALTH (Sept. 27, 2021), <https://www.publichealth.columbia.edu/news/just-how-harmful-social-media-our-experts-weigh> [perma.cc/4Y7Y-7EQ6].

28. See FAVERIO & SIDOTI, *supra* note 3, at 2. YouTube also plays a major role in teen lives, with nearly nine in ten teens reporting that they use YouTube. See ANDERSON ET AL., *supra* note 3, at 2. This Note excludes YouTube from its analysis. At its core, YouTube is “more widely used as the world’s video library than for its social functions.” JONATHAN HAIDT, *THE ANXIOUS GENERATION* 117 (2024). Although YouTube shares some social features with Instagram, Snapchat, and TikTok, it is primarily used to watch long-form video content. See *Klein v. Facebook, Inc.*, 580 F. Supp. 3d 743, 768–69 (N.D. Cal. 2022). Excluding YouTube from this Note is not intended to absolve the platform from liability for its harms. Rather, the Note’s proposition relies on the premise that Instagram, Snapchat, and TikTok share similar product features and compete in a defined market. Therefore, discussing YouTube falls outside the bounds of this Note.

29. See FAVERIO & SIDOTI, *supra* note 3, at 2.

Part I.A.1 examines the current social media landscape and how teens interact with different platforms.<sup>30</sup> Part I.A.2 explores the negative effects of social media on teens.<sup>31</sup> Finally, Part I.A.3 considers platforms' efforts to self-regulate and Congress's response.<sup>32</sup>

### 1. The Social Media Landscape

Instagram, founded in 2010, is a social media network that allows users to share photos and videos with their friends and discover new content based on their interests.<sup>33</sup> A subsidiary of Meta,<sup>34</sup> Instagram boasts two billion daily active users.<sup>35</sup> More than twenty-two million teens in the United States use Instagram daily, and 28 percent report using the app several times a day.<sup>36</sup>

Snapchat, owned by Snap Inc., is a visual messaging application through which users communicate using photos and short videos called "snaps," as well as augmented reality filters and messages.<sup>37</sup> Founded in 2011, Snapchat reaches 90 percent of thirteen-to-twenty-four-year-olds in the United States, and roughly half of teens report using Snapchat every day.<sup>38</sup>

TikTok, owned by ByteDance Ltd., is a short-form video application that allows users to create and post content to their followers and the public.<sup>39</sup> A newer entrant into the social media ecosystem, TikTok has amassed over 170

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30. See *infra* Part I.A.1.

31. See *infra* Part I.A.2.

32. See *infra* Part I.A.3.

33. See Facebook Inc., Annual Report (Form 10-K) 5 (Dec. 31, 2018).

34. Meta is formerly known as Facebook. *Introducing Meta: A Social Technology Company*, META (Oct. 28, 2021), <https://about.fb.com/news/2021/10/facebook-company-is-now-meta/> [<https://perma.cc/Q6EL-ZRYN>].

35. We Are Social, DataReportal & Meltwater, *Most Popular Social Networks Worldwide as of April 2024, by Number of Monthly Active Users (in Millions)*, STATISTA, <https://www-statista-com.fls.idm.oclc.org/statistics/272014/global-social-networks-ranked-by-number-of-users/> [<https://perma.cc/AH6R-EYEM>] (last visited Mar. 7, 2025).

36. See Georgia Wells, Jeff Horwitz & Deepa Seetharaman, *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=article\\_inline](https://www.wsj.com/articles/facebook-knows-instagram-is-toxic-for-teen-girls-company-documents-show-11631620739?mod=article_inline) [<https://perma.cc/NAP4-G6EA>]; FAVERIO & SIDOTI, *supra* note 3, at 5.

37. See Snap Inc., Notes to Consolidated Financial Statements (Form 10-K) 86 (2024); Snap Inc., Annual Report (Form 10-K) 6 (Dec. 31, 2023).

38. See *Start Advertising on Snapchat*, SNAPCHAT FOR BUS., <https://forbusiness.snapchat.com/advertising/why-snapchat-ads?lang=en-US> [[perma.cc/AH8D-RHL2](https://perma.cc/AH8D-RHL2)] (last visited Mar. 7, 2025); FAVERIO & SIDOTI, *supra* note 3, at 4; see also *Doe v. Snap, Inc.*, 144 S. Ct. 2493, 2493 (2024) (Thomas, J., dissenting) ("Snapchat is popular among teenagers.").

39. See *Transparency Center*, TIKTOK, [https://www.tiktok.com/transparency/en-au?tc\\_version=2024](https://www.tiktok.com/transparency/en-au?tc_version=2024) [[perma.cc/JL9W-R9MN](https://perma.cc/JL9W-R9MN)] (last visited Mar. 7, 2025). Generally, short-form videos range from five to ninety seconds. See Zack O'Rourke, *How to Use Short-Form Video in Digital Marketing*, DIGIT. MKTG. INST. (Mar. 13, 2024), <https://digitalmarketinginstitute.com/blog/how-to-use-short-form-video-in-digital-marketing> [[perma.cc/FVZ3-Q2BH](https://perma.cc/FVZ3-Q2BH)]. Videos uploaded to TikTok can be up to sixty minutes long. *Camera Tools*, TIKTOK, <https://support.tiktok.com/en/using-tiktok/creating-videos/camera-tools> [<https://perma.cc/VEG9-L7Q7>] (last visited Mar. 7, 2025).

million users in the United States since its introduction in 2018.<sup>40</sup> Roughly six in ten teens are on TikTok, and 34 percent of teens use the app several times a day.<sup>41</sup>

## 2. Social Media's Negative Effects on Teens

In 2023, the then-U.S. Surgeon General Dr. Vivek H. Murthy released a sweeping advisory titled "Social Media and Youth Mental Health."<sup>42</sup> The advisory highlighted the growing body of scientific research that characterizes how social media harms teens.<sup>43</sup> One study found that adolescents who spend more than three hours per day on social media face double the risk of experiencing poor mental health outcomes.<sup>44</sup> Such findings make it difficult for social media companies to contend that the harms associated with addictive design features are not foreseeable.<sup>45</sup>

Additionally, psychologists Jonathan Haidt and Jean Twenge conducted a literature review of over a hundred studies to better understand the effects of social media on teen mental health.<sup>46</sup> One meta-analysis of twenty-six studies found that the risk of depression increased by 13 percent with each hour a teen spends on social media.<sup>47</sup> Teen girls are especially vulnerable to harms from social media use.<sup>48</sup> A study of fourteen-year-old girls found that those who spend five hours or more a day on social media are three times as likely to be depressed as those who use social media minimally or not at all.<sup>49</sup> In sum, the collaborative review shows an association between teen social media use and poor mental health outcomes.<sup>50</sup>

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40. Sapna Maheshwari, *Love, Hate or Fear It, TikTok Has Changed America*, N.Y. TIMES (Apr. 19, 2024), <https://www.nytimes.com/interactive/2024/04/18/business/media/tiktok-ban-american-culture.html> [perma.cc/TGM6-EDQN].

41. See ANDERSON ET AL., *supra* note 3, at 2; FAVERIO & SIDOTI, *supra* note 3, at 4.

42. See U.S. SURGEON GEN., *supra* note 7. The purpose of a surgeon general's advisory is to call attention to a significant public health challenge that requires urgent action. See *id.* at 3.

43. See *id.* at 6–8.

44. See *id.* at 6.

45. See *infra* Part I.C.2.

46. See Haidt et al., *supra* note 8, at 4–7.

47. See *id.* at 76 (citing Mingli Liu, Kimberly E. Kamper-DeMarco, Jie Zhang, Jia Xiao, Daifeng Dong & Peng Xue, *Time Spent on Social Media and Risk of Depression in Adolescents: A Dose-Response Meta-Analysis*, 19 INT'L J. ENV'T RES. & PUB. HEALTH 5164 (2022)).

48. See U.S. SURGEON GEN., *supra* note 7, at 7.

49. See Yvonne Kelly, Afshin Zilanawala, Cara Booker & Amanda Sacker, *Social Media Use and Adolescent Mental Health: Findings from the UK Millennium Cohort Study*, 6 ECLINICALMEDICINE 59, 59 (2018).

50. See *id.* at 307; Jonathan Haidt, *Yes, Social Media Really Is a Cause of the Epidemic of Teenage Mental Illness*, AFTER BABEL (Apr. 9, 2024), <https://www.afterbabel.com/p/phone-based-childhood-cause-epidemic> [https://perma.cc/Q438-LYPR]. The scholarly debate about whether social science data demonstrates a causal link between social media use and teen harm is ongoing, with some scholars arguing that social media use and poor mental health outcomes are correlative, rather than causal. See U.S. SURGEON GEN., *supra* note 7, at 11–12. Compare Candice L. Odgers, *The Great Rewiring, Unplugged: Is Social Media Really Behind an Epidemic of Teenage Mental Illness?*, 628 NATURE 29, 29 (2024) (reviewing JONATHAN HAIDT, *supra* note 28); Aaron Brown, *The Statistically Flawed Evidence That Social Media Is*



Social media affects teen well-being beyond mental health. Since 2010, teenagers have been spending significantly less time with their friends.<sup>51</sup> As a result, the average teen now spends eleven hours less with friends each week.<sup>52</sup> At the same time, adolescent loneliness has nearly doubled.<sup>53</sup> Social media also impacts teen education, with eight in ten teens reporting that social media distracts them from their schoolwork.<sup>54</sup> Further, researchers have identified an association “between social media addiction . . . and a decline in the ability to reason accurately, think clearly, and engage in activities that require concentrated thought.”<sup>55</sup>

### 3. The Failures and Successes of Regulation to Address Social Media Harms

Amidst growing scrutiny from regulators and the public, Instagram, Snapchat, and TikTok have taken steps to self-regulate.<sup>56</sup> In September 2024, Instagram introduced a new feature called “Teen Accounts.”<sup>57</sup> Users who opt into these accounts are restricted from viewing specific types of content and connecting with certain accounts, among other limitations.<sup>58</sup> Some scholars cautiously welcomed Instagram’s announcement, whereas

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*Causing the Teen Mental Health Crisis*, REASON (Mar. 29, 2023, 10:01 AM), <https://reason.com/2023/03/29/the-statistically-flawed-evidence-that-social-media-is-causing-the-teen-mental-health-crisis/> [<https://perma.cc/7Y76-KSA8>]; Dylan Selterman, *Why I’m Skeptical About the Link Between Social Media and Mental Health*, PSYCH. TODAY (Mar. 20, 2023), <https://www.psychologytoday.com/us/blog/the-resistance-hypothesis/202303/why-im-skeptical-about-the-link-between-social-media-and> [<https://perma.cc/N9XW-6S53>], with Haidt, *supra* note 50 (responding to Professor Candice L. Odgers’s critiques and explaining that the social science provides evidence of causation). However, a full exploration of this scientific debate is outside the scope of this Note.

51. See Filipovic, *supra* note 8.

52. See *id.*

53. See de Visé, *supra* note 8.

54. See Survey: 8 in 10 Gen Zers Say Social Media Distracts from Schoolwork, BUS. WIRE (Dec. 2, 2021, 8:30 AM), <https://www.businesswire.com/news/home/20211202005195/en/Survey-8-in-10-Gen-Zers-Say-Social-Media-Distracts-From-Schoolwork> [<https://perma.cc/J8JP-LRLX>].

55. Vikram R. Bhargava & Manuel Velasquez, *Ethics of the Attention Economy: The Problem of Social Media Addiction*, 31 BUS. ETHICS Q. 321, 330 (2020) (citing to several studies that examine social media addiction and its impact on important capabilities in adolescence).

56. See Rachel Lerman & Cristiano Lima-Strong, *TikTok, Snap, YouTube Defend How They Protect Kids Online in Congressional Hearing*, WASH. POST (Oct. 26, 2021), <https://www.washingtonpost.com/technology/2021/10/26/tiktok-snapchat-youtube-congress-hearing/> [<https://perma.cc/AY2Y-ZRYX>]; Brian Fung & Clare Duffy, *Kids Aren’t Safe on Social Media, Lawmakers Say. Tech CEOs Are Back in DC to Pledge (Again) That They’ll Handle It*, CNN (Jan. 29, 2024, 6:42 PM), <https://www.cnn.com/2024/01/29/tech/big-tech-ceos-youth-safety-senate-testimony/index.html> [<https://perma.cc/U54Z-EGZQ>].

57. *Introducing Instagram Teen Accounts: Built-In Protections for Teens, Peace of Mind for Parents*, META (Sept. 17, 2024), <https://about.fb.com/news/2024/09/instagram-teen-accounts/> [<https://perma.cc/23KC-JF4V>].

58. See Mike Isaac & Natasha Singer, *Instagram, Facing Pressure over Child Safety Online, Unveils Sweeping Change*, N.Y. TIMES (Sept. 18, 2024), <https://www.nytimes.com/2024/09/17/technology/instagram-teens-safety-privacy-changes.html> [<https://perma.cc/G5W7-382N>].

others remained skeptical that the modifications would result in any meaningful change to the app's harmful effects.<sup>59</sup>

In 2022, Snapchat introduced "Family Center," a parental control tool that provides parents with insights into their teens' online activity.<sup>60</sup> Through Family Center, parents can monitor which friends their teens have recently corresponded with, limit their teen's ability to view certain content, and review their teen's friends.<sup>61</sup> Snapchat also implemented various platform updates to protect adolescent users, such as making it more difficult for strangers to discover and contact minors on the app and providing teens with in-app warnings when they add a friend with whom they do not share mutual contacts.<sup>62</sup>

TikTok has also rolled out features aimed at minor safety.<sup>63</sup> In the United States, TikTok offers users under thirteen a curated, view-only experience that has heightened privacy protections.<sup>64</sup> In April 2020, TikTok introduced "Family Pairing," which allows parents to link their accounts to their teenager's account and access a suite of safety tools.<sup>65</sup> These tools include screen time management, a restricted mode that limits exposure to sensitive content, and limitations on who can send younger users direct messages.<sup>66</sup>

59. See Jonathan Haidt (@JonHaidt), X (Sept. 17, 2024, 10:51 AM), <https://x.com/JonHaidt/status/1836055259426197635> [perma.cc/T9TF-NWZD] ("I am cautiously optimistic about Meta's new teen accounts. It is the biggest and best step forward I have seen from them."). *But see, e.g.*, Zephyr Teachout (@ZephyrTeachout), X (Sept. 17, 2024, 12:56 PM), [https://x.com/zephyrteachout/status/1836086822432022581?s=42&t=iMoRQIK\\_5cJdVfxTSuP3nw](https://x.com/zephyrteachout/status/1836086822432022581?s=42&t=iMoRQIK_5cJdVfxTSuP3nw) [perma.cc/A9C3-QXF2] ("Fine. But Instagram is not doing anything about removing the dangerous design of addictive feeds, targeting children based on their behavior to send them feeds designed to keep them hooked."); Roger McNamee (@Moonalice), X (Sept. 17, 2024, 6:06 PM), [https://x.com/moonalice/status/1836164913137619432?s=42&t=iMoRQIK\\_5cJdVfxTSuP3nw](https://x.com/moonalice/status/1836164913137619432?s=42&t=iMoRQIK_5cJdVfxTSuP3nw) [perma.cc/V9YQ-Q2MN] ("This @nytimes article — about Meta's last minute effort to avoid regulation of Instagram — is nothing more than stenography. What Meta did was BS. It does not address real issues: harvesting data from minors, targeting ads at minors, algorithmic amplification, or bullying.").

60. *Introducing Family Center on Snapchat*, SNAP INC. (Aug. 9, 2022), <https://values.snap.com/news/introducing-family-center-on-snapchat> [perma.cc/F99H-PPMT].

