

Laura Marquez-Garrett, SBN 221542
laura@socialmediavictims.org
Matthew P. Bergman (*Pro Hac Vice* application forthcoming)
matt@socialmediavictims.org
Glenn Draper (*Pro Hac Vice* application forthcoming)
glenn@socialmediavictims.org
SOCIAL MEDIA VICTIMS LAW CENTER
821 Second Avenue, Suite 2100
Seattle, WA 98104
Telephone: (206) 741-4862
Facsimile: (206) 957-9549

Attorneys for Plaintiff

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

ALEXIS, KATHLEEN, and JEFFREY
SPENCE

Plaintiff(s),

v.

META PLATFORMS, INC., formerly
known as FACEBOOK, INC.;

Defendant.

Case No. _____

COMPLAINT FOR PERSONAL
INJURIES

JURY DEMAND

“In these digital public spaces, which are privately owned and tend to be run for profit, there can be tension between what’s best for the technology company and what’s best for the individual user or for society. Business models are often built around maximizing user engagement as opposed to safeguarding users’ health and ensuring that users engage with one another in safe and healthy ways. . . .”

Protecting Youth Mental Health, The U.S. Surgeon General’s Advisory (December 7, 2021)

“Tweens are herd animals . . .”

Tweens and Social Media, Meta Platforms Internal Report (October 9, 2017)

1 Plaintiffs Alexis Spence and her parents, Kathleen and Jeffery Spence, bring this action for
2 personal injury and loss of consortium against Meta Platforms, Inc., formerly known as Facebook,
3 Inc. (“Facebook”), doing business as Instagram (“Instagram”) (collectively, “Meta”), and allege
4 as follows:

5 I. INTRODUCTION

6 A. Plaintiffs’ Claims

7 1. This product liability action seeks to hold Defendant Meta’s Instagram product
8 responsible for causing and contributing to burgeoning mental health crisis perpetrated upon the
9 children and teenagers of the United States by Meta and, specifically for the injuries it caused
10 Alexis Spence beginning in 2013, when Alexis was only eleven years old. Those injuries,
11 proximately caused by Meta’s unreasonably dangerous Instagram social media product, include
12 but are not limited to, addiction, anxiety, depression, self-harm, eating disorders, and, ultimately,
13 suicidal ideation.

14 2. Meta’s Instagram social media product likewise caused foreseeable harms to
15 Plaintiffs Kathleen and Jeffrey Spence, Alexis’ parents. Kathleen and Jeffrey Spence took
16 affirmative steps to protect their daughter, did not consent to Meta distributing or otherwise
17 providing Alexis with access to its Instagram product, and were emotionally and financially
18 harmed by Meta’s addictive design and continued and harmful distribution and/or provision of
19 multiple Instagram accounts to their minor child.

20 3. Plaintiffs’ harms were all caused by Alexis’ exposure to and use of Meta’s
21 unreasonably dangerous and defective social media product, Instagram. Alexis was 11 years old
22 when she opened her first Instagram account, without her parents’ knowledge or consent. Meta
23 knew that she was under the age of 13. Meta also designed its product to encourage such illegal

1 and unauthorized use, and in a manner that encouraged Alexis to open multiple accounts.

2 4. In Meta’s own words, it created a “perfect storm” of addiction, social comparison,
3 and exposure to incredibly harmful content and product features, then operated its algorithms to
4 push and promote harmful content via Alexis’ Feed, Explore, Stories, and Reels features. Meta
5 programmed and operated its product to prioritize engagement over user safety, and Alexis
6 suffered several emotional, physical, and financial harms as a result, as did her parents—all of
7 which are a symptom of the current health crisis among American youth caused by certain harmful
8 social media products, specifically in this case, Instagram.

9 **B. Meta’s Internal Documents Targeting Children**

10 5. In late 2021, a Facebook whistleblower disclosed thousands of internal Meta
11 documents to the United States Securities Exchange Commission (the “SEC”) and Congress. This
12 Complaint quotes from, cites to, and includes photographs of just some of those documents,
13 referred to herein as “FBP” or the “Facebook Papers.” The Facebook Papers prove known
14 dangerous designs and design defects as well as operational decisions and calculations, and a
15 causal relationship between use of these social media products in their current form resulting in
16 addiction, anxiety, depression, eating disorders, and what Meta refers to as “SSI” (Suicide and Self
17 Injury) harms to Facebook and Instagram users. The Facebook Papers establish that Meta has
18 actual knowledge that children under the age of 13 are using its social media products; that its
19 social media products are highly addictive and harmful to a significant population of all users, but
20 especially teens, children, and certain protected classes (women, people of color, and low-SES);
21 and that its algorithms and algorithm-driven product features, such as Feed, Explore, Reels, and
22 Stories, as well as product design features that serve no functional purpose, such as “Likes,” are
23 causing harm to its users. The Facebook Papers show that Meta senior leadership has actual

specific knowledge of these harms, as well as the causal connection between the current mental health crisis among America’s youth and its social media products. Conscientious Meta employees repeatedly informed senior leadership of product hazards and ongoing harms among product users but were ignored, terminated, and/or strongly encouraged to find employment elsewhere. Meta and its primary competitors in the social media space are making calculated cost-benefit business decisions and are consistently prioritizing their already astronomical profits over human life. The information contained in these documents is important to the safety of children and teens on a global scale, and the world has a right to know.

6. These documents do not include privileged material. The Facebook Whistleblower represented to Congress, and we represent to this Court, that there are “No Privileged Materials Included ... we have deliberately *not* included any privileged materials ... [and these documents] do not contain any materials with markings such as “Attorney-Client Privileged,” or any materials we have any reason to suspect could be privileged.”¹

C. The Social Media Epidemic Among Children

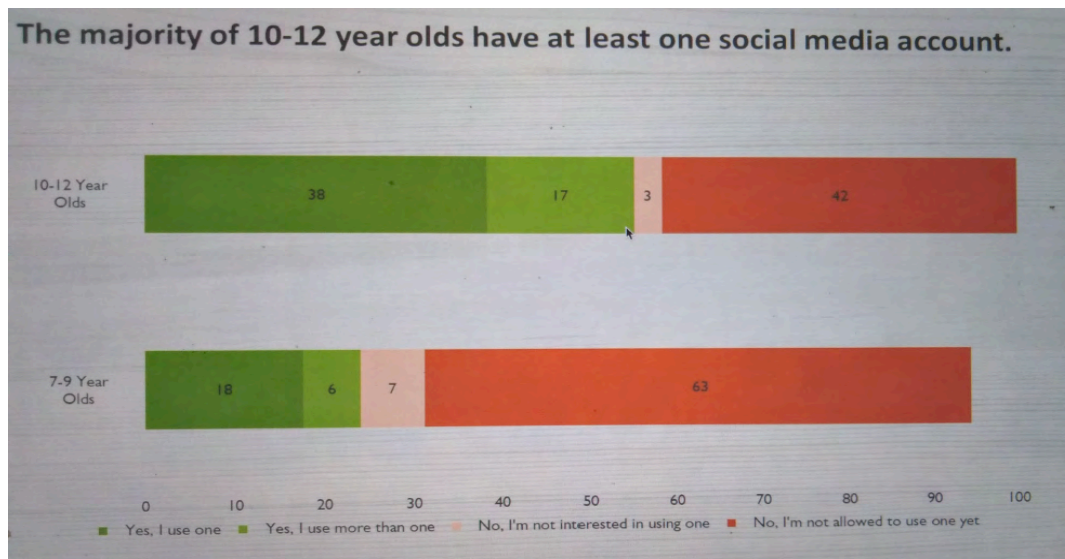
7. On December 7, 2021, the United States Surgeon General issued an advisory cataloging a dramatic increase in teen mental health crises including suicides, attempted suicides, eating disorders, anxiety, depression, self-harm, and inpatient admissions. Between 2007 and 2018, for example, suicide rates among youth ages 12 to 16 in the U.S. increased a staggering 146 percent. Several cities across the United States have been experiencing teen suicide rates in the range of 1 every year or other year, which is an absolute crisis for our country—the death by suicide of a child is something that should be an exception and not a rule. The incidence of serious depression and dissatisfaction with life in this age group has likewise increased dramatically, and

¹ See Letter to SEC Office of the Whistleblower, dated August 11, 2021 (emphasis in original).

there is no question that these harms relate in no small part to companies like Meta.

8. The most significant and far-reaching change to the lives of young people in the last ten years has been the widespread adoption of social media platforms and, prominently, for purposes of this lawsuit, the Instagram product which launched in 2010 and was acquired by Facebook (now Meta) in 2012, and which is designed and distributed by Meta.

9. By 2014, 80 percent of high-school students said they used social media daily, and 24 percent said that they were online “almost constantly.” By 2016, Meta’s internal research concluded that “[t]he majority of 10-12 year olds [had] at least one social media account,”



FBP 42/03, “Tweens and Social Media” (October 2017), at p. 18.

10. By 2018, an estimated 63% of all children in the United States aged 13 to 14 and 78% of all children in the United States aged 15 to 17 used Instagram specifically. Current estimates put the total number of all US teens using Instagram at 76%.

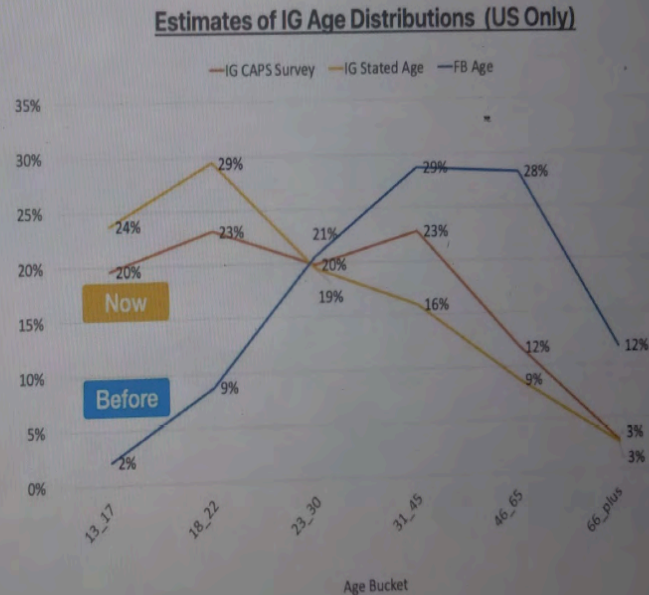
11. Putting this into context, Instagram has an estimated 1.28 billion monthly active users (or “MAU”) worldwide, with 24% of MAU self-reporting between 13 and 17 years old. This equates to roughly 307 million at-risk teenage Instagram users worldwide, and more than 18.62

million at-risk teenage Instagram users in the U.S. alone.²

12. Teens make up a significant percentage of all Instagram users,

Instagram's monthly active users over-index on teen and young adult users.

Recent data science findings suggest that **Instagram users skew young**: over 60% of IG users are 30 and younger and over 40% are 22 and younger.



2020 IG age estimates using self-reported age from survey data (orange line) vs. FB age which over-indexes on older users (blue line). This is ongoing work that is still being verified.

FBP 42/15, “The Power of Identities: Why Teens and Young Adults Choose Instagram - A UXR, Market Research and Data Perspective,” at p. 5.

D. Disparities Between Meta’s Public Statements and Internal Research on Harm to Children

13. Peer reviewed studies and available medical science have also identified a particular type of social media and electronic device use associated with major mental health injuries, including depression, self-harm, eating disorders, suicide attempts and ideation, dissatisfaction with life, depression, and sleep deprivation. Large observational studies and

² Meta estimates 24.5 million teen internet users in the U.S. (FBP 42/15, at p. 29), and an estimated 76% of all U.S. teens are on Instagram.

1 experimental results also point to heavy use of certain social media products as the cause of
2 increased depression, suicidal ideation, and sleep deprivation among teenagers, particularly
3 teenage girls. Again, Meta has spent years publicly denying these findings—while internally
4 confirming them.

5 14. Specifically, Meta leadership has vehemently denied that its products are harmful
6 or addictive. Meta has gone to great lengths to assure the world that its social media products are
7 safe. Even its Terms of Use (effective January 4, 2022) represent that Meta is “Fostering a positive,
8 inclusive, and safe environment,” and that Meta uses its “teams and systems ... to combat abuse
9 and violations of our Terms and policies, as well as harmful and deceptive behavior. We use all
10 the information we have—including our information—to try to keep our platform secure.”
11 (Effective January 4, 2022). However, Meta’s own internal research and “experiments” show the
12 opposite. The Facebook Papers include years’ worth of studies and reports, often referred to by
13 Meta as “experiments,” discussing the fact that Meta’s social media products are addictive and
14 harmful, and that use of those products can and does lead to serious mental health issues in a
15 significant number of users, including things like anxiety, depression, eating disorders, and what
16 Meta refers to as Suicide and Self Injury (or, SSI). The following are just a few examples.

17 15. Internal Meta research written in 2019 discusses why increasing user
18 engagement—Meta’s number one priority—does not correlate to increasing user value. This
19 research refers back to other studies from years prior, confirming that higher engagement (*i.e.* more
20 sessions and/or time spent over a certain threshold) causes “higher negative effect” for users, and
21 other hallmarks of addiction (referred to internally at Meta as “problematic use”). Meta research
22 found that users who deactivated their Meta accounts experienced increased happiness and well-
23 being; however, they also then engaged in “persistently lower use,” which is the precise result

Meta desperately needed to avoid.

[5] [REDACTED] (2018) "User Perception of Time-Spent on Instagram"

- <https://fb.workplace.com/groups/432156973909421/permalink/482477452210706/>
- "survey in May 2018 with mid to high time spent users on Instagram,"
- "More than a third of the survey respondents feel they have spent more time than they would have liked on Instagram. About one in five respondents think they have a problem controlling their time."
- 42% of the survey respondents have taken a break from Instagram. The top reason for taking a break is "I had something at work or school that I needed to focus on." More high TS users report that the break has made them feel worse than before than low TS users.
- People who spend longer time think their time spent is more meaningful than those who spend shorter time. Those who spend longer than 3 hrs/day have lower positive affect, lower life satisfaction, and higher negative affect than people who spend shorter time on Instagram.

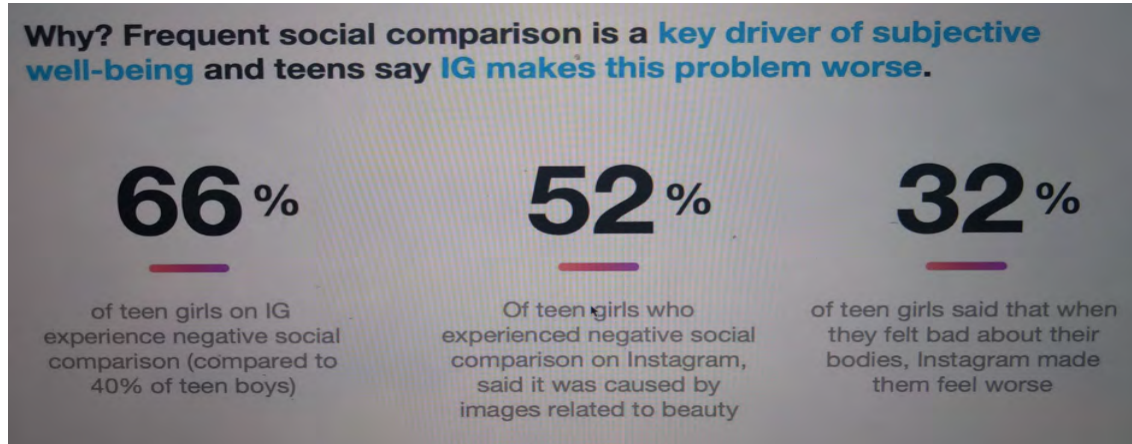
[6] [REDACTED] et al. "The Welfare Effects of Social Media"

- <https://web.stanford.edu/~gentzkow/research/facebook.pdf>
- "Deactivation caused small but significant improvements in well-being, and in particular in self-reported happiness, life satisfaction, depression, and anxiety ... Our overall index of subjective well-being improved by 0.09 standard deviations. As a point of comparison, this is about 25-40 percent of the effect of psychological interventions including self-help therapy, group training, and individual therapy, as reported in a meta-analysis by Bolier et al. (2013)."
- (after deactivation, persistently lower use)

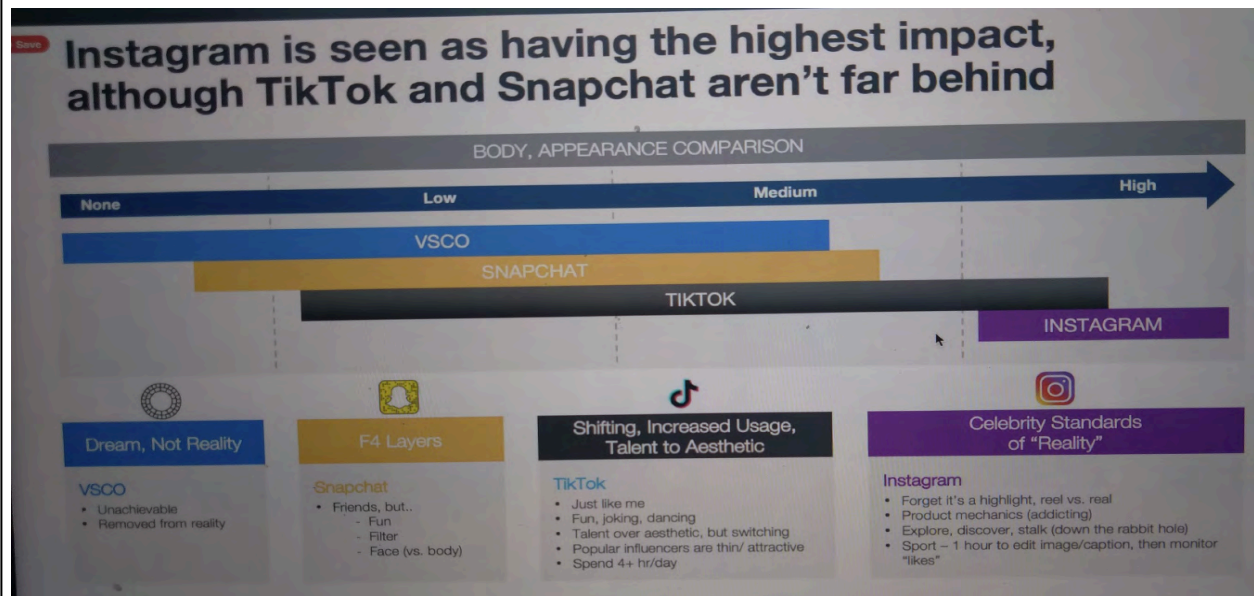
FBP 08/25, "When User-Engagement \neq User-Value" (December 10, 2020), at p. 10-11.

16. In late 2019 or early 2020 Meta also conducted an "exploratory study" in the United States, aimed at examining "Teen Girls Body Image and Social Comparison on Instagram." The

1 resulting PowerPoint was published internally at Meta in March of 2020, titled “Social
 2 Comparison Exploratory Research,” and found that use of Instagram made certain social
 3 comparison-based harms worse for a significant percentage of teen girls using Instagram. For
 4 example, “32% of teen girls said that when they felt bad about their bodies, Instagram made them
 5 feel worse.”

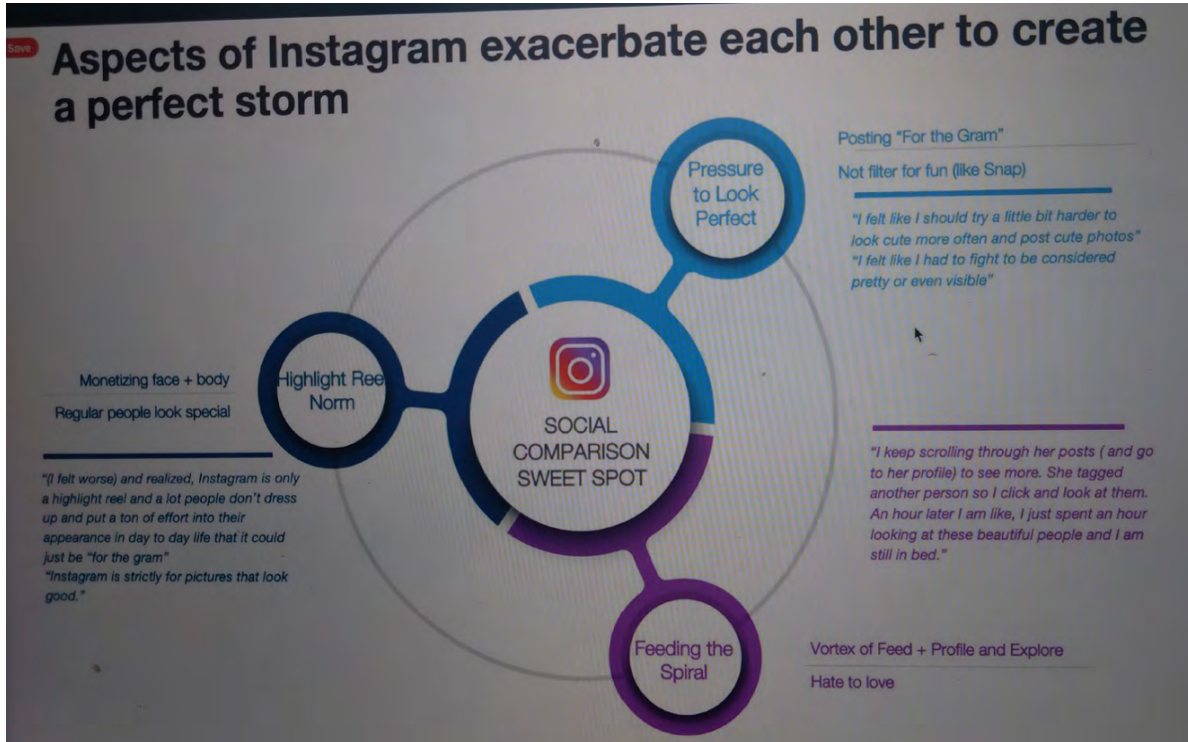


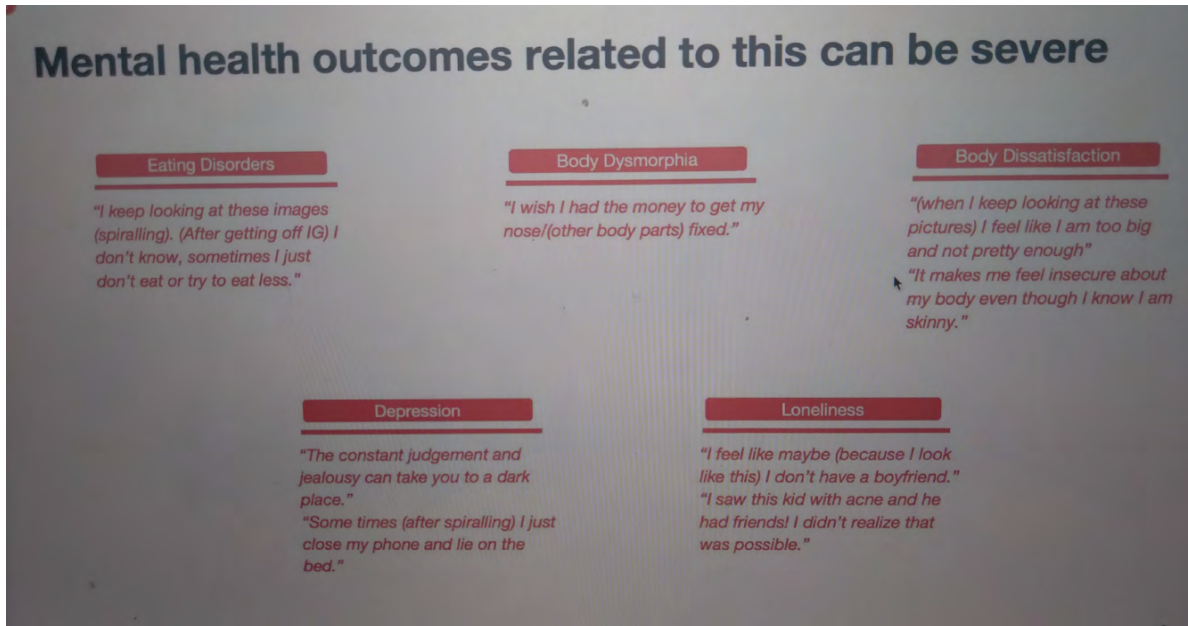
12 FBP 24/13, “Teen Girls Body Image and Social Comparison on Instagram – An Exploratory Study
 13 in the US” (March 2020), at p. 8. Meta researchers reported that Instagram was viewed as having
 14 the “highest impact” in terms of these harms as compared to its competitors,
 15



FBP 24/13 at p. 37 (Instagram described as “Product mechanics (addicting).”

17. More to the point, Meta knows that “Aspects of Instagram exacerbate each other to create a perfect storm.” FBP 24/13 at p. 43. According to Meta, the “social comparison sweet spot” (*id.*)—a place of considerable harm to users, particularly teens and teen girls—lies at the center of Meta’s product model and product features,





FBP 24/13 at p. 43, 47. The user harms acknowledged in these slides relate, ultimately, to Meta product features like “Feed + Profile and Explore” (*id.*), filters, and teen-targeted marketing and accessibility. Meta knows exactly the harms that its products are causing to its teen users yet remains focused on maintaining and increasing user engagement which translates into greater profits for Meta. *See also* FBP 24/12, *Research Insights Document*, “How the topics people see are linked to appearance comparison on IG” (March 2021), *infra*.³

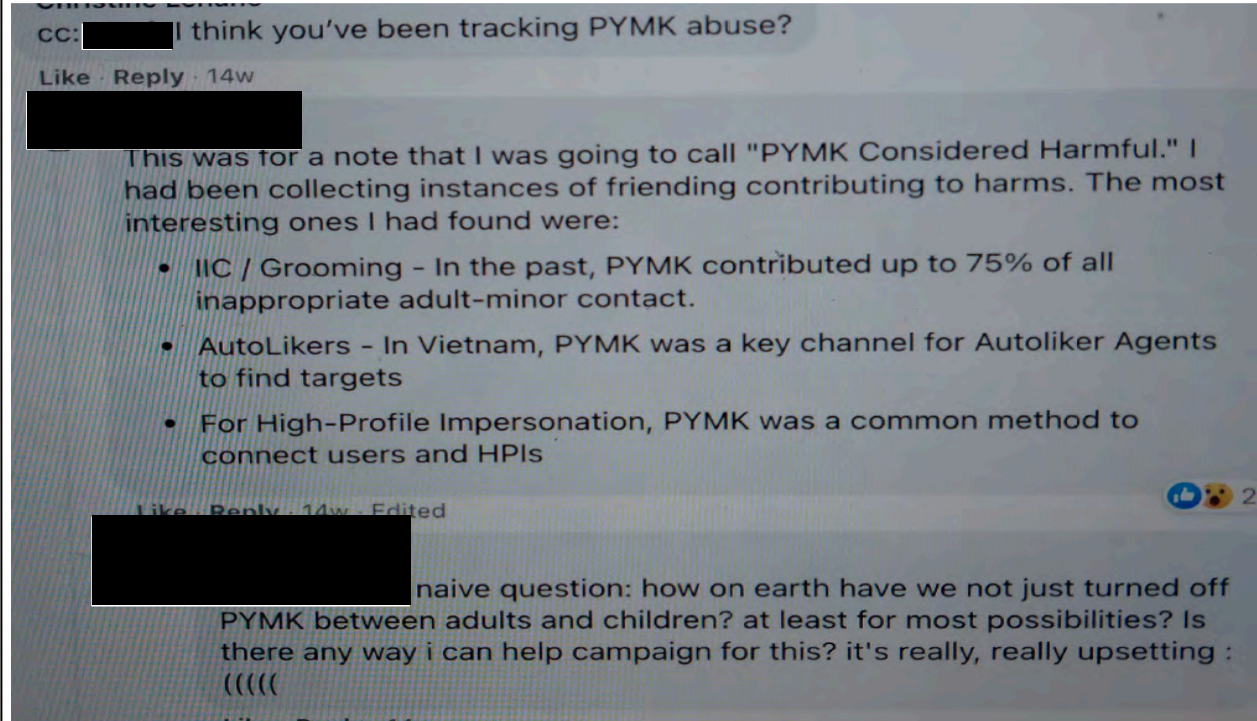
18. Meta also knows that its recommendations and other product features, like Feed and Explore, result in disproportionate harms to vulnerable users including children, teens, teen girls, and women. Yet Meta continues to reap astronomical profits at the expense of these users.

19. One example is the “friend” recommendation product feature, which is a feature Meta has in both its Facebook and Instagram social media products. Meta knows that this feature is harmful to children—*i.e.*, “IIC/Grooming—in the past, PYMK [People You May Know]

³ Meta has known or had reason to know about these harms from the outset. *See* Sept. 30, 2021, Senate Hearing Transcript, at 1:07:47 (reference to study published in National Academy of Sciences “way back in 2014.”).

contributed up to 75% of all inappropriate adult-minor contact” —and could simply turn this feature off but has opted to leave it in place instead. *See* FBP 36/38, “Growth, Friending + PYMK, and downstream integrity problems,” at p. 4. In response, one Meta employee asked,

...naive question: **how on earth have we not just turned off PYMK between adults and children?** at least for most possibilities? is there any way I can help campaign for this? it’s really, really upsetting : (((((



Id. (emphasis added). The question is a good one. The answer, of course, goes back to Meta’s failure to make changes that might impact its competitive positioning and user engagement – even when it meant exposing its most vulnerable users to sexual exploitation.

20. Meta’s own research has also been quite conclusive in determining that,

- a. 13.5% of teen girls on Instagram say the platform makes thoughts of “Suicide and Self Injury” worse.
- b. 17% of teen girl Instagram users say the platform makes “Eating Issues” (e.g. anorexia and bulimia) worse;

1 c. “We make body image issues worse for 1 in 3 teen girls.”

2 FBP 45/33, *Instagram Mental Health Summary Document* (PowerPoint titled “Mental Health
3 Findings”), (November 2019), at p. 9; *see, also, e.g.*, FBP 24/15, *Instagram Insights*, “IG Social
4 Comparison Research Findings” (November 2018), at p. 27 (“Teen girls and young women are
5 particularly prone to negative social comparisons); *id.* at p. 33 (finding 8 times the harm to teen
6 girls as compared to men 25 years and older, and 5 times for young women).

