

Filed Under Seal

Exhibit E

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA**

*PEOPLE OF THE STATE OF CALIFORNIA,
et al.,*
Plaintiffs,

v.

*META PLATFORMS, INC, Instagram, LLC,
Meta Payments, Inc., Meta Platforms
Technologies, LLC., et al.,*
Defendants

IN RE: SOCIAL MEDIA ADOLESCENT
ADDICTION/PERSONAL INJURY
PRODUCTS LIABILITY LITIGATION

THIS DOCUMENT RELATES TO:
4:23-cv-05448

MDL No. 3047

Case No. 4:23-cv-05448-YGR

Judge: Hon. Yvonne Gonzalez Rogers

Magistrate Judge: Hon. Peter H. Kang

**TRIAL REPORT OF RAVI IYER, PHD
August 1, 2025**

III. Removal and restriction of Meta's extended use features

- (45) Below in Section III.A, I explain that there is no tool or feature that could effectively minimize the effects of Meta's use of infinite scroll and autoplay, quantifications of engagement, and ephemeral content, other than their removal for young users. I also explain that it is necessary to restrict Meta's notifications to young users to only those that are truly time sensitive. Additionally, I explain that it would be feasible for Meta to remove and restrict these extended use features for young users. In Section III.B, I explain why the limited protections Meta has in place, including Teen Accounts and time management tools, do not overcome the harm associated with extended use features.

III.A. Removing infinite scroll and autoplay, quantification of engagement, and ephemeral content, and restricting notifications to those that are truly time sensitive would mitigate excessive and unhealthy usage for young users

- (46) Based on my research and experience, there is no tool or feature that could effectively minimize the effects of Meta's use of infinite scroll and autoplay, quantification and engagement, and ephemeral content, other than their removal for young users. Similarly, the only way to effectively minimize the effects of Meta's use of notifications for young users is to restrict these to notifications that are truly time sensitive.
- (47) Some of these features, including infinite scroll and autoplay, reduce the ability to exercise self-control by depriving users of the time necessary to consider whether they want to keep using the Platform. Other design features, including the quantification of engagement, the excessive use of notifications, and the use of ephemeral content, are designed to create emotional motivation to find out what others may or may not be doing. Such social motivations cannot be expected to be mitigated by teens' self-control, especially since other features are working to limit the amount of thought that teens put into their continued usage. Given how these features facilitate excessive and unhealthy usage, infinite scroll and autoplay, quantification of engagement, and ephemeral content should be removed, and notifications should be substantially restricted for teens.
- (48) Most human behavior is not just a function of thoughtful, rational consideration, but is also impulsive, emotional, and subject to social temptation. Hundreds of academic studies have shown that human beings are often irrational and extremely social.⁵⁸ This is especially true for teens, as it is widely

⁵⁸ Dan Ariely, *Predictably Irrational, Revised and Expanded Edition: The Hidden Forces That Shape Our Decisions*, Revised and Expanded ed. (Harper Perennial, 2010); David Brooks, *The Social Animal: The Hidden Sources of Love, Character, and Achievement*, Reprint. (Random House Trade Paperbacks, 2012).

allowing for a meaningful affirmative decision on the part of teen users has left many teens feeling manipulated.⁷⁰ Accordingly, removal of infinite scroll and autoplay for teens, without the ability for these features to be turned back on, is necessary to mitigate excessive and unhealthy usage for young users.

- (54) Based on my research and experience, it is feasible for Meta to implement these changes. Infinite scroll and autoplay can readily be removed and many successful companies have done so, proving the feasibility.⁷¹ For example, YouTube has turned off autoplay for identified children.⁷² Google removed infinite scroll from search results.⁷³ Facebook already has settings to disable autoplay that could easily be turned on by default for youth, rather than opt in as they currently are.⁷⁴ Turning off autoplay and infinite scroll for young users, without the ability for these features to be turned back on, would prevent regretted and unwanted consumption for millions of youth.⁷⁵

III.A.2. Quantification of engagement

- (55) Social influence is another way that youth are encouraged towards greater usage of Meta's Platforms. Engagement metrics, such as the visible count of how many "likes," comments, clicks, views, or reactions any user-generated item has received, create a natural impulse to engage in social comparison. For example, research has shown that many social media users understand the number of "likes" or shares that a given piece of content gets as an indication of popularity amongst peers.⁷⁶ Negative social comparison, per Meta's internal research, is especially prevalent amongst teens on Instagram with 21.4% reporting experiencing it within a 7 day period (as compared to 6.8% of users

<https://www.commonssensemedia.org/sites/default/files/research/report/2018-social-media-social-life-executive-summary-web.pdf>.

⁷⁰ "Social Media, Social Life: Teens Reveal Their Experiences," Common Sense, accessed July 18, 2025, p. 15, <https://www.commonssensemedia.org/sites/default/files/research/report/2018-social-media-social-life-executive-summary-web.pdf>.

⁷¹ Mindy Brooks, "Giving Kids and Teens a Safer Experience Online," Google Blog, August 10, 2021, <https://blog.google/technology/families/giving-kids-and-teens-safer-experience-online/>.

⁷² Mindy Brooks, "Giving Kids and Teens a Safer Experience Online," Google Blog, August 10, 2021, <https://blog.google/technology/families/giving-kids-and-teens-safer-experience-online/>.

⁷³ Andrew Liszewski, "Google is Killing Infinite Scroll on Search Results," The Verge, June 25, 2024, <https://www.theverge.com/2024/6/25/24185727/google-search-continuous-scrolling-doomscrolling-graveyard>.

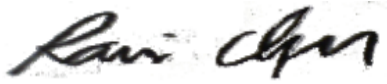
⁷⁴ "Stop Videos and Animations From Playing Automatically in your Feed on Facebook," Facebook Help, accessed July 18, 2025, <https://www.facebook.com/help/1406493312950827/>.

⁷⁵ Luca-Maxim Meinhardt, Maryam Elhaidary, Mark Colley, Michael Rietzler, Jan Ole Rixen, Aditya Kumar Purohit, Enrico Rukzio, "Scrolling in the Deep: Analysing Contextual Influences on Intervention Effectiveness during Infinite Scrolling on Social Media," *CHI '25: Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems*, no. 964 (2025): 1–3.

⁷⁶ Aarif Alutaybi, John McAlaney, Angelos Stefanidis, Keith Phalp, and Raian Ali, "Designing Social Networks to Combat Fear of Missing Out," *Proceedings of the 32nd International BCS Human Computer Interaction Conference (HCI)* (2025): 1–5.

Trial Report of Ravi Iyer, PhD

The undersigned hereby certifies their understanding that they owe a primary and overriding duty of candor and professional integrity to help the Court on matters within their expertise and in all submissions to, or testimony before, the Court. The undersigned further certifies that their report and opinions are not being presented for any improper purpose, such as to harass, cause unnecessary delay, or needlessly increase the cost of litigation.



Ravi Iyer, PhD

August 1, 2025

Date