61. *What Is Family Center?*, SNAP INC., <https://help.snapchat.com/hc/en-us/articles/7121384944788-What-is-Family-Center> [https://perma.cc/4AM4-BBUV] (last visited Mar. 7, 2025).

62. See *Expanding Our Work to Combat the Fentanyl Epidemic*, SNAP INC. (Jan. 18, 2022), <https://values.snap.com/news/expanding-our-work-to-combat-the-fentanyl-epidemic> [perma.cc/GJ7N-4EGD]; *Introducing New Safeguards to Protect Our Community*, SNAP INC. (Sept. 7, 2023), <https://values.snap.com/news/new-safeguards-for-snapchatters-2023> [https://perma.cc/UYP8-K5HQ].

63. See *TikTok Under 13 Experience*, TIKTOK, <https://support.tiktok.com/en/safety-hc/account-and-user-safety/tiktok-under-13-experience> [perma.cc/Y45T-ZE9F] (last visited Mar. 7, 2025).

64. See *id.*

65. See *TikTok: How Congress Can Safeguard American Data Privacy and Protect Children from Online Harms: Hearing Before the H. Energy and Com. Comm.*, 118th Cong. 5 (2023) (written statement of Shou Chew, CEO, TikTok Inc.); Jeff Collins, *TikTok Introduces Family Pairing*, TIKTOK (Apr. 15, 2020), <https://newsroom.tiktok.com/en-us/tiktok-introduces-family-pairing> [https://perma.cc/5XLE-F8R9].

66. See Collins, *supra* note 65.

Although a step in the right direction, these changes fail to address the core design features that drive social media dependency and harm.<sup>67</sup> A report from the American Psychological Association published in April 2024 noted that there have been “few meaningful changes” made by social media companies to protect young users from online harms.<sup>68</sup> Drawing on psychological research, the report reveals that young people are hypersensitive to content recommended by algorithms and are less capable of resisting the urges created by features like infinite scroll and push notifications.<sup>69</sup> The report concludes that until social media companies implement meaningful design changes to their platforms, teens will remain vulnerable to the inherent risks associated with social media.<sup>70</sup>

For example, when Instagram first introduced parental controls, the default time restriction shown to parents was three hours.<sup>71</sup> Senator Amy Klobuchar challenged this decision during a congressional hearing, questioning whether Instagram’s CEO believed that spending three hours on the platform was “a good use of kids’ time.”<sup>72</sup> Similarly, when Snapchat introduced its artificial intelligence chatbot, advocacy groups demanded the platform disable the feature by default for teen accounts, expressing concern that the chatbot was meant to “enroll American kids and adolescents in its social experiment.”<sup>73</sup> This reaction underscores the broader concern that platforms only take action to safeguard teen users when regulators and enforcers are active.<sup>74</sup>

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67. *See generally* FED. TRADE COMM’N, *supra* note 4, at ii. The Federal Trade Commission deemed self-regulation “a failure.” *Id.* Professor Zephyr Teachout states: “With TikTok, Instagram, and other platforms using algorithms to send teen viewers addictive, dangerous content—and reaping immense profits—self-regulation has clearly failed.” Zephyr Teachout, “*In Techno Parentis*”: *Who Should Regulate the Online Lives of Teenagers?*, THE NATION (Apr. 2, 2024), <https://www.thenation.com/article/society/teenagers-social-media-regulation/> [perma.cc/M9TQ-XU39]. To track self-regulation efforts, Issue One, a political reform group, developed the “Big Tech’s Broken Promises” tracker which catalogs “the history of public proclamations and policy changes announced by the largest technology companies that purported to protect users . . . [and] prioritize vulnerable communities.” *Big Tech’s Broken Promises*, ISSUE ONE, <https://issueone.org/projects/big-techs-broken-promises/> [perma.cc/X5U3-F2HF] (last visited Mar. 7, 2025). Issue One reported nearly three dozen instances of ineffective self-regulation by Instagram, Snapchat, and TikTok. *See id.*

68. AM. PSYCH. ASS’N, *POTENTIAL RISKS OF CONTENT, FEATURES, AND FUNCTIONS: THE SCIENCE OF HOW SOCIAL MEDIA AFFECTS YOUTH 1* (2024).

69. *See id.* at 2.

70. *See id.* at 4.

71. *See Protecting Kids Online: Instagram and Reforms for Young Users: Hearing Before the Subcomm. on Consumer Prot., Prod. Safety, and Data Sec. of the S. Comm. on Com., Sci. & Transp.*, 117th Cong. 16–17 (2021).

72. *Id.*

73. *See* Samantha Murphy Kelly, *Snapchat’s New AI Chatbot Is Already Raising Alarms Among Teens and Parents*, CNN (Apr. 27, 2023, 11:43 AM), <https://www.cnn.com/2023/04/27/tech/snapchat-my-ai-concerns-wellness/index.html> [https://perma.cc/NA6E-DG24]; Aisha Malik, *Snapchat Now Lets Parents Restrict Their Teens from Using the App’s ‘My AI’ Chatbot*, TECHCRUNCH (Jan. 11, 2024, 10:17 AM), <https://techcrunch.com/2024/01/11/snapchat-lets-parents-restrict-their-teens-using-apps-my-ai-chatbot-view-their-privacy-setting/> [https://perma.cc/YFN8-GQBL].

74. *See Big Tech and the Online Child Sexual Exploitation Crisis: Hearing Before the S. Comm. on the Judiciary*, 118th Cong. 5 (2024) (statement of Sen. Dick Durbin, Chairman, S. Comm. on the Judiciary) (“Coincidentally, several of these companies implemented common

Self-regulation is inherently limited.<sup>75</sup> Social media companies have a strong market incentive to capture, retain, and increase user engagement, as their business models depend on it.<sup>76</sup> Consequently, they have little incentive to mitigate the harmful effects of their design choices.<sup>77</sup> Any changes the companies make to their platforms' design will be implemented such that it avoids reducing user engagement and negatively impacting their bottom line.<sup>78</sup>

The platforms' failure to self-regulate has elicited a strong government response.<sup>79</sup> In 2021, Senator Edward J. Markey proposed amendments to the Children Online Privacy Protection Act of 1998<sup>80</sup> (COPPA).<sup>81</sup> The amendments—known as “COPPA 2.0”—sought to enhance protections regarding the online collection of teens' personal data and information.<sup>82</sup> The following year, Senators Richard Blumenthal and Marsha Blackburn introduced the Kids Online Safety Act (KOSA), a robust piece of legislation designed to protect kids online.<sup>83</sup> KOSA would create a legal duty of care for social media companies to prevent and mitigate harms that their platforms cause “to young users as a result of their own design choices, such as their recommendation algorithms and addictive product features.”<sup>84</sup> As of December 2024, the U.S. Senate passed KOSA and COPPA 2.0 by an

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sense child safety improvements within the last week, days before their CEOs would have to justify their lack of action before this committee.”); Ileana Thompson, Note, *Influenced into Addiction: Using the Multi-District Litigation Against Opioid Companies as a Framework for Social Media Companies*, 76 FED. COMM'NS L.J. 37, 57–58 (2023) (“Social media companies . . . have no incentives to self-regulate in light of the immunizing protections that Section 230 has been interpreted to afford them.”); Michael A. Cusumano, Annabelle Gawer & David B. Yoffie, *Social Media Companies Should Self-Regulate. Now.*, HARV. BUS. REV. (Jan. 15, 2021), <https://hbr.org/2021/01/social-media-companies-should-self-regulate-now> [https://perma.cc/T695-4YRR] (“[F]irms . . . get serious about self-regulation primarily when they see a credible threat of government regulation . . .”).

75. See Costello et al., *supra* note 4, at 147.

76. See FED. TRADE COMM'N, *supra* note 4, at 38; Olivier Sylvain, *Platform Realism, Informational Inequality, and Section 230 Reform*, 131 YALE L.J.F. 475, 485 (2022).

77. See Costello et al., *supra* note 4, at 147.

78. See Teachout, *supra* note 67.

79. See Cristiano Lima-Strong, Cat Zakrzewski, Will Oremus & Naomi Nix, *Meta's Zuckerberg Apologizes to Child Abuse Victims in Emotional Senate Hearing*, WASH. POST (Jan. 31, 2024), <https://www.washingtonpost.com/technology/2024/01/31/senate-hearing-child-safety-tech-ceos-zuckerberg/> [https://perma.cc/7VFX-3XKB] (“Congress has held dozens of hearings with tech executives in recent years . . .”).

80. 15 U.S.C. § 6501.

81. See Press Release, Sen. Edward Markey, Senators Markey and Cassidy Reintroduce COPPA 2.0, Bipartisan Legislation to Protect Online Privacy of Children and Teens (May 3, 2023), <https://www.markey.senate.gov/news/press-releases/senators-markey-and-cassidy-reintroduce-coppa-20-bipartisan-legislation-to-protect-online-privacy-of-children-and-teens> [https://perma.cc/EL3F-4G5V]; Neeraj Chandra, *Understanding the Senate's Youth Privacy Bills*, BIPARTISAN POL'Y CTR. (Aug. 17, 2022), <https://bipartisanpolicy.org/blog/senates-youth-privacy-bills/> [https://perma.cc/Q2RQ-FCHQ].

82. See Chandra, *supra* note 81.

83. See *What Is the Kids Online Safety Act (KOSA)?*, SEN. RICHARD BLUMENTHAL, <https://www.blumenthal.senate.gov/about/issues/kids-online-safety-act> [https://perma.cc/9UZV-HQRU] (last visited Mar. 7, 2025).

84. See *id.*

overwhelming majority (ninety-one to three) after facing significant pressure by activists and Senate leaders.<sup>85</sup> However, the bills are stalled in the U.S. House of Representatives.<sup>86</sup> The Wall Street Journal reported that Google and Meta have collectively spent \$90 million on lobbying against KOSA and COPPA 2.0, among other legislation.<sup>87</sup>

*B. Competing for Teen Attention  
in the Attention Economy*

Herbert A. Simon, a psychologist and economist, coined the term “attention economy” in 1971 to describe the state of “information overload,” where “a wealth of information creates a poverty of attention.”<sup>88</sup> In this economy, attention is both a valuable and a finite resource.<sup>89</sup> Technology companies, from Google to Meta, compete for individuals’ attention, which is then sold to third-party advertisers.<sup>90</sup> Social media platforms, like other technology companies, operate by cultivating users’ attention to sell.<sup>91</sup>

In September 2024, the Federal Trade Commission (FTC) released a comprehensive report examining the data practices of social media platforms.<sup>92</sup> The report highlights how the companies’ profit models are closely tied to design practices that exploit user engagement, raising questions about their accountability for the resulting harms.<sup>93</sup> It details how social media companies collect, share, and monetize user data related to both on and off platform activity.<sup>94</sup> This includes data about how users engage with competing social media platforms.<sup>95</sup> The FTC reports that as children

85. See Oma Seddiq, *Big Tech Gets Rare Rebuke in Senate with Kids’ Privacy Rules*, BLOOMBERG L. (July 30, 2024, 6:12 PM), <https://news.bgov.com/bloomberg-government-news/senate-passes-landmark-legislation-to-protect-children-online> [https://perma.cc/DD79-53DU]; Cristiano Lima-Strong, *Senate Passes Landmark Bills to Protect Kids Online, Raising Pressure on House*, WASH. POST (July 30, 2024), <https://www.washingtonpost.com/technology/2024/07/30/senate-kosa-passes-kids-online-privacy/> [https://perma.cc/DD5P-794B].

86. See Press Release, S. Comm. on Com., Sci., Transp., Bipartisan Senate Leaders Urge House GOP to Stand Up to Tech Companies, Protect Children From Social Media Harms & Pass Kids Online Privacy Legislation Before End of Year (Dec. 4, 2024), <https://www.commerce.senate.gov/2024/12/bipartisan-senate-leaders-urge-house-gop-to-stand-up-to-tech-companies-protect-children-from-social-media-harms-pass-kids-online-privacy-legislation-before-end-of-year> [https://perma.cc/6JBM-FVJR]; Georgia Wells, Kristina Peterson & Natalie Andrews, *Inside Big Tech’s Bid to Sink the Online Kid Safety Bill*, WALL ST. J. (Nov. 17, 2024, 5:30 AM), <https://www.wsj.com/politics/policy/meta-google-lobbying-child-online-safety-bill-5ee63dcc> [https://perma.cc/KD2L-NV5N].

87. See Wells et al., *supra* note 86. Relatedly, NetChoice, a technology industry association, is lobbying and suing governments to overturn state and federal technology regulations. See ACCOUNTABLE TECH, REPORT: THE TWO FACES OF BIG TECH (2024).

88. Herbert A. Simon, *Designing Organizations for an Information-Rich World*, in COMPUTERS, COMMUNICATIONS, AND THE PUBLIC INTEREST (Martin Greenberger ed., 1971).

89. See Tim Wu, *Blind Spot: The Attention Economy and the Law*, 82 ANTITRUST L.J. 771, 771 (2019).

90. See *id.* at 777.

91. See Bhargava & Velasquez, *supra* note 55, at 321.

92. See FED. TRADE COMM’N, *supra* note 4.

93. See *id.* at ii.

94. See *id.* at 17.

95. See *id.* at 18.

and teens spend more time online, their information is increasingly likely to be collected and used for delivering targeted advertisements.<sup>96</sup> The report also observes that social media companies are incentivized to boost engagement among teen users, as this leads to exposure to more ads and marketing messages.<sup>97</sup> Additionally, it explains the complex and covert nature of the companies' advertising ecosystems, which make it difficult for users to understand how their data is being collected and used.<sup>98</sup> Finally, the FTC acknowledges the implications this data collection and sharing has for competition.<sup>99</sup>

This cyclical model directly incentivizes companies to design platforms that maximize engagement, often at the expense of user well-being.<sup>100</sup> Most social media users do not pay to use these platforms.<sup>101</sup> Instead, the companies rely on a feedback loop of engagement, data collection, and targeted advertisements.<sup>102</sup> Revenue is primarily generated by selling ads to third parties, with ads then strategically placed throughout the platform to capture user attention.<sup>103</sup> This practice raises ethical concerns about the exploitation of teens' personal data for profit, particularly given their heightened vulnerability to persuasive design.<sup>104</sup>

Companies rely on expansive data collection to operate their targeted advertising business.<sup>105</sup> This data informs algorithmic decisions about what content users see.<sup>106</sup> As users engage more with the platform, it creates greater opportunities to show them ads.<sup>107</sup> The more ads a user is shown, the more profit the company generates.<sup>108</sup> With engagement over time, the

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96. *See id.* at 45.

97. *See id.*

98. *See id.* at 47–48.

99. *See id.* at 78–79.

100. *See id.* at 45; Costello et al., *supra* note 4, at 137.

101. *See* Bernstein, *supra* note 26, at 70.

102. *See* FED. TRADE COMM'N, *supra* note 4, at 12–14.

103. *See id.* at 45; Facebook Inc., Annual Report (Form 10-K) 7 (Dec. 31, 2023) (“[W]e generate substantially all of our revenue from selling advertising placements on our family of apps to marketers . . . .”); Snap Inc., *supra* note 37, at 13 (“We generate substantially all of our revenue from advertising.”). TikTok is privately owned, so it does not publicly report on its earnings. However, its projected advertising revenue in 2024 is more than \$11 billion. *See* Statista Rsch. Dep't, *TikTok Net Advertising Revenue in the United States from 2021 to 2024 (in Billion U.S. Dollars)*, STATISTA (Dec. 10, 2024), <https://www-statista-com.fls.idm.oclc.org/statistics/1302319/tiktok-ad-revenue-us/> [<https://perma.cc/2YXN-JQLY>].