7 21. Meta has likewise identified algorithmic bias based on race and low SES. For
8 example, an internal Q1 2021 Report (*see* FBP 38/04, “Equity User Insights – Q1 2021 Report”
9 (April 2021), at p. 9-15), noted that users were reporting Facebook for “promoting or
10 recommending racist groups.” In a similar equity analysis (*see* FBP 41/01, “H1 2021 Equity
11 Analysis: Reels” (April 2021), at p. 6, 9, 11-22), Meta noted that “Reports of equity-related
12 concerns have been relatively consistent over time and are reported by users across platforms with
13 similar frequency.” *See, e.g.*, FBP 38/05, “Growth x Equity User Feedback – Findings &
14 Recommendations” (March 2021), at p. 11 and 38/06, *Equity User Signal Task – Raw Data*, at p.
15 5 (complaints that PMYK [People You May Know] suggestions are sometimes a result of racial
16 profiling); FBP 33/15, *Comprehensive Study on disparate product impacts by race*, at p. 1 (“It’s
17 virtually guaranteed that our major systems do show systemic biases based on the race of the
18 affected user ...”). In 2019, Meta interviewed eighteen “vulnerable user participants ... to learn
19 about how people experience integrity harms on Facebook over time.” *See* FBP 10/22, “Longitude
20 Integrity Harm Project” (August 2019-January 2020). Although these interviews were limited in
21 terms of participant numbers, they also confirmed the presence of algorithmic discrimination.
22 “Black participants had a *much higher concentration of violent content ...* and sexual content that
23 they did not want to see in their Feeds.” (emphasis added).

Insight: Qualitatively, there appear to be different information ecosystems along axes of lower SES and higher SES, as well as race.

- Group A participants experienced integrity harms on Facebook less often and perceived them to be less severe (eg inappropriate comment vs. child abuse video).
- Behaviorally they tended to only friend people they knew in real life and most knew how to report content and unfollow Pages - their Feeds were very curated.
- Group B participants included black participants, a recent immigrant to the US (from Ethiopia), and a couple low SES older white participants.
- Behaviorally they exhibited vulnerabilities related to low tech skill including accepting most friend requests (many FB friends they did not know), not knowing how to unfollow Pages or leave Groups, and not knowing what to do besides leaving the App or scrolling past if they see content they perceived as harmful.
- Black participants had a much higher concentration of violent content (borderline and ones that had been removed or covered) and sexual content that they did not want to see in their feeds.

Black participants also had a lot more Facebook Live videos in their Feeds.

- Participants were on Live for many hours at a time, documenting everyday life.
- One participant estimated that 50% of her News Feed was Facebook Live.
- Facebook Live is more difficult to review for Integrity harms (long video) and therefore can be riskier.

Example of a Live video while driving



FBP 10/22 at p. 28, 31, 37.

22. In February 2021, Meta ran another analysis, employing ML Equivalency to see

whether black users and white users would be shown the same content by Meta’s product if they were similar in chosen “controlling” dimensions. That is, where the controlling criteria was not skin color and was consistent across the tested users, one would expect—in a non-discriminatory system—to see the same outcome. That, of course, did not happen. Without controlled criteria, “the African Americans were more likely to be given a higher risk score, with the mean score being much higher (5.3 vs 3.6 for Caucasians).” But even with controlled criteria (“Once the African American group was weighted to become more comparable to the Caucasian group in terms of the dimensions matched”) there was still a difference—just a smaller one. FBP 39/16, “They Synthetic Parity Method of ML Equivalency” (February 2021), at p. 10-11.

As a sanity check, we ran a **logistic regression model**, where the dependent variable was whether prediction was high risk and the control variables were the same as used in the synthetic parity analysis. The coefficient for African Americans vs Caucasians as the reference group turned out to be 0.477, indicating that everything else being equal, the model was more likely to place African Americans into the high risk bucket. The conclusion directionally agreed with synthetic parity.

All in all, COMPAS seems to give higher risk scores to the African American group, where the raw difference in average scores was 1.7 and the adjusted difference was 0.6 after controlling for the dimensions specified above. In addition to statistical testing, we should also check whether the difference, if any, is practically significant. If the difference is above what is deemed acceptable, then follow-up analysis using tools like the Fairness Flow is recommended.

FBP 39/16, “They Synthetic Parity Method of ML Equivalency” (February 2021), at p. 12; *see also* FBP 09/20, “Comprehensive Study Disparate Product Outcomes by Race” (June 2020), at p. 4 (“**Algorithmic Fairness.** Are our machine learning and other algorithms systematically biased for or against content from different groups? ... Based on past experience, it’s reasonably likely that bias does exist, but it’s not clear which direction it might lean (it will almost certainly vary

per model)). In short, Meta knows that its platforms are particularly harmful to several protected classes yet continues to operate and cause that harm.

23. Meta documents discuss that “Constant comparison on Instagram is ‘the reason’ why there are higher levels of anxiety and depression in young people,”

Teens blame Instagram for increases in the rates of anxiety and depression among teens

- This reaction was unprompted and consistent across all groups
- Constant comparison on Instagram is “the reason” why there are higher levels of anxiety and depression in young people
- Social comparison and perfectionism are nothing new, but young people are dealing with this on an unprecedented scale.
- The proliferation of new and different ways to compare themselves to others, combined with constant access to means that there is no way to escape social comparison on IG.
- For both boys and girls, this was called out as being the number one reason why IG is worse than other platforms for mental health. And, young people openly attribute their increased level of anxiety and depression to Instagram.

“The reason why our generation is so messed up and has higher anxiety and depression than our parents is because we have to deal with social media. Everyone feels like they have to be perfect.”
- UK Female

FBP 23/01, “Teen Mental Health Deep Dive” (October 10, 2019) at p. 53. As illustrated in the Facebook Papers, this constant and harmful social comparison is the result of social media’s design and operation.

24. Meta documents report that 13.5% of teen girls on Instagram say that the platform makes thoughts of Suicide and Self Injury (SSI) worse; while 17% of teen girls on Instagram say that the platform makes “Eating Issues” (e.g. anorexia and bulimia) worse,

BUT, WE MAKE BODY IMAGE ISSUES WORSE FOR 1 IN 3 TEEN GIRLS

Teens also generally thought that IG made things better or had no impact. However they were also more split around problematic social media use and the role we played in it. More teen girls thought that IG made body image issues worse rather than better

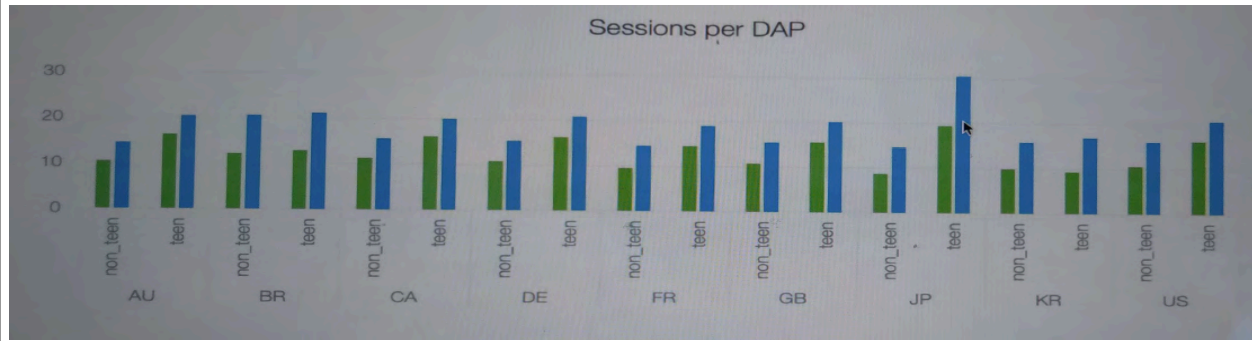


FBP 45/33, “Mental Health Findings,” at p. 9.

25. Meta knows that its product is contributing to teen depression, anxiety, even suicide and self-harm. Why doesn't it change these harmful product features and stop utilizing algorithms in connection, at least, with teen accounts? Because Meta's priority is growth and competition concerns, and it sees “acquiring and retaining” teens as essential to its survival. As made clear in the Facebook Papers, teenagers spend significantly more time on social media than adults (both total time and user sessions—which are usage patterns Meta links to addiction), represent Meta's greatest (if not only) growth opportunity in the US, and can be used by Meta to do many “jobs” including, among other things, recruitment of older and younger family members and friends.

26. “Teens have 34% more sessions than adults” and spent far more time on average on Instagram in all global markets than their adult counterparts,

- iOS users have 31% more sessions than Android users
- Teens have 34% more sessions than adults
- US users have 16% more sessions than the avg country, mostly due to prevalence of iOS



FBP 16/09, “A Primer on Instagram Sessions” (April 2019), at p. 11-12.

27. Meta does not “expect significant MAU growth in the US beyond the ~4M teens that start using the internet each year.”



FBP 42/15, “The Power of Identities: Why Teens and Young Adults Choose Instagram - A UX, Market Research and Data Perspective,” at p. 30.

28. Other Meta studies have confirmed that teens are the best way to capture household adults and children. Pre-teens look to their older siblings in terms of which social media products to use and how to use them, and often obtain guidance from them to open their first account, while

parents and grandparents are influenced by teen household members and open accounts to participate in their child's life.

Insight #1: **Teens** were often the reason other household members joined IG.

- **Implication:** One member within a household has the power to influence acquisition and retention for others. Family-first acquisition strategies are proven effective (e.g. TikTok) and warrant exploration on IG.

Insight #2: **Teens** strongly influenced preteens' understanding of what and how frequently to share on IG, even discouraging them from sharing due to permanence or content context.

- **Implication:** If this holds at scale, **teens** could be creating sharing barriers for upcoming generations including that being spontaneous/authentic doesn't belong on IG and that IG is more for consuming than sharing. We need to understand IG myths circulating among **teens** to inform comms and shift the perception of sharing on IG.

Insight #3: **Teens** indirectly impacted a household's perception of IG through their behavior on and off platform. Seeing a teen use filters, deliberate before posting, obsess over metrics, engage in isolation, or use a secondary account translated to well-being concerns for parents and sharing implications for preteens (noted above).

Executive summary

Context: The [Household Ecosystem study](#) was a multi-method approach to understand how the use of social media products, like Instagram, impacts a household. We looked across teen and preteen siblings and their parents/guardians and discovered yet another reason why teens matter for Instagram: **Teens shape the household's perception of Instagram.**

Insight #1: **Teens** were often the reason other household members joined

[See More](#)

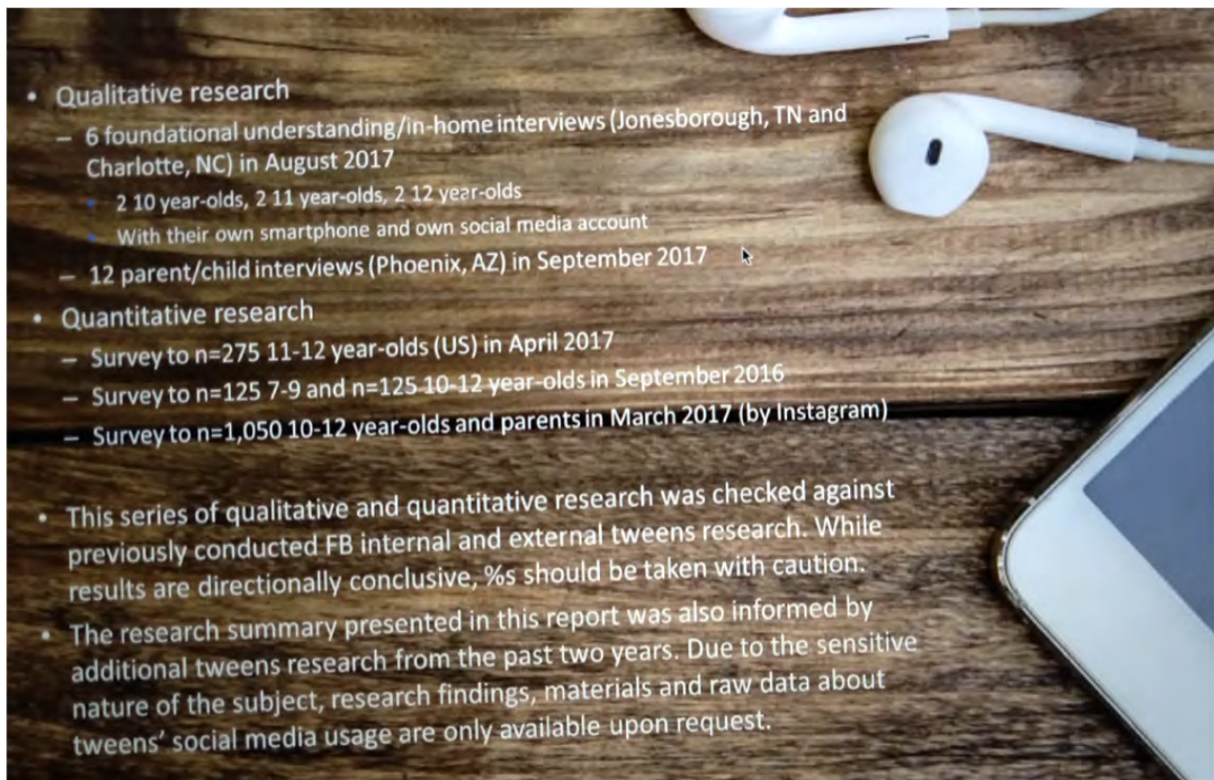
*The Household Ecosystem study was a six-month primary research study with 18 rural and urban families from across 12 cities in the US. The methodology included 64 remote interviews with family members (mom, dad, teen, preteen, the occasional grandparent), 14 remote dyad interviews, 8 in-home ethnographies, and 7 remote ethnographies.

When it comes to IG you can think of the teen as the nucleus of the household. The teen serves as the information and administrative center of the family, **informing everyone else's experience on IG by impacting perception and usage across generations.**

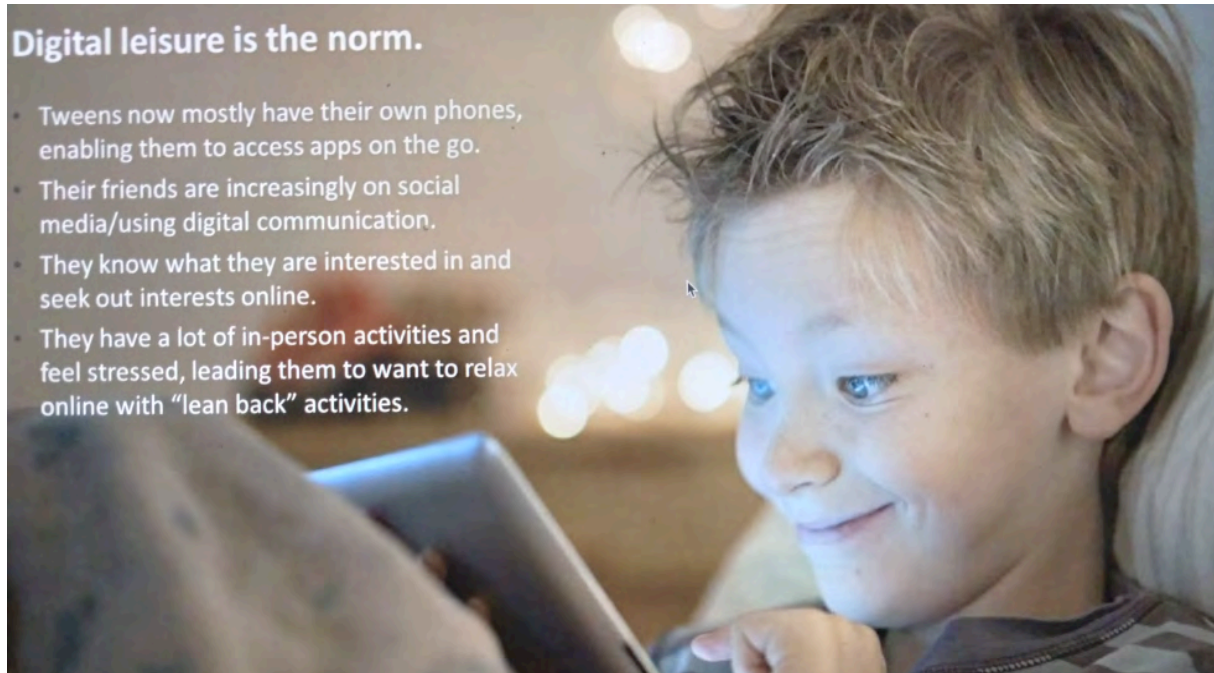
The most common reason for a parent to join IG was to be able to learn and participate in this part of their teen's world. They joined to better understand the app, see what their child shared, and observe who their child followed.

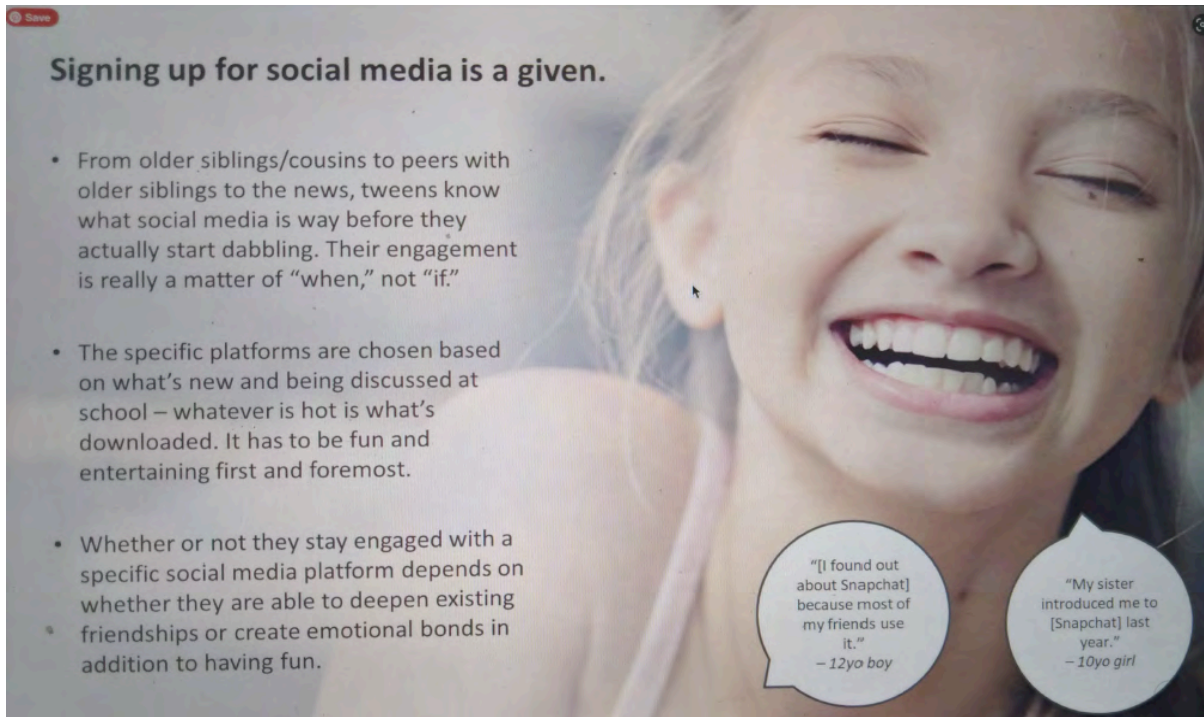
FBP 24/09, *Instagram Insights*, "The Role of The Teen in Shaping a Household's Experience of Instagram," at p. 1, 2, 5, 6.

29. Meta also knows that its Instagram product is widely used by pre-teens under the age of 13. Despite it being illegal for Meta to knowingly permit persons under the age of 13 to use its platform, Meta has spent millions (if not billions) of dollars over the last decade studying "tweens" to determine how to make its product more appealing to and increase engagement among them. Meta sees children under 13 as a tappable and valuable market, which it must capture and use to increase revenue and ensure competitive positioning in the long-term,



FBP 42/03, "Tweens and Social Media" (October 2017), at p. 7.





FBP 42/03 at p. 9, 17. Again, these are internal Meta documents. The first sentence of FBP 42/03 explains that “[t]his deck is meant as an introduction to the tween demographic and their social media use.” *Id.* at p. 1.

30. Meta also studies and conducts experiments aimed at ensuring “steady acquisition and stable retention of new teens”⁴ (age 13 to 17),

Setting the stage

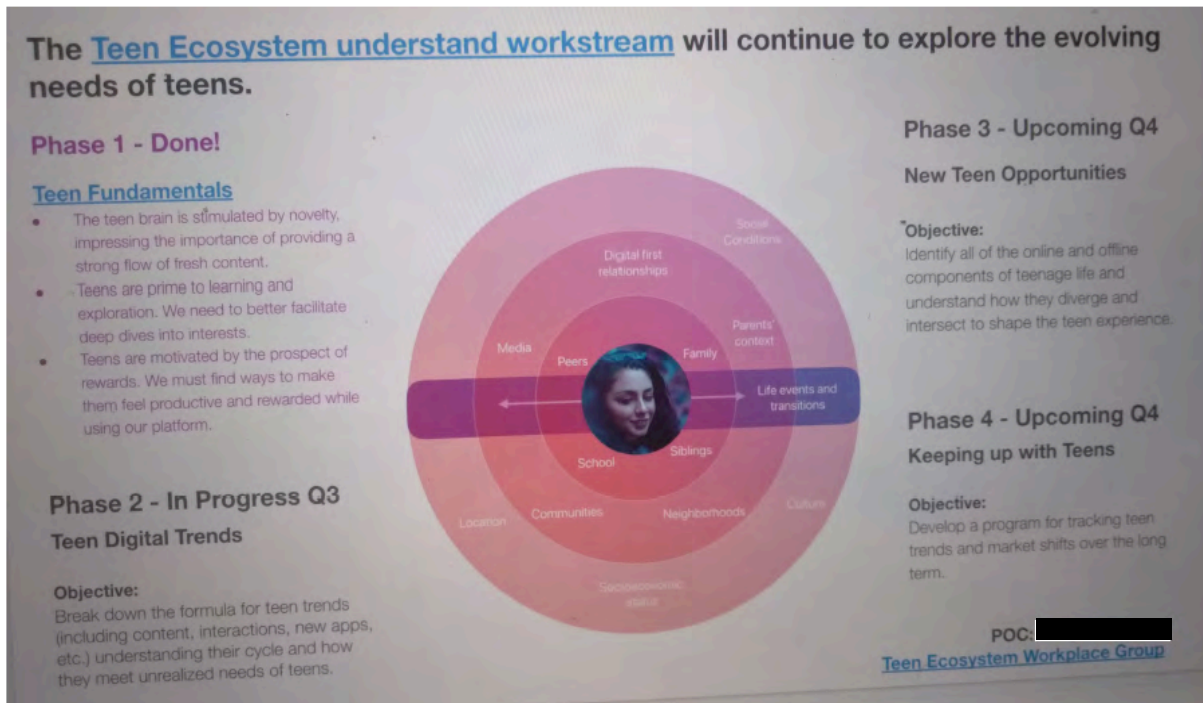
Historically, teens have been a key focus for IG. Acquiring and maintaining them continues to be a priority, reflected by investment in new features like Reels. Additionally, capturing the teen user cohort on IG is critical as we think about Instagram’s role within the broader family of apps.

FBP 24/09, *Instagram Insights*, “The Role of The Teen in Shaping a Household’s Experience of Instagram,” at p.5.

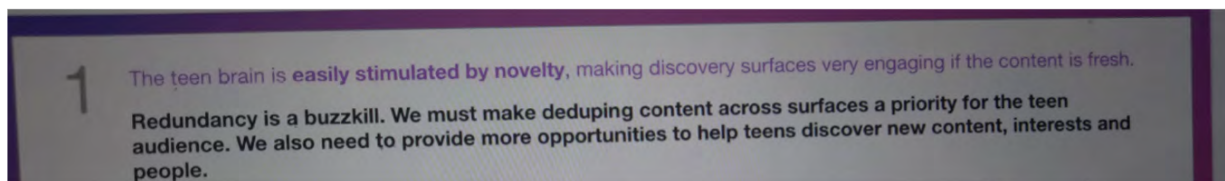
31. A constant theme among the thousands of internal Meta documents provided to

⁴ FBP 24/04, “How are Teens Doing on Instagram? Instagram Teen Analysis” (July 2019), at p. 15.

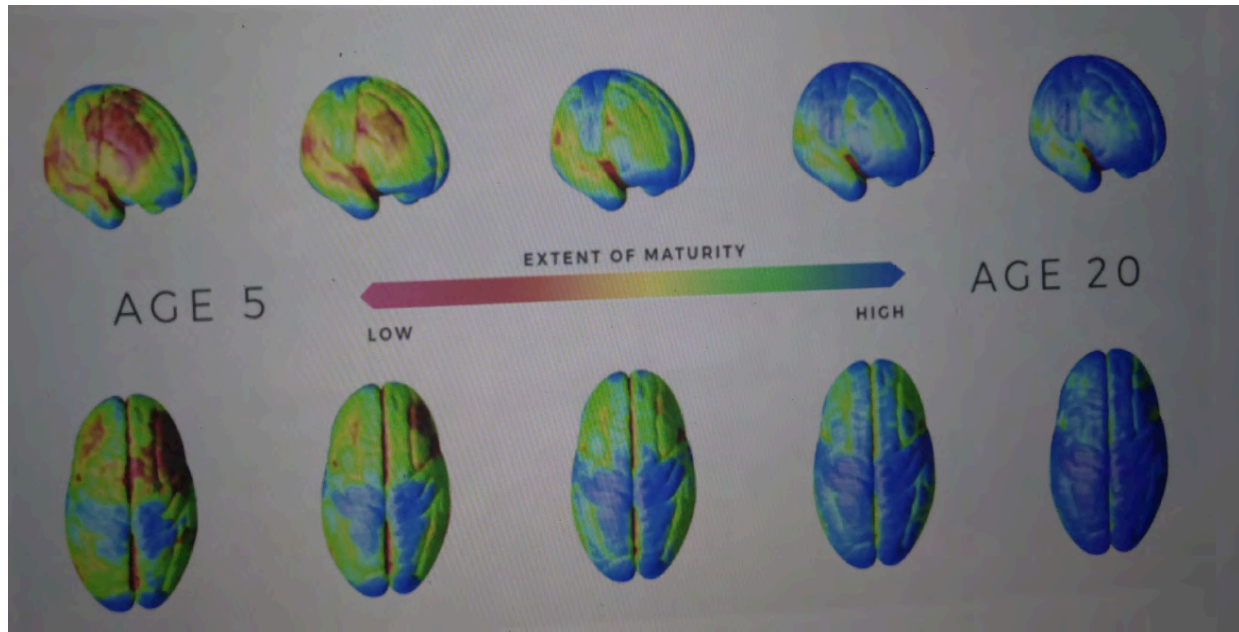
the SEC in late 2021 is that young users are a “priority demographic,” and Meta leadership will do anything to increase and maintain engagement. Indeed, on October 26, 2021, the New York Times reported on a 2018 internal Meta marketing report lamenting loss of teenage users to competitors’ platforms as “an existential threat.”⁵ Meta spends billions on these efforts.



FBP 42/15, “The Power of Identities: Why Teens and Young Adults Choose Instagram - A UX, Market Research and Data Perspective,” at p. 35. Meta goes so far as to study brain development in children and teens, to identify vulnerabilities and other areas where it can adjust its product and approach to appeal more to the teen demographic.

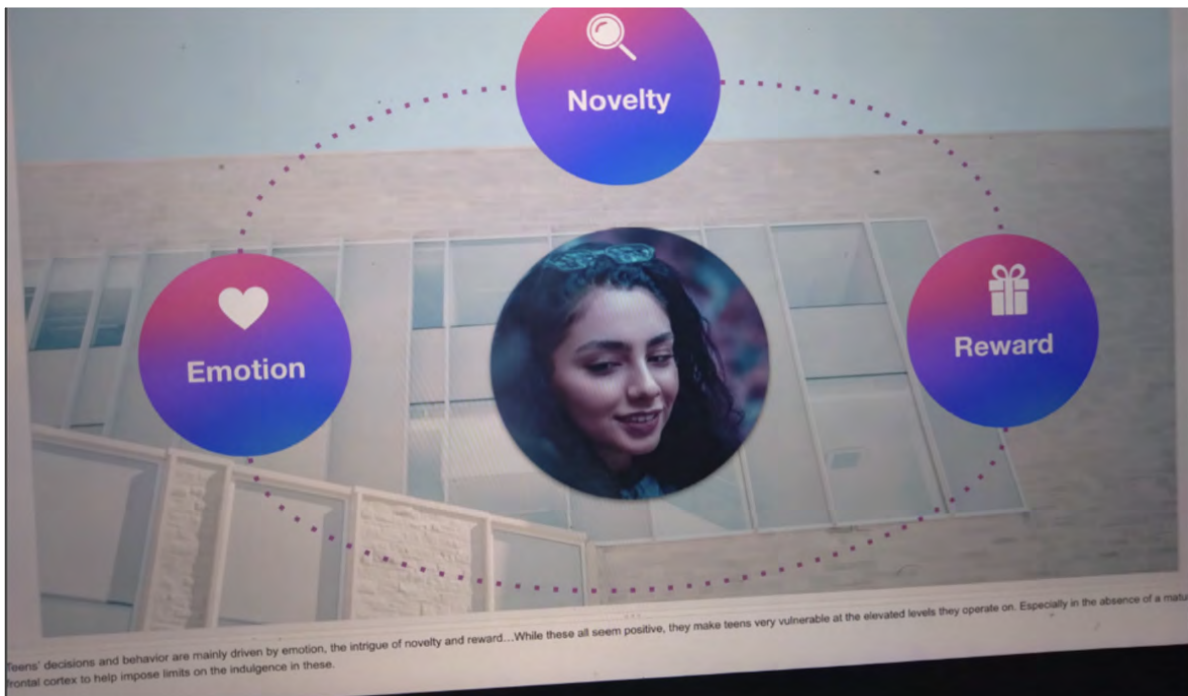
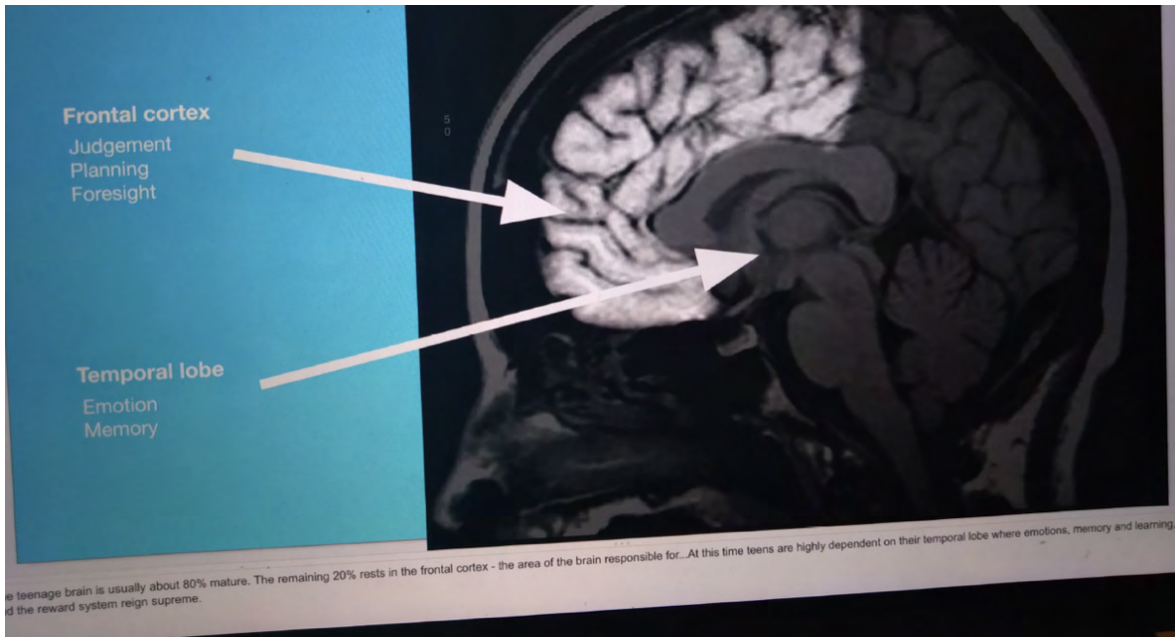


⁵ <https://www.nytimes.com/2021/10/16/technology/instagram-teens.html>



Id. at p. 50-51.