104. *See* Bhargava & Velasquez, *supra* note 55, at 334–35 (“Not only are social media companies inflicting the harms associated with the addiction but they get the user to contribute to their ability to do this. . . . [This] makes social media companies' act of addicting their users particularly perverse.”); *see also infra* Part I.B.1; *supra* Part I.A.2.

105. *See* FED. TRADE COMM'N, *supra* note 4, at 63.

106. *See* Kyle Langvardt, *Regulating Habit-Forming Technology*, 88 FORDHAM L. REV. 129, 137 (2019) (describing the online advertising industry and behaviorally targeted advertisements); Catherine Price, *Trapped - The Secret Ways Social Media Is Built to Be Addictive (and What You Can Do to Fight Back)*, BBC SCI. FOCUS (Oct. 29, 2018, 4:00 PM), <https://www.sciencefocus.com/future-technology/trapped-the-secret-ways-social-media-is-built-to-be-addictive-and-what-you-can-do-to-fight-back> [<https://perma.cc/MW7B-YEW4>].

107. *See* FED. TRADE COMM'N, *supra* note 4, at 45.

108. *See id.* at 63.

company collects even more data, allowing for increasingly personalized advertisements and content.<sup>109</sup> To be sure, a decline in user engagement would directly impact a platform's ability to generate revenue.<sup>110</sup>

Algorithms are essential to this model, as they prioritize highly engaging content over content that generates lower engagement.<sup>111</sup> Across social media platforms, algorithms are deployed to recommend and moderate content, target users with tailored advertisements, and collect large swaths of data.<sup>112</sup>

### 1. Technologies Used to Keep Teens Scrolling

Persuasive technology is inherent to social media. Persuasive technology is technology that elicits specific human attitudes or behaviors.<sup>113</sup> The Center for Humane Technology explains that social media companies use persuasive technology to create a sense of urgency online, push engagement with negative content, and encourage a constant sense of “seeking” or “wanting.”<sup>114</sup> Instagram, Snapchat, and TikTok use these persuasive tactics to extend the amount of time a user spends on their platform.<sup>115</sup> Each design element is informed by user data, such as how the user engages with the platform and the user's demographics.<sup>116</sup>

Teens are particularly vulnerable to product features that create addictive tendencies.<sup>117</sup> This includes product features such as infinite scroll and

109. *See id.* at 38, 54.

110. *See* Meta Platforms, Inc., Annual Report (Form 10-K) 15 (Dec. 31, 2021) (“Any significant decrease in user retention . . . or engagement could render our products less attractive to users, marketers, and developers, which is likely to have a material and adverse impact on our ability to deliver ad impressions and, accordingly, our revenue, business, financial condition, and results of operations.”); Bernstein, *supra* note 26, at 74–75; Sheera Frenkel, Ryan Mac & Mike Isaac, *Instagram Struggles with Fears of Losing Its ‘Pipeline’: Young Users*, N.Y. TIMES (Oct. 16, 2021), <https://www.nytimes.com/2021/10/16/technology/instagram-teens.html> [<https://perma.cc/PVY8-R5FE>].

111. *See* Elizabeth M. Jaffe, *Algorithms, Filters, and Anonymous Messaging: The Addictive Dark Side of Social Media*, 23 J. HIGH TECH. L. 260, 264 (2023).

112. *See* FED. TRADE COMM’N, *supra* note 4, at 49–50.

113. *See Persuasive Technology: How Does Technology Use Design to Influence My Behavior*, CTR. FOR HUMANE TECH. (Aug. 17, 2021), <https://www.humanetech.com/youth/persuasive-technology> [<https://perma.cc/U6PS-BU2P>]; Chavie Lieber, *Tech Companies Use “Persuasive Design” to Get Us Hooked. Psychologists Say It’s Unethical.*, VOX (Aug. 8, 2018, 2:30 PM), <https://www.vox.com/2018/8/8/17664580/persuasive-technology-psychology> [<https://perma.cc/P9UB-RZPL>]; B.J. Fogg, *Persuasive Technologies: Now Is Your Chance to Decide What They Will Persuade Us to Do—And How They’ll Do It.*, 42 COMM’N ACM 27, 27 (1999) (defining persuasive technology as “a computing system . . . intentionally designed to change a person’s attitudes or behavior in a predetermined way”).

114. *See Social Media and the Brain*, CTR. FOR HUMANE TECH., <https://www.humanetech.com/youth/social-media-and-the-brain> [<https://perma.cc/6Z8A-PYYC>] (Aug. 17, 2021).

115. *See* Bernstein, *supra* note 26, at 69.

116. *See* FED. TRADE COMM’N, *supra* note 4, at 51–55.

117. *See* Costello et al., *supra* note 4, at 146–47; U.S. SURGEON GEN., *supra* note 7, at 9–11.

autoplay, personalized content recommendation feeds, and dark patterns.<sup>118</sup> While driving engagement, these features also provide feedback to the platform's algorithms on what content or features the user engages with.<sup>119</sup>

Infinite scroll allows users to endlessly view new content with a swipe of their finger.<sup>120</sup> Users are automatically served content without leaving the page or clicking into a different window or screen.<sup>121</sup> In recent cases brought against social media companies, the plaintiffs allege that infinite scroll teases the user to continue scrolling without pause, making it particularly challenging for children to stop engaging.<sup>122</sup> Autoplay features work in a similar way and are "intended to keep children glued" to their screens.<sup>123</sup> Infinite scroll and autoplay can be particularly damaging when adolescents are shown inappropriate content.<sup>124</sup> These features exploit psychological tendencies, such as dopamine-driven reward systems, making them particularly harmful to teens whose self-regulation abilities are still developing.<sup>125</sup>

To make matters more challenging, social media platforms use highly personalized content feeds to capture and keep teen attention.<sup>126</sup> These

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118. See U.S. SURGEON GEN., *supra* note 7, at 9–11; Costello et al., *supra* note 4, at 140; FED. TRADE COMM'N, BRINGING DARK PATTERNS TO LIGHT 15–19 (2022). The surgeon general has explained that product design is a key driver of excessive and problematic teen social media use. See U.S. SURGEON GEN., *supra* note 7, at 9–11. Product features like push notifications, infinite scroll, autoplay, and targeted algorithms that are designed to maximize user engagement are deemed particularly harmful. See *id.* The advisory also examines how teens viewing extreme, inappropriate, and harmful content on social media platforms exacerbates existing mental health disorders or perpetuates harms like body dissatisfaction, eating disorders, social comparison, and low self-esteem. See *id.* at 8–9.

119. See Langvardt, *supra* note 106, at 145.

120. See Hilary Andersson, *Social Media Apps Are 'Deliberately' Addictive to Users*, BBC (July 3, 2018), <https://www.bbc.com/news/technology-44640959> [<https://perma.cc/63PV-AXWZ>].

121. See Rachel Botsman, *Tech Leaders Can Do More to Avoid Unintended Consequences*, WIRED (May 24, 2022, 8:00 AM), <https://www.wired.com/story/technology-unintended-consequences/> [<https://perma.cc/RG3Q-33CC>]. In 2023, Senator Josh Hawley introduced the SMART Act, which aimed to curb the use of addictive design in online applications. SMART Act, S. 2314, 116th Cong. (2019). The bill describes infinite scroll as "[t]he use of a process that automatically loads and displays additional content . . . when a user approaches or reaches the end of loaded content without requiring the user to specifically request (such as by pushing a button or clicking an icon, but not by simply continuing to scroll) that additional content be loaded and displayed." *Id.* § 3(1).

122. See *District of Columbia v. Meta Platforms, Inc.*, No. 2023-CAB-6550, 2024 D.C. Super. LEXIS 27, at \*5 (D.C. Super. Ct. Sept. 9, 2024).

123. See *id.*; Alex Hern, *US Could Ban 'Addictive' Autoplay Videos and Infinite Scrolling Online*, THE GUARDIAN (July 31, 2019, 05:57 AM), <https://www.theguardian.com/media/2019/jul/31/us-could-ban-addictive-autoplay-videos-and-infinite-scrolling-online> [<https://perma.cc/32K9-N79E>].

124. See KRISTEN E. BUSCH, LING ZHU & LAURIE HARRIS, CONG. RSCH. SERV., IF12246, WHAT HIDES IN THE SHADOWS: DECEPTIVE DESIGN OF DARK PATTERNS 1 (2022).

125. See Costello et al., *supra* note 4, at 146–47; *Attention & Mental Health*, CTR. FOR HUMANE TECH, <https://www.humanetech.com/attention-mental-health> [<https://perma.cc/M3HY-W7H3>] (last visited Mar. 7, 2025).

126. See *How Posts Are Chosen for Explore on Instagram*, INSTAGRAM, <https://help.instagram.com/487224561296752> [<https://perma.cc/D752-2ZJR>] (last visited Mar. 7, 2025); *How We Rank Content on Discover*, SNAPCHAT, <https://help.snap>



features are known as the “Explore” page on Instagram, the “Spotlight” section on Snapchat,<sup>127</sup> and the “For You” page on TikTok.<sup>128</sup> The content displayed to users is based on the user’s activity and preferences and is curated by each platform’s algorithm.<sup>129</sup>

TikTok describes its For You page as a core experience, and its meteoric rise in popularity is often attributed to the For You page’s precise and personal recommendations.<sup>130</sup> The For You page delivers algorithmically recommended content based on a user’s interactions on TikTok, including liking a video or how long they watch a piece of content.<sup>131</sup> The goal of the recommendation system is twofold: increasing (1) user retention and (2) time spent on the platform.<sup>132</sup> TikTok says that its recommendation system operates using both “prediction driven by machine learning” and a user’s behavior, such as likes, comments, and playtime.<sup>133</sup> As a result, TikTok determined that it would take only 260 videos, or under thirty-five minutes, for a user to form a habit.<sup>134</sup> Internal research also suggests that TikTok is aware that the application’s design “led to a constant and irresistible urge to keep opening the app.”<sup>135</sup>

Instagram and Snapchat’s pages operate similarly to TikTok.<sup>136</sup> Instagram’s Explore page has faced significant criticism in recent years.<sup>137</sup>

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hat.com/hc/en-us/articles/8961631424020-How-We-Rank-Content-on-Discover [https://perma.cc/UM3Y-AFQE] (last visited Mar. 7, 2025); *For You*, TIKTOK, https://support.tiktok.com/en/getting-started/for-you [https://perma.cc/6JZH-L26P] (last visited Mar. 7, 2025).

127. Snapchat has two feeds known as “Discover” and “Spotlight.” See SNAPCHAT, *supra* note 126. Recent reporting suggests that Snapchat may be combining these feeds into one. See Maxwell Zeff, *Snapchat Tests ‘Simple’ Version of the App Without Snap Map or Stories Tab*, TECHCRUNCH (Sept. 17, 2024, 10:15 AM), https://techcrunch.com/2024/09/17/snapchat-tests-simple-version-of-the-app-without-snap-map-or-stories-tab/ [https://perma.cc/WR9D-6Y58]. For clarity, this Note will refer only to the Spotlight feature.

128. See INSTAGRAM, *supra* note 126; SNAPCHAT, *supra* note 126; TIKTOK, *supra* note 126.

129. See INSTAGRAM, *supra* note 126; SNAPCHAT, *supra* note 126; TIKTOK, *supra* note 126.

130. See Ben Smith, *How TikTok Reads Your Mind*, N.Y. TIMES (Dec. 5, 2021), https://www.nytimes.com/2021/12/05/business/media/tiktok-algorithm.html [https://perma.cc/LQG5-VHXE]; Alex Hern, *How TikTok’s Algorithm Made It a Success: ‘It Pushes the Boundaries’*, THE GUARDIAN (Oct. 24, 2022, 1:00 AM), https://www.theguardian.com/technology/2022/oct/23/tiktok-rise-algorithm-popularity [https://perma.cc/M3HY-W7H3]; *How TikTok Recommends Videos #ForYou*, TIKTOK (June 18, 2020), https://newsroom.tiktok.com/en-us/how-tiktok-recommends-videos-for-you [https://perma.cc/6A4D-H4HQ]; *Inside TikTok’s Algorithm: A WSJ Video Investigation*, WALL ST. J. (July 21, 2021, 10:26 AM), https://www.wsj.com/articles/tiktok-algorithm-video-investigation-11626877477 [https://perma.cc/C2MU-UYMC].

131. See *Guardian’s Guide*, TIKTOK (Jan. 30, 2025), https://www.tiktok.com/safety/en/guardians-guide/ [https://perma.cc/824P-CWNV]; Smith, *supra* note 130.

132. See Smith, *supra* note 130.

133. See *id.*

134. See Bobby Allyn, Sylvia Goodman & Dara Karr, *TikTok Executives Know About App’s Effect on Teens, Lawsuit Documents Allege*, NPR (Oct. 11, 2024, 5:30 AM), https://www.npr.org/2024/10/11/g-s1-27676/tiktok-redacted-documents-in-teen-safety-lawsuit-revealed [https://perma.cc/3DHA-8WRT].

135. *Id.*

136. See INSTAGRAM, *supra* note 126; SNAPCHAT, *supra* note 126.

137. See Wells et al., *supra* note 36. Instagram’s negative effect on teens, and specifically teen girls, garnered national attention when Frances Haugen, a former civic misinformation

The company's internal research has warned that Explore can "send users deep into content that can be harmful."<sup>138</sup> Instagram's researchers also discovered that its teen users often feel addicted to the platform and unable to log off.<sup>139</sup>

Another example of the persuasive technology deployed by Instagram, Snapchat, and TikTok is dark patterns.<sup>140</sup> Dark patterns are design techniques that coerce or deceive users into taking an action they would not ordinarily take.<sup>141</sup> Oftentimes, a dark pattern will force users to take a certain action to maintain some functionality on the platform.<sup>142</sup>

Two examples of dark patterns are Snapchat's "Snapstreak" and "Snapscore" features.<sup>143</sup> A Snapstreak tells two users how many consecutive days they have snapped one another.<sup>144</sup> A Snapscore is a numerical value shared to a Snapchatter's profile that indicates the user's level of engagement with the app.<sup>145</sup> According to Snapchat, "Your Snapchat score is determined by a super-secret, special equation that combines the number of Snaps you've sent and received, the Stories you've posted, and a couple other factors."<sup>146</sup> Snapstreaks qualify as dark patterns because it gamifies a friendship by assigning the relationship an engagement score and encourages users to open

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and counterespionage product manager at Meta, blew the whistle on Facebook's proclivity for choosing profits over online safety. See Ryan Mac & Cecilia Kang, *Whistle-Blower Says Facebook 'Chooses Profits Over Safety'*, N.Y. TIMES (June 23, 2023), <https://www.nytimes.com/2021/10/03/technology/whistle-blower-facebook-frances-haugen.html> [https://perma.cc/52DR-A9UA]. Haugen released troves of Instagram's internal documents showing that the platform can be damaging for many teens. See Wells et al., *supra* note 36. Many teens pointed to Instagram as the cause of their increased anxiety and depression. See *id.* The documents explained that 32 percent of teen girls said Instagram makes them feel worse when they feel badly about their bodies. *Id.* And teen boys were similarly affected, with 40 percent experiencing negative social comparison. *Id.* Social comparison is "when users compare themselves to others on social media." Adele Samrap, Wayne A. Warburton & Andrew M. Collins, *Social Comparisons: A Potential Mechanism Linking Problematic Social Media Use with Depression*, 11 J. BEHAV. ADDICTIONS 607, 607 (2022). Since Haugen's disclosures, Silicon Valley whistleblowers have come forward to describe how Big Tech manipulates users. See Bernstein, *supra* note 26, at 68.