32. In Meta’s words, “[t]he teenage brain is usually about 80% mature. The remaining 20% rests in the frontal cortex – the area of the brain responsible for ... At this time teens are highly dependent on their temporal lobe where emotions, memory and learning and the reward system reign supreme ... Teens’ decisions and behaviors are mainly driven by emotion, the intrigue of novelty and reward ... While these all seem positive, *they make teens very vulnerable* at the elevated levels they operate on. Especially in the absence of a mature frontal cortex to help impose limits on the indulgence in these.” FBP 42/15, “The Power of Identities: Why Teens and Young Adults Choose Instagram - A UXR, Market Research and Data Perspective,” at p. 52-53 (emphasis added).



33. In fact, on several occasions Meta has identified product features that cause harm to its teen users, including things like visible “Likes” (*see, e.g.*, FBP 37/20, “Project Daisy Launch Discussion” (February 6, 2020), document title Project Daisy Mark Review 00 As Presented to Mark Deck; FBP 37/21, *Teen Meaningful Interactions and Feed Post Feedback – Focus Groups*

(May 13, 2008), document title Project Daisy Mark Review; FBP 36/50, *Additional Research as of H2 2020 (Details)*, “Project Daisy, Likes, and Social Comparison”) and lack of restrictions on Direct Messages when it comes to teen users. *See* FBP 42/16, “How should we default new teens into new interactions settings?: a survey of safety and value,” (H1 2020), at p. 3-4. Meta studied these harms and obtained recommendations for product changes that would make Instagram less harmful to teen users; only for Meta leadership to determine that the risk of losing popularity and engagement among Instagram’s teen user base (and potential loss of advertising revenue in the case of “likes”) outweighs the harms these product features are unquestionably causing American teens. *See, e.g.*, FBP 36/50; FBP 42/16; FBP 37/21, “Teen Meaningful Interactions and Feed Post Feedback – Focus Groups” (May 2018), at p. 7 (“Likes, comments, and Direct Messages are all **very** important to teens.”).

- Likes, comments and Direct Messages are all **very** important to teens. The volume of interactions and who they are coming from are an indication of closeness from friends. Teens seem very sensitive to receiving interactions and their emotions are directly correlated to the type and amount of interactions they receive.

34. Meta knows that teens are more vulnerable and suffer harms from use of the Instagram social media product at higher rates than adult Instagram users. At the same time, however, Meta’s data—created with technologies Meta has developed to identify teen users at a mass scale and irrespective of the age provided upon account opening—confirms the fact that teens access social media longer and more often than adults. Advertisers are willing to pay a premium for unfettered access to child and teens so Meta, in turn, works hard to make its Instagram social media product as appealing to teens as possible, even though it is harmful to teens.

35. Meta even refers to teen engagement and, in turn, the financial benefit teen engagement provides to Meta as “jobs”—that is, and as understood by Plaintiffs, Meta is constantly evaluating the jobs children and teens can do for Meta’s benefit alone,



FBP 42/17, “Teen Communication Jobs to be Done 13 Year Old Analysis” (March 2019), at p. 1.

HOW DO YOUNGER TEENS COMPARE?

Summary of Findings

SIMILARITIES

13yo's are the same as older teens in many ways and they share most opportunities.

Specifically, the same individual jobs all have the highest sum of scores (high frequency, high interest, and/or high dissatisfaction):

- Discover content
- Do stuff on individual devices together
- Interact at school
- Find topics of conversation

Three in four of the 47 individual jobs fall in the same opportunity quadrants, too:

- Table-stakes (high frequency/high interest)
- Utility (high frequency/low interest)
- Niche (low frequency/low interest)
- Unrealized (low frequency/high interest)

DIFFERENCES

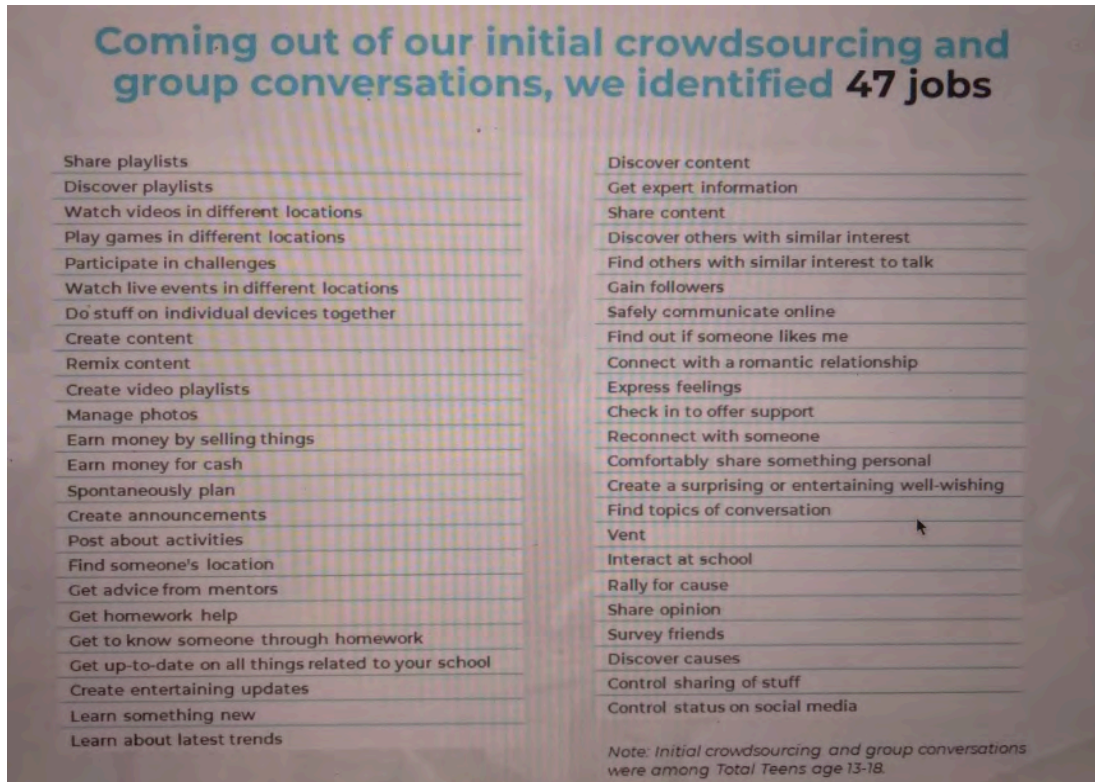
There are a handful of key 13yo differences and unique opportunities for Facebook to lean into.

- **Co-viewing and Content Creation rank higher.** They have notably higher sum of scores for jobs related to doing things together in different locations (*playing games, watching videos, watching live events*), entertaining others (*updates, well-wishing*), and creation (*content, playlists, remixing*).
- **Sharing, Earning Potential, and Advice rank lower.** Older teens have notably higher sum of scores for jobs around sharing (*content, opinions, feelings, something personal*), earning potential (*making money*), and getting advice (*mentors, experts*).

There are also nuances and unique jobs by opportunity quadrant (these jobs are in these quadrants for 13yos, but different quadrants for older teens):

- Table-stakes (expect this from platforms): *Watch videos in different locations*
- Utility (do often, less willingly): *Create entertaining updates, express feelings*
- Niche (don't do or want to do): *Earn money by selling things, find someone's location, get expert information, find out if someone likes me, control status on social media*
- Unrealized (don't do, but want to): *Share playlists, watch live events in different locations, create content, create video playlists*

THE STATE OF JOBS
FOR 13 YEAR OLDS



FBP 42/17 at p. 4-6.

E. Meta's Singular Focus on Profits Over Safety

36. Meta knows the harmful impact its products have. Instead of warning users and/or re-designing its product to make it safer, however, Meta senior leadership conducts extensive economic calculations and chooses enhancing profits over protecting human life.

37. Internal, non-public data collected by Meta reveal large numbers of its users are “addicted” to its social media products. Indeed, the problematic use identified in medical literature is precisely the type of use Meta has designed its product to encourage through psychological manipulation techniques—sometimes referred to as persuasive design—that is well-recognized to cause all the hallmarks of clinical addiction.

38. Meta also “slowly switched” its News Feed (in its Facebook and Instagram products) from maximizing time-spent to maximizing sessions, even though it knew that

1 maximizing sessions is harmful to its users.

2 39. Meta likewise knows that its “like” button causes harmful social comparison, and
3 results in anxiety and depression in teens. Meta even conducted extensive testing, in connection
4 with Project Daisy, which identified these numerically significant harms its product feature was
5 causing, but Meta leadership ultimately rejected recommendations to launch Project Daisy (in its
6 pure and effective form) due to the risk of a slight engagement decrease.

7 40. Meta likewise engages in a constant cost-benefit analysis when it comes to user
8 safety vs. engagement—with engagement winning every time. Meta documents show that Meta
9 has repeatedly refused to protect its users from harm for fear of offending other users, decreasing
10 teen engagement, and/or losing advertiser revenue as a result. But human life vs. greater profit is
11 not a choice Meta has the right to make.

12 41. One example of this is found in a document titled “Exposure to integrity harms is
13 a worse experience than ‘Over-enforcement,’” dated March 31, 2020 (FBP 09/15). This document
14 analyzes the degree to which users are harmed by “Integrity Problems” like bullying, violence,
15 and sexual content as compared to the degree to which users are harmed by having their content
16 mistakenly identified as violating and taken down. The purpose of this study was to convince Meta
17 leadership that “we should be more aggressive in our enforcements, and more willing to tolerate
18 false positives when we set precision/recall thresholds for classifier-based actions.”⁶

21 ⁶ Nor was this the first time a study was conducted and reported on to convince Meta leadership to adjust its lever to
22 better protect users from recommendation driven harms. *See, e.g.*, FBP 08/11, *TRIPS: Tracking Reach of Integrity*
23 *Problems Survey*, “Users’ Perception of Facebook’s enforcement of Community Standards” (“Actors in the US are
more concerned about over-enforcement than actors in the rest of the world”); FBP 08/10, “Overenforcement
Update” (March 12, 2020), (this report notes that Instagram’s failure to validate user emails results in increased risk,
and also links to the Instagram Recommendation Quality Guidelines which “define what content we don’t consider
safe and appropriate for everyone on Instagram and, therefore, try not to recommend.”).

Exposure to integrity harms is a worse experience than "Over-enforcement"

TLDR

- Encounters with integrity harms are on average rated as more negative experiences than errors in Facebook's enforcement process.
- As we consider collateral damage of demotions, this might drive use to be more willing to tolerate false positives when we set precision/recall thresholds for classifier-based actions.

DETAILS

The TRIPS tracking survey asks users whether they have experienced various integrity harms, in the last 7 days. Respondents who report having been reached by these negative experiences are asked to rate the intensity of their last experience, or how bad it made them feel.

Some users are also asked if they Facebook has ever removed one of their posts for violating Facebook's community standards, and are asked whether they think their post in fact violated those standards, and how bad the experience made them feel.

This plot shows the average intensity rating for each integrity harm area and the intensity rating given by those who thought their content was removed in error.

As the plot shows, encounters with integrity harms are on average rated as more negative experiences than errors in Facebook's enforcement process. To me this indicates that false-positive enforcement actions are less costly for users than failures to action against harmful content. This is evidence we should be more aggressive in our enforcements, and more willing to tolerate false positives when we set precision/recall thresholds for classifier-based actions.



FBP 09/15, "Exposure to integrity harms is a worse experience than 'Over-enforcement'"

(March 31, 2020), at p. 2-3.

42. In other words, Meta is perfectly capable of enforcing its own Terms of Service,

1 Community Standards, and other guidelines. It can adjust controls in a manner that would better
2 protect its users, especially children and teens, from certain, significant harms caused by Meta's
3 user setting options, recommendations, and other algorithmic-driven product features. Yet, Meta
4 repeatedly conducts its engagement-driven, cost-benefit analysis and repeatedly chooses profit
5 over human life. That is not a choice Meta has the right to make.

6 43. As described in detail by one high-level departing employee, Meta leadership has
7 structured its three main groups—integrity, growth, and engagement—in a manner that actively
8 frustrates and prevents the integrity group from making meaningful changes for the protection of
9 Instagram users.

10 **2. Out of fears over *potential* public and policy**
11 **stakeholder responses, we are *knowingly* exposing**
12 **users to risks of integrity harms.**
13

5. In light of the 4 points above—Building with Integrity will be imperative to reducing integrity harms on FB.

- Mandates for integrity teams to demonstrate legitimacy and user value for all new interventions prior to launch are asymmetrical--There are no such blanket requirements for growth or engagement focused products to demonstrate user or integrity value (or integrity risk mitigation).
- This imbalance is untenable. If integrity teams continue to face increasing barriers to building safeguards for already built products, our only hope is to build it right (safe) the first time.
- Obviously non-integrity/growth and engagement-focused teams don't want to build products that could be abused and lead to user harm. But there also aren't any consistent resources or incentives provided to help teams check for potential user harms or de-risk products at the outset.
- While some mechanisms for this do exist, they are often optional, time intensive, and occur too late in the development process to encourage meaningful change (i.e., after there are already many sunk costs).
- We need more formalized, official channels to support this work, along with organizational incentives to encourage universal building with integrity as an institutionally-supported, default practice.

Chats

FBP 08/46, “Move thoughtfully and fix things” (August 25, 2020), at p. 3, 6. More to the point, Meta leadership places no such barriers when it comes to growth and engagement. Instead, Meta develops and implements products and product features in a manner that deliberately fails to account for the safety of its users—including millions of children and teens in the US alone.

44. These same themes emerged in the departure memo published internally at Meta by Sophie Zhang in September 2020, which memo has received considerable attention in the press but has not been published by Meta or anyone for fear of the harm it might cause. Plaintiffs are not publishing that memo here but do point to comments made by other Meta employees in response to Ms. Zhang’s memo, which express, in no uncertain terms, the Meta senior leadership repeatedly refuses to take action on serious integrity issues unless it believes that it has no other

choice—that is, Meta will not fix product defects (even where needed to save human lives) unless it is convinced that the financial and public opinion cost of doing nothing will be greater than the impact on its revenue of doing what is legally and ethically required.

"...I was informed by a leader in my organization that my civic work was not impactful under the rationale that if the problems were meaningful they would have attracted more attention, became a press fire, and convinced the company to devote more attention to the space."

>How many people in management and leadership brushed her off with a "thanks" instead of recognizing the dire need for her to be given a proper team to tackle these issues?

>>why I've seen priorities of escalations shoot up when others start threatening to go to the press, and why I was informed by a leader in my organization that my civic work was not impactful under the rationale that if the problems were meaningful they would have attracted attention, became a press fire, and convinced the company to devote more attention to the space.

FBP 02/02, *Meta employee comments to Memo written by Sophie Zang* (September 7, 2020), at p. 23; *see also* FBP 16/12, "Attrition levels from Integrity teams?" (December 10, 2020), at p. 1 ("In a previous Q and A, Mark [Zuckerberg] was asked about attrition levels and he stated that ... If you disagree with FB, it's time for you to move on.").

In a previous Q and A, Mark was asked about attrition levels and he stated that 1.) Attrition is currently lower than normal 2.) If you disagree with FB, it's time for you to move on. This

F. Overview of Claims

45. Plaintiffs bring claims of strict liability based upon Meta's defective design of its Instagram social media product that renders such product not reasonably safe for ordinary consumers or minor users. It is technologically feasible to design social media products that substantially decrease both the incidence and magnitude of harm to ordinary consumers and minors arising from their foreseeable use of Meta's product with a negligible increase in production cost.

In fact, Meta's employees have made proposals for product changes time and time again, as is also proven by Meta's internal documents, only for Meta controlling shareholder and CEO Mark Zuckerberg to refuse such changes based solely on the potential impact they might have to Meta's engagement and revenue numbers. The following is from a Wall Street Journal article published September 15, 2021,⁷

Anna Stepanov, who led a team addressing those issues, presented Mr. Zuckerberg with several proposed changes meant to address the proliferation of false and divisive content on the platform, according to an April 2020 internal memo she wrote about the briefing. One such change would have taken away a boost the algorithm gave to content most likely to be reshared by long chains of users.

"Mark doesn't think we could go broad" with the change, she wrote to colleagues after the meeting. Mr. Zuckerberg said he was open to testing the approach, she said, but "We wouldn't launch if there was a material tradeoff with MSI impact."

See also FBP 15/12, *Soft Actioning – MZ Feedback communication* (April 22, 2022), at p. 1 (the "April 2020 internal memo" referred to by the Wall Street Journal),

Attached is the material we shared with Mark, and below is a recap of the guidance we received:

1) **For Probable Violating:** Overall is supportive as a 'break the glass' measure, but with a 50% max cap. Not supportive of account-level demotion, so we will NOT be launching this. *There are still discussions ongoing between CI/XI/Policy leadership on the best way forward for these types of classifier-based demotions and we will post a follow up to this soon.*

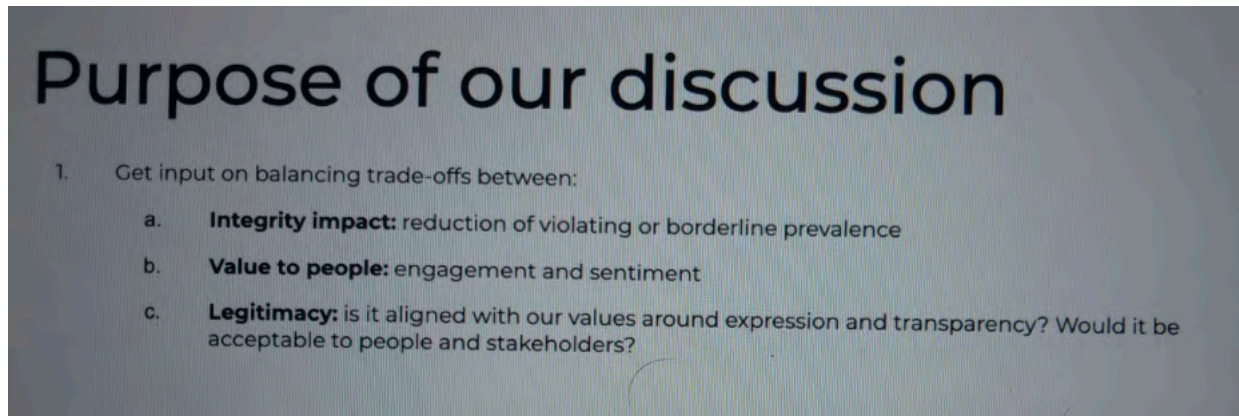
2) **Downstream model deprecation:** Mark doesn't think we could go broad, but is open to testing, especially in ARC. We wouldn't launch if there was a material tradeoff with MSI impact. For a bit more context: this is an extension of launches done earlier this year on health and civic content, as well as some launches going out this week specific to ARC, like Ethiopia and Myanmar.

3) **Informative Friction:** This is a good set of tactics to push on. Indirect signals are okay, but would need direct language in the interstitial, so for instance for misinfo, copy would need to be something other than 'we think it's misinfo.' For now, we are still prioritizing launches that are based on direct signals, like out of date content, or content that has been frequently reported, because these are more straightforward from a content strategy standpoint, and so we think we'll be able to launch and realize the expected Integrity gains more quickly.

⁷ <https://www.wsj.com/articles/facebook-algorithm-change-zuckerberg-11631654215>

FBP 15/12, *Soft Actioning – MZ Feedback communication*, at p. 1.

46. The April 22, 2022 Facebook document illustrates the cost-benefit analysis Meta's Integrity Team employees are required to perform every time they try to make a product change aimed at protecting the health and well-being of Meta users,



Id. at p. 4.

Context on impact of "remove" efforts

- Impact of "remove" efforts for violating content have ranged from ~1-19%
- Using selected soft actions could enable ~1-1.5x (Graphic Violence) to ~11-21x (Hate - EN) of the impact of all historical remove efforts

Problem	Approximate prevalence reduction from "Remove" efforts	Approximate incremental prevalence reduction from selected "Reduce" efforts + planned experiments
Nudity & Pornography (N&P)	~17% +/-10% (global)	Probable Violating Content Demotions: up to ~17% Probably Violating Account Demotion: up to ~17%*
Graphic Violence (GV)	~19% +/-9% (global)	Probable Violating Content Demotions: up to ~17% Probable Violating Account Demotion: up to ~15%*
Hate	~1% +/- 0.4% (English)	Probable Violating Content Demotions: up to ~11% Probable Violating Account Demotion: up to 10%*

Id. at p. 6. It discusses "Even Bigger Product Changes We've Thought About," including "Complete removal of the downstream MSI boost, for all content, globally. The tradeoff here

would likely be between high integrity gains + low legitimacy risk at the expense of value to people, in the order of a 3-5% hit on MSI."

Even Bigger Product Changes We've Thought About

1. Removing reshare button—in general, or on depth > X
2. Full disclosure of reshare chain to people similar to seeing a 'fwd' thread
3. Limit sharing based on behaviors (e.g. can't reshare unviewed articles, require that users add text/commentary to the post prior to being able to reshare)
4. Rate limiting reshares
5. Limit resharing based on content themes (e.g. can't reshare health content)
6. Complete removal of the downstream MSI boost, for all content, globally. The tradeoff here would likely be between high integrity gains + low legitimacy risk at the expense of value to people, in the order of a 3-5% hit on MSI.

Id. at p. 35 (emphasis added). What's clear from the Facebook Papers is that Meta and its competitors in the social media space *could* provide social media products that do not promote or amplify harmful content to teens and children—these companies simply choose to not do so as that would mean not relying on harmful algorithms and fewer billions of dollars in revenue.

47. Meta has consistently and knowingly placed its own profit over the health and welfare of its teen and child users, recognizing astronomical gains at their expense.

48. Plaintiffs also bring claims for strict liability based on Meta's failure to provide adequate warnings to minor users and their parents of danger of mental, physical, and emotional harms arising from foreseeable use of its Instagram social media product. The addictive quality of Instagram and its harmful algorithms are unknown to minor users and their parents.

49. Plaintiffs also bring claims for common law negligence arising from Meta's unreasonably dangerous Instagram social media product and its failure to warn of such dangers. Meta knew, or in the exercise of ordinary care should have known, that its social media product was harmful to a significant percentage of its minor users and failed to redesign its product to

1 ameliorate these harms. Meta also failed to warn minor users and their parents of foreseeable
 2 dangers arising out of use of its Instagram product.

3 50. Meta's own former and/or current developers often do not allow their own children
 4 and teenagers to use the Instagram product.⁸ For many years, Meta has had actual knowledge that
 5 its Instagram social media product is dangerous and harmful to children but actively concealed
 6 these facts from the public and government regulators and failed to warn parents about this known
 7 harm for continued economic gain.

8 51. Plaintiffs also bring claims under California's Unfair Competition Law ("UCL"),
 9 Cal. Bus. & Prof. Code, §§17200, *et seq.* The conduct and omissions alleged herein constitute
 10 unlawful, unfair, and/or fraudulent business practices prohibited by the UCL.

11 52. Plaintiffs also bring a claim for unjust enrichment. Defendant received a direct
 12 benefit from Alexis Spence's problematic and harmful use of its product, both from the amount of
 13 time she spent on Instagram and from her creation of multiple accounts. Under the circumstances
 14 stated herein, it would be unjust and inequitable for Defendant to retain those ill-gotten benefits.

15 53. Finally, Plaintiffs bring a claim for invasion of privacy under California law.
 16 Defendant's conduct detailed herein frustrated and intruded upon Plaintiffs Kathleen and Jeffrey
 17 Spence's fundamental parental rights to protect their child and to monitor and control their child's
 18 use of social media, and this intrusion occurred in a manner that was highly offensive to a
 19 reasonable person.

20 54. Plaintiffs' claims do not arise from third-party content, but rather, Meta's product
 21 features and designs, including but not limited to algorithms and other product features that addict
 22

23 ⁸ See, e.g., <https://www.foxnews.com/tech/former-facebook-exec-wont-let-own-kids-use-social-media-says-its-destroying-how-society-works>

1 minor users, amplify and promote harmful social comparison, affirmatively select and promote
2 harmful content to vulnerable users based on its individualized demographic data and social media
3 activity, put minor users in contact with dangerous adult predators, and otherwise prioritize
4 engagement (and Meta profits) over user safety.

5 **II. PARTIES**

6 55. Plaintiffs Alexis Spence, and her parents Kathleen and Jeffrey Spence, reside in
7 Yaphank, New York. Alexis opened her first Instagram account sometime in 2013, when she was
8 only 11 years old. Upon information and belief, Meta required her to assent to its Terms of Service
9 at that time. However, Alexis stopped accessing all Instagram accounts on April 29, 2022 and
10 disaffirms any contractual terms Meta might now claim. Disaffirmation was made within a
11 reasonable time of Alexis' eighteenth birthday.

12 56. Defendant Meta is a Delaware corporation with its principal place of business in
13 Menlo Park, California. Meta owns and operates the Facebook and Instagram social media
14 platforms, applications that are widely available to users throughout the United States.

15 **III. JURISDICTION AND VENUE**

16 57. This Court has subject-matter jurisdiction over this case under 28 U.S.C. § 1332(a)
17 because the amount in controversy exceeds \$75,000, and Plaintiffs and Meta are residents of
18 different states.

19 58. This Court has general jurisdiction over Defendant Meta because Meta's principal
20 place of business is California and Meta is "at home" in this State. This Court also has specific
21 jurisdiction over Meta because Plaintiffs' claims set forth herein arise out of and relate to Meta's
22 activities in the State of California.

23 59. Venue is proper in this District under 28 U.S.C. § 1391(b) because Meta resides in

the Northern District of California and a substantial part of the events or omissions giving rise to Plaintiffs' claims occurred in this District.

IV. FACTUAL ALLEGATIONS RELATING TO PRODUCT DEFECTS

A. Facebook and Instagram Background

60. Facebook is an American online social network service that is part of the Meta Platforms. Facebook was founded in 2004 and became the largest social network in the world, with nearly three billion users as of 2021, and about half that number were using Facebook every day. The company's headquarters is in Menlo Park, California. Facebook recently changed its name to, and is referred to herein and collectively with Instagram, as Meta.

61. Instagram is a photo sharing social media application. Its original focus was to facilitate communication through images by featuring photos taken on mobile devices. Instagram launched in October 2010 and Facebook acquired it for \$1 billion in April 2012. Once acquired, Instagram experienced exponential growth, design, and development changes. It went from 10 million monthly active users in September of 2012 to 50 million weeks after the acquisition, to more than 600 million by December of 2016, and it continues to grow. Meta instituted dozens of product changes (also known as "growth hacks") that drove this increased engagement, but at the expense of the health and well-being of Instagram's users—especially teens and children.

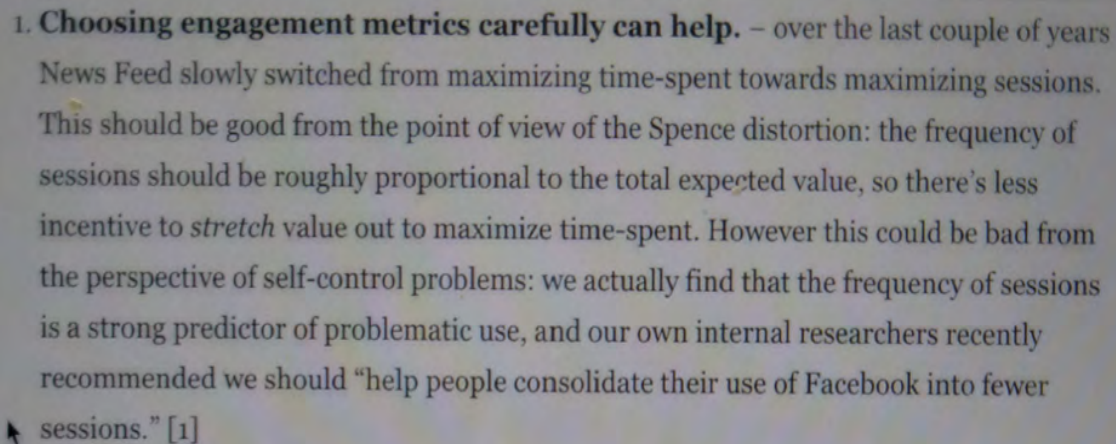
News Feed Product

62. Both the Facebook and Instagram products show users a "feed." A user's "feed" is comprised of a series of photos and videos posted by accounts that the user follows, along with advertising and content specifically selected and promoted by Instagram.