138. See Wells et al., *supra* note 36.

139. See *id.*

140. See Arielle Pardes, *How Facebook and Other Sites Manipulate Your Privacy Choices*, WIRED (Aug. 12, 2020, 7:00 AM), <https://www.wired.com/story/facebook-social-media-privacy-dark-patterns/> [https://perma.cc/3D3A-4L9S].

141. See FED. TRADE COMM'N, *supra* note 118, at 2; BUSCH ET AL., *supra* note 124, at 1.

142. See Imran Khalid, *Hooked on Snapchat*, SPIEGELOOG U. OF AMSTERDAM (June 8, 2022), <https://www.spiegelooq.amsterdam/hooked-on-snapchat/> [https://perma.cc/KM8Q-MX2T].

143. See *id.*

144. See Jacob Shamsian, *Teens Are Obsessed with This One Snapchat Score That Can Make or Break Friendships*, BUS. INSIDER (Dec. 15, 2016, 12:58 PM), <https://www.businessinsider.com/teens-are-obsessed-with-snap-streaks-on-snapchat-2016-12> [https://perma.cc/G5TQ-PVSV].

145. See Ron Lyons Jr. & William Antonelli, *How Does Your Snap Score Work?: How to Check and Raise Your Score*, BUS. INSIDER (July 23, 2021, 12:08 PM), <https://www.businessinsider.com/guides/tech/how-does-snap-score-work> [https://perma.cc/K7U9-UR59].

146. See *What Is a Snapscore?*, SNAPCHAT, <https://help.snapchat.com/hc/en-us/articles/7012326657044-What-is-a-Snapscore> [https://perma.cc/4S9K-T93Q] (last visited Mar. 7, 2025).

Snapchat every day to maintain their Snapstreaks.<sup>147</sup> Sapscores similarly gamify the platform, enabling social comparison by making scores visible to the user's friends.<sup>148</sup> The features are "an attempt to manipulate behaviour to increase the usage of the application" by gamifying the platform.<sup>149</sup> Gamification techniques both increase time spent on the platform and foster social media dependency, which can exacerbate mental health issues.<sup>150</sup>

## 2. The Problem of Inaccessible "Black Box" Technologies

"Black box" technologies describe "system[s] whose workings are mysterious."<sup>151</sup> Major platforms are reluctant to expose their technology practices and design choices, making what information they do share often opaque and difficult to understand.<sup>152</sup> How platforms engineer their algorithms and the choices that algorithms make are, thus, obscured in a "black box."<sup>153</sup> On the one hand, privacy over proprietary technology is necessary for platforms to compete against one another.<sup>154</sup> On the other hand, when platforms do communicate to users about their technology and the treatment of user data, it is presented in formats that are too complex for users to comprehend.<sup>155</sup> Oftentimes, platforms limit what information is shared about their algorithmic structures to preserve their public image.<sup>156</sup>

In response to social media's lack of self-reporting on its algorithmic practices, Congress and civil society have called for greater transparency into how social media designs its algorithms and deploys persuasive technology.<sup>157</sup> As there are no clear regulations in place, how social media

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147. See Khalid, *supra* note 142. Perhaps a testament to the effects of streaks on engagement, it was recently reported that TikTok may introduce streaks into its direct messaging interface. Ivan Mehta, *TikTok Is Testing Snapchat-Like Streaks*, TECHCRUNCH (June 6, 2024, 10:38 AM), <https://techcrunch.com/2024/06/06/tiktok-is-testing-snapchat-like-streaks/> [<https://perma.cc/S8D8-93GQ>].

148. See Khalid, *supra* note 142.

149. See *id.*

150. See *id.*; see also Dominique Kelly & Jacquelyn Burkell, *Documenting Privacy Dark Patterns: How Social Networking Sites Influence Users' Privacy Choices*, FIMS PUBL'NS, Jan. 2023, at 2.

151. FRANK PASQUALE, *THE BLACK BOX SOCIETY: THE SECRET ALGORITHMS THAT CONTROL MONEY AND INFORMATION* 3 (2015).

152. See *id.* at 6; Dennis Nguyen & Bjorn Beijnon, *The Data Subject and the Myth of the 'Black Box' Data Communication and Critical Data Literacy as a Resistant Practice to Platform Exploitation*, 27 INFO. COMM'N & SOC'Y 333, 340 (2024).

153. See Nguyen & Beijnon, *supra* note 152, at 340–41.

154. See *id.* at 340; Haochen Sun, *The Right to Know Social Media Algorithms*, 18 HARV. L. POL'Y REV. 1, 33 (2023).

155. See Nguyen & Beijnon, *supra* note 152, at 340.

156. See *id.* at 337; Renée DiResta, Laura Edelson, Brendan Nyhan & Ethan Zuckerman, *It's Time to Open the Black Box of Social Media*, SCI. AM. (Apr. 28, 2022), <https://www.scientificamerican.com/article/its-time-to-open-the-black-box-of-social-media/> [<https://perma.cc/SL8U-4S5X>].

157. See Nguyen & Beijnon, *supra* note 152, at 341; *Policy Reforms Toolkit*, CTR. FOR HUMANE TECH. (Jan. 10, 2022), <https://www.humanetech.com/policy-reforms> [<https://perma.cc/L88X-SXP5>]; Aditi Ramesh & Jesse Lechrich, *Key Pillars of the DSA/DMA and Pertinent*

algorithms “monitor and influence our behaviors” remains largely unknown.<sup>158</sup> To adequately measure, analyze, and respond to online harms produced by algorithms requires access to internal data that the platforms are unwilling to publicize.<sup>159</sup> Without it, researchers cannot properly investigate how social media algorithms shape information, spread content, and impact user behavior.<sup>160</sup> Further, greater transparency from social media companies about their operations can increase public trust and encourage platforms’ conformity with public values.<sup>161</sup>

### *C. Causes of Action in Tort and Expanding Defendant Liability*

Federal efforts to regulate social media companies and protect teens online have faced significant hurdles in Congress.<sup>162</sup> As a result, parties interested in holding social media companies liable for their negative impact on teens have turned to tort law, as discussed below in Part II.<sup>163</sup> To understand Parts II and III of this Note, a discussion of causes of action in tort and various theories of liability is required. Part I.C.1 reviews the elements of a negligence claim and examines instances where courts have deviated from its requirements. Part I.C.2 explores the evolution of products liability in tort law and introduces the concept of market-share liability.

#### 1. Negligence Claims and Proving But-For Causation

Negligence is an overarching theory of liability that attaches when a person acts carelessly, causing harm to another.<sup>164</sup> In bringing a negligence claim, the plaintiff “alleges that the defendant owed her a duty of reasonable care and injured her by breaching that duty.”<sup>165</sup> The plaintiff must show that:

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*US Tech Policy Proposals*, ACCOUNTABLE TECH (July 7, 2022), <https://accountabletech.org/s-taff-post/the-eu-is-rewriting-the-rules-of-the-digital-world-key-pillars-of-the-dsa-dma-and-pertinent-us-tech-policy-proposals/> [<https://perma.cc/JK84-PKLG>]; *see also* Algorithmic Justice and Online Platform Transparency Act, H.R.4624, 118th Cong. (2023) (requiring record-keeping and disclosures about algorithms that withhold or promote content); Platform Accountability and Transparency Act, S.5339, 117th Cong. (2022) (increasing researchers’ access to the data of large technology companies); Filter Bubble Transparency Act, S.2763, 116th Cong. (2019) (requiring platforms to give users the option to opt out of using user-data driven algorithms).

158. *See* Sun, *supra* note 154, at 3.

159. *See* DiResta et al., *supra* note 156.

160. *See id.*

161. *See* Mark MacCarthy, *How Online Platform Transparency Can Improve Content Moderation and Algorithmic Performance*, BROOKINGS INST. (Feb. 17, 2021), <https://www.brookings.edu/articles/how-online-platform-transparency-can-improve-content-moderation-and-algorithmic-performance/> [<https://perma.cc/UXX9-KMDT>].

162. *See supra* Part I.A.3.

163. *See infra* Part II.B.

164. *See* David G. Owen, *The Five Elements of Negligence*, 35 HOFSTRA L. REV. 1671, 1671 (2007).

165. John C. P. Goldberg & Benjamin C. Zipursky, *The Restatement (Third) and the Place of Duty in Negligence Law*, 54 VAND. L. REV. 657, 658 (2001).

- (1) The plaintiff suffered an injury,
- (2) The defendant owed a duty of care to the plaintiff,
- (3) The defendant breached that duty of care, and
- (4) The defendant's breach caused the plaintiff's injury.<sup>166</sup>

The fourth element relates to causation, which requires a plaintiff to demonstrate that the defendant's actions caused their injuries.<sup>167</sup> Establishing causation in social media cases is particularly challenging, as harm often results from cumulative exposure across multiple platforms.<sup>168</sup> This makes it difficult to attribute specific injuries to a single platform.<sup>169</sup>

Traditionally, courts have been unwilling to impose liability unless plaintiffs can establish but-for causation—a principle requiring proof that the plaintiff's harm would not have occurred but for the defendant's actions.<sup>170</sup> An important aspect of but-for causation is that the plaintiff identifies the person or entity that caused their injury.<sup>171</sup> Courts, however, have adapted the but-for causation requirement to allow plaintiffs to hold multiple and indeterminate manufacturers liable without proof of individual causation.<sup>172</sup>

Take, for example, the theory of multiple sufficient causes. In *Anderson v. Minneapolis, St. Paul & Sault Ste. Marie Railway Co.*,<sup>173</sup> the plaintiff alleged that the defendant carelessly started a fire that destroyed the plaintiff's property.<sup>174</sup> The defendant argued that before reaching the plaintiff's property, a separate, second fire was ignited by an unknown source and merged with the defendant's fire.<sup>175</sup> The Minnesota Supreme Court determined that neither fire was necessary to cause the property damage.<sup>176</sup> More specifically, the court held that if a fire set by the defendant "unites" with a fire ignited by an unknown cause, then the defendant will be held jointly and severally liable, even though either of the fires would have destroyed the plaintiff's property.<sup>177</sup> Had the court not adapted the but-for causation requirement—that is, requiring the plaintiff to show which fire caused the damage—the defendant would have escaped liability.<sup>178</sup> By

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166. See Yehuda Adar & Ronen Perry, *Negligence Without Harm*, 111 GEO. L.J. 187, 191 (2022).

167. See Donald G. Gifford, *The Challenge to the Individual Causation Requirement in Mass Products Torts*, 62 WASH. & LEE L. REV. 873, 875 (2005).

168. See Costello et al., *supra* note 4, at 137, 156.

169. See *id.* at 156.

170. See Louis Kaplow & Steven Shavell, *Fairness Versus Welfare*, 114 HARV. L. REV. 961, 1101 (2001); 57A AM. JUR. 2D *Negligence* § 395 (2022).

171. See David M. Schultz, *Market Share Liability in DES Cases: The Unwarranted Erosion of Causation in Fact*, 40 DEPAUL L. REV. 771, 771 (1991).

172. See Gifford, *supra* note 167, at 879.

173. 179 N.W. 45 (Minn. 1920), *overruled in part on other grounds by* Borsheim v. Great N. Ry. Co., 183 N.W. 519 (Minn. 1921).

174. See *id.* at 46.

175. See *id.* at 47.

176. See *id.* at 47–49.

177. *Id.* at 49.

178. See Mark A. Geistfeld, *The Doctrinal Unity of Alternative Liability and Market-Share Liability*, 155 U. PA. L. REV. 447, 463 (2006); see also *Anderson v. Minneapolis*, 179 N.W. at 49.

adapting the causation requirement, the Minnesota Supreme Court ensured that the injured plaintiff could seek redress for their injury.<sup>179</sup>

Following the court's decision in *Anderson v. Minneapolis*, the Restatement (Third) of Torts established the multiple sufficient causes doctrine.<sup>180</sup> It holds that “[i]f multiple acts occur, each of which . . . would have been a [but-for] factual cause of the physical harm at the same time in the absence of the other act(s), each act is regarded as a factual cause of the harm.”<sup>181</sup> Thus, the doctrine of multiple sufficient causes allows for several defendants to be held liable when there are two or more competing causes, each of which is sufficient on its own to cause the plaintiff's injury.<sup>182</sup>

## 2. An Overview of Products Liability

Products liability is a legal doctrine in which any party along a product's manufacturing chain can be liable for damage caused by the product.<sup>183</sup> To bring a products liability claim against a social media company, a plaintiff would need to show that the company's platform is harmful and that the company knew or should have known that their product design posed unreasonable risk.<sup>184</sup> As discussed below in Part II, plaintiffs' use of products liability against social media companies shifts the focus from content moderation to the platforms' design features.<sup>185</sup>

The Restatement (Third) of Torts defines products liability as: “[o]ne engaged in the business of selling or . . . distributing products who sells or distributes a defective product is subject to liability for harm to persons or property caused by the defect.”<sup>186</sup> To bring a products liability claim against a product manufacturer, one must show that:

- (1) The manufacturer places the product in the market,
- (2) The manufacturer knows the product will be used without additional inspection,
- (3) The product has a defect at the time of sale, and
- (4) The product's defect causes injury during intended use.<sup>187</sup>

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179. See Geistfeld, *supra* note 178, at 463.

180. See RESTATEMENT (THIRD) OF TORTS: PHYSICAL & EMOTIONAL HARM § 27 (AM. L. INST. 2010).

181. *Id.*

182. See *id.* § 27 cmt. a.

183. See *Products Liability*, CORNELL L. SCH.: LEGAL INFO. INST., [https://www.law.cornell.edu/wex/products\\_liability](https://www.law.cornell.edu/wex/products_liability) [perma.cc/35M3-JUAJ] (last visited Mar. 7, 2025).

184. See Costello et al., *supra* note 4, at 155–56.

185. See *infra* Part II.B.

186. RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 1 (AM. L. INST. 2012).

187. See *Escola v. Coca-Cola Bottling Co.*, 150 P.2d 436, 440–44 (Cal. 1944) (Traynor, J., concurring); *Greenman v. Yuba Power Prods., Inc.*, 377 P.2d 897, 900 (Cal. 1963).

a. *Evolving Tort Law to Account  
for Technological Changes*

Justice Roger J. Traynor's concurrence in *Escola v. Coca-Cola*<sup>188</sup> first proposed adapting tort law to hold manufacturers strictly liable for injuries caused by their products.<sup>189</sup> His reasoning centered on several key policy considerations.<sup>190</sup>

First, Justice Traynor argued that responsibility for injuries should rest with the party that "will most effectively reduce the hazards to life and health."<sup>191</sup> Justice Traynor recognized that manufacturers were best positioned to reduce such risks.<sup>192</sup> The advent of mass-produced and mass-marketed products altered the relationship between manufacturers and consumers, obligating manufacturers to protect consumers from harms associated with their product.<sup>193</sup> He contended that, unlike consumers who lacked the means to investigate a product's safety, manufacturers could anticipate and mitigate a product's risks.<sup>194</sup>

Justice Traynor also highlighted the information asymmetry between consumers and manufacturers.<sup>195</sup> The injured consumer frequently lacks access to evidence of a manufacturer's negligence due to their limited understanding of the manufacturing process.<sup>196</sup>

Products liability is similarly beneficial from an economic perspective.<sup>197</sup> Justice Traynor determined that the manufacturer, rather than the consumer, should bear the costs of injuries caused by their products.<sup>198</sup> Manufacturers can efficiently account for the cost of injuries by diffusing the cost into a product's price and spreading it among the public as "a cost of doing business."<sup>199</sup> Furthermore, placing the economic burden on manufacturers creates a deterrence effect.<sup>200</sup> If the manufacturer incurs the cost of injuries, then the manufacturer will take care to prevent any future harm.<sup>201</sup> Thus, in Traynor's view, products liability would effectively protect consumers from negligently designed products.<sup>202</sup>

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188. 150 P.2d 436 (Cal. 1944).