63. Meta exerts control over a user's Instagram "feed," including through certain ranking mechanisms, escalation loops, and/or promotion of advertising and content specifically

selected and promoted by Meta based on, among other things, its ongoing planning, assessment, and prioritization of the types of information most likely to increase engagement. In the case of certain user groups, like teens, this control translates to deliberate and repeated promotion of harmful and unhealthy content, which Meta knows is causing harm to its young users.

64. Over time, Meta “slowly switched” its News Feed (in its Facebook and Instagram products) from maximizing time-spent to maximizing sessions, even though Meta knows that maximizing sessions is harmful to its users,



1. **Choosing engagement metrics carefully can help.** – over the last couple of years News Feed slowly switched from maximizing time-spent towards maximizing sessions. This should be good from the point of view of the Spence distortion: the frequency of sessions should be roughly proportional to the total expected value, so there's less incentive to *stretch* value out to maximize time-spent. However this could be bad from the perspective of self-control problems: we actually find that the frequency of sessions is a strong predictor of problematic use, and our own internal researchers recently recommended we should “help people consolidate their use of Facebook into fewer sessions.” [1]

FBP 08/25, “When User-Engagement \neq User-Value” (December 10, 2020), at p. 8.

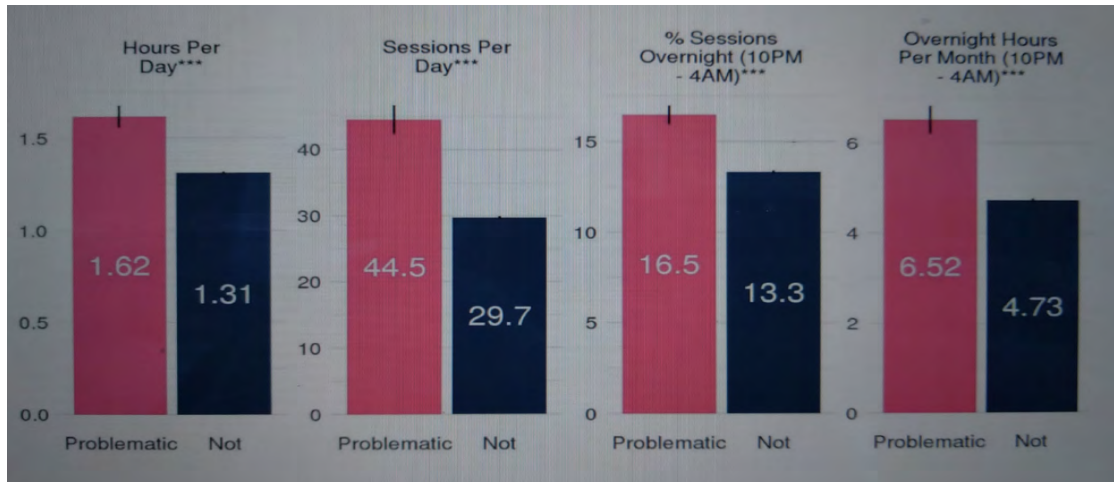
TL;DR

We propose to re-weight the existing predictive models that comprise the scoring function for Civic posts in feed to better optimize for both integrity outcomes and individual civic value.

Vision

Currently, Newsfeed ranks all posts by primarily optimizing for Sessions and MSI. For Civic posts in particular, however, we believe Newsfeed should rank for different objectives.

FBP 20/07, “Product Brief - Ranking for Civic Health,” at p. 2.



FBP 16/07, “Problematic Facebook use - when people feel like Facebook negatively affects their life” (July 31, 2018), at p. 15.

TL;DR

- More time spent per session is associated with lower risk of problematic use. Increasing a user's average time spent per session by 1s reduces a user's probability of problematic use by 0.03 to 0.1 percentage points.
- We should continue to guard against disproportionate increases in short sessions as we test product changes.

Note: for reference, the overall risk of problematic use was estimated to be about 3% as of April 2018.

FBP 16/00, “More time spent per session is associated with lower risk of problematic use” (August 19, 2019), at p. 2.

65. Recommendation-based feeds and product features also promote harmful content, particularly where, as in the case of Meta, the algorithm is being programmed to prioritize number of interactions and not quality of interactions,

- Recommendation systems are often prone to recommending bad content. As a simple example, every list I've ever seen of top content sorted by engagement rate (as opposed to overall engagement) has been heavily tilted towards problematic content. YouTube had a scandal around recommending conspiracy theories within the last six months, and the same phenomenon has been confirmed on Facebook.

1 FBP 09/21, “Giving People What They Want to See?” (September 16, 2019), at p. 3. Meta has
2 confirmed several times its own systems and how they operate. *See, e.g.*, FBP 20/08, “Replacing
3 Downstream MSI for Civic and Health - Phase 1,” at p. 9 (“The principal way MSI works on such
4 public content, however, is via downstream models ... Because MSI is designed to boost friend
5 interactions, it doesn’t value whether you’ll like a piece of content posted by the New York Times,
6 Donald Trump, the Wall Street Journal, etc. Instead, the way such content creators can contribute
7 to MSI is by posting content that you might reshare for your friends to engage on or reshare
8 themselves. This is precisely what we predict and uprank via `d_share_msi_score`.”); FBP 25/04,
9 “Max Reshare Depth Experiment” (November 6, 2019), at p. 2 (“[R]eshare depth ... is correlated
10 with misinformation . . . other integrity harms also correlate with reshare depth.”); FBP 27/17,
11 “Groups Reshare Depth: an Observational Study Combined with an Interesting AB Test”
12 (November 5, 2019), at p. 2, 17 (“Our observational results confirm that for Groups posts deeper
13 reshares are associated with higher prevalence of FUSS Red or Yellow content . . . The multi group
14 picker looks great for increasing engagement--MSI, sharing, and many other metrics are up . . .
15 problematic content is indeed associated with higher reshare depths up to depth 10.”).

16 66. In 2021, Senators Richard Blumenthal, Marsha Blackburn, and Mike Lee tested
17 and confirmed the fact that Meta’s recommendation-based feeds and product features promote
18 harmful content by having several accounts opened while providing information indicating that
19 the users were teenage girls,

1 "Within an hour all of our recommendations promoted pro-anorexia and eating
2 disorder content," Blumenthal said. "Nothing has changed. It's all still happening."

3 Sen. Mike Lee, R-Utah, said his office created an account for a 13 year old girl. Shortly
4 afterward, the algorithm recommended a famous female celebrity to follow and when
5 they did, Lee said, "It went dark fast."

6 The fake account was flooded with content about diets, plastic surgery and other
7 damaging material for an adolescent girl, he said.

8 In another example this week, Blackburn's staff exposed a flaw in Instagram's setting
9 for teens under 16.

10 According to Instagram's policies, new teenage accounts should automatically default
11 to a private setting. But when Blackburn's team set up a phony account for a 15 year
12 old girl, it automatically defaulted to public.

13 Mosseri acknowledged the error, explaining the mistaken default setting was triggered
14 because the account was created on a web browser, as opposed to a mobile app.

15 "We will correct that," he said.

16 See [https://www.npr.org/2021/12/08/1062576576/instagrams-ceo-adam-mosseri-hears-senators-](https://www.npr.org/2021/12/08/1062576576/instagrams-ceo-adam-mosseri-hears-senators-brush-aside-his-promises-to-self-poli)
17 [brush-aside-his-promises-to-self-poli](https://www.npr.org/2021/12/08/1062576576/instagrams-ceo-adam-mosseri-hears-senators-brush-aside-his-promises-to-self-poli). Meta has had almost a decade to fix these product defects
18 but has not—instead, its products have severely harmed millions of teens in the U.S. alone,
19 including Alexis Spence.

20 Explore Product

21 67. Instagram has a search feature, called "Explore," where a user is shown an endless
22 feed of content that is selected by an algorithm designed by Meta based upon the users'
23 demographics and prior activity in the application. Again, Meta designed and operates its product
in a manner that promotes harmful and/or unhealthy content. Meta is aware of these inherently
dangerous product features and has repeatedly decided against changing them and/or

implementing readily available and relatively inexpensive safety measures, for the stated purpose of ensuring continued growth, engagement, and revenue increase.



FBP 23/01, “Teen Mental Health Deep Dive” (October 10, 2019), at p. 80.

68. More recently, Meta conducted additional studies to identify precisely which of its algorithmically promoted content is most harmful to users, and the degree of harm that content causes. Meta identified those categories, but ultimately determined that its promotion of such content is a large part of what makes the Instagram product appealing to teens. Meta decided against changing its current product as a result, and irrespective of identified harms.

In this study, we combine survey measures of **appearance comparison** (how much people think Instagram makes them feel worse about their bodies or appearances) with server data about the topics they had recently seen on Instagram.

FBP 24/12, “How the topics people see are linked to appearance comparison on IG” (March 9, 2021), at p. 3.

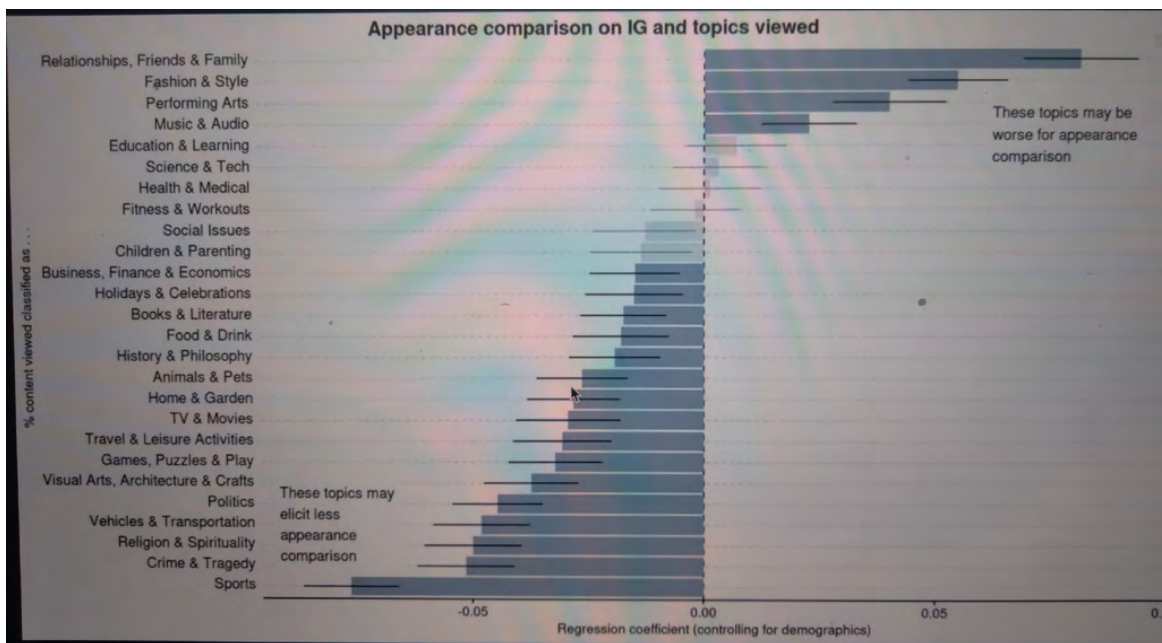
Survey: We surveyed 50,590 people in 10 countries (Australia, Brazil, France, Germany, Great Britain, India, Japan, Korea, Mexico, United States) in December 2020. See our [previous note](#) for more details ([full survey](#)).

Behavioral data: We paired survey data with the content respondents viewed in the 14 days prior to the survey on Feed, Stories, Explore, Profiles, and Reels, and identified the topic(s) associated with each piece of content using the Facebook Interest Taxonomy for Instagram ([FIT](#)), a machine learning model that takes text, image, and video features into account. We also examined some XRay/Cortex features (concepts within the images and videos themselves).

Findings

People who see a greater proportion of content about fashion (which includes beauty), relationships (which includes dating and romance), performing arts, and music feel like Instagram makes them feel worse about their bodies and appearances (Figure 1). Collectively, these topics comprise 27.4% of all content viewed by respondents with a FIT topic (33.2% of what teen girls saw).

FBP 24/12 at p. 5, 6, 7.



1 FBP 24/12 at p. 9.

2 **The topics that elicit appearance comparison comprise 1/4 of the content people**
 3 **see on Instagram, and 1/3 for teen girls.** This is an high amount and not all of it is
 4 problematic, but even reducing the prevalence of these topics down to 1/5 or 1/6 would go a
 5 long way toward addressing appearance comparison on Instagram, especially if we boost
 content about collective identities or activities instead.

6 FBP 24/12 at p. 38.

7 We should reduce exposure to celebrity content about fashion, beauty, and relationships,
 8 while increasing exposure to close friend content of all kinds. Potential product directions
 include:

- 9 • Demotions on Explore and Reels using topic and image/video features identified in this
 note
- 10 • Not recommending celebrities to follow that post primarily fashion/beauty content.
 People can find these accounts on their own, but we shouldn't amplify their influence
 through recommendations.
- 11 • Boosting content that elicits a collective identity (e.g., sports, tragedy) or activity (e.g.,
 crafts, puzzles)
- 12 • Making it easier for teen girls to find and consume content from their friends, especially
 close friends.
- 13 • Nudging or pivoting people toward other content or other activities after they consume
 or seek out large volumes of fashion/beauty/relationship content.
- 14 • Applying "sexually suggestive" non-recommendable guidelines more aggressively for
 teen viewers.
- 15 • Providing better content controls to allow people to hide sexually suggestive photos and
 those that emphasize women's bodies or faces.

16 FBP 24/12 at p. 39.

17 Profile Settings

18 69. Instagram profile default settings also cause harm. Users' profiles on Instagram
 19 may be public or private, which is a product feature over which Meta exercises complete control.
 20 On public profiles, any user can view the photos, videos, and other content posted by the user. On
 21 private profiles, the user's content may only be viewed by the user's followers, which the user
 22 must approve. During the relevant period, Instagram profiles were public by default and Instagram
 23 allowed all users to message and send follow requests to underage users.

70. Defaulting profiles to public served no critical purpose in terms of product functionality and/or a user's ability to access content. Instead, this product feature increases user engagement during onboarding (when a user first starts using Instagram) by increasing user connections. Unfortunately for young children and teens, a numerically significant percentage of those would-be connections are harmful. Meta is aware of the harm and previously opted to not make necessary and cost-effective changes to prevent it. The following is only one example,

TL;DR

Premise: "Building a safer account model is the right thing to do. Defaulting people into new, restricted settings could protect people from unwanted interactions, especially from people they don't know."

>> After an initial analysis challenged this premise, we decided to invest additional DS and Research resources into assessing old and new signals.

Principles. We needed to closely examine the relationship between **providing user safety** (protecting people from unwanted interactions) and **delivering value to users** (healthy social engagement).

How could restricted interaction settings increase safety	How could restricted interactions settings sacrifice value
Restricted interaction settings can shield people from UI.	Data projection show a strong potential for loss of valuable interactions in DM's.
DMs are where most unwanted interactions (UI) happen, especially for new teens users.	People want meaningful interactions from both people they know and don't know. Fostering positive relationships may mitigate the development of bullying behaviors for teens, in particular.
Starting new teens in a default restricted reachability setting significantly reduce the volume of overall unwanted interactions in DMs.	People value consistency and predictability in privacy related settings. People are unlikely to change settings without interventions.

Recommendations

- **Don't change the current default interactions model:** doing this would cause people to miss out on too many valuable interactions.
- **Better understand how restricted reachability settings for DMs, tags, and mentions provide value for people who opt in.** We need to understand who these people are and learn how we can encourage their adoption of these settings.

FBP 42/16, "How should we default new teens into new interactions settings?: a survey of safety and value" (H1 2020), at p. 3-4.

Direct Messaging Product Feature and Access to "Vulnerable" Users

71. Meta's Direct Message settings also permit and encourage harm to "vulnerable"

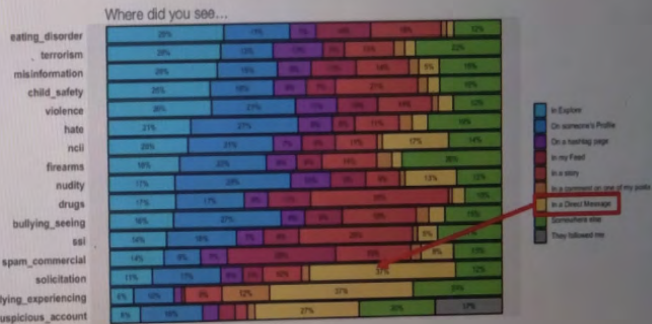
users. Harmful and dangerous interactions occur because of the Instagram direct message feature and current user settings, that is, Meta's chosen settings provide predators and other bad actors with direct and unsupervised access to children and teens. Meta knows this because its studies have confirmed that "DM's are where most unwanted interactions happen," including bullying and sexual exploitation of minors,

DMs are where most unwanted interactions happen

- 7% of teens report experiencing bullying on Instagram each week. (H1 2019)
- According to NETS user survey, 40% of all bullying experiences are reported in Direct Messaging.
- B&H prevalence in DM's is very high (10%) according to the September prototype metric
- Severe violations targeted to those under 18 are known as a high prevalence problem in DMs

PERCEIVED REACH: SURFACE BREAKDOWN

Explore and Profile are each the most common surfaces for 5 out of 16 negative experiences. In addition, Direct is the most common surface to encounter suspicious accounts, and to experience bullying and solicitation. People most commonly see drug sales and SSI in Stories, and see spam in Feed.



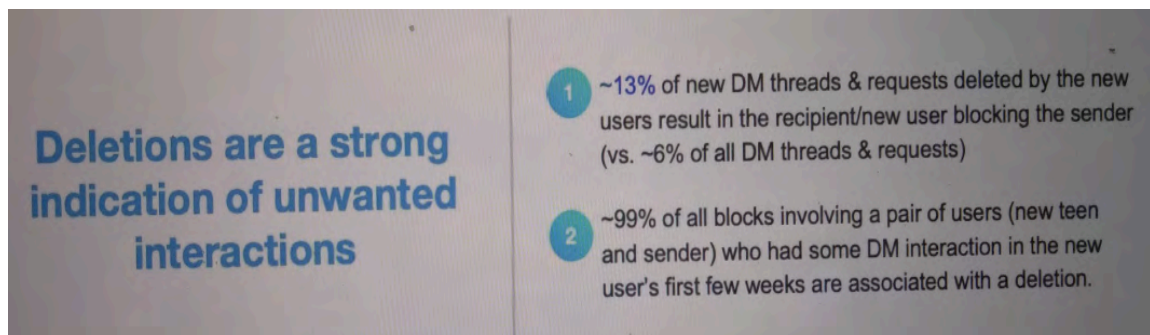
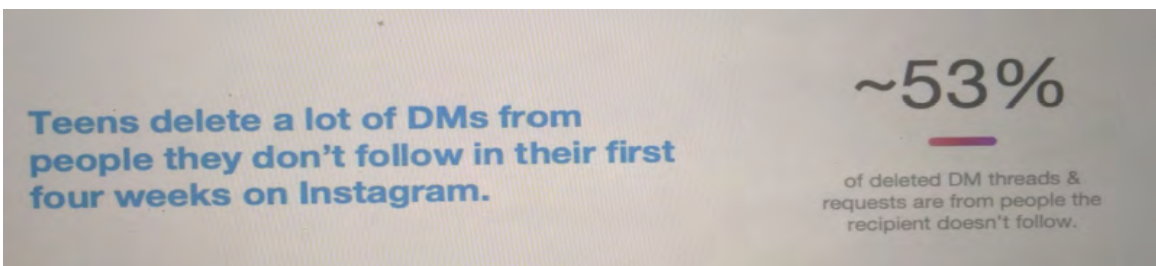
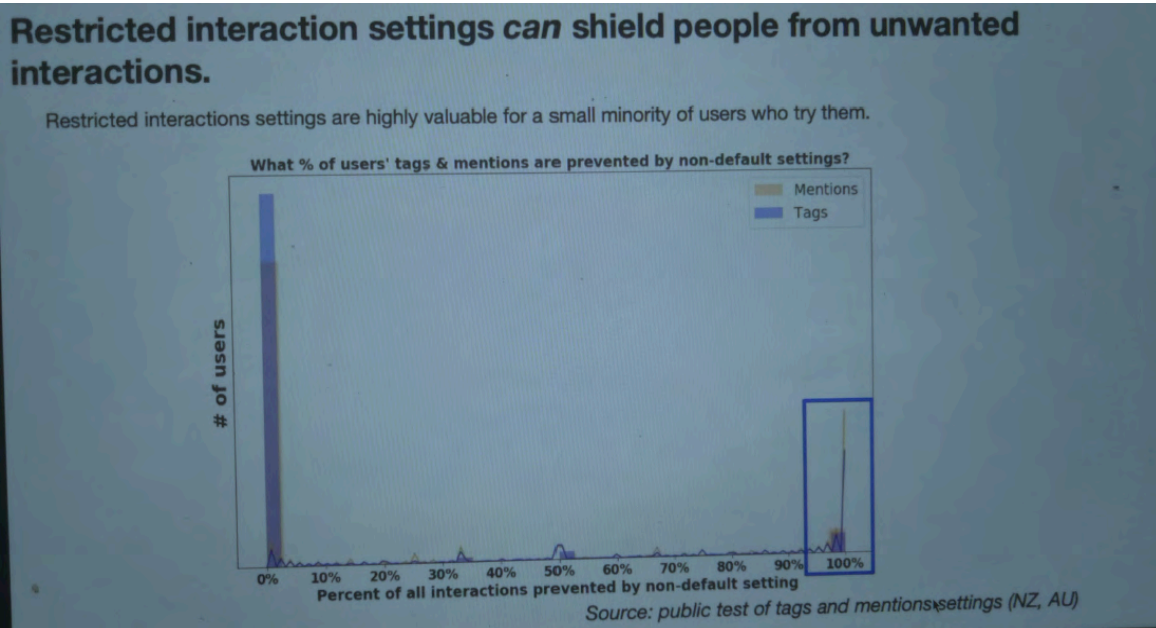
* We didn't ask this surface follow-up for experiencing a compromised account or inauthentic engagement

Source: NETS Survey October 2019

FBP 42/16, "How should we default new teens into new interactions settings?: a survey of safety and value" (H1 2020), at p. 11.

72. Again, however, Meta opted for engagement over safety. Meta confirmed that restricted interacted settings "can shield people from unwanted interactions" (emphasis in original), that teens delete roughly 53% of DMs from people they do not follow, and that "Deletions are a strong indication of unwanted interactions." FBP 42/16 at p. 10, 13-15. However, it also then considered the fact that a lot of teens keep DM threads and requests from people they do not follow, concluding that "So, defaulting new teens into a restricted setting could eliminate

up to half of both wanted and unwanted DM messages. This is a difficult tradeoff to navigate.” *Id.* at p. 15. To be clear, the tradeoff at issue involves harmful bullying and sexual exploitation of minors on the one hand and teens being able to talk to strangers, which they sometimes want to do, on the other hand. Once again, Meta inexplicably chose not to prioritize the safety of children and teens,



Teens also **KEEP** a lot of DMs from people they don't follow in their first four weeks on Instagram.

~53%

of deleted DM threads & requests are from people the recipient doesn't follow.

~55%

of kept DM threads & requests are from people the recipient doesn't follow.

So, defaulting new teens into a restricted setting could eliminate up to half of both wanted and unwanted DM messages. This is a difficult tradeoff to navigate.

People are unlikely to change their interaction settings on their own.

- In the recent Better Interactions test, only 4% of views of tags and mentions entry points result the user clicking through to view the new settings options. Of these, about 15-20% result in a settings change — ultimately, only about 0.6-0.8% of users encountering these entry points actually make a change.
- Ultimately, ~0.5% of DAP in the six countries involved in the public test of tags and mentions settings adopted the change during the test period.

Recommendations

- **Don't change the current default interactions model:** doing this would cause people to miss out on too many valuable interactions.
 - The value of DM's in promoting wanted social interactions forms key pieces of a healthy Instagram experience and social graph growth in teens.
 - Future product decisions should respect the value of DM interactions between unconnected users.
- **Restricted reachability in DMs, tags, and mentions can provide value for some people who opt in.**
 - Although, unwanted tags and mentions are a less serious problem for an overwhelming majority of users, we should still be proactive in meeting user needs and mental models of safety. While we feel good about balancing towards value, we can take proactive steps to honor when users desire safety.

FBP 42/16, "How should we default new teens into new interactions settings?: a survey of safety and value," (H1 2020), at p. 10, 13-15, 21, 23.

Push Notifications and Emails

73. Meta’s push notifications and emails encourage addictive behavior and are designed specifically to increase use of its Instagram product. Based on individualized data Meta collects, it then selects content and notification frequency for its users and notifies them via text and email. Instagram’s notifications to individual users are specifically designed to, and do, prompt them to open Instagram and view the content Instagram selected, increasing sessions, and resulting in greater profits to Instagram. More to the point, even the format of these notifications has been designed and re-designed with the specific purpose of pulling users back onto the social media platform—irrespective of a user’s health or wellbeing. As explained in one Meta report, written in 2019 and published (internally) in December 2020,

We limit the amount of information in notifications because we want people to come onto the site. A few years ago we stopped sending out emails telling you what happened – e.g. telling you what your friend did – instead we just say “someone commented on your post,” in the hope that you’ll click through. This is a clear value-engagement tradeoff. We see similar effects on push notifications about friend activity: when we send fewer notifications, that *increases* engagement because people come to the site to check what’s happening.

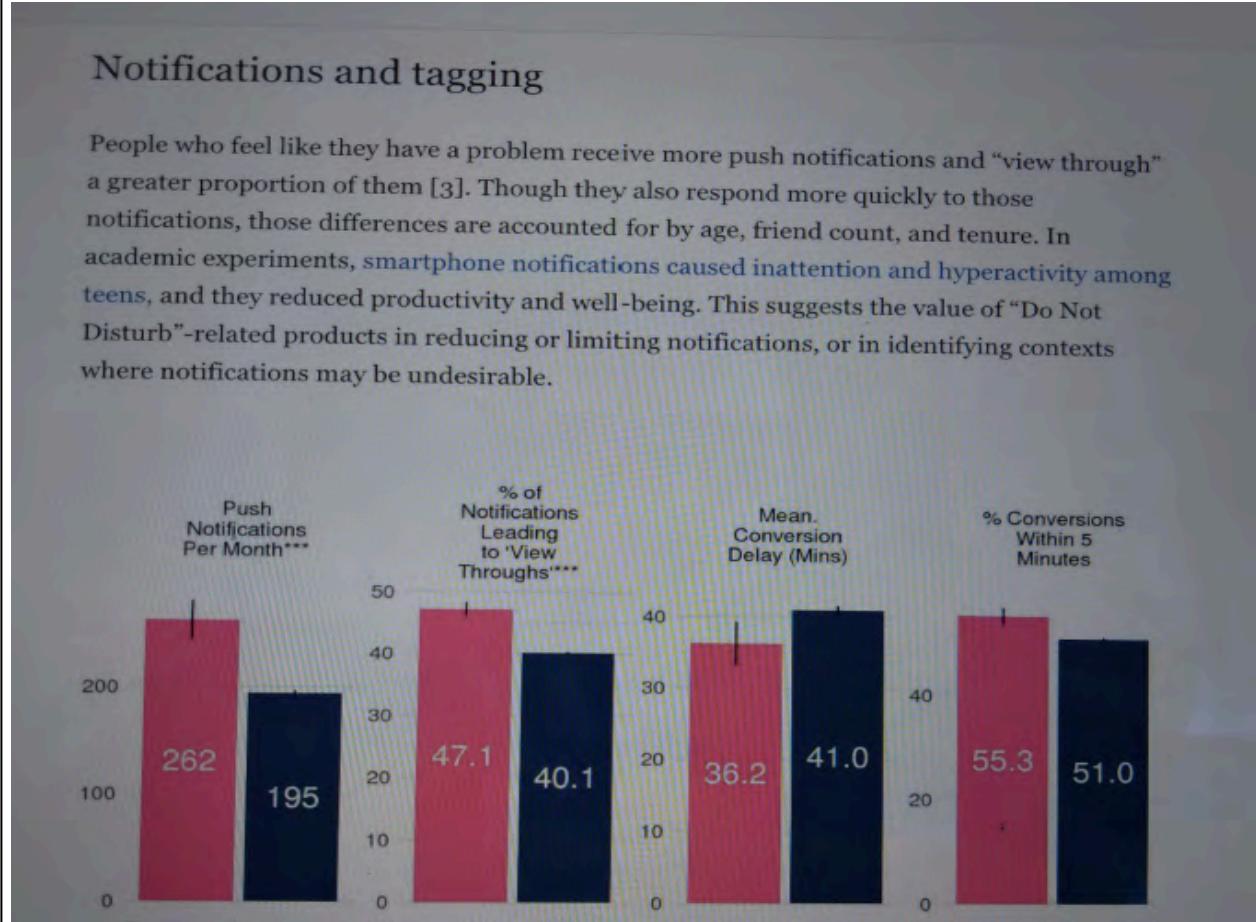
Stretching value occurs in our products in a few ways.

- 1. We limit the amount of information in notifications because we want people to come onto the site.** A few years ago we stopped sending out emails telling you what happened – e.g. telling you what your friend did – instead we just say “someone comment on your post,” in the hope that you’ll click through. This is a clear value-engagement tradeoff. We see similar effects on push notifications about friend activity: when we send fewer notifications, that *increases* engagement because people come to the site to check what’s happening.

FBP 08/25, “When User-Engagement ≠ User-Value” (December 10, 2020), at p. 4.

74. In fact, Meta sends more of these notifications to its most addicted users, knowing

that these users are the ones who have a harder time resisting the allure of this product feature,



FBP 16/07, “Problematic Facebook use - when people feel like Facebook negatively affects their life” (July 31, 2018), at p. 19.

Reels and Stories

75. Instagram has also added features and promoted the use of short videos and temporary posts. The latter are referred to as “Reels” while the former is referred to as Instagram “Stories.” These products were developed to appeal to teens and Meta knows that these products are addictive, as well as defective. In 2019, Meta “ran an International cross-sectional survey to measure Problematic Use and ... Using behavioral signals from the people who responded to this survey, we arrived at a behavioral heuristic for problematic use.” FBP 16/11, “A Behavioral

1 Heuristic of Problematic Use” (January 6, 2020), at p. 2. The Meta employees charged with well-
 2 being then recommended further investigation into “problematic use that is simple, intuitive,
 3 interpretable and explainable.”