189. *See id.* at 440; John W. Wade, *Chief Justice Traynor and Strict Tort Liability for Products*, 2 HOFSTRA L. REV. 455, 456 (1974).

190. *See Escola*, 150 P.2d at 440; Wade, *supra* note 189, at 462.

191. *Escola*, 150 P.2d at 440.

192. *See id.* at 441.

193. *See id.* at 443–44.

194. *See id.* at 443.

195. *See id.* at 441.

196. *See id.*

197. *See id.*

198. *See id.*

199. *Id.* at 441.

200. *See id.*

201. *See id.*

202. *See id.*

*b. Market-Share Liability as an  
Exception to But-For Causation*

Within products liability, courts have recognized market-share liability as an exception to the but-for causation requirement.<sup>203</sup> Market-share liability is a doctrine that “apportions liability against a set of defendants according to their respective market shares of sales of a harmful product during the period that the harm occurred.”<sup>204</sup> It applies when the plaintiff can identify a group of wrongdoers, but cannot determine which party actually caused their injury.<sup>205</sup> This is known as the “indeterminate defendant.”<sup>206</sup> By utilizing market-share liability, plaintiffs can hold a group of defendants collectively liable for their tortious conduct, even if the plaintiff is unable to establish but-for causation.<sup>207</sup>

Courts consider several elements when determining whether to adopt market-share liability.<sup>208</sup> These elements include

(1) the generic nature of the product; (2) the long latency period of the harm; (3) the inability of plaintiffs to discover which defendant’s product caused plaintiff’s harm. . . ; (4) the clarity of the causal connection between the defective product and harm suffered by plaintiffs; (5) the absence of other medical or environmental factors that could have caused or materially contributed to the harm; and (6) the availability of sufficient ‘market share’ data to support a reasonable apportionment of liability.<sup>209</sup>

Courts’ recognition of market-share liability as a mechanism for overcoming but-for causation challenges in products liability cases suggests a potential pathway for plaintiffs seeking to hold social media companies accountable for the harmful effects of their platforms.

## II. FROM PUBLISHERS TO MANUFACTURERS: FIGHTING SOCIAL MEDIA’S ADDICTIVE DESIGN

Litigation against social media companies increased as stories mounted of teens suffering from poor mental health, eating disorders, and addiction related to their time spent on social media.<sup>210</sup> This growing wave of litigation

203. See *Sindell v. Abbott Lab’ys*, 607 P.2d 924, 937 (Cal. 1980). Market-share liability stems from the theory of enterprise liability, which was first developed in a *Fordham Law Review* Note. See generally Naomi Sheiner, Note, *DES and a Proposed Theory of Enterprise Liability*, 46 FORDHAM L. REV. 963, 974 (1978).

204. George L. Priest, *Market Share Liability in Personal Injury and Public Nuisance Litigation: An Economic Analysis*, 18 SUP. CT. ECON. REV. 109, 109–10 (2010).

205. See Allen Rostron, *Beyond Market Share Liability: A Theory of Proportional Share Liability for Nonfungible Products*, 52 UCLA L. REV. 151, 158 (2004).

206. *Id.* at 158.

207. See *id.*

208. See RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 15 cmt. c (AM. L. INST. 1998).

209. *Id.*

210. See *supra* Part I.A.2; Samantha Murphy Kelly, *Families Who Sued Social Media Companies Years Ago Are Taking Matters into Their Own Hands*, CNN (Apr. 17, 2024, 11:50 AM), <https://www.cnn.com/2024/04/13/tech/families-suing-social-media-companies-advocacy/index.html> [https://perma.cc/2U3Y-55HH]; Sharyn Alfonsi, *More Than 2,000 Families*



reflects a shift in legal strategy, with plaintiffs moving away from content-based claims to focus instead on platforms' addictive designs.<sup>211</sup> Part II of this Note explores the legal tactics that plaintiffs, parents, and the plaintiffs' bar are wielding to hold social media companies accountable for harming teens. Part II.A discusses plaintiffs' transition from content-based arguments toward products liability claims in social media litigation. Part II.B considers the recent thrust of products liability claims brought against social media companies. Part II.C addresses the challenges that plaintiffs face when attempting to prove a causal relationship between teens' social media use and their injuries. Finally, Section II.D revisits market-share liability and introduces proportional share liability, which builds on market-share liability by equitably allocating liability among multiple defendants based on other types of data or information.

#### A. Content Versus Design: The Turn Toward Products Liability

In early social media cases, plaintiffs argued that their injuries stemmed from platforms publishing harmful content.<sup>212</sup> In turn, the platforms successfully invoked § 230 of the Communications Decency Act<sup>213</sup> (CDA) to shield themselves from liability.<sup>214</sup> Section 230 states that internet platforms are not liable for the content posted to their platform by third parties, allowing companies like Instagram, Snapchat, and TikTok to avoid

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*Suing Social Media Companies over Kids' Mental Health*, CBS NEWS (June 4, 2023, 6:57 PM), <https://www.cbsnews.com/news/social-media-lawsuit-meta-tiktok-facebook-instagram-60-minutes-transcript-2023-06-04/> [perma.cc/J968-VQTP] (“When whistleblower Frances Haugen pulled back the curtain on Facebook in the fall of 2021, thousands of pages of internal documents showed troubling signs that the social media giant knew its platforms could be negatively impacting youth . . . . With around 21 million American adolescents on social media, parents took note. Now, families are suing social media.”).

211. See Danny Barefoot, William Oxley & Meghan Rohling Kelly, *Social Media Firms Navigate Product Liability Claims*, BLOOMBERG L. (Sept. 28, 2022, 4:00 AM), <https://news.bloomberglaw.com/us-law-week/social-media-firms-navigate-product-liability-claims> [https://perma.cc/HV2H-YC9P].

212. See Barefoot et al., *supra* note 211.

213. Pub. L. No. 104-104, 110 Stat. 133 (1996) (codified in scattered sections of the U.S. Code); 47 U.S.C. § 230.

214. See Isaiah Poritz, *Social Media Addiction Suits Take Aim at Big Tech's Legal Shield*, BLOOMBERG L. (Oct. 25, 2023, 1:14 PM), <https://news.bloomberglaw.com/tech-and-telecom-law/hundreds-of-social-media-addiction-suits-face-first-legal-hurdle> [https://perma.cc/JWB6-8ADT]. In 1996, Congress passed the Communications Decency Act (CDA). See VALERIE C. BRANNON & ERIC N. HOLMES, CONG. RSCH. SERV., R46751, SECTION 230: AN OVERVIEW I (2024). Section 230 of the CDA preserves immunity for online intermediaries who publish speech. See *id.* The statute states: “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). Congress explicitly stated that one of the goals of the CDA was online child safety and well-being. See BRANNON & HOLMES, *supra* note 214, at 1. Courts have interpreted § 230 to afford sweeping protections to internet platforms that host third-party content. See *id.* In effect, § 230 ensures that platforms cannot be held liable for the content posted by consumers, regardless of the communications' content. See *id.* (“Internet companies and users frequently rely on Section 230's protections to avoid liability in federal and state litigation.”).

responsibility for its users' harmful posts.<sup>215</sup> As a result, § 230 became social media's de facto legal defense.<sup>216</sup>

Due to the strong protections offered by § 230, plaintiffs began pursuing their claims using different legal theories, such as products liability.<sup>217</sup> In recent years, lawsuits seeking to bypass § 230 have addressed social media companies as product makers, rather than content publishers.<sup>218</sup> This reframing shifts the focus to the platforms' design choices, which plaintiffs argue actively contribute to teens' harm, rather than challenging the platforms' roles as passive conduits of third-party content.<sup>219</sup> Generally, these lawsuits allege that Instagram, Snapchat, and TikTok have negligently designed their platforms.<sup>220</sup> In some instances, courts have ruled in the plaintiffs' favor, paving the way for products liability claims in social media litigation.<sup>221</sup>

Two recent lawsuits highlight the potential of products liability claims to hold social media companies accountable for harming teens. First, in 2021, the U.S. Court of Appeals for the Ninth Circuit considered *Lemmon v. Snap, Inc.*<sup>222</sup> In *Lemmon*, a group of parents brought a products liability claim against Snap Inc. after their sons died in a high-speed car accident while using a Snapchat "Speed Filter."<sup>223</sup> The Speed Filter imposed the user's "real-life" speed onto a snap as the user moved.<sup>224</sup> Additionally, the users suspected that Snapchat would reward them with "trophies, streaks, and social recognitions" for using the filter at speeds above 100 miles per hour.<sup>225</sup>

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215. See BRANNON & HOLMES, *supra* note 214, at 1 ("[Section 230] generally precludes providers and users from being held liable—that is, legally responsible—for information provided by another person, but does not prevent them from being held legally responsible for information that they have developed or for activities unrelated to third-party content."); Sara Morrison, *Section 230, The Internet Law That's Under Threat, Explained*, Vox (Feb. 23, 2023, 3:07 PM), <https://www.vox.com/recode/2020/5/28/21273241/section-230-explained-supreme-court-social-media> [perma.cc/HC4U-UQLE] ("[Section 230] was created almost 30 years ago to protect internet platforms from liability for many of the things third parties say or do on them.").

216. See Poritz, *supra* note 214; BRANNON & HOLMES, *supra* note 214, at 1.

217. See Martina Barash, *Snap, Amazon Appellate Rulings Pave New Paths to Tech Liability*, BLOOMBERG L. (May 14, 2021, 6:00 AM), <https://news.bloomberglaw.com/product-liability-and-toxics-law/snap-amazon-appellate-rulings-pave-new-paths-to-tech-liability> [https://perma.cc/C7US-B475]; Poritz, *supra* note 214 ("The plaintiffs in both the federal and state social media cases aim to advance a novel legal theory to bypass the Section 230 shield that for decades has been impenetrable in courtrooms. The 300-page master complaint filed by the plaintiffs in the federal case attempts to treat the platforms as products that use defectively designed algorithms to maximize user attention, similar to a slot machine at a casino."); Jaffe, *supra* note 111, at 281–82.

218. See Barefoot et al., *supra* note 211.

219. See *id.*; Poritz, *supra* note 214.

220. See Barefoot et al., *supra* note 211; Poritz, *supra* note 214.

221. See Costello et al., *supra* note 4, at 155; see also *Lemmon v. Snap, Inc.*, 995 F.3d 1085 (9th Cir. 2021); *Anderson v. TikTok, Inc.*, 116 F.4th 180 (3d Cir. 2024).

222. 995 F.3d 1085 (9th Cir. 2021).

223. See *id.* at 1087–88. Snapchat filters allow users to superimpose a frame or filter onto snaps they have captured. See *id.* at 1088.

224. *Id.* at 1087–88.

225. See *id.* at 1088–89.

Minutes before the fatal crash, one of the teens opened Snapchat and used the Speed Filter.<sup>226</sup> The parent-plaintiffs sought to hold Snapchat liable as a product manufacturer, alleging that Snapchat encouraged driving at dangerous speeds through its negligent design of the Speed Filter and its unknown rewards system.<sup>227</sup> The Ninth Circuit found that the parents' claim did not treat Snapchat as a publisher under § 230.<sup>228</sup> Further, because Snap's negligent activity was not related to moderating "the content that its users generate through Snapchat," Snap could not claim § 230 immunity.<sup>229</sup> The Ninth Circuit remanded the case for further proceedings, including whether the plaintiffs adequately pleaded the causation element of their claim.<sup>230</sup>

Second, in 2024, the U.S. Court of Appeals for the Third Circuit decided *Anderson v. TikTok, Inc.*<sup>231</sup> There, Taiwana Anderson sued TikTok under a products liability theory after her ten-year-old daughter died attempting the "Blackout Challenge."<sup>232</sup> The Blackout Challenge, also known as the "choking challenge," encouraged viewers to asphyxiate themselves.<sup>233</sup> Anderson alleged that TikTok recommended and promoted the Blackout Challenge to her daughter through the For You page algorithm.<sup>234</sup> The Third Circuit, citing the U.S. Supreme Court's recent decision in *Moody v. NetChoice, LLC*,<sup>235</sup> held that TikTok's For You page algorithm is "its own

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226. *See id.*

227. *See id.* at 1091–92.

228. *See id.* at 1092–93 ("Because the Parents' claim does not seek to hold Snap responsible as a publisher or speaker, but merely 'seek[s] to hold Snapchat liable for its own conduct, principally for *the creation* of the Speed Filter,' § 230(c)(1) immunity is unavailable." (alteration in original)).

229. *Id.* at 1091–93.

230. *See id.* at 1094–95. In 2023, the parties reached a settlement agreement. Stipulation of Dismissal With Prejudice at 2, *Lemmon v. Snap, Inc.*, No. 19-cv-04504 (C.D. Cal. Apr. 7, 2023).

231. 116 F.4th 180 (3d Cir. 2024).

232. *See id.* at 182. A TikTok "Challenge" is where someone presents some conduct that the viewer then replicates, often causing the challenges to trend on TikTok. *See id.*

233. *See id.*

234. *See id.*; *see also* Lauren Feiner, *TikTok Must Face a Lawsuit for Recommending the Viral 'Blackout Challenge'*, THE VERGE (Aug. 28, 2024, 1:49 PM), <https://www.theverge.com/2024/8/28/24230523/tiktok-blackout-challenge-lawsuit-appeals-court> [perma.cc/TRE2-YFQE].

235. 144 S.Ct. 2383 (2024). In *Moody*, the Court looked at whether algorithmic recommendations are protected speech under the First Amendment. *See id.* at 2393. The majority determined that when platforms "use their Standards and Guidelines to decide which third-party content those feeds will display, or how the display will be ordered and organized, they are making expressive choices." *Id.* at 2406. Thus, the platforms would receive "First Amendment protection." *Id.* The dissent emphasized that this part of the opinion is nonbinding dicta. *See id.* at 2422 (Alito, J., dissenting) ("The holding in these cases is narrow: NetChoice failed to prove that the Florida and Texas laws they challenged are facially unconstitutional. Everything else in the opinion of the Court is nonbinding dicta.").

expressive activity.”<sup>236</sup> The court determined that TikTok could be held liable because its algorithm served the content to the plaintiff’s daughter.<sup>237</sup>

### B. *The Promise of Products Liability*

Building on the successes of *Lemmon* and *Anderson v. TikTok*, plaintiffs are advancing new products liability claims against social media companies, seeking to hold platforms accountable for their products’ harmful effects.<sup>238</sup> Many of these cases allege that the companies design their platforms to be addictive.<sup>239</sup> Two important cases merit discussion.

The first, *In re Social Media Adolescent Addiction/Personal Injury Products Liability Litigation*,<sup>240</sup> is a broad, multidistrict litigation rolling up hundreds of addictive design claims in the U.S. District Court for the Northern District of California.<sup>241</sup> The lawsuit, brought on behalf of adolescents, school districts, and state attorneys general, alleges that Instagram, Snapchat, and TikTok: (1) designed products that cause serious injuries to users, (2) failed to provide adequate warnings about foreseeable health risks from using its products, and (3) failed to exercise reasonable care in designing, developing, and distributing their products.<sup>242</sup> The suit ties

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236. See *Anderson*, 116 F.4th at 184; Lauren Berg, *No Section 230 Shield for TikTok’s Algorithm*, 3rd Circ. Says, LAW360 (Aug. 27, 2024, 11:42 PM), <https://www-law360-com.fl.s.idm.oclc.org/articles/1874110?scroll=1&related=1> [<https://perma.cc/LZV8-HKC4>] (“The panel determined that TikTok’s algorithm, which recommended the ‘blackout challenge’ to Nylah, was the platform’s first-party speech, according to the opinion. Because those algorithmic recommendations are the heart of *Anderson*’s suit, Section 230 does not bar her claims, the opinion states.”).