4 We propose a behavioral heuristic for problematic use that is simple, intuitive, interpretable
 5 and explainable.
 6 The heuristic consists of a combination of 5 behaviors that correlate with problematic use and,
 7 we believe, should be behaviors we do not want to promote in new product launches.
 8 We show that targeting the problematic use survey to a group of people who score highest in
 9 the heuristic almost duplicates the detected prevalence of PU. We also show that CTR for the
 10 QP promoting next-gen YTOF increases by 60-70% when targeting based on the heuristic. —

8 FBP 16/11 at p. 1. Among its initial findings was the observation that “features related to Stories
 9 consumption keep being selected as highly predictive [for problematic use].” *Id.* at p. 5.

11 **The Story with Stories**

12 When evaluating different models and heuristics, and through the feature selection process,
 13 we observed that features related to Stories consumption keep being selected as highly
 14 predictive. While we suspect this is related to a pattern of passive, no-engagement
 15 consumption that correlates with problematic use, we believe we do not have enough
 16 research validity to decide that increasing Stories inventory or consumption is
 17 uncontroversially “bad” and should be part of a health metric. We believe more internal
 18 research on the relationship between Stories and problematic use is due.

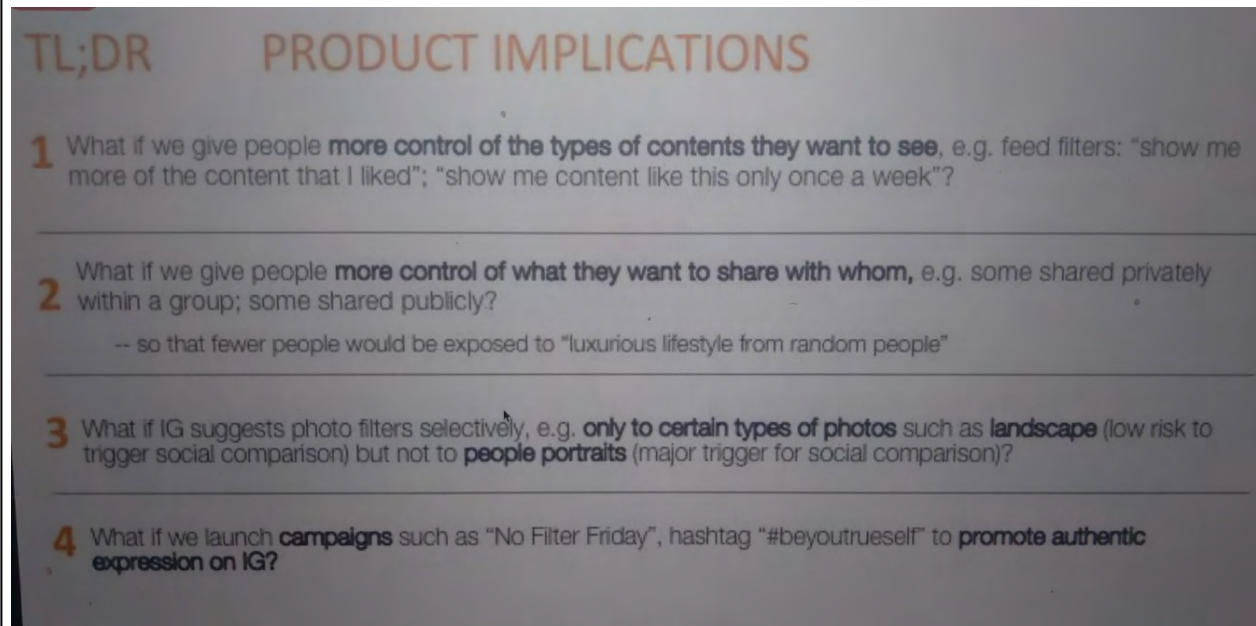
17 FBP 16/11 at p. 5.

18 76. In other Facebook Papers, Meta explains the connection between its Stories product
 19 feature and promotion of harmful content, particularly as it relates to teens. For example, “IG
 20 stories can be named things that violate our policies for ED [Eating Disorders] ... Users can create
 21 and maintain IG Story Highlights that are named violating terms.” FBP 19/21, “Eating Disorders
 22 PRI Analysis Document” (March 2021), at p. 11. In other words, Meta has not yet implemented
 23 the same content identifying technologies across all product features and continues to recommend

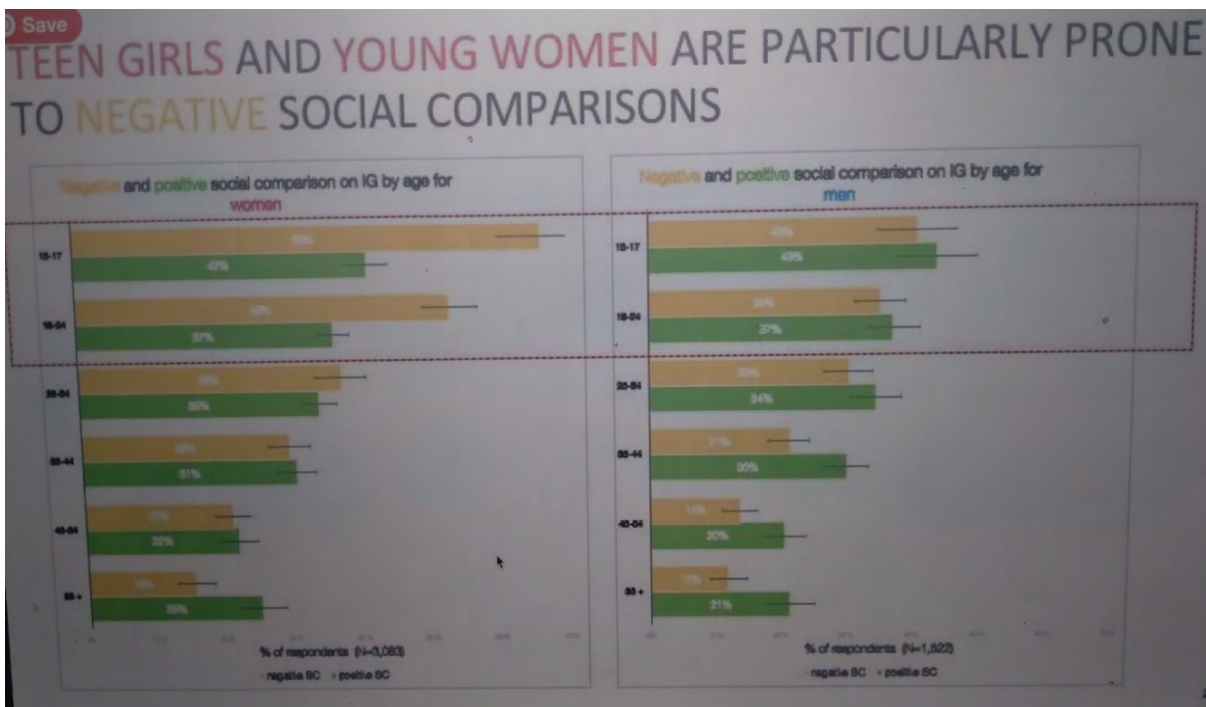
1 and promote harmful content as a result, including eating disorder content, as it did with Alexis
2 Spence.

3 Marketing to Kids and Social Comparison Product Features

4 77. Instagram also incorporates several unique product features that serve no functional
5 purpose, but that do make Meta's product more appealing to children and teens (*i.e.*, "likes" and
6 filters, as well as avatars, emojis, and games) while simultaneously increasing social comparison
7 pressure and resulting harm (*i.e.*, "likes" and filters). Meta knows that these product features
8 disproportionally harm teen girls and young women, yet Meta leadership—singularly focused on
9 its economic bottom line—continued to reject product change recommendations that would have
10 better protected users against these harms. The following is an example of product changes
11 recommended to Meta leadership in 2018,



21 FBP 24/15, "IG Social Comparison Research Findings" and "Social Comparison on Instagram"
22 (November 2018), at p. 11.



FBP 24/15 at p. 27.

Statistical significance (p<0.05)

Interpretation: All else equal, the odds of experiencing negative social comparison on IG...

Yes	for 13-17 years old are 4.42 times larger compared to being 25+ years old
Yes	for 18-24 years old are 2.814 times larger compared to being 25+ years old
Yes	for females are 1.84 times larger compared to males
Yes	for people who have been on IG 1,000 days longer is 1.28 larger than people who don't
No	Not statistically significant
Yes	for people who have 1,000 more followers is 1.07 larger than people who don't
No	Not statistically significant
No	Not statistically significant
No	Not statistically significant

Compared to 25+ years old men, the odds for teen girls to do negative SC are 8x; for young women 5x, controlling for tenure, engagement level, no. of follow(er)s, and country.

FBP 24/15 at p. 33.

OPPORTUNITIES:

- How can we improve IG experience especially for **targeted populations**?
 - ✓ What if IG has a "**teen mode**"? Teens are vulnerable not only to negative social comparison found in this study but also **a range of other stressors**. We could have a product feature that better cater to teenagers' needs and better protect them.
 - ✓ More studies on teens are needed to better understand their social comparison experience, e.g. a feeds study that ask teens to go through their typical IG feeds and identify which ones are triggers and why.

FBP 24/15 at p. 34.

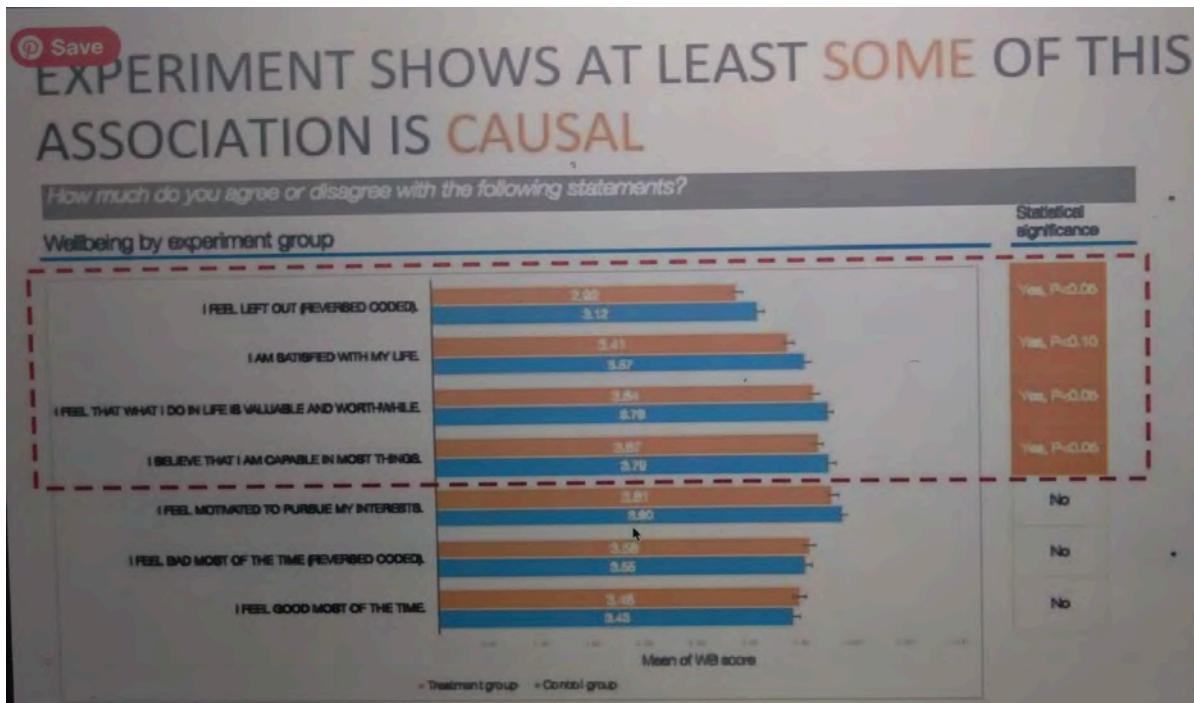
INSIGHTS:

- Negative social comparison is triggered mostly by **photo/video**, in particular regarding **beauty, fitness, fashion, travel, and romantic relationships**.
- These contents are usually posted by **weak ties** such as celebrities, strangers, and acquaintances, who people feel "not at all close" to.

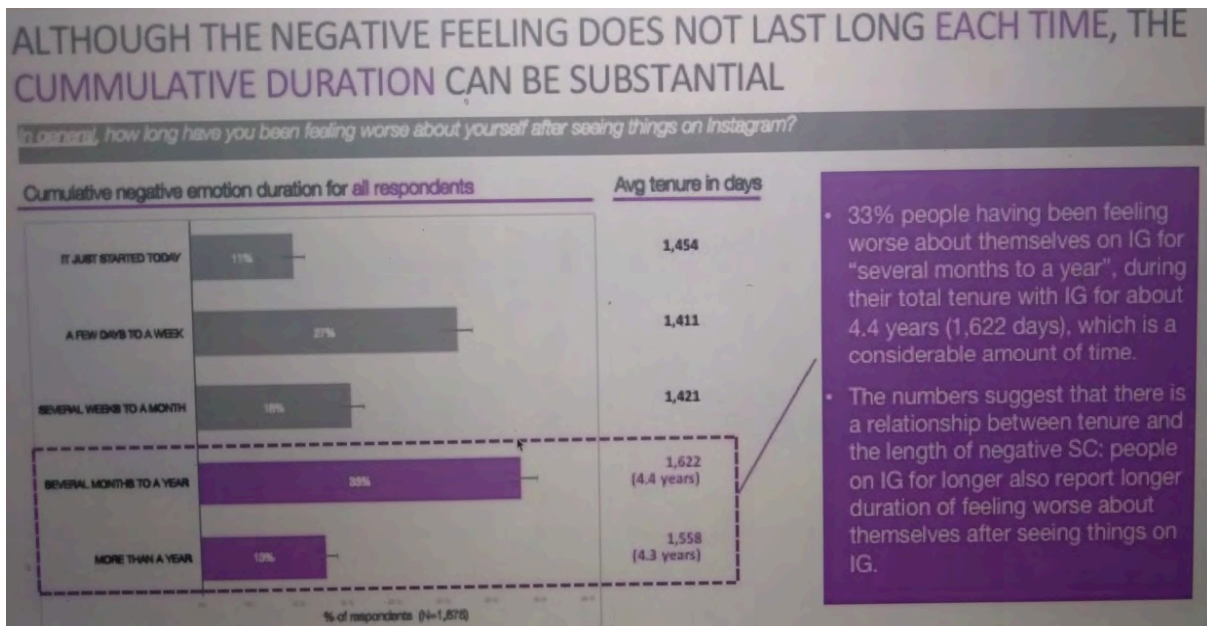
OPPORTUNITIES:

- How can we make these triggers **less salient**?
 - ✓ What if we **train content classifiers** to better label and classify these content?
 - ✓ What if content classifiers and feed filters work together to give people **more control of what they want to see**?
E.g. "show me more of the content that I liked"; "show me content like this only once a week"
 - ✓ What if we give people the option of posting things **either privately within a group** of people vs **publicly to the whole IG community**? (so that fewer people would be exposed to "luxurious lifestyle from random people")
 - ✓ What if IG **suggests photo filters only to certain types of photos** such as landscape (low risk to trigger social comparison) but not to people portraits (major trigger for social comparison)?

FBP 24/15 at p. 46.



FBP 24/15 at p. 69.



FBP 24/15 at p. 79; see also FBP 45/32, "What We Know About Body Image (Literature Review)" (March 2020), at p. 1 ("Substantial evidence suggests that experiences in Instagram or Facebook make body dissatisfaction worse, particularly viewing attractive images of others, viewing filtered

1 images, posting selfies, and viewing content with certain hashtags.”). Meta knows that its products
2 are causing harm, and that these harms disproportionately impact teen girls and young women.

3 78. Another example involves extensive testing Meta performed on its “like” button
4 feature. Meta determined that its “like” product feature is a source of social comparison harm for
5 many of its users. This is not surprising given that several of the Meta employees involved in
6 creating that feature have since left Meta and have spoken publicly about the product’s addictive
7 nature and harmfulness.⁹ What is surprising, however, is that Meta identified the harmful feature
8 (the “like” button) and ran experiments (called “Project Daisy”) to see whether hiding the feature
9 completely (called, “Pure Daisy”) would reduce the harms, found that it would in fact reduce the
10 harms and in statistically significant numbers when it came to teen users, then made the business
11 decision to not launch Pure Daisy for fear that hiding “likes” would result in lower engagement
12 and anger advertisers. This is a blatant example of choosing profit over human life and,
13 specifically, the health and well-being of teens.

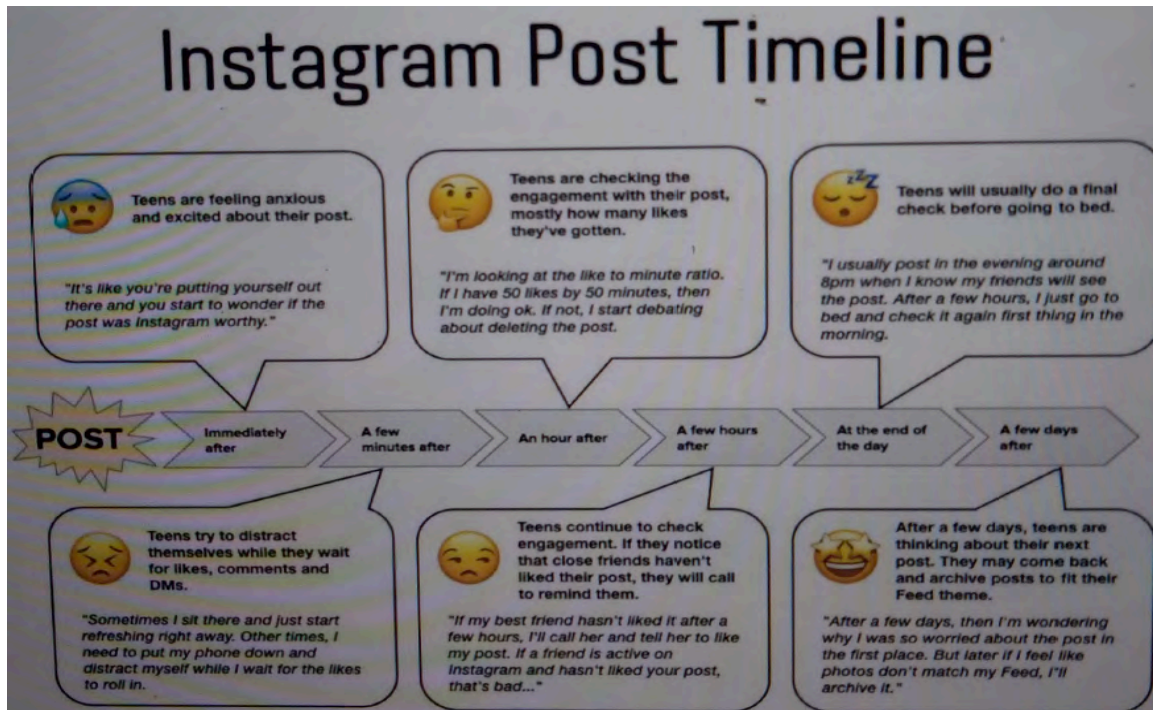
14 79. Upon information and belief, Project Daisy documents were provided to Meta
15 leadership in connection with consideration of the Project Daisy launch recommendation. These
16 included FBP 37/20 and 37/21, titled “Project Daisy Mark Review 00 Version As Presented to
17 Mark Deck” and “Project Daisy Mark Review,” respectively.

18 80. FBP 37/21, “Project Daisy Mark Review,” was published internally in May of
19 2018, and it reports on a teen focus group, comparing the Instagram product primarily to Snap
20 Inc.’s competing social media product. Regarding certain Instagram social comparison features,
21 Meta identified the emotional harms these caused in teens,
22
23

⁹ See, e.g., <https://www.theguardian.com/technology/2017/oct/05/smartphone-addiction-silicon-valley-dystopia>.

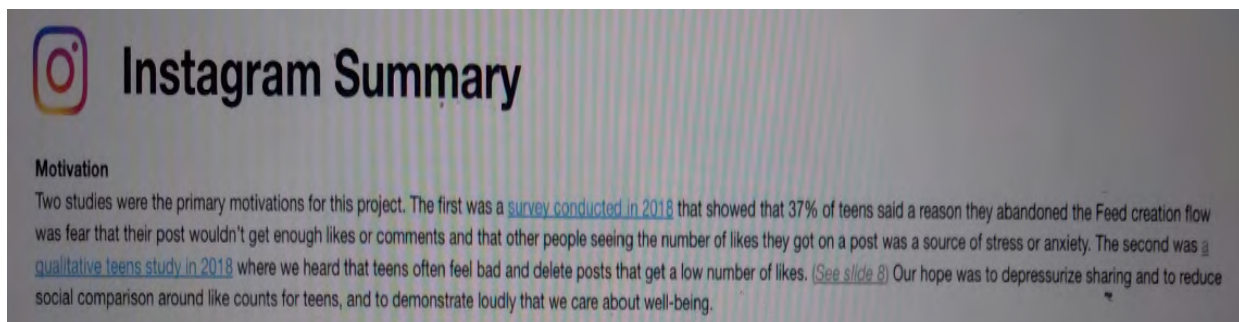
1 Likes, comments and Direct Messages are all **very** important to teens ... Teens
 2 seem very sensitive to receiving interactions and their emotions are directly
 correlated to the type and amount of interactions they receive.

3 FBP 37/21, at p. 7. Meta developed an Instagram Post Timeline to illustrate the point,



14 FBP 37/21, at p. 8.

15 81. This study in addition to "a qualitative teens study in 2018" (FBP 37/20, "Project
 16 Daisy Launch Discussion" (February 6, 2020), at p. 4) led to Meta conducting extensive surveys
 17 and studies on various user groups to determine whether making the "like" feature private only
 18 (referred to as "Pure Daisy") could reduce the resulting social comparison harms,



FBP 37/20, at p. 4. And it did. Pure Daisy reduced harms to varying degrees, including “statistically significant differences” with respect to teen users—the use group most harmed by this feature,

		teen					
		W3			W7		
		control	Daisy	r*	control	Daisy	r*
n =		2,666	2,725		2,711	2,794	
Well-being	During the last 7 days, how good did you feel when looking at your Instagram feed?	3.48	3.50		3.52	3.51	
Meaningful interactions	During the last 7 days, how meaningful were your interactions with others on Instagram?	3.18	3.20		3.18	3.15	
Meaningful time	During the last 7 days, how meaningful was the time you spent on Instagram?	3.21	3.22		3.21	3.16	
Sense of belonging	During the last 7 days, how connected did you feel to other people while using Instagram?	3.25	3.28		3.28	3.24	
Popular posts	During the last 7 days, how easy was it to see which posts were popular on Instagram?	3.47	3.31	0.070	3.51	3.34	0.074
Inauthentic likes	During the last 7 days, how often did you like a post even though you didn't enjoy the content (for example, to support the person who posted it, or out of social obligation)?	3.34	3.26		3.33	3.25	
Caring about likes	During the last 7 days, how much did you care about the number of likes your posts received?	2.92	2.83	0.031	2.92	2.80	0.074
Comparing likes	During the past 7 days, how often did you compare the number of likes your posts received to the number of likes other people received?	2.68	2.52	0.053	2.64	2.44	0.067
Free expression	During the past 7 days, how free did you feel to express yourself on Instagram?	3.43	3.42		3.43	3.39	
Impact on self	If people could only see the number of likes for their own posts, would this make Instagram better or worse for you personally ?	3.06	3.24	0.064	3.12	3.30	0.066
Impact on others	If people could only see the number of likes for their own posts, would this make Instagram better or worse for other people ?	3.08	3.22	0.053	3.11	3.31	0.070

*r is a measure of effect size that ranges from 0 to 1, and can be interpreted similarly to a correlation coefficient.

Survey questions are all on 5-point scales. Stat. sig. differences between test and control are highlighted in green (positive) and red (negative), with effect sizes in yellow.

		nonteen					
		W3			W7		
		control	Daisy	r*	control	Daisy	r*
		n = 2,871	2,922		2,945	2,923	
Well-being	During the last 7 days, how good did you feel when looking at your Instagram feed?	3.41	3.34	0.036	3.39	3.37	
Meaningful interactions	During the last 7 days, how meaningful were your interactions with others on Instagram?	3.03	3.01		2.99	2.99	
Meaningful time	During the last 7 days, how meaningful was the time you spent on Instagram?	3.00	2.96		2.95	2.95	
Sense of belonging	During the last 7 days, how connected did you feel to other people while using Instagram?	3.06	3.02		3.02	3.02	
Popular posts	During the last 7 days, how easy was it to see which posts were popular on Instagram?	3.45	3.25	0.089	3.46	3.32	0.064
Inauthentic likes	During the last 7 days, how often did you like a post even though you didn't enjoy the content (for example, to support the person who posted it, or out of social obligation)?	3.00	2.92		2.99	2.95	
Caring about likes	During the last 7 days, how much did you care about the number of likes your posts received?	2.70	2.64		2.72	2.63	0.031
Comparing likes	During the past 7 days, how often did you compare the number of likes your posts received to the number of likes other people received?	2.31	2.24		2.28	2.17	0.038
Free expression	During the past 7 days, how free did you feel to express yourself on Instagram?	3.45	3.43		3.43	3.46	
Impact on self	If people could only see the number of likes for their own posts, would this make Instagram better or worse for you personally ?	3.29	3.36		3.28	3.42	0.055
Impact on others	If people could only see the number of likes for their own posts, would this make Instagram better or worse for other people ?	3.32	3.38		3.30	3.42	0.047

*r is a measure of effect size that ranges from 0 to 1, and can be interpreted similarly to a correlation coefficient.

Survey questions are all on 5-point scales. Stat. sig. differences between test and control are highlighted in green (positive) and red (negative), with effect sizes in yellow.

FBP 37/20, at p. 27, 29 (teen vs. non-teen results). In addition to these statistically significant results when it came to teens, Meta employees also recommended shipping Pure Daisy (that is, making likes private on all accounts) for Instagram because it was right thing to do. They wrote,

Value We're Not Measuring

We believe there's value in shipping beyond what we've measured. We think it's important that people feel good about the time they spend on the platform, and so are encouraged that the survey suggested those who have lived with Daisy feel that removing public like counts is better for themselves and others.

Value We're Not Measuring

We believe there's value in shipping beyond what we've measured. We think it's important that people feel good about the time they spend on the platform, and so are encouraged that the survey suggested those who have lived with Daisy feel that removing public like counts is better for themselves and others. Daisy has received overwhelmingly positive responses from policy makers, press, and academics alike.

Recommendation

The data alone does not make a strong case for shipping, so this is a judgement call. Our recommendation is to ship on Instagram and leverage the launch as an opportunity to put a stake in the ground about what Instagram stands for, and explain that we're focused on reducing the pressure young people feel to be perfect.

FBP 37/20, at p. 4. They developed communication messaging that reiterated their recommendation for launch of Pure Daisy on the Instagram social media product,

Comms Messaging & Tactics if IG Launches

Messaging

- We're making like counts private for everyone on Instagram – they're not going away, just becoming private
- Teens feel a real 'pressure to be perfect' on Instagram
- We hope making like counts private will help reduce that pressure
- The Facebook app is a different experience — we're not planning to roll it out there
- People are not particularly worried about how many likes they get on Facebook
- Facebook gives you a bunch of ways to react which encourages people to share and contribute to diverse content
- And on Facebook, people tell us they are more concerned about having more control over their experience - from seeing more of their close friends, to less annoying alerts. We're cooking up new ways for you to manage your Facebook to get the most out of it.
- Control and pressure to be perfect are just two of the issues we're focused on at FACEBOOK

Tactics

- Mark op-ed or FB post explaining the decision to ensure credit ladders up to the company
- Good Morning America appearance with Adam explaining the decision
- Fidji post or tweet to reinforce Mark's points
- Consumer-led press outreach focused on teens and gen pop - meme accounts, Ellen

Comms: Example Headlines & Alternative Approaches

Best case headlines:

Citing well-being concerns for teens, Zuckerberg hides likes on Instagram; stays the course on Facebook

Worst case headlines:

Where Instagram leads, Facebook flounders
Instagram cares about its impact on users, Facebook not so much
Facebook likes are here to stay, despite well-being concerns

Alternates to recommended comms approach

ALT 1: IG launches Daisy and proactively addresses why pressure around like counts is a bigger issue on IG vs FB (prep people for not launching on FB down the line); FB plans for announcement in following two or three months

ALT 2: IG launches Daisy, FB announces we're still testing; defer until 2-3 months later when FB announces we will no longer test
(NOT RECOMMENDED)

FBP 37/20, at p. 21, 48.