237. *Anderson*, 116 F.4th at 184; see Olivia Carville, *US Appeals Court Takes Aim at Big Tech Liability Shield*, BNN BLOOMBERG (Aug. 28, 2024, 6:48 PM), <https://www.bnnbloomberg.ca/business/company-news/2024/08/28/us-appeals-court-takes-aim-at-tech-liability-shield/> [[perma.cc/7X89-WHC4](https://perma.cc/7X89-WHC4)]. The lawsuit was not barred by § 230 because § 230 only immunizes against third-party content, not the platform’s own actions. See *Anderson*, 116 F.4th at 184. Additionally, the Third Circuit declined TikTok’s petition to rehear the court’s decision. See Emily Field, *TikTok Won’t Get 3rd Circ. Rehearing of Section 230 Ruling*, LAW360 (Oct. 24, 2024, 5:42 PM), <https://www-law360-com.fl.s.idm.oclc.org/articles/2251176> [<https://perma.cc/Q4PF-3429>]. Technology advocacy organizations, including the Electronic Frontier Foundation and the Center for Democracy & Technology, filed an amicus brief in support of TikTok’s request. See Sophia Cope, *EFF to Third Circuit: TikTok Has Section 230 Immunity for Video Recommendations*, ELEC. FRONTIER FOUND. (Oct. 18, 2024), <https://www.eff.org/deeplinks/2024/10/eff-third-circuit-tiktok-has-section-230-immunity-video-recommendations> [[perma.cc/C465-4AYY](https://perma.cc/C465-4AYY)]. The brief authors argued that the Third Circuit erroneously waived TikTok’s § 230 immunity. See *id.* It also challenged that the holding diverged from the precedent of other circuits. See *id.*

238. See Alfonsi, *supra* note 210.

239. See *id.*; Barefoot et al., *supra* note 211.

240. 702 F. Supp. 3d 809 (N.D. Cal. 2023).

241. See *In re Soc. Media Adolescent Addiction/Pers. Inj.*, 702 F. Supp. 3d 809, 817 (N.D. Cal. 2023) (order granting in part and denying in part defendants’ motion to dismiss); see also Matthew B. Lawrence & Avraham R. Sholkoff, *Addictive Design and Social Media: Legal Opinions and Research Roundup*, HARV. L. PETRIE-FLOM CTR. (Oct. 14, 2024), <https://blog.petrieflom.law.harvard.edu/2024/10/14/addictive-design-and-social-media-legal-opinions-and-research-roundup/> [<https://perma.cc/T4AL-3QZS>].

242. See Plaintiffs’ Amended Master Complaint at 254–55, *In re Soc. Media Adolescent Addiction/Pers. Inj.*, 702 F. Supp. 3d 809 (No. 22-Md-03047).

teens' addictive or compulsive use of the platforms to their resulting injuries, including, but not limited to, social isolation, body image issues, and mental health disorders like anxiety, depression, and suicidality.<sup>243</sup>

The plaintiffs point to the similar product features across the platforms that encourage social media dependency and cause injuries.<sup>244</sup> These features include algorithmically generated, endless content feeds, rewards systems that manipulate dopamine delivery, metrics that exploit social comparison, notifications that encourage incessant checking, inadequate age verification protocols, and deficient parental controls.<sup>245</sup> The plaintiffs are seeking to impose liability on the platforms' intentional design choices that foster compulsive use in adolescents.<sup>246</sup> This framing positions the plaintiffs' claims as involving specific defective product features designed by the platforms, rather than centering their injuries around content on the platforms.<sup>247</sup> Additionally, the uniformity in product features across the platforms demonstrates how the companies are collectively contributing to the harms teens are experiencing.<sup>248</sup>

In a second case in the Superior Court of California for the County of Los Angeles, *In re Social Media Cases*,<sup>249</sup> plaintiffs allege that social media companies employ similar defective and dangerous product features that are designed to induce teen engagement, thereby creating an unreasonable risk of compulsive use and addiction.<sup>250</sup> The master complaint proclaims that the platforms harvest user data "to generate and push algorithmically tailored 'feeds'" to its youngest users.<sup>251</sup> It also alleges that the platforms use persuasive technology, such as likes, comments, shares, or reposts, to manipulate dopamine delivery and facilitate social media dependency.<sup>252</sup> In a recent ruling, the court, sustaining a demurrer, found that § 230 did not shield the defendants from liability because the "plaintiffs . . . do not seek to hold Defendants liable for injury caused by third-party content."<sup>253</sup>

Matthew P. Bergman, founder of the Social Media Victims Law Center, argues that applying strict liability to social media manufacturers serves two core purposes: (1) advancing public policy and (2) promoting economic

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243. *See id.* at 2.

244. *See id.* at 238.

245. *See id.* at 1. The court recently determined that certain features, like endless scroll and notifications, are shielded by § 230, because the features would require defendants to publish less third-party content or are designed to alert a user to another user's content. *See In re Soc. Media Adolescent Addiction/Pers. Inj.*, 702 F. Supp. 3d at 830–83 (order granting in part and denying in part defendants' motion to dismiss).

246. *See* Plaintiff's Amended Master Complaint, *supra* note 242, at 2–4.

247. *See id.* at 2–4.

248. *See id.* at 1.

249. No. JCCP 5255, 2023 Cal. Super. LEXIS 76992 (Super. Ct. L.A. Cnty. Oct. 13, 2023).

250. *See* Master Complaint at 21, *In re Soc. Media Cases*, 2023 Cal. Super. LEXIS 76992 (No. 22STCV21355).

251. *Id.*

252. *See id.* at 1, 21.

253. *In re Soc. Media Cases*, 2023 Cal. Super. LEXIS 76992, at \*104.

efficiency.<sup>254</sup> Bergman contends that products liability forces social media companies to internalize the cost of product safety.<sup>255</sup> Given that consumers lack information about the risks posed by social media products, they are unable to protect themselves from design defects or other dangers.<sup>256</sup> As such, Bergman asserts that social media platforms are best positioned to mitigate these risks, and he seeks to shift the burden of internalizing safety costs to social media platforms.<sup>257</sup>

### C. *The Challenge of Showing Causation in Social Media Tort Cases*

As discussed in Part I.C., tort law generally requires a plaintiff to identify a specific defendant that caused their injury.<sup>258</sup> In products liability cases, this identification can prove challenging because there are often several potential wrongdoers.<sup>259</sup> For claims brought against social media platforms, plaintiffs must demonstrate how a specific platform harmed a specific individual.<sup>260</sup> This can be particularly troublesome because teens experience harm from various platforms.<sup>261</sup> This challenge is magnified even further in mass tort claims, where thousands of plaintiffs allege injuries.<sup>262</sup> On top of this numerosity issue, the fact that social media companies do not permit

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254. See Matthew P. Bergman, *Assaulting the Citadel of Section 230 Immunity: Products Liability, Social Media, and the Youth Mental Health Crisis*, 26 LEWIS & CLARK L. REV. 1159, 1191 (2023) (“Strict liability to social media product manufacturers serves not only the interest of public policy, but also the interest of economic efficiency.”).

255. See *id.* at 1161, 1192.

256. See *id.* at 1192 (“The reason is simple: the complexity of social media products and the inherent hazards in their design create a high transactional cost for consumers to obtain the information they would need to use the product safely.”).

257. See *id.* at 1190–92.

258. See *supra* Part I.C.; Rostron, *supra* note 205, at 157 (“Traditional principles of tort law require proof, by a preponderance of the evidence, that a plaintiff suffered an injury caused by a particular defendant’s conduct.”).

259. See Benjamin C. Zipursky, Comment, *Evidence, Unfairness, and Market-Share Liability: A Comment on Geistfeld*, 156 U. PA. L. REV. ONLINE 126, 128 (2007); Stephen A. Spitz, *From Res Ipsa Loquitur to Diethylstilbestrol: The Unidentifiable Tortfeasor in California*, 65 INDIANA L.J. 591, 591 (1990). Another issue presented by products liability claims is whether social media—and the technologies used to design the platforms—are products at all. See Barefoot et al., *supra* note 211 (explaining that “most courts have . . . held that strict liability extends only to tangible goods—not intangible goods or services like websites, video games, or social media platforms”). Plaintiffs in ongoing social media litigation argue that social media should be considered a product, rather than a service. See Bergman, *supra* note 254, at 1190–91; *In re Soc. Media Cases*, 2023 Cal. Super. LEXIS 76992, at \*2 (“The court determines that Defendants’ social media platforms are not ‘products’ for purposes of product liability claims . . .”). Although this debate is ongoing, it falls outside the bounds of this Note.

260. See Maya Konstantino, Note, *The Tort of Moving Fast and Breaking Things: A/B Testing’s Crucial Role in Social Media Litigation*, 99 NYU L. REV. 178, 202–03 (2024) (“The final hurdle is pleading causation. This is the most difficult aspect of the litigation because the platforms have the ability to point to many confounding variables.”).

261. See Costello et al., *supra* note 4, at 156.

262. See Konstantino, *supra* note 260, at 202–04.

public access to their algorithm-based technology makes establishing a causal link between the products and teens' injuries all the more difficult.<sup>263</sup>

Several factors influence how courts might assess the causation element in algorithmic-based torts.<sup>264</sup> First, courts may find it challenging to determine whether an adolescent's mental health disorder stems from a platform's addictive design or arises from other, independent causes.<sup>265</sup>

Another consideration is that not all products cause harm in the same way or to the same degree.<sup>266</sup> Dr. Michal Lavi, a research fellow at the Hadar Jabotinsky Center for Interdisciplinary Research of Financial Markets, Crises and Technology, questions how courts will attribute a child's injury to algorithmic targeting as opposed to the child's own vulnerabilities.<sup>267</sup> For instance, Dr. Lavi discusses *Anderson v. TikTok*, noting that although TikTok likely recommended the Blackout Challenge to many adolescents, not all attempted it.<sup>268</sup> Dr. Lavi points to companies' extensive data collection as a possible means for establishing causation.<sup>269</sup>

Additionally, Dr. Lavi suggests reconceptualizing causation to balance technological innovation with incentives to mitigate harmful platform design.<sup>270</sup> On the one hand, requiring plaintiffs to show direct causation between the platform's technology and the injury alleged can serve as a useful "gatekeeper[]" to litigation.<sup>271</sup> On the other hand, exempting social media companies from all liability leads to underdeterrence.<sup>272</sup> As a result, the platforms are not incentivized to mitigate the risks inherent to their products.<sup>273</sup>

Even if plaintiffs were able to break through and prove that social media products caused their injury, the fact that teens use multiple social media apps creates additional challenges.<sup>274</sup> How does an injured teen, who claims to be addicted to social media and uses Instagram, Snapchat, and TikTok, show how much of their injury is a result of using Instagram, Snapchat, or TikTok?

Social media defendants recognize these challenges and have sought to dismiss cases based on plaintiffs' failure to show causation.<sup>275</sup> Defendants

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263. *See id.*; *supra* Part I.B.2; Costello et al., *supra* note 4, at 137. Given that the litigation is ongoing, it remains to be seen what evidence of causation plaintiffs will be able to obtain in discovery.

264. *See* Michal Lavi, *Targeting Children: Liability for Algorithmic Recommendations*, 73 AM. U. L. REV. 1367, 1446–47 (2024).

265. *See id.* at 1446.

266. *See id.*

267. *See id.*

268. *See id.*; *see supra* notes 231–37.

269. *See* Lavi, *supra* note at 264, at 1447; *supra* Part I.B.

270. *See* Lavi, *supra* note 264, at 1448.

271. *See id.*

272. *See id.*

273. *See id.*

274. *See* Costello et al., *supra* note 4, at 156.

275. *See* Defendants' Joint Motion to Dismiss Pursuant to Rules 12(b)(1) & 12(b)(6) Plaintiffs' Priority Claims Asserted in Amended Master Complaint at 39, *In re Soc. Media Adolescent Addiction/Pers. Inj. Prods. Liab. Litig.*, 702 F. Supp. 3d 809 (N.D. Cal. 2023) (No. 22-MD-03047).

argue that their platforms are being unfairly lumped together when each platform has distinct features.<sup>276</sup> Similarly, they contend that there is no clear connection between the alleged injuries and a particular product or feature.<sup>277</sup>

In a recent order, Judge Carolyn B. Kuhl, who oversees *In re Social Media Cases*, addressed the difficulty of linking specific harms to individual platforms, finding it unclear from the facts “to what extent each platform caused the specific harm suffered by one of the individual Plaintiffs.”<sup>278</sup> Thus, it remains to be seen how the courts will examine the causal link between the platforms’ technology and a teen’s injuries.<sup>279</sup>

Although satisfying the causation element in ongoing social media litigation presents significant challenges, similar difficulties have prompted courts to develop new causation tests.<sup>280</sup> These precedents offer plaintiffs a pathway to overcome the challenge of proving causation.

#### D. Market-Share Liability and the Impact of Sindell

As technology evolved and manufacturing advanced, classes of injured individuals sued companies that mass produced widely used products, such as cigarettes and lead paint.<sup>281</sup> Similar to the social media cases discussed above, establishing causation became increasingly complex.<sup>282</sup> Seeking redress, the plaintiffs sought to hold a product’s manufacturers collectively liable.<sup>283</sup>

The seminal case of *Sindell v. Abbott Laboratories*<sup>284</sup> demonstrates how courts have adapted traditional tort principles to address causation challenges in multidefendant cases, a lesson that is highly relevant to today’s social media litigation.<sup>285</sup> In *Sindell*, a generation of women took diethylstilbestrol (DES), a generic medication intended to prevent miscarriage during pregnancy.<sup>286</sup> At the time, some 200 manufacturers sold generic DES.<sup>287</sup> Years later, many of these women’s daughters were diagnosed with cervical and ovarian cancer, injuries directly linked to the DES their mothers had taken during pregnancy.<sup>288</sup>

These plaintiffs, however, faced a problem: due to the mass production of DES, the widespread use by expecting mothers, the identical chemical formula used across various manufacturers, and the latency period between

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276. *See id.* at 41.

277. *See id.* at 41–42.

278. *In re Soc. Media Cases*, No. JCCP 5255, 2023 Cal. Super. LEXIS 76992, at \*91 (Super. Ct. L.A. Cnty. Oct. 13, 2023).

279. *See Costello et al.*, *supra* note 4, at 156; Lavi, *supra* note 264, at 1446–48.

280. *See supra* Parts I.C.1–2.

281. *See Gifford*, *supra* note 167, at 876.

282. *See id.*

283. *See id.*

284. 607 P.2d 924 (Cal. 1980).

285. *See Rostron*, *supra* note 205, at 160.

286. *See Sindell*, 607 P.2d at 925–26.

287. *See Priest*, *supra* note 204, at 111.

288. *See Sindell*, 607 P.2d at 925–26.



the mothers' use of DES and the development of the daughters' cancer, the plaintiff-daughters were unable to identify which specific manufacturer produced the DES their mother consumed.<sup>289</sup> Consequently, the daughters filed lawsuits against multiple DES manufacturers, any of whom could have reasonably manufactured the DES prescribed to their mothers.<sup>290</sup>

Without the ability to identify which manufacturer produced the drug in question, the plaintiff-daughters encountered a second issue: proving causation.<sup>291</sup> The Supreme Court of California grappled with existing tort law and considered various legal theories, such as alternative liability,<sup>292</sup> concert-of-action theory,<sup>293</sup> and enterprise-liability.<sup>294</sup> Recognizing that rigid adherence to existing products liability doctrine and but-for causation would prevent the plaintiffs from obtaining a remedy for their injuries, the Supreme Court of California applied the doctrine of market-share liability.<sup>295</sup> Thus, the court determined it was reasonable for the plaintiffs to sue the manufacturers that *may* have caused their injuries and to hold them liable based on their share of the DES market at the time the harm occurred.<sup>296</sup>

With the application of market-share liability, the court also shifted the burden of proof from the plaintiffs onto the defendants.<sup>297</sup> This was meaningful because it required the defendants to prove that their product was not the cause of the plaintiff's injury.<sup>298</sup> Whereas the plaintiffs were unable to identify the manufacturer's identity for the reasons stated above, some

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289. *See id.* at 925–28; Rostron, *supra* note 205, at 160–61.

290. *See Sindell*, 607 P.2d at 928.

291. *See id.* at 926.

292. *See id.* at 928–31. Alternative liability applies when the plaintiff cannot identify which of two (or more) defendants caused their injury. *See* Richard E. Kaye, Annotation, "Concert of Activity," "Alternate Liability," "Enterprise Liability," or Similar Theory as Basis for Imposing Liability upon One or More Manufacturers of Defective Uniform Product, in Absence of Identification of Manufacturer of Precise Unit or Batch Causing Injury, 63 A.L.R.5TH 195 (1998). Under this theory, the burden shifts to the defendants to prove they were not the cause of the plaintiff's injury. *See id.* In the leading case, *Summers v. Tice*, 199 P.2d 1 (Cal. 1948), an injured plaintiff sued two friends after they shot toward the plaintiff at the same time, causing injury. *Summers*, 199 P.2d at 2–3. The plaintiff could not determine which defendant's negligent shot hit him, or if it was one bullet from each. *See id.* at 3. The Supreme Court of California held that both defendants may be held liable for the plaintiff's injury and shifted the burden to prove they were not the cause of the injury. *See id.* at 3–4.

293. *See Sindell v. Abbott Laby's*, 607 P.2d 924, 931–32 (Cal. 1980). Concert-of-action treats two tortfeasors as acting jointly, or in concert with one another, when their conduct comes together to injure another party. *See* RESTATEMENT (SECOND) OF TORTS § 876 (AM. L. INST. 1979).

294. *See Sheiner*, *supra* note 203, at 974. Enterprise-liability is a hybrid theory, which draws from alternative liability and concert-of-action. *See id.* Under enterprise-liability, the plaintiff must demonstrate that there is a high probability that one of the defendants' tortious conduct caused their injury, and that the defendants adhered to dangerous, industrywide safety standards. *See id.* Evidence of both elements will shift the burden to the defendants. *See id.*

295. *See Sindell*, 607 P.2d at 935–36; Priest, *supra* note 204, at 111.

296. *See Sindell*, 607 P.2d at 936–37 ("Each defendant will be held liable for the proportion of the judgment represented by its share of that market unless it demonstrates that it could not have made the product which caused plaintiff's injuries.").

297. *See id.* at 936–37.

298. *See id.*

manufacturers could prove that they did not produce the injury-causing substance.<sup>299</sup>

The *Sindell* court's holding was informed by policy.<sup>300</sup> Between "an innocent plaintiff and negligent defendants," the court determined the negligent defendant should bear the costs of the injury.<sup>301</sup> The manufacturers were in the best position to guard against product defects and to warn of its harmful effects.<sup>302</sup> By placing the injury costs on manufacturers, the court sought to incentivize product safety.<sup>303</sup> In addition, the court also determined that DES was a fungible product because it was chemically identical, and the risk was uniform across all DES forms.<sup>304</sup> As a result, a manufacturer's market share adequately corresponded to their contribution to the overall harm caused by DES, which diminished the injustice of shifting the burden to the defendants.<sup>305</sup> Lastly, the court reviewed whether the plaintiff had joined together defendant-manufacturers representing a "substantial share" of the DES market.<sup>306</sup> This ensured that one member of the group of DES defendants more likely than not caused the plaintiff's injury.<sup>307</sup>

### 1. Limits of Market-Share Liability in Non-DES Cases

Courts took varying approaches to market-share liability after *Sindell*. For market-share liability to apply, courts have held that the product must be fungible, meaning the product is "[c]ommercially interchangeable with other property of the same kind[.]" and thus, each product carries uniform risk.<sup>308</sup> A small number of courts have applied market-share liability to products such as asbestos-brake pads,<sup>309</sup> "DPT" vaccines,<sup>310</sup> a gasoline additive,<sup>311</sup> and rowing exercise machines.<sup>312</sup> The fundamental challenge for courts in those

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299. *See id.* at 930. The court noted that one of the original defendants was dismissed from the suit because the company provided evidence that it did not produce DES until after the plaintiff was born. *See id.*

300. *See id.* at 936–38; *see also* Andrew B. Nace, *Market Share Liability: A Current Assessment of a Decade-Old Doctrine*, 44 VAND. L. REV. 395, 402 (1991).

301. *See Sindell*, 607 P.2d at 936.

302. *See id.*

303. *See id.*

304. *See id.*; Rostron, *supra* note 205, at 166.

305. *See* Rostron, *supra* note 205, at 165; Nace, *supra* note 300, at 401–02.

306. *See Sindell*, 607 P.2d at 936–37.

307. *See* Geistfeld, *supra* note 178, at 481–82.

308. *Fungible*, BLACK'S LAW DICTIONARY (12th ed. 2024); *see also* Rostron, *supra* note 205, at 170.

309. *See* Wheeler v. Raybestos-Manhattan, 8 Cal. App. 4th 1152, 1156 (Cal. Ct. App. 1992) (finding that brake pads, although different sizes and shapes, were fungible because they contained "roughly comparable quantities of the single asbestos fiber").

310. *See* Morris v. Parke, Davis & Co., 667 F. Supp. 1332, 1340–43 (C.D. Cal. 1987) (holding that market-share liability can be pursued for design defects claims in DPT vaccines).

311. *See In re Methyl Tertiary Butyl Ether ("MTBE") Prods. Liab. Litig.*, 175 F. Supp. 2d 593, 621 (S.D.N.Y. 2001) (holding that plaintiffs could pursue market-share liability for claims against petroleum companies for groundwater contamination).

312. *See* Mahar v. Hanover House Indus., Inc., No. CA 880156, 1995 WL 1146188, at \*2 (Mass. Super. Dec. 12, 1995) (allowing a plaintiff's claim to proceed under market-share

cases was whether the products were fungible in the same way as generic DES pills.<sup>313</sup>

Generally, courts have refused to apply market-share liability where products were not fungible and did not pose uniform risk.<sup>314</sup> In such cases, courts determined that because all forms of the product were not identically defective, using market share as a measure of liability would not correspond to each manufacturer's contribution to the plaintiffs' injuries.<sup>315</sup>

## 2. Moving "Beyond Market Share": Proportional Share Liability for Nonfungible Products

Professor Allen Rostron's article introduces the concept of proportional share liability, a theory in which courts apportion liability among defendants based on information other than market share.<sup>316</sup> This approach seeks to fairly reflect "each defendant's contribution to the risk and likelihood of having caused the harm."<sup>317</sup> Proportional share liability is particularly useful in cases involving products with identification challenges and where products carry varying degrees of risk.<sup>318</sup> The conditions in which proportional share liability applies closely mirror the circumstances faced by the plaintiffs in social media litigation.<sup>319</sup>

Providing a historical overview of market-share liability, Professor Rostron posits that courts have failed to consider the applicability of market-share liability to nonfungible products, treating the theory "as a solution to a unique dilemma posed by that one particular product, rather than a principle applicable to any set of facts within defined limits."<sup>320</sup> The article finds that courts' "obsession" with product fungibility unnecessarily limits the application of market-share liability in non-DES cases.<sup>321</sup> Recognizing this effect, Professor Rostron suggests eliminating the fungibility requirement entirely.<sup>322</sup> In its place, courts should recognize that market share is one of several potential methods for allocating liability among defendants.<sup>323</sup> Consequently, Professor Rostron argues, courts should consider whether liability can be apportioned among product manufacturers

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liability when the specific tortfeasor's identity was unknown); *see also* Priest, *supra* note 204, at 117 & nn.32–38 (citing to several cases in which the concept of market-share liability has been accepted "with respect to a small and peculiar set of products in individual cases").

313. *See* Priest, *supra* note 204, at 117.

314. *See* Donald G. Gifford, *The Death of Causation: Mass Products Torts' Incomplete Incorporation of Social Welfare Principles*, 41 WAKE FOREST L. REV. 943, 987 (2006).

315. *See* Priest, *supra* note 204, at 117.

316. *See* Rostron, *supra* note 205, at 153–55.

317. *See id.* at 154.

318. *See id.* at 173–74.

319. *See supra* Part II.C.

320. *See* Rostron, *supra* note 205, at 153.

320. *Id.* at 163.

321. *See id.*

322. *See id.* at 211.

323. *See id.* at 154.

through other means that reasonably and fairly reflect each manufacturer's contribution to the risk at issue.<sup>324</sup>

The Wisconsin Supreme Court heeded Professor Rostron's proposal in *Thomas v. Mallett*,<sup>325</sup> illustrating the judiciary's ability to develop new causation tests.<sup>326</sup> In this case, a childhood lead poisoning victim sued multiple lead manufacturers but, as in other cases discussed in this Note, could not identify the specific manufacturer responsible for their injury.<sup>327</sup> Despite this, the court allowed the claim to proceed under a theory similar to proportional share liability, which the court coined "risk contribution" theory.<sup>328</sup> Under risk contribution theory, the jury assigns financial liability based on "factors bearing upon the manufacturer's relative degree of fault and the level of egregiousness of its conduct," as well as market share.<sup>329</sup>

Plaintiffs have made other attempts to introduce non-market share information to determine liability in cases with unidentifiable tortfeasors.<sup>330</sup> For instance, in a case regarding the DPT vaccine, evidence demonstrated that different manufacturing techniques resulted in varying incidences of a specific injury.<sup>331</sup> A New Jersey court employed a "risk-modified market share analysis"—a form of proportional share liability—allowing vaccine manufacturers to provide evidence of lower injury rates in their product to reduce their liability share.<sup>332</sup> On appeal, however, the New Jersey Supreme Court rejected the risk-adjusted approach, finding that the vaccines were not fungible because some versions carried lower risks of harm.<sup>333</sup>

Plaintiffs have also attempted, so far unsuccessfully, to use market-share liability to hold gun manufacturers accountable for gun crimes.<sup>334</sup> Gun crimes posed significant challenges to identifying tortfeasors, as guns are often unavailable after a crime is committed.<sup>335</sup> Professor Rostron contends that market share alone was an ineffective measure for allocating liability in this context.<sup>336</sup> Instead, he proposes apportioning liability using trace data

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324. *See id.* at 185.

325. 701 N.W.2d 523 (Wis. 2005).

326. *See id.* at 563–64.

327. *See id.* at 531; Gifford, *supra* note 314, at 985.

328. *See Thomas*, 701 N.W.2d at 562; Gifford, *supra* note 314, at 985–86.

329. Gifford, *supra* note 314, at 986. Six years later, the Wisconsin legislature passed a law that limited the use of risk contribution theory as used in *Thomas v. Mallett*. *See* 701 N.W.2d at 562; Wis. STAT. § 895.046 (2011).

330. *See Rostron*, *supra* note 205, at 174.

331. *See Shackil v. Lederle Lab'ys*, 530 A.2d 1287, 1293–94 (N.J. Super. Ct. App. Div. 1987), *rev'd*, 561 A.2d 511 (N.J. 1989).

332. *Shackil*, 530 A.2d at 1294.

333. *See Shackil v. Lederle Lab'ys*, 561 A.2d 511, 522 (N.J. 1989).

334. *See Hamilton v. Accu-Tek*, 62 F. Supp. 2d 802, 808–09 (E.D.N.Y. 1999), *questions certified sub nom. Hamilton v. Beretta U.S.A. Corp.*, 222 F.3d 36 (2d Cir. 2000), *certified questions answered*, 750 N.E.2d 1055 (N.Y. 2001), *vacated by* 264 F.3d 21 (2d Cir. 2001). The New York State Court of Appeals rejected market-share liability because it determined: (1) guns are not fungible products and (2) guns do not pose uniform risk. *See Hamilton*, 750 N.E.2d at 1066–67; Rostron, *supra* note 205, at 188–90.

335. Rostron, *supra* note 205, at 186. This is distinct from DES, since the problem did not arise because guns were fungible or functionally interchangeable. *See id.*

336. *See id.* at 190.

collected by the federal Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF).<sup>337</sup> This trace data is tracked extensively by the ATF and provides reasonable estimates of how frequently certain guns are used in crimes.<sup>338</sup> It also accounts for the relative risk of criminals using different types of guns.<sup>339</sup>

In sum, Professor Rostron's proportional share liability would create more solutions for plaintiffs who are unable to identify the precise source of their injury.<sup>340</sup> Courts that adopt proportional share liability should still consider factors such as the severity of the plaintiffs' injuries, the strength of the proof that the product caused their injury, and the severity of the defendant's conduct.<sup>341</sup>

### III. APPORTIONING LIABILITY AMONG SOCIAL MEDIA DEFENDANTS USING ENGAGEMENT DATA

Much like the changing relationship between manufacturers and consumers that informed Justice Traynor's concurrence in *Escola*, the explosive advent of social media and the dramatic rise in teen social media use calls for a reexamination of liability in tort law.<sup>342</sup> As self-regulation proves vain and federal regulations stall, adolescents across the United States are becoming increasingly dependent on social media.<sup>343</sup> The consequences are staggering: mental health disorders among teens have surged as essential elements of childhood are disappearing.<sup>344</sup> In response, teens, their parents, and the plaintiffs' bar have turned to litigation to address the extensive harm caused by social media.<sup>345</sup> It remains uncertain, however, how courts will interpret the causal link between social media products and injuries suffered by teens.<sup>346</sup> Fortunately, courts can—and have—adapted tort law to account for the challenges posed by emerging technologies and increasingly complex economies.<sup>347</sup>

Building on Professor Rostron's concept of proportional share liability, Part III of this Note proposes apportioning liability among social media defendants based on user engagement data.<sup>348</sup> This will help resolve the "causal challenge" for plaintiffs who can otherwise substantiate their injury and establish the defendants' negligent conduct.<sup>349</sup> Proportional share

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337. *See id.*

338. *See id.* at 192.

339. *See id.* at 199.

340. *See id.* at 205.

341. *See id.* at 212.

342. *See supra* Part I.C.

343. *See supra* Parts I.A.2–3.

344. *See supra* Part I.A.2.

345. *See supra* Part II.B; Murphy Kelly, *supra* note 210; Alfonsi, *supra* note 210.

346. *See supra* Part II.C.

347. *See supra* Part I.C.

348. *See supra* Part II.D.2.

349. *See supra* Part II.C. This Note does not address, however, the standing challenges plaintiffs may face in bringing social media lawsuits in federal court. For example, plaintiffs may face hurdles in establishing that their psychological injuries are an injury-in-fact for the

liability will enable courts to weigh each platform's negligent design and user engagement data against a teen's resulting injuries, facilitating the equitable distribution of liability among social media platforms.

*A. Putting Platforms' Data Collection to Better Use:  
Apportioning Liability Based on Engagement Metrics*

Social media companies extensively collect and monitor teen user engagement, capturing data not only about a teen's interests and demographics but also their discrete behaviors on a platform.<sup>350</sup> This includes, but is certainly not limited to, what content they are served and engage with, the addictive design features that successfully capture their attention, and the time spent on the platform.<sup>351</sup> Given this expansive data collection, courts should look beyond market-share and apportion liability based on user engagement data. Apportioning liability based on engagement data allows courts to hold Instagram, Snapchat, and TikTok accountable proportionate to their contribution to a teen's injury.<sup>352</sup> Although market share may serve as a useful data point for determining liability, the inquiry should not stop there.<sup>353</sup>

1. Engagement Metrics as  
a Measure of Liability

In social media litigation, the extensive data that platforms collect on teens can determine a teen's level of engagement with specific platforms.<sup>354</sup> Courts can rely on this data to adequately and fairly apportion liability for each platform's contribution to a teen's injury.