82. At the same time, however, influencers and advertisers did not want “likes” hidden and Meta determined that launching Pure Daisy would have some negative impact on engagement and revenue. Accordingly, once again, Meta leadership declined to implement a product change—the recommended launch of Pure Daisy for IG—which would have reduced and, in some cases, eliminated the harms to Meta’s teen users. As explained by one Meta employee who suggested

less emphasis on harms to users and more emphasis on dislikes by “power users,” Meta leadership “repeatedly” makes clear that teens/influencers/creators “are such an important population for IG to keep on board and we don’t want to lose [them],”

[REDACTED] I think we should be commenting here that for power users they are sad in the survey to lose their likes in public. Am I misunderstanding the updated survey data? I do think acknowledging there are some folks who feel bad and it makes sense who they are helps the credibility of the work and presents the truth. I am repeatedly told they are such an important population for IG to keep on board and we don't want to lose teens/influencers/creators

FBP 37/20, at p. 5. Meta’s testing confirmed the likelihood of some negative impact,

Detail: Ads Performance

Ad Performance is driving revenue effect

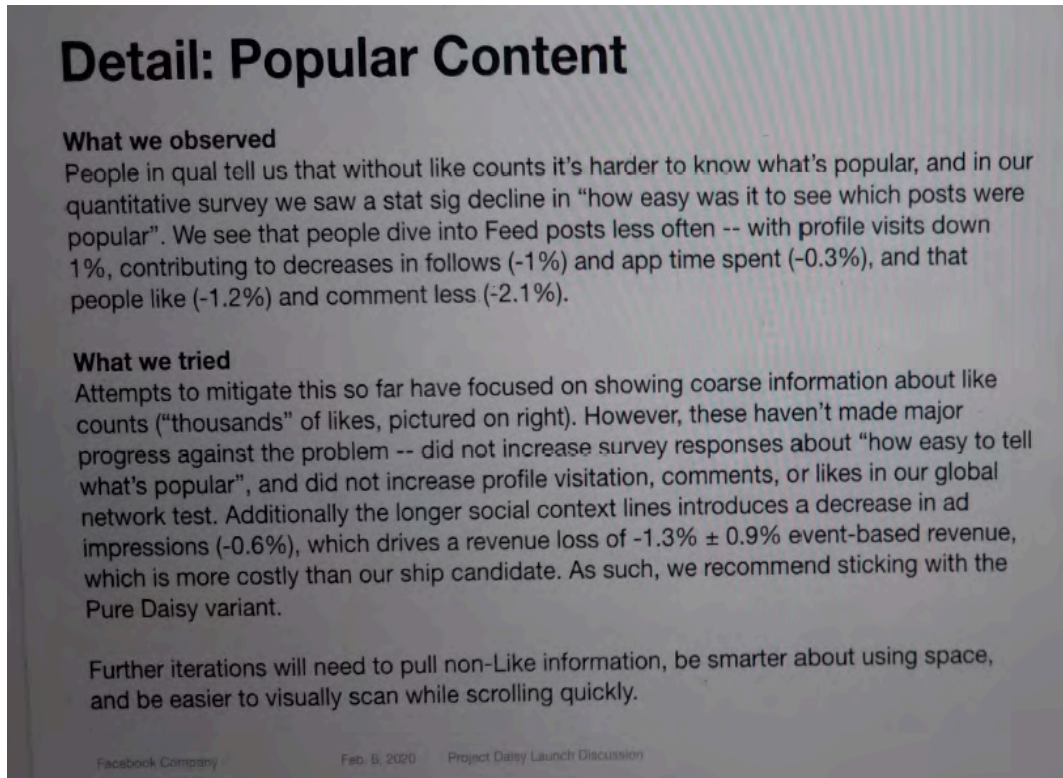
Like counts were a visual cue that let people know when to stop scrolling and go deep. Removing them decreases long dwells (>4s) on Ads, which decreases clicks on Ads and drives $-1\% \pm 0.9\%$ overall event-based revenue. This effect is driven by $-0.7\% \pm 0.1\%$ Feed Ad CTR. Ad Impressions are neutral. This negative revenue effect was factored into IG’s budget.

What we’re changing

Initial Daisy tests fully removed access to the liker list on Ads to avoid showing social context. Restoring a privacy-safe access to the liker list trades some ad click loss for some ad impression loss, which makes Feed Ads more consistent with organic, but is not expected to recover net revenue. See graphic on right.

Revenue follow-ups

We are currently conducting follow-up tests that make visual tweaks to Ad CTAs to attempt to recover this revenue, and plan to continue making changes to recover revenue via performance and other methods led by the Instagram Ads team.



FBP 37/20, at p. 45-46. Accordingly, Meta leadership declined to make this recommended product change and suggested more research instead—including to see whether they could find a way to protect users from this known harm without impacting revenue and engagement, while continuing to cause these harms in the meantime.

83. Meta's 2020 research confirmed what it knew back in 2018, if not sooner, which is that removing the visible like count would help teen users by reducing Instagram-caused social comparison harms; but also, Meta confirmed that anything short of hiding likes for everyone (Meta refers to one such hybrid approach as "Popular Daisy") would be far less effective in terms of fixing the harms Instagram was causing. Meta found that,

Social comparison is prevalent, has negative outcomes for people, and is something that people blame Instagram for. Seeing more posts with very high Like counts is associated with feeling more negative social comparison ... and this effect is consistent across different demographic groups ... There is stronger evidence for Pure Daisy reducing negative social comparison ... Pure Daisy reduced negative social comparison overall.

- Social comparison is prevalent, has negative outcomes for people, and is something that people blame Instagram for.
- Seeing more posts with very high Like counts is associated with feeling more negative social comparison and feeling less positive social comparison, and this effect is consistent across different demographic groups. Relatedly, when people were asked to recall an experience that induced negative social comparison on Instagram, they were likely to attribute that negative feeling to Like counts.
- There is stronger evidence for Pure Daisy reducing negative social comparison, and weak evidence for Popular Daisy reducing negative social comparison:
 - Pure Daisy reduced negative social comparison overall, reduced the effect of seeing posts with very high Like counts on negative social comparison, and may have also decreased the likelihood of a post being subsequently deleted.
 - Still, Popular Daisy may be helpful for teen girls, reducing negative social comparison as well as increasing positive social comparison stemming from seeing posts with high Like counts.
 - Both Pure and Popular Daisy had no significant effect on negative social comparison from seeing posts with fewer than 1K likes, so the value of hiding lower Like counts is less clear.

FBP 36/50, *Project Daisy, Likes, and Social Comparison*, “Additional research as of H2 2020” (September 2020), at p. 1.

Daisy and Social Comparison		Pure	Popular
Did Daisy reduce negative social comparison?	-	Yes -0.10 ± 0.08, $p < 0.05$	No -0.01 ± 0.08, $p = 0.76$
• Highly active teens	-	Maybe -0.18 ± 0.20, $p = 0.07$	No 0.09 ± 0.19, $p = 0.37$
• Teen girls	-	Yes -0.24 ± 0.23, $p < 0.05$	No -0.09 ± 0.23, $p = 0.43$

Daisy and Engagement			
Did Daisy decrease post deletions?	Yes (Pure)	Maybe	No
	-2.2% ± 1.8%	-1.54pp ± 1.55pp, $p = 0.05$	0.35pp ± 1.69pp, $p = 0.69$
Did Daisy decrease likes given per impression?	Yes -0.92% ± 0.16%	You're suggesting No 0.0 ± 0.0, $p = 0.96$	No -0.0 ± 0.0, $p = 0.17$
Did Daisy decrease comments given per impression?	Yes -0.93% ± 0.35%	No 0.0 ± 0.0, $p = 0.72$	No -0.0 ± 0.0, $p = 0.98$

1 FBP 36/50, at p. 2, 9. Once again, however, Meta chose profit over the health and well-being of
 2 its teen users.

3 **Meta's Ownership and/or Licensing Rights in all User Content**

4 84. Instagram also creates images and GIFs for users to post on their videos and
 5 pictures. Meta has also acquired publishing rights to thousands of hours of music, which it provides
 6 to its users to attach to the videos and pictures that they post on Instagram. The GIFs, images, and
 7 music are integral to the user's Instagram post and are, in fact, designed to encourage posting.
 8 Indeed, in many cases, the only content in a user's Instagram post is the image, GIF, or music
 9 supplied by Meta. When users incorporate images, GIFs, and music supplied by Meta into their
 10 postings, Meta is functioning as a co-publisher of such content. An Instagram user who
 11 incorporates images, GIFs, or music supplied by Meta into their post is functionally equivalent to
 12 a novelist who incorporates illustrations into their story. Instagram can no longer characterize the
 13 images, GIFs, and music it supplies to its users as third-party content, just as the novelist cannot
 14 disclaim responsibility for illustrations contained in their book. Meta has made the deliberate
 15 decision to collaborate with its users in this regard and, as evidenced by Meta's internal documents,
 16 Meta's decision is motivated by the fact that such collaboration results in increased engagement
 17 and more profits for Meta itself.

18 85. Meta also has legal rights in all third-party content, such that it is not "third-party
 19 content" at all. In 2012, Meta revised its Instagram Terms of Service to the following,¹⁰

20 To help us deliver interesting paid or sponsored content or promotions, you agree that
 21 a business or other entity may pay us to display your username, likeness, photos
 22 (along with any associated metadata), and/or actions you take, in connection with
 23 paid or sponsored content or promotions, without any compensation to you.

¹⁰ <https://www.theverge.com/2012/12/18/3780158/instagrams-new-terms-of-service-what-they-really-mean>

1 86. Its current terms (effective January 4, 2022) are different, but still grant Meta the
 2 right to use all third-party content at Meta's sole and unilateral discretion,

- 3 • **We do not claim ownership of your content, but you grant us a license to use it.**
 4 Nothing is changing about your rights in your content. We do not claim ownership of
 5 your content that you post on or through the Service and you are free to share your
 6 content with anyone else, wherever you want. However, we need certain legal
 7 permissions from you (known as a "license") to provide the Service. When you
 8 share, post, or upload content that is covered by intellectual property rights (like
 9 photos or videos) on or in connection with our Service, you hereby grant to us a
 non-exclusive, royalty-free, transferable, sub-licensable, worldwide license to host,
 use, distribute, modify, run, copy, publicly perform or display, translate, and create
 derivative works of your content (consistent with your privacy and application
 settings). This license will end when your content is deleted from our systems. You
 can delete content individually or all at once by deleting your account. To learn more
 about how we use information, and how to control or delete your content, review the
[Data Policy](#) and visit the [Instagram Help Center](#).

10 87. Meta directly profits from the videos and pictures its users create in collaboration
 11 with Meta, as described above.

12 88. Meta knows that it is harming teens yet, when faced with recommendations that
 13 will reduce such harms, Meta's leadership consistently opts for prioritization of profit over the
 14 health and well-being of its teen users—that is, the millions of teen users who continue to use its
 15 inherently dangerous and defective social media product every single day.

16 89. Meta's products are used by many millions of children every day.

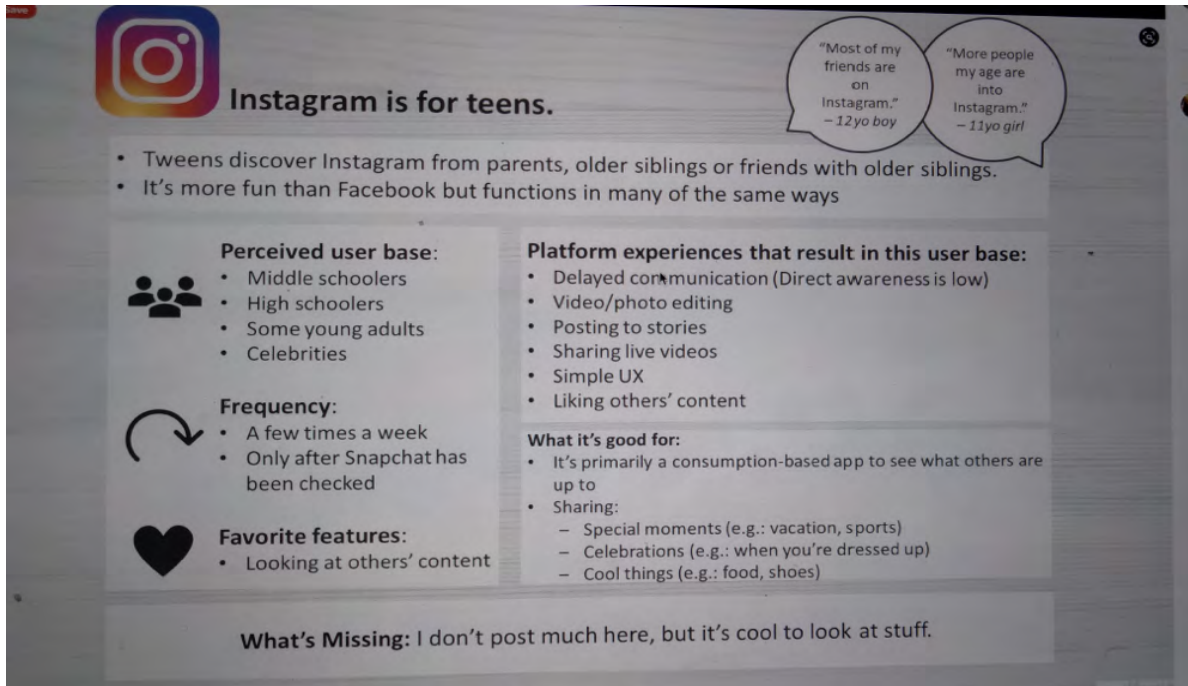
17 **B. Meta's Instagram Application is a Product**

18 90. There is no dispute that Instagram is a product that is designed and manufactured
 19 by Meta. Meta refers to its internally and in public facing documents as a "product."

20 91. This product is designed to be used by minors and is actively marketed to teens
 21 across the United States.

22 92. Meta's user terms and federal law prohibit use of Meta's Instagram social media
 23 product by any person under the age of 13. Regardless, Meta and its primary competitors know

that children under 13 are using their products, and actively study and market to that population, as do its closest competitors,



Instagram is for teens.

“Most of my friends are on Instagram.” – 12yo boy

“More people my age are into Instagram.” – 11yo girl

- Tweens discover Instagram from parents, older siblings or friends with older siblings.
- It’s more fun than Facebook but functions in many of the same ways

Perceived user base:

- Middle schoolers
- High schoolers
- Some young adults
- Celebrities

Frequency:

- A few times a week
- Only after Snapchat has been checked

Favorite features:

- Looking at others’ content

Platform experiences that result in this user base:

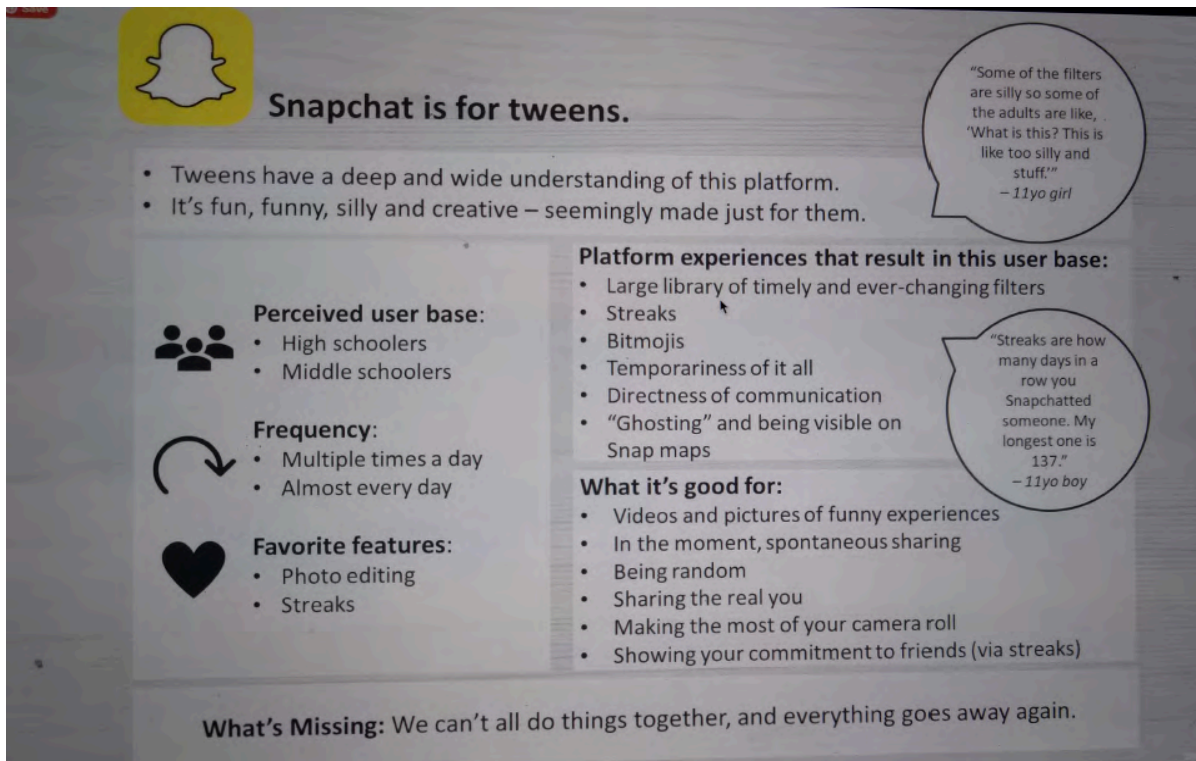
- Delayed communication (Direct awareness is low)
- Video/photo editing
- Posting to stories
- Sharing live videos
- Simple UX
- Liking others’ content

What it’s good for:

- It’s primarily a consumption-based app to see what others are up to
- Sharing:
 - Special moments (e.g.: vacation, sports)
 - Celebrations (e.g.: when you’re dressed up)
 - Cool things (e.g.: food, shoes)

What’s Missing: I don’t post much here, but it’s cool to look at stuff.

FBP 42/03, “Tweens and Social Media” (October 9, 2017), at p. 31.



Snapchat is for tweens.

“Some of the filters are silly so some of the adults are like, ‘What is this? This is like too silly and stuff.’” – 11yo girl

- Tweens have a deep and wide understanding of this platform.
- It’s fun, funny, silly and creative – seemingly made just for them.

Perceived user base:

- High schoolers
- Middle schoolers

Frequency:

- Multiple times a day
- Almost every day

Favorite features:

- Photo editing
- Streaks

Platform experiences that result in this user base:

- Large library of timely and ever-changing filters
- Streaks
- Bitmojis
- Temporariness of it all
- Directness of communication
- “Ghosting” and being visible on Snap maps

What it’s good for:

- Videos and pictures of funny experiences
- In the moment, spontaneous sharing
- Being random
- Sharing the real you
- Making the most of your camera roll
- Showing your commitment to friends (via streaks)

What’s Missing: We can’t all do things together, and everything goes away again.

“Streaks are how many days in a row you Snapchatted someone. My longest one is 137.” – 11yo boy

YouTube is not seen as social media.

- Tweens know they can comment on videos, but rarely do anything other than "like".
- Many want to post their own content but aren't allowed to.

Perceived user base:

- Literally everyone

Frequency:

- Multiple times a day
- Every day of the week

Favorite features:

- Watching favorite YouTubers

Platform experiences that result in this user base:

- Seemingly endless, constantly growing library
- Every format, genre, topic included
- The only place for short-form video
- Incredibly smart suggested videos algorithm

What it's good for:

- Learning about something of interest
- Laughing
- Accessing cross-network content

What's Missing: I don't connect with my friends here.

*"I use YouTube because YouTube's like a really fun app to go on and just look around or you can look at stuff that you want to do."
- 11yo boy*

*"[On YouTube I find new videos by] going to the home page bucket list channels."
- 10yo girl*

*"On YouTube I'll either watch like lifehacks or DIYs."
- 12yo girl*

FBP 42/03 at p. 32-33.

Musical.ly is not seen as social media.

- Even though tweens can comment and like videos, the platform is more a creative outlet than a mode of connectivity.
- The skew is heavily female but seems to be made with tweens in mind.

Perceived user base:

- High school girls
- Middle school girls

Frequency:

- A few times a week

Favorite features:

- Creating and editing videos

Platform experiences that result in this user base:

- Current music
- Youthful editing options
- Rooted in performing

What it's good for:

- Discovering new music
- Creating videos
- Scrolling through favorite Musers' posts
- Being creative, silly

What's Missing: I don't connect with my friends here.

*"I got Musical.ly when I was 11."
- 12yo girl*

*"[On Musical.ly] you can post silly videos."
- 11yo girl*

1 FBP 42/03 at p. 34.

2 93. The Instagram product is designed to be used by minors and is actively marketed
3 to minors across the United States. Meta markets to minors through its own marketing efforts and
4 design. In addition, Meta works with and actively encourage advertisers to create ads targeted at
5 and appealing to teens, and even to children under the age of 13. Meta spends millions of dollars
6 researching, analyzing, and experimenting with young children to find ways to make its product
7 more appealing and addictive to these age groups, as these age groups are seen as the key to Meta's
8 long-term profitability and market dominance.

9 94. Meta also is aware that large numbers of children under the age of 18 use its product
10 without parental consent. Indeed, Meta designs its social media product in a manner intended to
11 allow and not prevent such use.

12 95. Meta is likewise aware that large numbers of children under the age of 13 use its
13 product despite user terms or "community standards" that purport to restrict use to individuals who
14 are 13 and older. They have designed their product in a manner that allows and/or does not prevent
15 such use to increase user engagement and, thereby, increase its own profits.

16 **C. Meta Knows That Its Facebook and Instagram Products are Highly Addictive**

17 96. Meta and its leadership have repeatedly represented to the public and governments
18 around the world that their Instagram and Facebook products are safe and not addictive.

19 97. In September of 2017, Meta CEO Mark Zuckerberg spoke out on the issue of opioid
20 addiction, making general addiction-related statements, including that "Communities all across the
21 country have a long road ahead, but as someone told me at the end, 'I'm hopeful because we're
22 talking about it.' Me too."¹¹

23
¹¹ <https://www.northpointrecovery.com/blog/mark-zuckerberg-discusses-view-addiction-facebook/>

1 98. In April of 2018, Meta CEO Mark Zuckerberg testified under oath to Congress that
2 Meta does not design its products to be addictive and that he is not concerned with social media
3 addiction as it relates to teens. He stated,

4 I view our responsibility as not just building services that people like but as building
5 services that are good for people and good for society as well ... we study a lot of
6 effects of well-being, of our tools, and broader technology, and like any tool there
7 are good and bad uses of it. What we find in general is that if you are using social
8 media to build relationships then that is associated with all the long term measures
of well-being that you'd intuitively think of ... but if you are using the internet and
social media to just passively consume content and are not engaging with other
people then it doesn't have those positive effects and it could be negative.¹²

9 99. In November of 2020, Meta CEO Mark Zuckerberg again testified under oath to
10 Congress that Meta does not design its products to be addictive and that research on addictiveness
11 of social media has not been conclusive.¹³

12 100. In March of 2021, Meta CEO Mark Zuckerberg testified under oath to Congress
13 that Instagram is not addictive and that it does not cause harm to children and teens.

14 He was asked:

15 "So Mr. Zuckerberg, yes or no: Do you agree too much time in front of screens,
passively consuming content, is harmful to children's mental health? ..."

16 He responded:

17 "I don't think that the research is conclusive on that..."

18 He was asked:

19 "Do you agree that you make money off of creating an addiction to your platforms?"

20 He responded:

21 "Congressman, no. I don't agree with that."

22 He was asked:

23 "Do you believe that your platform harms children?"

 He responded:

¹² <https://www.youtube.com/watch?v=AB4mB-K7-xY>

¹³ <https://www.tampafp.com/great-news-facebook-is-not-designed-to-be-addictive-according-to-zuckerberg/>

1 “Congresswoman, I don’t believe so. This is something that we study and we
2 care a lot about; designing products that peoples’ well-being is very important
3 to us. And what our products do is help people stay connected to people they
4 care about, which I think is one of the most fundamental and important human
5 things that we do, whether that is for teens or for people who are older than that.
6 And again, our policies on the main apps that we offer generally prohibit people
7 under the age of 13 from using the services.”¹⁴

8 101. On September 30, 2021, Meta’s Head of Safety, Antigone Davis, testified under
9 oath to Congress that Instagram is not addictive. She testified that she “disagree[d] with calling
10 our product addictive. I also think that’s not how we build products.”¹⁵ She denied Meta’s
11 marketing to children under 13, repeatedly denied the existence of causal research regarding harms
12 to teens from Instagram use and testified that Meta’s overreaching goal is child safety: “We work
13 tirelessly to put in place the right policies, products, and precautions so [young users] have a safe
14 and positive experience.”¹⁶

15 102. On December 8, 2021, Instagram’s president Adam Mosseri provided written
16 testimony and testified under oath to Congress that Instagram is not addictive.¹⁷ He testified that
17 teens come to Instagram while dealing with difficult things and that Instagram makes things better
18 for them. Mr. Mosseri downplayed the significance of the documents disclosed by the Facebook
19 Whistleblower, characterizing Meta’s numerous studies as involving input from small numbers of
20 teens and not measuring “causal relationships between Instagram and real-world issues.”¹⁸ Indeed,

21 ¹⁴ <https://www.congress.gov/117/meeting/house/111407/documents/HHRG-117-IF16-Transcript-20210325.pdf>, at
22 p. 67, 107, 175.

23 ¹⁵ <https://www.rev.com/blog/transcripts/facebook-head-of-safety-testimony-on-mental-health-effects-full-senate-hearing-transcript> (“Sept. 30, 2021, Senate Hearing Transcript”), at 2:06:35; *see also id.* at 02:07:44 and 02:07:59 (Ms. Davis also denied that Meta’s business model includes getting users engaged for longer amounts of time).

¹⁶ *Id.* at 24:58, 01:47:29, 1:48:07, 1:48:20, 2:10:47, 33:46, and 40:41.

¹⁷ <https://www.commerce.senate.gov/2021/12/protecting-kids-online-instagram-and-reforms-for-young-users>,
recording of December 8, 2021 Senate Hearing.

¹⁸ <https://www.commerce.senate.gov/services/files/3FC55DF6-102F-4571-B6B4-01D2D2C6F0D0>, written
Testimony of Adam Mosseri, Head of Instagram, dated December 8, 2021.

1 he testified that Meta’s overarching goal is child safety: “But I want to assure you that we do have
2 the same goal. We want all teens to be safe online.”¹⁹

3 103. In truth, Meta has been studying its “addicting” product mechanics for years, and
4 Meta leadership—including and specifically Meta CEO Mark Zuckerberg—has actual knowledge
5 that these products are addictive and harmful to children and teens. Moreover, Meta’s own
6 estimates and findings reflect known addiction by a significant number of children and teens. For
7 example, if we assume an addiction rate among US teen users only of 3%—which is *far lower*
8 than Meta’s findings—that means that more than *half a million* American teenagers (age 13 to 17)
9 are currently addicted to Instagram to the point where their addiction is causing sleep deprivation,
10 actively interfering in their friendships, family relationships, employment, and education, and is
11 causing other physical and emotional harms. That said, Meta’s numbers put addiction and product-
12 related harms for teens anywhere between 7% and 33% or higher, depending on the demographic
13 and harm at issue. This equates to many millions of US teens harmed by Meta’s Instagram social
14 media product, while Meta makes hundreds of billions of dollars in revenue as a result.

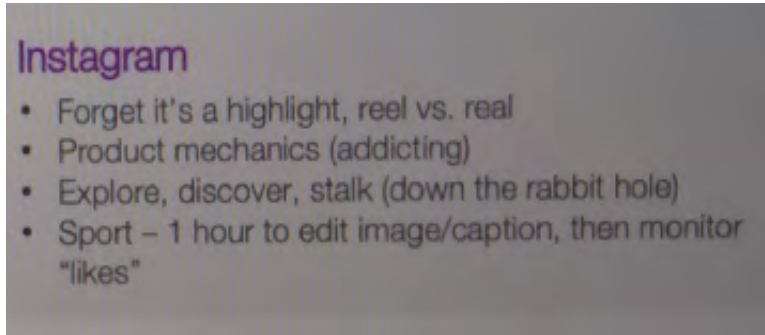
15 104. In March of 2020, Meta published an internal PowerPoint titled “Social
16 Comparison Exploratory Research,” based on a US Exploratory Study it conducted titled “Teen
17 Girls Body Image and Social Comparison on Instagram,”

18 **Teen Girls Body Image and Social Comparison on Instagram - An**
19 **Exploratory Study in the US**
20 We conducted focus groups and diary study in the US to better understand teen girls'
21 experience with appearance comparison on social media and how this impacted their body
22 image and overall mental health.

23 ¹⁹ <https://www.npr.org/2021/12/08/1062576576/instagrams-ceo-adam-mosseri-hears-senators-brush-aside-his-promises-to-self-poli>

1 FBP 24/13, “Teen Girls Body Image and Social Comparison on Instagram – An Exploratory Study
2 in the US,” at p. 1.

3 105. In that PowerPoint, Meta refers to its Instagram product mechanics as “addicting,”



9 FBP 24/13 at p. 37. The addictiveness of Meta’s products and user addiction has been a theme in
10 Meta documents for years. The following are just a few more examples from the Facebook Papers.

11 106. In 2017, a Meta intern investigated whether it had “made people addicted to
12 Facebook,” and his answer was an unequivocal yes,

13

14 Next, we built out a model to try and size the number of addicted users. To build this, we
15 used both sessions data and average time spent and looked at the deactivation rate in each
16 bucket.

17

18 A model of mapping addicted users. The darker the area, the more deactivated
19 TMT/T users that were in that bucket. Note: This is only U.S. users.

20 From here, we plotted out the number of people that could be considered addicted based on
21 the threshold we set. This threshold is based on the TMT/T deactivated users as a percentage
22 of total DAP. At a minimum threshold of 1%, that would be ~15k people we could call
23 addicted, but if we loosen the threshold to 0.2%, that’s nearly 200k people.

1 FBP 16/08, “Have we made people addicted to Facebook?” (August 3, 2017), at p. 13, 15. Once
2 again, recommendations were provided to Meta leadership, and those recommendations were
3 ignored,

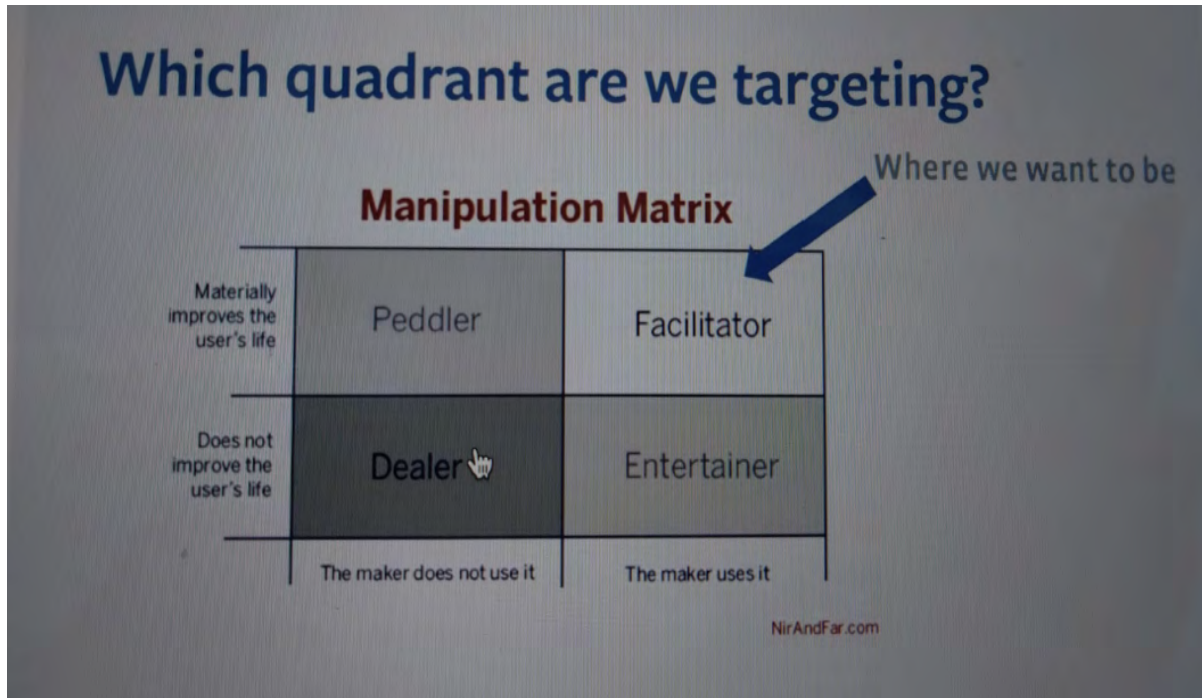
4
5 In order to help these users, we can create new tools that don’t stop them from using
6 Facebook, but help them feel more in control of when they choose to visit the app. To this
7 end, we could leverage the easy to navigate structure of the **Take a Break** tool by the Protect
8 and Care team. The tool, designed for breakups, makes it easy for someone to adjust their
9 settings to see less of a person in their feed, photos, or messages. Rather than digging
10 through the settings tab, this tool makes it easier to find the relevant settings a person may
want to change.