To begin, a company's liability can be assessed by analyzing the amount of time a teen spends on its platform compared to others.<sup>355</sup> For example, if a teen spends more time on TikTok than other platforms, then TikTok would bear a proportionally larger share of liability for any injuries that teen experienced. Additionally, engagement data can reveal the activities a teen participates in on a given platform.<sup>356</sup> For instance, one teen might spend hours endlessly scrolling through an algorithmically recommended content feed, whereas another habitually checks notifications—whether triggered by a friend's message or strategically pushed by the platform to prompt app engagement. If research reveals that one of these activities poses a greater risk of inducing social media dependency and causing harm, courts can

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purposes of standing. See Rachel Bayefsky, *Psychological Harm and Constitutional Standing*, 81 BROOK. L. REV., 1555, 1556–59 (2016).

350. See *supra* Part I.B.; Lavi, *supra* note 264, at 1384–85, 1447.

351. See *supra* Part I.B.

352. See *supra* Part II.D.2.

353. See *id.*

354. See Lavi, *supra* note 264, at 1447 (“In the surveillance capitalism age, the bits of data transmitted through social media are countable, and interactions and their frequency are measurable.”).

355. See *supra* Parts I.A.2, I.B.

356. See *id.*

weigh the liability accordingly.<sup>357</sup> Courts can collaborate with researchers and experts to evaluate the harmful effects of specific types of engagement.<sup>358</sup>

Finally, apportioning liability based on engagement aligns with the growing body of evidence linking increased social media use with worse mental health outcomes in teens.<sup>359</sup> It will also allow courts to accurately reflect each platform's contribution to not only an individual's discrete injuries but also to the broader teen mental health crisis.<sup>360</sup>

## 2. Market Share as a Measure of Liability

Should courts turn to market share as a starting point for apportioning liability, a variety of sources can help determine each platform's share of the teen attention economy.<sup>361</sup> First, teen social media use is frequently researched and reported on, detailing what portion of the teen population uses which platforms.<sup>362</sup> Likewise, Instagram, Snapchat, and TikTok gather data on the growth of their user bases, including how many users either self-report or are identified as adolescents.<sup>363</sup>

Second, courts can consider the profits each platform generates from advertisements targeted at teens.<sup>364</sup> A recent study estimated that social media platforms earned \$11 billion in 2022 from adolescent advertising, and the report further breaks down each platform's share of that profit.<sup>365</sup>

Finally, engagement metrics can also inform market share. Courts might compare the total amount of time teens spent on one platform with the total amount of time teens spent across all relevant social media platforms.<sup>366</sup> These various data points can determine the market share of each company within the teen attention economy.<sup>367</sup>

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357. See Haidt et al., *supra* note 8, at 312–13 (discussing potential avenues for new research, including how different platforms and distinct features might have varying impacts on adolescent users).

358. One such proposal suggests passing federal legislation that mandates algorithm risk audits to identify specific computer code using deceptive technology. See Costello et al., *supra* note 4, at 168–70.

359. See *id.* at 142–44; Haidt et al., *supra* note 8, at 76.

360. See *supra* note 305.

361. See *supra* Part I.B.

362. See generally FAVERIO & SIDOTI, *supra* note 3; ANDERSON ET AL., *supra* note 3; AM. PSYCH. ASS'N, *supra* note 68.

363. See FED. TRADE COMM'N, *supra* note 4, at 26, 70–73.

364. See *supra* Part I.B.

365. See Amanda Raffoul, Zachary J. Ward, Monique Santoso, Jill R. Kavanaugh & S. Bryn Austin, *Social Media Platforms Generate Billions of Dollars in Revenue from U.S. Youth: Findings from a Simulated Revenue Model*, 18 PLoS ONE, Dec. 27, 2023, at 1, 3.

366. See Wu, *supra* note 89, at 794 (“One relatively simple way of measuring market power in attentional markets is to focus on the industry’s own metric: time spent, or in Silicon Valley jargon, ‘time on site.’ Time serves as a proxy for attention and time on site is readily measurable, and already tracked by both industry and observers.”).

367. See *id.*; *supra* Part I.B.

If courts find that the degree of risk between Instagram, Snapchat, and TikTok varies significantly, they may deem market share an ineffective means of measuring liability.<sup>368</sup> In such cases, the court should prioritize engagement metrics to allocate liability, rather than rely on market share.

*B. Harmed by Multiple Platforms:  
The Unidentifiable Platform Problem*

Like the fires merging in *Anderson v. Minneapolis*, Instagram, Snapchat, and TikTok have created an epidemic among teens.<sup>369</sup> Whereas some cases clearly link a teen's injury to a specific platform, the varied and frequent social media use among many teens makes it challenging to identify which platform is responsible for their injury and to what degree.<sup>370</sup> Teen testimonials highlight this identification issue, as their habitual use of multiple apps makes it difficult to point to a single cause of their injury.<sup>371</sup> To be sure, for many teens, the persistent use of Instagram, Snapchat, and TikTok likely means that each platform contributed to their injury to some degree.<sup>372</sup> Accordingly, by relying on engagement metrics, plaintiffs and the courts can obtain a reasonable estimate as to each platform's contribution to a teen's harm.

Along similar lines, this model will help resolve latency issues. In *Sindell*, the daughters-plaintiffs confronted a long gap period between when their mother's used DES and when they were diagnosed with cancer. This contributed to the difficulty in identifying the specific manufacturer that caused their injury.<sup>373</sup> A similar dilemma may apply with social media usage: researchers, parents, and regulators have only recently begun to recognize the widespread damage that social media can inflict on adolescents over time.<sup>374</sup> Given the rapid evolution of social media, especially with the rise of Instagram, Snapchat, and TikTok, older studies on teens and social media offer limited insight into the current landscape and its effects on teens.<sup>375</sup> To that end, more recent research offers better insights into the impact of social media on teens and demonstrates a causal link between social media usage and poor mental health outcomes.<sup>376</sup> Consequently, for teens who only recently began using social media, evidence of its negative

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368. See *supra* Parts II.D.1–2.

369. See *supra* Part I.C.1; DeAngelis, *supra* note 27.

370. See Costello et al., *supra* note 4, at 156; Konstantino, *supra* note 260, at 203; Lavi, *supra* note 264, at 1446. See generally *Anderson v. TikTok, Inc.*, 116 F.4th 180, 184 (3d Cir. 2024).

371. See *supra* note 1 and accompanying text.

372. See Costello et al., *supra* note 4, at 156; Konstantino, *supra* note 260, at 203; Lavi, *supra* note 264, at 1446.

373. See *id.* at 925–28; *supra* Part II.D.

374. See *supra* Parts I.A.2–3.

375. See Costello et al., *supra* note 4, at 142–43 (“Due to the rapid changes in the industry since its inception, the study designs used in the early years of social media research among youth provide limited insight into the effects of social media in its current form.”).

376. See *id.*; Haidt et al., *supra* note 8, at 307–12.



effects may not be clear in the immediate term.<sup>377</sup> These effects, however, can be long-lasting and harmful. Proportional share liability addresses this potential latency issue—and the additional challenges it creates in identifying defendants—by assigning liability based on each platform’s contribution to teen injuries and the overall teen mental health crisis.<sup>378</sup>

*C. Different Platforms, Same  
Technology, and Consistent Harms*

To compete in the teen attention economy, Instagram, Snapchat, and TikTok deploy persuasive technology to capture teens’ attention.<sup>379</sup> The companies design their products to keep teens returning and engaged for longer periods of time.<sup>380</sup> To accomplish this, the companies employ very similar product features.<sup>381</sup> For example, Instagram’s Explore, Snapchat’s Spotlight, and TikTok’s For You page are all designed to track user behaviors to deliver hyperpersonalized content that captivates teens.<sup>382</sup> Each platform utilizes the same type of data collection to inform its algorithmic-content recommendations, and all three platforms employ infinite scroll and dark patterns, making it difficult for adolescents to disengage.<sup>383</sup>

Although the platforms are not interchangeable, the product features, persuasive technologies, and design techniques pose similar risks.<sup>384</sup> More importantly, the harms experienced by teens across all three platforms are consistent.<sup>385</sup> Proportional share liability can account for these prevailing harms while recognizing the varying degrees of risk each platform contributes to teen injuries.

Research shows that social media harms teens.<sup>386</sup> Even if courts struggle to establish a causal link between a specific platform’s features and the resulting harm, this uncertainty still allows for the application of proportional share liability. Under this theory, the burden shifts from the plaintiffs to the defendants, who must provide evidence that refutes the presumption that their product caused a teen’s injury, as is the case in market-share liability.<sup>387</sup> The platforms’ capacity to present evidence to reduce their share of liability minimizes any injustice caused by shifting the burden.<sup>388</sup>

As discussed in Part I of this Note, the intricacies of how platforms design and implement features aimed at capturing and retaining teen attention are often inaccessible.<sup>389</sup> Of course, the platforms themselves have a

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377. See generally Costello et al., *supra* note 4, at 142–43.

378. See *supra* Part II.D.2.

379. See *supra* notes 113–14.

380. See Bernstein, *supra* note 26, at 69.

381. See *supra* notes 114–19.

382. See *supra* notes 126–39.

383. See *supra* notes 105–12, 120–25.

384. See *supra* Part I.A.2.

385. See *id.*

386. See U.S. SURGEON GEN., *supra* note 7, at 6–8; Haidt et al., *supra* note 8, at 307.

387. See *supra* Parts II.D.1–2.

388. See Rostron, *supra* note 205, at 158–59.

389. See *supra* Part I.B.2.

comprehensive understanding of their product design and its impact.<sup>390</sup> Thus, the platforms are best positioned to present evidence demonstrating why their product is less harmful than those of their competitors. This evidence may include internal or external research. For instance, a recent study conducted by the University of Amsterdam determined that Snapchat can positively affect friendship closeness compared to its peer platforms.<sup>391</sup> Snapchat could use this study as evidence that their app causes less harm than Instagram and TikTok.

Ultimately, the burden-shifting will incentivize platforms to make their “black box” technology and internal research available to counter their presumptive liability. If they are unwilling to do so, courts can and should take this into consideration.

*D. Policy Reasons for Opening  
The “Black Box” of Social Media*

In line with the principles outlined in Justice Traynor’s *Escola* concurrence, it is in the interests of justice and fairness for courts to adapt the causation requirement in ongoing social media litigation.<sup>392</sup> Adopting proportional share liability would effectively balance the need for justice in social media litigation with the inherent complexities of proving causation in algorithmic-based harms, especially when multiple platforms contribute to an individual teen’s injury.<sup>393</sup>

First, courts must weigh the interests of innocent teens against those of negligent social media platforms.<sup>394</sup> Instagram, Snapchat, and TikTok are billion-dollar companies that generate profit by intentionally designing their platforms to create teen social media dependency while evading accountability for their harm.<sup>395</sup> Teens, through no fault of their own, are unable to identify precisely how much each platform contributed to their injuries.<sup>396</sup> By applying proportional share liability, courts can weigh the relative fault of each platform to ensure accountability is equitably distributed. If courts fail to adapt the causation requirement, thousands—perhaps millions—of teens would find themselves without any remedy for the harm caused by social media’s addictive design.

Second, by apportioning liability based on engagement metrics, social media platforms would be incentivized to reduce addictive design features and prioritize user well-being.<sup>397</sup> As discussed in Part I.A.3, self-regulation

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390. *See supra* notes 152–56.

391. *See* Amber van der Wal, Ine Beyens, Loes H. C. Janssen & Patti M. Valkenburg, *Social Media Use Leads to Negative Mental Health Outcomes for Most Adolescents*, U. OF AMSTERDAM (May 9, 2024), [https://osf.io/preprints/psyarxiv/qe9rn\\_v1](https://osf.io/preprints/psyarxiv/qe9rn_v1) [<https://perma.cc/7EPL-CYD9>].

392. *See supra* Part I.C.2.a.

393. *See supra* Part II.C.

394. *See generally supra* Part I.C.2.a.

395. *See supra* Parts I.B, II.A.

396. *See supra* Part II.C.

397. *See supra* Part I.A.3.

is inherently limited and Congress has yet to pass any comprehensive child online safety legislation.<sup>398</sup> Without these important safeguards, Instagram, Snapchat, and TikTok will continue to exploit persuasive technology without limit.<sup>399</sup>

Relatedly, claims brought under products liability theory are reactive, meaning they address harms after they occur.<sup>400</sup> Any continuing or future harm perpetrated by social media platforms will not be accounted for in such litigation.<sup>401</sup> Apportioning liability based on engagement metrics strengthens the efficacy of ongoing products liability claims, because it will serve to deter social media platforms from employing technology that fosters social media dependency well into the future.

Finally, Instagram, Snapchat, and TikTok are best positioned to demonstrate that they were not the cause of a teen's injury, because of their access to engagement data. As explored in Part I.B.2, the companies do not disclose the intricacies of their algorithmic infrastructure to avoid culpability for the harm their platforms cause.<sup>402</sup> Using proportional share liability will open the black box of these platforms, providing crucial insights for researchers and greater accountability to the public.<sup>403</sup>

#### CONCLUSION

The business model of social media incentivizes companies to prioritize user engagement over user well-being.<sup>404</sup> As a result, social media's addictive design choices have caused serious injuries to adolescents.<sup>405</sup>

In recent years, products liability has emerged as a legal pathway for holding social media companies accountable for teens' injuries.<sup>406</sup> However, plaintiffs in such cases face challenges in proving but-for causation.<sup>407</sup> Difficulties with showing causation stem from the inaccessibility of black box technologies, issues connecting algorithmic harms to specific teen injuries, and the fact that teens use multiple social media platforms.<sup>408</sup> This Note examines how these factors complicate assigning liability among social media platforms using traditional tort law frameworks.<sup>409</sup>

This Note proposes using proportional share liability based on engagement data as a solution to these challenges. By leveraging the data collected by

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398. *See supra* notes 67–70.

399. *See supra* Part I.B.1.

400. *See Costello et al., supra* note 4, at 156 (explaining that products liability cases are a reactive legal strategy and do not address the future harm social media platforms may inflict on the public).

401. *See id.*

402. *See supra* Part I.B.2.

403. *See id.*

404. *See Costello et al., supra* note 4, at 137.

405. *See supra* Part I.A.2.

406. *See supra* notes 217–21, 238–39.

407. *See Costello et al., supra* note 4, at 156; Konstantino, *supra* note 260, at 202–04; Lavi, *supra* note at 264, at 1446–48.

408. *See supra* Parts I.B.2, II.C.

409. *See supra* Part II.C.

social media companies to track user behavior, courts can fairly apportion liability in relation to each platform's contribution to a specific teen's injury and the broader teen mental health crisis.<sup>410</sup> Proportional share liability would also allow courts to weigh the severity of design techniques used by social media companies.<sup>411</sup> Furthermore, it would shift the burden to social media defendants to provide evidence that could reduce their share of liability and challenge the presumption of their responsibility.<sup>412</sup> Ultimately, proportional share liability will deter social media platforms from deploying addictive design techniques that harm adolescents.<sup>413</sup>

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410. See FED. TRADE COMM'N, *supra* note 4, at 17–18; Rostron, *supra* note 205, at 154.

411. See *supra* Part III.B.

412. See *supra* Part III.C.

413. See *supra* Part III.D; Lavi, *supra* note 264, at 1448.