11 FBP 16/08 at p. 18.

12
13 ... and probably change some of our growth
14 “hacks”

15 “What shared responsibilities do we so-called growth hackers ... have
16 to our users, to our future generations, and to ourselves?”

17 Now this is not to say that we should never notify users. But, if people are addicted to our
18 products, we do have an obligation to help them. Rather than inundating users with excessive
19 notifications, we should focus on creating experiences that users to willingly want to come
20 back. As we work towards creating meaningful connections on Facebook, **we should focus**
21 **more on quality time spent than just time spent.**



FBP 16/08 at p. 22-24. Responding Meta employees thanked the intern for his work and made sure to clarify that Meta does not like to use the word “addiction” when referring to its products. FBP 16/08 at p. 27 (“for posterity, i’ll add here that we had some good conversations as to whether we could actually label these people ‘addicted’ which is a pretty specific term. for instance, the survey items you used were the most tame ones from an existing scale so may not really be picking up on ‘addicting’ but likely picking up on patterns of use that we wouldn’t want to be encouraging.”). The general response from management was then that Meta would need to investigate further, with the intern suggesting use of the word “twitchy” instead of “addicted.” *Id.* (“One good adjective I’ve been thinking about is ‘twitchy’ since it seems that these users just feel jumpy and keep coming into the app.”).

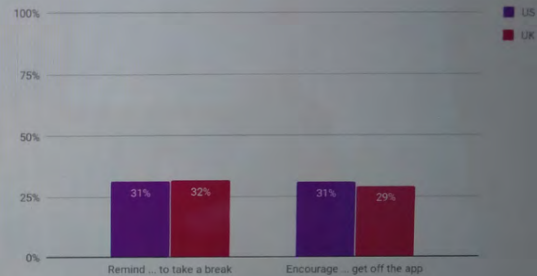
107. By 2019, Meta researchers and employees were more careful about putting terms like “addiction” in quotes but, regardless, they continued to reach the same conclusions as the many studies that came before, including studies specific to the issue of teen users and mental

health,

Teens want help controlling the time they spend on the app

- Teens talk about the amount of time they spend on Instagram as one of the “worst” aspects of their relationship to the app.
- They have an addicts’ narrative about their use -- it can make them feel good, feel bad. They wish they could spend less time caring about it, but they can’t help themselves.
- Teens recognize the amount of time they spend online isn’t good for them but at the same time know they lack the willpower to control the time spent themselves

Time spent tools



FBP 23/01, “Teen Mental Health Deep Dive” (October 10, 2019), at p. 79.

108. Meta employee reporting on underlying data—which Plaintiffs do not yet have—describes addiction in every sense of the word,

We actually heard a lot about this! In the focus groups teens told us that they do not like the amount of time they spend on the app but feel like they have to be present. They often feel “addicted” and know that what they’re seeing is bad for their mental health but feel unable to stop themselves ... In the survey, about 30% (and even larger proportions of those who are unsatisfied with their lives) said that the amount of time they spend on social media makes them feel worse. About half of teens in both markets want Instagram to encourage them to take a break or to get off the app.”

FBP 23/01 at p. 103.

██████████ We actually heard a lot about this! In the focus groups teens told us that they don't like the amount of time they spend on the app but feel like they have to be present. They often feel "addicted" and know that what they're seeing is bad for their mental health but feel unable to stop themselves. This makes them not feel like they get a break or can't switch off social media.

In the survey, about 30% (and even larger proportions of those who are unsatisfied with their lives) said that the amount of time they spend on social media makes them feel worse. About half of teens in both markets want Instagram to encourage them to take a break or to get off the app (see slide 48).

1 *See also* FBP 23/01 at p. 105,

2 The other big reason that parents aren't a source of support has to do with
 3 parents' ability (or really, their inability) to understand what adolescence in
 4 the age of social media looks and feels like. The parents of today's teens
 5 came of age before social media, so they don't know and *can't* know what
 6 it's like to live in what feels like a constant spotlight. When today's parents
 7 were teens, social comparison was much more limited both in terms of
 8 scope and scale. Teens today compare themselves to many more people,
 much more often, and about more parts of life than their parents did during
 their adolescence. In addition, today's parents were able to turn it off when
 they went home, while teens feel compelled to be on social media all the
 time.

9 109. Then there's Meta's detailed findings published internally in January 2020,

10 Behaviors

11 After feature selection and removing behavioral and too-general features, we arrived at these
 12 top 5 behaviors for our heuristic metric:

- 13 • **No-engagement late night sessions:** number of sessions between 9pm and 3am
 14 with no likes, posts, comments, etc. (no content produced), over a 7-day period.
- 15 • **No-engagement sessions within 10 minutes of last:** number of sessions within
 16 10 minutes of a previous session, with no engagement (likes, posts, comments, etc), over
 a 7-day period.
- 17 • **Average late night product switches:** average number of times a person switches
 18 between surfaces on FB App during a session occurring between 9pm and 3am, over a 7-
 day period.
- 19 • **Total 15-sec sessions:** total number of sessions lasting 15 seconds or less in a day.
- 20 • **Jewel Mark As Seen:** number of notifications marked as seen, over a 7-day period.

21 The proposed heuristic is a logistic regression that uses these 5 features to predict whether a
 22 survey respondent experiences problematic use. See below for the predictive power of the
 heuristic as compared to a model that uses all the features.

23 FBP 16/11, "A Behavioral Heuristic of Problematic Use" (January 6, 2020), at p. 4.

1 [REDACTED] think the philosophical question can be put this way: we want to avoid making our products
2 addictive and have people addicted to them, we are not trying to cure addiction.

3 Like · Reply · 1y

4 [REDACTED] this make sense, I'm just worried that there are worse options than mindlessly surfing f
5 there.

6 Like · Reply · 1y

7 [REDACTED] I know, but just addicting them to FB is not the solution. By the way, please accept my
8 Farmville invitation, I have cows for sale!

9 Like · Reply · 1y

10 FBP 16/11 at p. 13.

11 110. And Meta's internal findings published in March of 2020, and countless other times
12 over the last several years,

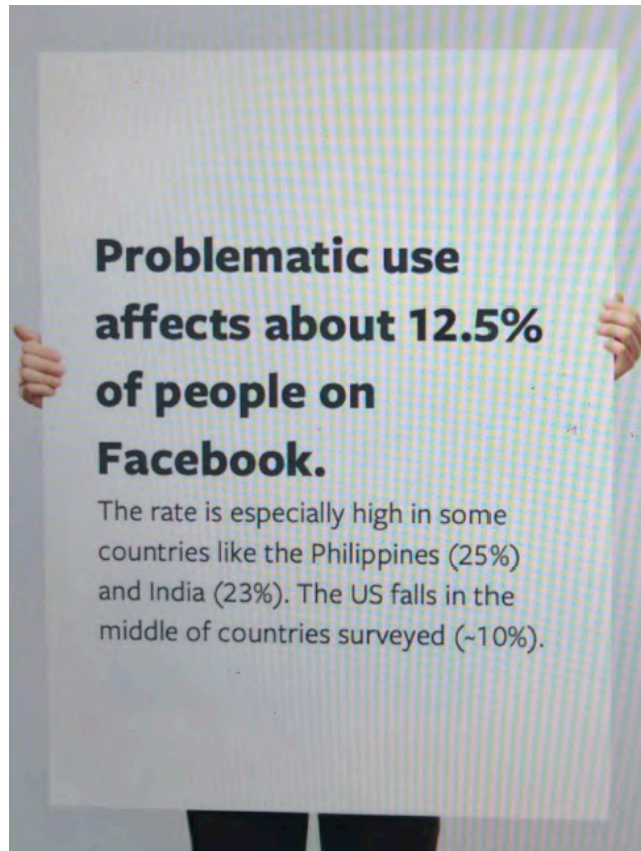
13 In Q4 2019, our Well-being Product Team conducted global qualitative research to better
14 understand "problematic" use (sometimes called "social media addiction" externally),
15 specifically:

- 16 • **The current PU experience:** What are people's current issues related to
17 excessive/problematic FB use? What is journey of problematic use? (Triggers, Attitudes,
18 Impacts, Remediation Tactics)
- 19 • **PU personas:** Who is experiencing problematic Facebook use?
- 20 • **Opportunity mapping:** What solutions could we develop to mitigate PU? Gathered
21 feedback on PU-related concepts.

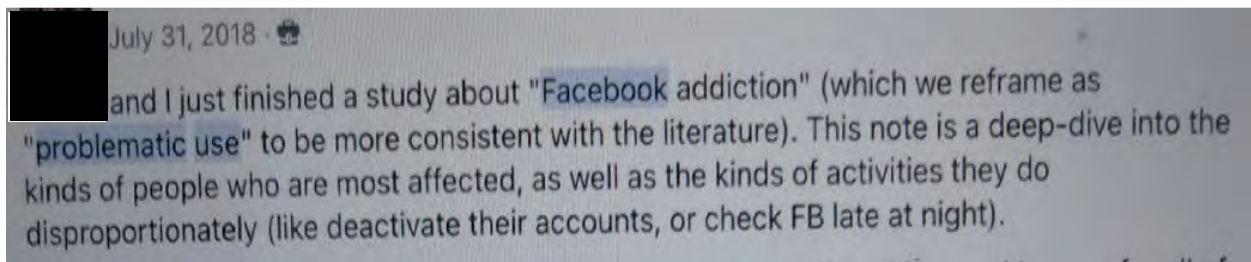
22 TL;DR

- 23 • **Over 10 triggers contribute to the potential for problematic use (PU) but only 3 user
attitudes associated with PU:** Lack of guilt, low self-control, and high pressure for giving
timely replies.
- **We removed 2 PU impact areas and added 2 more.** This research uncovered 2 new PU
impact areas, Safety Risks and Regretful Spending, to add to Productivity, Sleep,
Relationships, and Parenting. Fear of Missing Out (FOMO) and Loss of Control Over Time
Spent (LCOTS) are not impacts. FOMO is one of the 10 triggers. LCOTS is PU, not a
trigger nor an impact.
- **Most selected Productivity as their top PU priority area for FB to pursue.** A loss of
productivity (delayed work/chores, being late to appointments) affects sleep and
relationships. Sleep and Parenting were the next most voted areas.
- **6 of 13 concepts were highly rated for reducing PU across multiple impact areas.** Two
concepts (Time-to-Complete, You're All Caught Up) posed a risk of exacerbating PU for
those with FOMO. Highly rated concepts provided situational awareness, sense of control,
customization, transparency and a sense of completion.

1 FBP 19/17, "Problematic User of Facebook: User Journey, Personas & Opportunity Mapping"
2 (March 9, 2020), at p. 1.

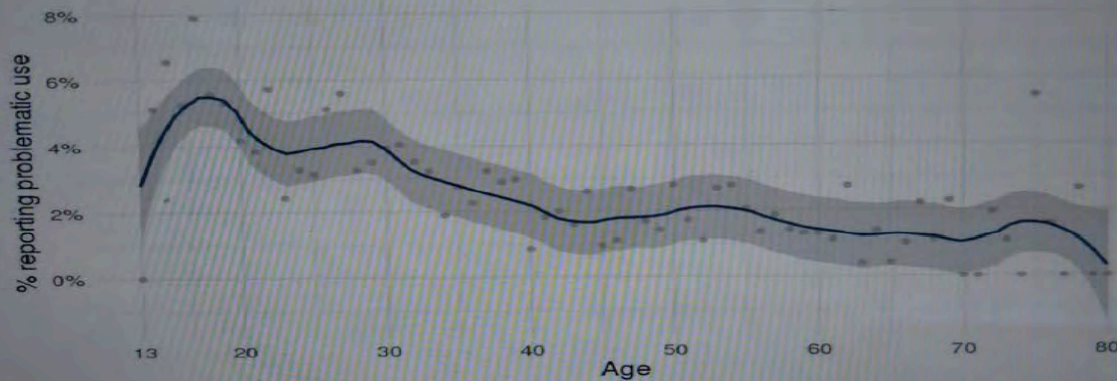


15 FBP 19/17 at p. 11.



Age, gender, and major life events

Problematic use is highest among teens and people in their 20s, consistent with previous findings that younger people generally have more problems with self-regulation. This is also consistent with [REDACTED] research on time control.



Problematic use is highest among teens and people in their 20s.

FBP 16/07, “Problematic Facebook use: When people feel like Facebook negatively affects their life” (July 31, 2018), at p. 1, 9.

- **Profile hopping:** People reporting problematic use spend a greater proportion of their time hopping between profiles. Is it to find more content because they've run out of novel inventory in their News Feeds, social comparison (wanting to see how they “measure up” to other people), or something else?

- **Teens and FOMO:** FOMO was highest among teens. Are there special considerations for teens to ensure that FOMO doesn't lead to problems with sleep, relationships, or school?

- **Correlation vs. causation:** These results are all correlational; we need more research to unpack the causal direction. For example, people with problematic use spend a greater proportion of their time online late at night. Are they bored? Lonely? They report that Facebook causes problems with sleep; does lack of sleep further add to feelings of stress or pressure to keep up during the day?

FBP 16/07 at p. 35-36.

- 1 **1. Higher Facebook use is correlated with worse psychological states**
 2 (wellbeing, loneliness, etc.), although *changes* in Facebook use are uncorrelated with
 3 changes in wellbeing measures. [8,5]
- 4 **2. An experiment found that a 1-month break from Facebook improved self-**
 5 **reported wellbeing.** [6]
- 6 **3. A large fraction of users struggle with their Facebook/Instagram use.** Among
 7 US teens “84% had taken a break from social media, and 74% have taken a break from
 8 Instagram.” [2] “More than a third of the survey respondents feel they have spent more
 9 time than they would have liked on Instagram. About one in five respondents think they
 10 have a problem controlling their time.” [5]
- 11 **4. A significant minority report serious difficulties.** 3.1% of Facebook users in the
 12 U.S. report “serious problems with sleep, work, or relationships that they attribute to
 13 Facebook AND concerns or preoccupations about how they use Facebook.” [1]

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A lot of (3) sounds like addiction. Addiction (as I was taught!) is characterized by a disassociation between “liking” and “wanting.” The addict self-reports that they do drugs because they like it, but generally it can be revealed that addicts don’t like the drug as much as they used to, before they were addicted. However they want it more, and compulsively seek it, despite suffering harm ... Addiction is challenging to define, and usually refers to behavior that persists despite adverse consequences. **It seems clear from what’s presented here that some of our users are addicted to our products. And I worry that that driving sessions incentivizes us to make our product more addictive, without providing much more value. How to keep someone returning over and over to the same behavior each day? Intermittent rewards are most effective (think slot machines), reinforcing behaviors that become especially hard to extinguish** – even when they provide little reward, or cease providing reward at all.

1 [REDACTED] A lot of (3) sounds like addiction. Addiction (as I was taught!) is characterized by a dissociation between
 2 "liking" and "wanting." The addict self-reports that they do drugs because they like it, but generally it can be revealed that
 addicts don't like the drug as much as they used to, before they were addicted. However they want it more, and
 compulsively seek it, despite suffering harm. Mapping to [REDACTED] thinking here, wanting can be proxied by engagement, but
 3 liking is more like the value we're after. These dissociate all the time, and it can happen to anyone.

4 Addiction is challenging to define, and usually refers to behavior that persists despite adverse consequences. It seems
 clear from what's presented here that some of our users are addicted to our products. And I worry that driving sessions
 incentivizes us to make our product more addictive, without providing much more value. How to keep someone returning
 over and over to the same behavior each day? Intermittent rewards are most effective (think slot machines), reinforcing
 5 behaviors that become especially hard to extinguish -- even when they provide little reward, or cease providing reward at
 all.

6 Like · Reply · 17w

7 FBP 08/25 at p. 14 (emphasis added).

8 111. In short, Meta employees and Meta leadership know that Facebook and Instagram
 9 are addictive and harmful, in part, because it was designed that way (addictive design) and, also,
 10 because the billions of dollars Meta has spent researching user addiction has said so. Meta has
 11 never released this information on addiction and/or problematic use to the public; instead, its
 12 leadership lied repeatedly to Congress and the parents of its tens of millions of child and teen users.

13 112. Meta advertises its product as "free," because they do not charge its users for
 14 downloading or using its product. What many users do not know is that, in fact, Meta makes a
 15 profit by finding unique and increasingly dangerous ways to capture user attention and target
 16 advertisements to its users. Meta receives revenue from advertisers who pay a premium to target
 17 advertisements to specific demographic groups of users in the applications including, and
 18 specifically, users under the age of 18. Meta also receives revenue from selling its users' data to
 19 third parties.

20 113. The amount of revenue Meta receives is based upon the amount of time and user
 21 engagement on its platforms, which directly correlates with the number of advertisements that can
 22 be shown to each user. In short, Meta opted for user engagement over the truth and user safety.

23 114. Instagram is built around a series of design features that do not add to the

1 communication and communication utility of the application, but instead seek to exploit users'
2 susceptibility to persuasive design and unlimited accumulation of unpredictable and uncertain
3 rewards (including things like “likes” and “followers” and “views” in Stories). This design is
4 unreasonably dangerous to the mental well-being of underage users’ developing minds.

5 115. Meta has also employed thousands of engineers to help make its products
6 maximally addicting. One example is Instagram’s “pull to refresh” feature, which is based on how
7 slot machines operate. It creates an endless feed, designed to manipulate brain chemistry, and
8 prevent natural end points that would otherwise encourage users to move on to other activities.

9 116. Meta knows that its product is addictive, and it knows that millions of teen users
10 want to stop using Instagram but cannot.

11 117. Meta does not warn users of the addictive design of its product. On the contrary,
12 Meta actively conceals the dangerous and addictive nature of its product, lulling users and parents
13 into a false sense of security. This includes consistently playing down its products’ negative effects
14 on teens in public statements and advertising, making false or materially misleading statements
15 concerning product safety, and refusing to make its research public or available to academics or
16 lawmakers who have asked for it.

17 118. For example, in or around July 2018, Meta told BBC News that “at no stage does
18 wanting something to be addictive factor into” its product design process. Similarly, Meta told
19 U.S. Senators in November of 2020 that “We certainly do not want our products to be addictive.”
20 Yet, Meta product managers and designers attended and even presented at an annual conference
21 held in Silicon Valley called the Habit Summit, which started in 2014 and ran until recently, and
22 the primary purpose of the Summit was to learn how to make products more habit forming.

23 119. Meta’s Terms of Use also state that Meta is “Fostering a positive, inclusive, and

safe environment,” and represent that Meta uses its “teams and systems ... to combat abuse and violations of our Terms and policies, as well as harmful and deceptive behavior. We use all the information we have—including our information—to try to keep our platform secure.” Yet, as seen in FBP 09/15 (“Exposure to integrity harms is a worse experience than ‘Over-enforcement’” (March 31, 2020), at p. 2), and elsewhere, this is not the truth. Meta *does* have the technology needed to protect its users, but only employs that technology when and to the extent it can do so without decreasing user engagement and its own profits (or unless a “press fire” forces them to act).

120. Meta also engineers its product to keep users, and particularly young users, engaged longer and coming back for more. This is referred to as “engineered addiction,” and examples include features like bottomless scrolling, tagging, notifications, and live stories.

121. Meta spends billions of dollars marketing its products to minors, and has deliberately traded in user harm for the sake of its already astronomical revenue stream.

D. Meta Has Designed Complex Algorithms to Addict Teen Users and Its Business Model is Based on Maximizing User Screen Time

122. Meta has intentionally designed its product to maximize users’ screen time, using complex algorithms designed to exploit human psychology and driven by the most advanced computer algorithms and artificial intelligence available to the largest technology companies in the world.

123. Meta has designed and progressively modified its product to promote problematic and excessive use that they know is indicative of addictive and self-destructive use. More specifically, Meta knows that many teens feel as though they cannot stop their use of Meta’s product, even though they want to stop. *See*, Section B, *supra*.

124. One of these features, present in Instagram, is the use of complex algorithms to select and promote content that is provided to users in an unlimited and never ending “feed.” Meta is well-aware that algorithm-controlled feeds promote unlimited “scrolling”—a type of use those studies have identified as detrimental to users’ mental health. However, this type of use allows Meta to display more advertisements and obtain more revenue.

125. Meta has also designed algorithm-controlled feeds to promote content most likely to increase user engagement, which often means content that Meta knows to be harmful to its users. This is content that users might otherwise never see but for Meta’s affirmative pushing of such content to their accounts, a fact often acknowledged by Meta’s employees in Meta research reports and internal message boards,

We have age limits and suggestive filters, but obviously those are only so effective and not countering this phenomenon, which I do believe we are at least partially responsible for. But the more interesting thing I took from this is that our systems seem to encourage a desire for popularity.

FBP 25/22, “IG Reels Ranking Working Group” (September 17, 2020), at p. 1.

they are using Facebook. For instance, whenever we rank feed we affect what people see and the social interactions that they have. And those experiences impact what they do offline and society as a whole. If we're both (at least partly) right, then decisions based on this POV are likely poor.

1 view. But I don't think it's all
2 about data. A lot of the
3 arguments are deductive
4 rather than inductive: e.g. we
5 act on all posts in the course
6 of feed ranking, which makes
7 us (at least partly)
8 responsible for their impacts.
9 We also have data that FB is
10 making lots of money with its
11 current approach, which
12 might press us not to worry.
13 So I think there has to be
14 some uptake from leadership
15 to really care about
16 understanding and getting
17 the principles right.

18 The feed controlling a big
19 portion of the user
20 experience is an interesting
21 point. The feed needs to
22 maximize utility. I suspect
23 that the problem is that we're
learning that maximizing user
utility (a positive obligation)
of the feed may actually have
negative impacts at the
macro level. How to weigh
that into the utility function is
a hard question.

21 FBP 47/26, "On disagreeing about Facebook's obligations" (December 23, 2020), at p. 16-18.

22 126. In the words of another, high-level departing Meta employee,
23

In September 2006, Facebook launched News Feed. In October 2009, Facebook switched from chronological sorting to an algorithmic ranking. 10 years later, in July 2019, Sen. Josh Hawley introduced a bill to the US Senate that would ban features in app feeds, such as infinite scroll.

The response in 2006 was largely positive; the response in 2009 was negative from a vocal minority, but still largely positive; the response in 2019 was largely “lol, wut?” If I had to guess, the response to government regulation around engagement centric information feeds in 2026 will be “Omg finally”.

FBP 47/27, “Why We Build Feeds” (October 4, 2019), at p. 1.

127. The addictive nature of Meta’s product and the complex and psychologically manipulative design of its algorithms is unknown to ordinary users.

128. Meta goes to significant lengths to prevent transparency, including posing as a “free” social media platform, burying advertisements in personalized content, and making knowingly false public statements about the safety of its product.

129. Meta also has developed unique product features that are designed to limit, and that do limit, parents’ ability to monitor and prevent problematic use by their children.

130. Meta’s addiction-driven algorithms are designed to be content neutral. They adapt to the social media activity of individual users to promote *whatever* content will trigger a particular user’s interest and maximize their screen time. That is, prior to the point when Meta has addicted its user and is then able to influence user preferences, its algorithm designs do not distinguish, rank, discriminate, or prioritize between types of content. For example, if the algorithm can increase User One engagement with elephants and User Two engagement with moonbeams, then Meta’s algorithm design will promote elephant content to User One and moonbeam content to User Two. Meta’s above-described algorithms are solely quantitative devices and make no

1 qualitative distinctions between the nature and type of content they promote to users—as long as
 2 those promotions increase user engagement.

3 **E. Minor Users’ Incomplete Brain Development Renders Them Particularly Susceptible**
 4 **to Manipulative Algorithms with Diminished Capacity to Eschew Self-Destructive**
 5 **Behaviors and Less Resiliency to Overcome Negative Social Media Influences**

6 131. The human brain is still developing during adolescence in ways consistent with
 7 adolescents’ demonstrated psychosocial immaturity. Specifically, adolescents’ brains are not yet
 8 fully developed in regions related to risk evaluation, emotional regulation, and impulse control.

9 132. The frontal lobes—and, in particular, the prefrontal cortex—of the brain play an
 10 essential part in higher-order cognitive functions, impulse control, and executive decision-making.
 11 These regions of the brain are central to the process of planning and decision-making, including
 12 the evaluation of future consequences and the weighing of risk and reward. They are also essential
 13 to the ability to control emotions and inhibit impulses. MRI studies have shown that the prefrontal
 14 cortex is one of the last regions of the brain to mature.

15 133. During childhood and adolescence, the brain is maturing in at least two major ways.
 16 First, the brain undergoes myelination, the process through which the neural pathways connecting
 17 different parts of the brain become insulated with white fatty tissue called myelin. Second, during
 18 childhood and adolescence, the brain is undergoing “pruning”—the paring away of unused
 19 synapses, leading to more efficient neural connections. Through myelination and pruning, the
 20 brain’s frontal lobes change to help the brain work faster and more efficiently, improving the
 21 “executive” functions of the frontal lobes, including impulse control and risk evaluation. This shift
 22 in the brain’s composition continues throughout adolescence and into young adulthood.

23 134. In late adolescence, important aspects of brain maturation remain incomplete,
 particularly those involving the brain’s executive functions and the coordinated activity of regions

involved in emotion and cognition. As such, the part of the brain that is critical for control of impulses and emotions and for mature, considered decision-making is still developing during adolescence, consistent with the demonstrated behavioral and psychosocial immaturity of juveniles.

135. The algorithms in Meta's social media products exploit minor users' diminished decision-making capacity, impulse control, emotional maturity, and psychological resiliency caused by users' incomplete brain development. Meta knows that because its minor users' frontal lobes are not fully developed, such users are much more likely to sustain serious physical and psychological harm through their social media use than adult users. Nevertheless, Meta has failed to design its product with any protections to account for and ameliorate the psychosocial immaturity of its minor users. On the contrary, Meta specifically designs its product with these vulnerabilities in mind.

F. Meta Misrepresents the Addictive Design and Effects of its Social Media Product

136. At all times relevant, Meta has advertised and represented that its product is appropriate for use by teens and has stated in public comments that its product is not addictive and was not designed to be addictive. Meta knows that those statements are untrue.

137. Meta did not warn users or their parents of the addictive and mentally harmful effects that the use of its product was known to cause amongst minor users, like Alexis Spence. On the contrary, Meta has gone to significant lengths to conceal and/or avoid disclosure of the true nature of its product.

G. Plaintiffs Expressly Disclaim Any and All Claims Seeking to Hold Meta Liable as the Publisher or Speaker of Any Content Provided, Posted or Created by Third Parties

138. Plaintiffs seeks to hold Meta accountable for its own alleged acts and omissions. Plaintiffs' claims arise from Meta's status as the designer and marketer of dangerously defective

1 social media products, as well as Meta’s own statements and actions, not as the speaker or
2 publisher of third-party content.

3 139. Meta has designed its product to be addictive. For example, Meta has developed
4 and modified product features like the continuous loop feed and push notifications, to incentivize
5 users to stay on the product as long as possible and to convince users to log back on. Meta’s
6 algorithm even calculates the most effective time to send such notifications, which in the case of
7 teen and tween users often means in the middle of the night and/or during school hours. Essentially,
8 the times they are least likely to have access to Meta’s social media product, which also—as Meta
9 knows—are the times that their health and well-being necessitate them not being on Meta’s social
10 media product. Meta’s product is designed to and does addict users on a content neutral basis.

11 140. Meta’s algorithm structure is by itself harmful to users, again, irrespective of
12 content. For example, a primary purpose of Meta’s algorithm design is to determine individual
13 user preferences first so that Meta can then influence user behavior and choices second—which is
14 particularly dangerous in the case of teens.

15 141. It is clear from Meta’s records that Meta uses its product both to “experiment” on
16 and test its users in ways heretofore unimagined, but also, it seeks to control user behavior through
17 product features and capabilities and for the specific purpose of acquiring and retaining users.

18 142. On a content neutral basis, the manipulation and control Meta knowingly wields
19 over its users daily is profoundly dangerous.

20 143. Meta’s Integrity Team employees regularly provide Meta leadership with warnings
21 and recommendations, which Meta leadership regularly ignores. As explained in the employee
22 departure memos previously discussed, Meta imposes insurmountable hurdles when it comes to
23 making their existing and in-development products safer, while it imposes no user safety

requirements when it comes to making its products more engaging.

144. Meta is responsible for these harms. These harms are caused by Meta's designs and design-decisions, and not any single incident of third-party content. Meta's Integrity Team employees flagged these issues for Meta leadership countless times and were consistently ignored. For example, in 2019, Meta recognized a number of harms it is causing to its users via,

- a. Recommendations: "When we ... affirmatively recommend things to people, we have heightened responsibility."
- b. Design features in Meta's control: "When features (or entire products) are widely abused for harms, we have heightened responsibility."
- c. Ranking: "We should fix 'perverse incentives' in connected ranking that have the effect of disproportionately amplifying harms relative to positive value."
- d. Monetization: "When we may be directly profiting off harms or are helping facilitate a financial ecosystem that enables this, we have heightened responsibility."

Success is addressing all places where our products are disproportionately amplifying harms relative to a world where they did not exist, starting with the places where we have the highest responsibility.

1 This breaks down into the following **highest responsibility areas**:

- 1) **Recommendations**: When we (as Facebook) affirmatively recommend things to people, we have heightened responsibility. We should not recommend things that promulgate harms in "push" experiences or in places where people seek out information on a topic. Goal: get these to 0. Examples of "push" are In-Feed Recommendations, PYML, GYSJ, IG Suggestions, Ads. An example of seeking out info is searches for "vaccines".
- 2) **Abuse**: When features (or entire products) are **widely abused for harms**, we have heightened responsibility. We should fix rate limits around inviting, forwarding, or entity size that are disproportionately abused to amplify harms relative to positive value, including considering removing some features or products. An example would be **unrestricted message forwarding** in Messenger or WhatsApp.
- 3) **Perverse Incentives**: When connected ranking is **widely abused or otherwise amplifies harms**, we have heightened responsibility. We should fix "perverse incentives" in connected ranking that have the effect of disproportionately amplifying harms relative to positive value. Examples are **manufactured virality** or **reshare downstream boosts** in FB App News Feed.
- 4) **Monetization**: When we may be directly profiting off of harms or are helping facilitate a financial ecosystem that enables this, we have heightened responsibility. This means we need to have higher standards around Recommendations, Abuse, and Perverse Incentives in areas related to monetization. **Examples are Ads, Partner Monetization and Marketplace**.

Note that by this definition, we do not in general have heightened responsibility to reduce the prevalence of problematic content that **people want to see** in connected distribution surfaces (e.g. FB App News Feed), *as long as we have fulfilled our other heightened responsibilities above.*

clearly our responsibility to solve.

B) Simplicity of Execution. Recommendations are the places where we have the most control (and fewest constraints), so it's much easier to take more "extreme" measures in favor of mitigating harms. Also, while unconnected Recommendation systems do drive nontrivial positive product value, even if they *all* went away, the vast majority of positive product value still remains (for example, WhatsApp has succeeded despite not having PYMK). The same likely applies around Abuse and Perverse Incentives. Additionally, many of the solutions to these three areas can be achieved in content-agnostic ways, which significantly simplifies policy, execution, and operational costs.

C) Impact. It's likely that some of the highest impact changes to prevalence in general actually will come from moving "upstream" of downranking problematic content in surfaces like FB App News Feed and addressing issues around Recommendations, Abuse and Perverse Incentives (see examples later in this note). For example, removing health as a topic from downstream reshare boosts reduces health link misinfo prevalence by 48% (compared to 17% of health link overall), with no top-line effect on sessions or MSI. So we can have our cake and eat it too.

FBP 21/13, "Defining success in addressing Integrity harms, starting with defining our responsibilities" (2019), at p. 2-3.

145. Meta failed to warn minor users and their parents of known dangers arising from anticipated use of its Instagram product. These dangers are unknown to ordinary consumers but are known to Meta and its employees. Moreover, these dangers do not arise from third-party content contained on Meta's social media platform. This lawsuit does not involve a suit against a web browser provider for making available third-party content. To the contrary, Meta,

- a. Designed and constantly redesigns its Instagram product to attract and addict teens and children, its "priority" user group.
- b. Designed and continues to operate its Instagram product to ensure that teens and children can obtain unfettered access, even over parental objection.
- c. Knows when teens and children are opening multiple accounts and when they are accessing its product excessively and in the middle of the night—which Meta considers to be a "value add proposition."
- d. Works with advertisers and influencers to create and approve harmful content and

1 provides direct access to its “acquired” teens and children—a user population Meta
2 itself recognizes as being “vulnerable.”

- 3 e. Operates and provides the above Instagram product with the single-minded goal of
4 increasing user engagement, including but not limited to things like maintaining
5 harmful social comparison features and approving algorithm programming that
6 promotes harmful content over clear dangers to user safety.

7 146. While it may be a third-party creates a particular piece of harmful content, the teens
8 and children harmed by Instagram are not being harmed by a single piece of harmful content. They
9 are being harmed by Instagram’s algorithmic programming and business decisions to show teens
10 and children a constant barrage of harmful content to obtain more advertising revenue and increase
11 engagement.

12 147. Alexis Spence and children like her do not open Instagram accounts in the hopes
13 of becoming addicted. Nonetheless, such children *do* become addicted, leading them to engage in
14 foreseeable addict behaviors, such as lying to their parents, hiding their use of Instagram, losing
15 control and becoming irritable, even violent, when access is denied, and hyper-vigilance to avoid
16 detection. These and other behaviors can and do result in serious harm to Instagram’s minor users.

17 148. Alexis Spence and children like her do not start using Instagram in the hopes of
18 being exposed to product features that cause harm to them. Yet Instagram use involves harmful
19 forms of social comparison and inevitably pushes such children towards harmful “rabbit holes,”
20 causing anxiety, depression, eating disorders, and self-harm—harms Meta itself has acknowledged
21 repeatedly in internal documents.

22 149. The harms at issue in this case do not relate to or arise from third-party content, but
23 rather, Meta’s product features and designs, including algorithms that (a) addict minor users to

1 Meta's product; (b) amplify and promote harmful social comparison through Instagram product
2 features; (c) affirmatively select and promote harmful content to vulnerable users based on its
3 individualized demographic data and social media activity; and (d) put minor users in contact with
4 dangerous adult predators. Indeed, the foregoing are merely examples of the kinds of harms at
5 issue in this case.

6 150. Meta's product is addictive on a content neutral basis. Meta designs and operates
7 its algorithms in a manner intended to and that does change behavior and addict users, including
8 through a natural selection process that does not depend on or require any specific type of third-
9 party content.

10 151. Meta has designed other product features for the purpose of encouraging and
11 assisting children in evasion of parental oversight, protection, and consent, which features are
12 wholly unnecessary to the operation of Meta's product. This includes, but is not limited to, Meta's
13 failure to check identification or verify validity of user-provided email credentials, while
14 simultaneously implementing product design features (such as easier ability to switch between
15 accounts) meant to ensure easy access by children and teens, irrespective of parental consent.

16 152. Meta also promotes, encourages, and/or otherwise contributes to the development
17 of harmful content. This Complaint quotes from just a few of the thousands of Meta documents
18 disclosed by the Facebook Whistleblower, which establish this.

19 153. Meta also approves ads that contain harmful content, for example, and as discussed
20 at the Senate hearing held on October 5, 2021,²⁰

21
22
23

²⁰ <https://www.rev.com/blog/transcripts/facebook-whistleblower-frances-haugen-testifies-on-children-social-media-use-full-senate-hearing-transcript>

Senator Mike Lee: (01:21:34)

Now, since that exchange happened last week, there are a number of individuals and groups, including a group called the Technology Transparency Project or TTP, that have indicated that that part of her testimony was inaccurate. That it was false. TTP noted that TTP had conducted an experiment just last month, and their goal was to run a series of ads that would be targeted to children ages 13 to 17, to users in the United States. Now, I want to emphasize that TTP didn't end up running these ads. They stopped them from being distributed to users, but Facebook did in fact approve them. As I understand it, Facebook approved them for an audience of up to 9.1 million users, all of whom were teens.

Senator Mike Lee: (01:22:31)

I brought a few of these to show you today. This is the first one I wanted to showcase. This first one has a colorful graphic encouraging kids to, "Throw a Skittles party like no other," which as the graphic indicates, and as the slang jargon also independently suggests, this involves kids getting together randomly to abuse prescription drugs. The second graphic displays an ana tip. That is a tip specifically designed to encourage and promote anorexia. It's on there. Now the language, the ana tip itself independently promotes that. The ad also promotes it in so far as it was suggesting. These are images you ought to look at when you need motivation to be more anorexic, I guess you could say. Now the third one invites children to find their partner online and to make a love connection. "You look lonely. Find your partner now to make a love connection."

154. In other words, Meta approves advertisements "designed to encourage and promote anorexia" and encouraging children to abuse prescription or illegal drugs, which ads Meta then targets specifically at children in exchange for payment from the advertisers.

155. Meta utilizes private information of its minor users to "precisely target [them] with content and recommendations, assessing what will provoke a reaction," including encouragement of "destructive and dangerous behaviors."²¹ Again, Meta specifically selects and pushes this

²¹ See <https://www.rev.com/blog/transcripts/facebook-whistleblower-frances-haugen-testifies-on-children-social-media-use-full-senate-hearing-transcript>. ("October 5, 2021, Senate Hearing Transcript"), Mr. Chairman Blumenthal at 00:09:02.

harmful content, for which it is then paid, and does so both for that direct profit and also to increase user engagement, resulting in more profits down the road. “That’s how [Meta] can push teens into darker and darker places.”²² Meta “knows that its amplification algorithms, things like engagement based ranking ... can lead children ... all the way from just something innocent like healthy recipes to anorexia promoting content over a very short period of time.”²³ Meta has knowledge that its product and the content they are encouraging and helping to create is harmful to young users and chooses “profits over safety.”²⁴

156. Meta has information and knowledge that can determine with reasonably certainty each user’s age, habits, and other personal information, regardless of what information the user provides at the time of account setup. Meta can also determine on a mass scale and with reasonably certainty which of its users are teens, regardless of what information they provide at the time of account setup. Meta has used this capability for its own economic gain. The following are some of the Facebook Paper references to the various technologies Meta has developed for this precise purpose over the last several years,

Weakness among the youngest

While we can tell that Messenger is doing far worse with teens than adults throughout the West, we can examine this at a finer grain in the United States, thanks to the age affinity model (3).

FBP 37/14, “The State of Teens & Messenger” (June 2, 2017), at p.5.

²² *Id.*

²³ October 5, 2021, Senate Hearing Transcript, Ms. Francis Haugen at 00:37:34.

²⁴ *Id.* at 02:47:07.

How do we identify teens?

- We have hitherto been using the Age Affinity (AA) model to identify teens (13-17y), but are switching to the Adult Classifier (AC) model, as it is more accurate and comprehensive for IG.
- However AC only predicts teen vs. adult label and not the exact age, which limits our ability to do age-specific analyses

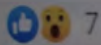
	Adult Classifier	Age Affinity
Coverage	All IG users	IG users with 5+ friends who have a stated age on FB
Accuracy*	Higher for IG users (F1 score = 0.83)	Marginally lower (F1 score = 0.74)
Granularity	Teen vs. Adult only	Actual Age

FBP 24/04, “How are Teens doing on IG” (July 2019), at p. 6.

Use of `teen_non_teen` to target different product experiences

My team has recently discussed using the `teen_non_teen` in `dim_ig_users` to target a product experience in Explore (e.g. `teen`s see a certain placement experience and `non_teen`s see a different placement experience).

Has there been any similar production use of `teen_non_teen`? Is this even condoned use of `teen_non_teen`?



12 Comments Seen by 340

FBP 24/07, “Use of `teen_non_teen` to target different product experiences” (September 18, 2019), at p. 1.

Signal Boosting New Teen Model

TL:DR

- New IG teen/non-teen predictions for analytics are now available for US accounts. Additional markets coming in H2 (targeting more FCI, with priority on IN, UK, JP).
- Legacy Teen Model is not accurate we should not use it, core dimension team is planning to deprecate the legacy model by end of the year.

WHEN WE CAN USE IT ?

- Teen/Non-Teen Analyses, Experimentation analysis (teen user attribute, teen metrics once built) , and Integrity use-cases.
- Not yet: Goaling & Trends, Experimentation targeting/GKs, Product use-cases not about Integrity. For product use cases we would need PXFN approval. More details [here](#)

IG Panorama (Navigation Overhaul) US Teens test

We want to use the new US Teen model to target a Teens-specific test of our new experimental navigational variants. We need to start this test in the next 1-2 weeks.

Lama: <https://www.internalfb.com/.../743321446230857/Assessment>

One Pager: <https://fb.quip.com/azhkAem6OseX>

Let me know if this seems reasonable!

FBP 24/05, *How do we know who's a teen* (September 22, 2020), at p. 1-2.

157. None of Plaintiffs' claims rely on treating Meta as the publisher or speaker of any third-party's words or content. Plaintiffs' claims seek to hold Meta accountable for its own allegedly wrongful acts and omissions, not for the speech of others or for Meta's good faith attempts to restrict access to objectionable content.

158. Plaintiffs are not alleging that Meta is liable for what the third parties said, but for what Meta did.

159. None of Plaintiffs' Claims for Relief set forth herein treat Meta as a speaker or

1 publisher of content posted by third parties. Rather, Plaintiffs seek to hold Meta liable for its own
2 speech and its own silence in failing to warn of foreseeable dangers arising from anticipated use
3 of its product. Meta could manifestly fulfill its legal duty to design a reasonably safe social media
4 product and furnish adequate warnings of foreseeable dangers arising out of the use of its products
5 without altering, deleting, or modifying the content of a single third- party post or communication.
6 Some examples include,

- 7 a. Not using its addictive and inherently dangerous algorithm in connection with any
8 account held by a user under the age of 18.
- 9 b. Not permitting any targeted advertisements to any user under the age of 18.
- 10 c. Fixing or removing all features that currently do not implement the tools Meta uses
11 to identify and remove harmful content (particularly since Meta knows that its
12 algorithms and other systems are pushing these higher risk features
13 disproportionately to protected classes).
- 14 d. Prioritizing internally its removal of harmful content over the risk of losing some
15 user engagement—*i.e.* users who might be offended when Meta takes down what
16 it believes to be harmful content.
- 17 e. Requiring identification upon opening of a new account, and restricting users under
18 the age of 18 to a single account. This is something teens have even asked Meta to
19 do *for their safety*, “Teens in the UK suggested individuals only be allowed to have
20 one account ... some went so far as to recommend the account be verified by a
21 password ...” FBP 23/01, “Teen Mental Health Deep Dive” (October 10, 2019), at
22 p. 81.
- 23 f. Requiring verification by email when a user opens a new account. Not requiring

1 verification allows underage users to access Instagram and does not stop bad actors.
2 Meta employees have recognized this shortcoming and have recommended change.
3 *See*, FBP 08/10, “Over Enforcement Update” (March 2020), at p. 44, 48 (“It is
4 much easier to create an account without needing to use a valid contact point of
5 contact,” and recommending “Ship confirmation on email registrations.”).

- 6 g. Immediate suspension of accounts where Meta has reason to know that the user is
7 under the age of 13, including when the user declares that they are under the age of
8 13 in their bio or comments and where Meta determines an “estimated” age of under
9 13 based on other information it collects; and not allowing the account to resume
10 until the user provides proof of age and identity and/or parental consent.
- 11 h. Suspension of accounts where Meta has reason to know that the user is over the age
12 of 18, but where they are providing information to suggest that they are minors
13 and/or are representing themselves as minors to other Instagram users; and not
14 allowing the account to resume until the user provides proof of age and identity.
- 15 i. Launching Project Daisy and Pure Daisy, meaning that each user could see their
16 own likes but would be unable to see the likes on any other user’s posts and
17 comments.
- 18 j. Instituting advertising safeguards to ensure that Meta is not profiting directly from
19 or otherwise pushing or endorsing harmful advertising content.
- 20 k. Requiring that all teen user accounts be set to private and not allowing any user
21 under the age of 18 to change user settings to public.
- 22 l. Not permitting direct messaging with any user under the age of 18 if that minor
23 user is not already on a user’s friend list.

m. Requiring parental consent and restricting account access for users under the age of 18 to prevent usage at night and during regular school hours.

160. These are just some examples, all of which could be accomplished easily and/or at commercially reasonable cost. Meta itself has discussed and considered many of these, but its leadership ultimately declined to make such product changes because such changes—while better for the health and wellbeing of Instagram users—could result in a relatively small decrease to Meta’s more than \$200 billion in annual revenue.

V. PLAINTIFF-SPECIFIC ALLEGATIONS

161. Alexis Spence was born on June 22, 2002, and grew up in Yaphank, New York.

162. Alexis was a confident and happy child, who loved reading, writing, and helping people and animals. She dreamed about becoming a veterinarian. She was active in singing competitions and theater, enjoyed being in the spotlight, and looked for opportunities to shine.

163. Alexis’s 2012 journals are filled with photos of her family and happy memories.



164. Alexis got her first internet-enabled tablet device for Christmas in 2012, when she was 10 years old. She did not have access to social media, however, as her parents regularly checked her device and took other steps to make sure that she was not accessing inappropriate

1 content. They also had a house rule that all devices were to be kept in the hallway at night. Alexis
2 did not initially mind these restrictions because she used her tablet primarily to play Webkinz and
3 make Webkinz videos. Webkinz are stuffed animals that come with a code you can use to play
4 Webkinz games electronically. But in 2013, everything changed.

5 165. Meta purchased Instagram in 2012 for \$1 billion dollars and, by the time Alexis
6 started fifth grade, the Instagram social media product was rapidly increasing in popularity and
7 rapidly evolving in terms of its design and product features. Meta made some of the most
8 significant, and harmful, changes to its Instagram product from 2012 to 2016, including targeted
9 advertising features, Explore, algorithmic changes promoting engagement over integrity, Reels,
10 Stories, Live, the “like” button, view counters, easier access to multiple accounts, and direct
11 messaging, to name a few. Alexis was exposed to and harmed by those changes without her
12 parents’ knowledge or consent.

13 166. As Alexis approached fifth grade, it seemed like all her friends had Instagram
14 accounts. She started getting teased for not having one and her friends told her that she needed to
15 open an account and could open one even if her parents said no. Instagram designed its product to
16 provide access to as many people as possible, without regard to age or safety, and this was well
17 known among children her age.

18 167. It was also understood that Instagram wouldn’t close your account for being under
19 13, you just had to say you were 13 when opening an account and could then put your real age in
20 your bio. In fact, this is something many kids do even to this day. It was also understood that
21 Instagram did not object to kids using more than one account, which made it easier to hide more
22 personal content and the existence of secondary accounts from parents and family—which
23 accounts Instagram and its young users refer to as FINSTAs (short for “fake Instagram”).

1 168. In 2013, Alexis was 11 years old and in the fifth grade. She opened her first
 2 Instagram account, without her parents' knowledge or consent. She could not access the account
 3 often since her parents monitored her tablet and did not allow social media. Nonetheless, on
 4 November 6, 2013, she wrote in her private journal,

5 book. On Instagram I reach 187
 6 followers. Ya! Lets put it this way,
 7 if I was happy and excited for
 8 10 followers then this is just
 9 AMAZING!!!
 10

11 169. Instagram had actual knowledge that Alexis was under the age of 13. Alexis' first
 12 bio (which was often publicly viewable) read "11 years young" and when Alexis turned 12, she
 13 changed it to "12 years young." She also regularly published her real age including, for example,
 14 in comments she left on other users' posts and/or pages,

15 "Hello, I'm 12 years old and love webkinz ..."

16 "I'm 12 and love them ..."

17 "I'm almost 13"

18 170. Alexis's secret use of and developing addiction to Instagram coincided with a
 19 steady, but severe, decline in her mental health. As Alexis became more dependent on Meta's
 20 addictive-design social media product, she began to resent her parents for not allowing her to have
 21 an Instagram account and her inability to access that account at home. She also began engaging in
 22 harmful social comparisons, of the types identified by Meta in its studies. In November of 2013,
 23 she was starting to show signs of depression and her parents sought mental health treatment—they

1 started her in counseling. They did not know that Alexis was using social media, and Alexis refused
2 to continue seeing the counselor after a couple sessions.

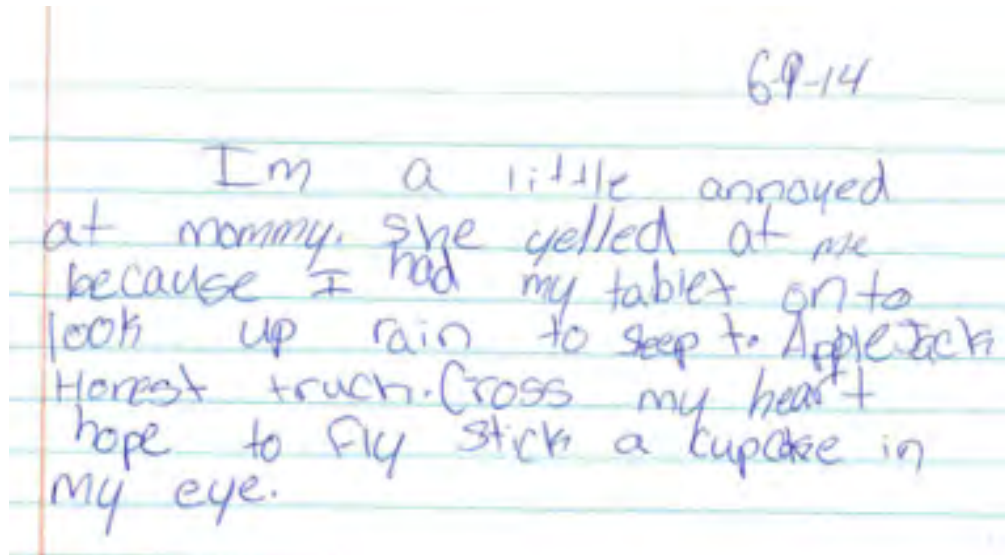
3 171. In May of 2014, Instagram provided Alexis with a solution to her access problem.
4 Instagram featured user content advising Alexis, and other children like Alexis, on how to bypass
5 parental controls. Alexis saw content from other users explaining how to obtain your parents'
6 passcode as well as applications you would need to download to hide Instagram once you were
7 able to get it onto your device. Alexis did just that. She used the information obtained from
8 Instagram to get an application that enabled to her to make the Instagram application icon look
9 like a calculator, which she then moved next to other utilities applications. Alexis's parents
10 continued with their periodic checks of her electronic devices but never realized that what appeared
11 to be a calculator was really the Instagram social media product.

12 172. As a proximate result of Instagram's addictive design and Alexis's addiction to the
13 Instagram social media product, she lied to and tricked her parents. She felt guilty for her actions,
14 but also felt like Instagram was something she needed and that her parents were being unreasonable
15 in denying her access.

16 173. On May 23, 2014, Alexis opened her second Instagram account. She was still only
17 11 years old. Meta provided Alexis with access to this second account through a school-issued
18 email address, to which Alexis did not even have inbox access. That is, Meta has designed its
19 product to not require identification or age verification and, also, Meta purposefully does not verify
20 or check email account authenticity, at least in part, so that it can claim plausible deniability as to
21 the millions of young children using its application that are below the age of thirteen and/or lack
22 parental consent. In fact, when opening one of her later FINSTAs, Alexis got tired of creating fake
23 accounts so she hit the keyboard randomly and used fhdjenfjsodndjd@hotmail.com as her account

opening email address, and Meta allowed her to open the account. Had Instagram not designed its product in this manner, Alexis would not have had access to multiple, secret accounts.

174. Less than a month later, on June 9, 2014, Alexis's parents caught her with her tablet in her bedroom. Alexis denied that she was doing anything wrong, and wrote about it in her journal,



175. At all times relevant, Meta had actual knowledge that Alexis was under 13 and that she was opening multiple accounts under different usernames yet failed to restrict her access or notify Plaintiffs Kathleen and Jeffrey Spence of their daughter's account status.

176. Meta also had knowledge that Alexis began accessing her multiple Instagram accounts in the middle of the night and for several hours at time, which addictive and unhealthy behavior foreseeably compounded the harms to Alexis and her family and caused additional harms. Once again, Instagram did not notify Alexis's parents or take any other step to restrict her access to its social media product. On the contrary, Instagram is aware of FINSTAs and considers the opening of multiple accounts by its teen users as a primary source of engagement and growth.

Unlike FINSTAs, There Isn't Strong Signal that SUMAs Increase Engagement for Teens

SUMAs have caught the Youth team's attention because their Instagram counterpart, FINSTAs, are popular amongst teens. In the US, teens post **2x more on their FINSTAs**.

FBP 20/13, "SUMAs as Account Reset: Increasing Engagement through Creating a Better Account" (December 20, 2017), at p. 5.

Strategies for this group:

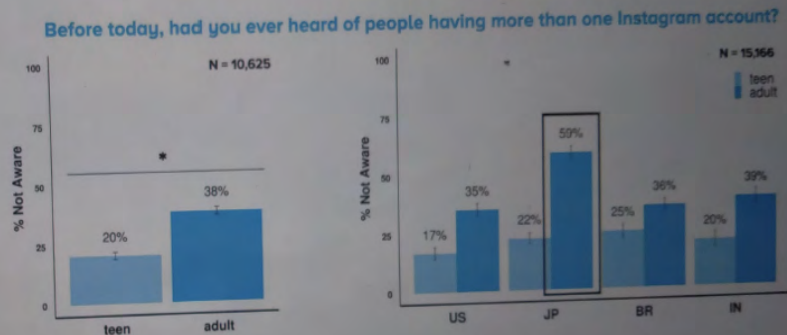
We should talk to these teens to better understand why they created multiple accounts and how they use multiple accounts. These teens likely overcame several hurdles in creating a multi-account experience that works for them. Knowing and clearing some of these hurdles could lead to large growth and sharing increases.

FBP 20/17, *Teen SUMA usage* (January 12, 2018), at p. 10.

177. In Meta's words, this is a "unique value prop[osition]" and Meta goes so far as to engage in outreach educating teens on their ability to open multiple accounts,

Efforts are underway to increase awareness of unique value props such as multiple accounts.

Approximately **20% of teens are unaware of multiple accounts**. To increase awareness, UXR is working on understanding the barriers and needs around multiple accounts (e.g. **mimicry work**)



1 FBP 42/15, “The Power of Identities: Why Teens and Young Adults Choose Instagram - A UXR,
2 Market Research and Data Perspective,” at p. 34.

3 178. For every minute Alexis spent on Instagram in the middle of the night, Meta earned
4 more money. In fact, Meta is fully aware as to the times of day when users are on Instagram, how
5 long they are on Instagram, and even that middle of the night usage is a significant indicator of
6 addiction (which Meta prefers to call “problematic use”). Meta simply doesn’t care enough to do
7 anything about it and Meta’s leadership has taken the position internally that engagement and
8 retention are the top priorities, with user safety coming in distant third.

9 179. Through her use of Instagram Alexis also received explicit sexual communications
10 and images from adult users and was messaged and solicited for sexual exploitive content and acts
11 on numerous occasions by adult users of Instagram. These adult users are encouraged to use
12 Instagram to sexually solicit and abuse minors due to Meta’s refusal to verify identity and age for
13 new users or implement feasible safeguards to protect minor users from receiving inappropriate
14 sexual content.

15 180. At all times relevant, Meta knew that some of its Instagram users would become
16 addicted to Instagram (or, in Meta’s words, would engage in “problematic use”). Meta also knew
17 that children and teenagers would be particularly susceptible, and Meta knew or should have
18 known what an addiction like this would do those children and teenagers and their families. To
19 name only a few examples, Alexis spent increasing amounts of time consuming the unhealthy
20 content and product features Instagram served up to her. This meant waiting up and sneaking her
21 device from the hallway after her parents went to sleep. It meant lying about what she was doing
22 on her devices. It meant accessing Instagram even where her parents were in the same room, by
23 pretending that she was playing Webkinz or similar, age-appropriate games—which required her

1 to always be on high-alert to not get caught. The harm proximately caused by this Meta-engineered
 2 addiction was made worse by the fact that Alexis was only 11 years old when she was first exposed
 3 to Meta's inherently harmful and addictive product.

4 181. Once again, however, Meta didn't care. For years, Meta has been conducting
 5 studies meant to help increase usage and dependency by children under 13, like Alexis. In Meta's
 6 own words,

- Tweens are herd animals, and want to find communities where they can fit in. They are particularly intrigued by products that
 - Highlight group experiences and feelings of belonging
 - Strengthen connections (not communication!) to a small circle of close friends
 - Use entertainment/interests as a starting point for interactive engagement (Tweens are super impatient, don't bore them by keeping them passive.)
 - De-emphasize self-presentation and instead highlight fitting in. (Tweens are soooo different from teens on this one.)

P.S. The findings in this report are based on a series of qualitative and quantitative studies over the past 1.5 years. Due to the sensitivity of the subject, not all findings and materials are included in this report. If you want to dig in further for your work on tweens, please reach out to me directly! We also have several more research initiative on the way, can't wait to share with you soon.

#tweens

13 FBP 42/03, "Tweens and Social Media" (October 2017), at p. 1.

14 182. As a proximate result of the social media addiction Meta fostered and encouraged,
 15 Alexis spent increasing and unhealthy amounts of time on social media, became sleep deprived,
 16 became anxious, and felt guilty about what she was doing to her family. Her mental health and
 17 relationship with her parents suffered greatly as a result.

18 183. For example, any attempt by her parents to restrict device usage was met with
 19 extreme anger, including one time when Alexis punched a hole in the wall. And what had always
 20 been a close relationship with her mother rapidly evolved into one where Alexis began to see her
 21 mother as overprotective, irrational, and wrong.

22 184. Instagram's addictive design and product features led to Alexis feeling like it was
 23 her and her devices against her parents, which only worsened her depression and anxiety.

1 185. But also, and as Meta knows, the amount of time a user spends on Meta’s social
2 media products can correlate to worsening depression and other harms.

3 186. In December 2013, Alexis got her first cell phone, but her parents got her a slide
4 phone and not a smartphone. She had a lead part in the school play, which required her to stay late
5 after school, so her parents wanted to make sure she could contact them if needed. Then in
6 December 2014, Alexis begged her parents for a smartphone because her friends had one. They
7 were able to get one cheap or for free through their phone carrier, so they agreed. But they took
8 steps to install parental controls and did not allow her to take the phone in her room at night.
9 Plaintiffs Kathleen and Jeffrey Spence also put parental controls on their home computer, again to
10 make sure that Alexis was only using age-appropriate applications and features. Alexis used what
11 she learned on Instagram to bypass those protections too and obtained even more access to
12 Instagram because now she could use Instagram all day while at school on her cell phone.

13 187. In April of 2015—just four months after getting her first smart phone—12-year-old
14 Alexis drew an image of herself next to her phone with the words “stupid ugly fat” on its screen.
15 She had a similar image on her computer, and these same types of words reflected in her thoughts,
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188. Alexis' social media use coincided with a steady, but severe, decline in her mental health. She was addicted to Meta's product and spent increasing amounts of time on social media, specifically, perusing content recommended and/or made available to her by Meta, which increasingly included underweight models, unhealthy eating, and eating disorder content.

189. From 2012 through 2015, Meta developed and implemented technologies and features designed to increase engagement (and its own profits) but which were harmful to users, including Alexis Spence. This included but is not limited to things like new advertising features, which allowed advertisers to target Alexis based on her age, location, gender, and other characteristics. Meta failed to exercise reasonable care to ensure that the advertisements were safe. Meta profited from its advertising practices and product features, while Alexis was exposed to and

1 harmed by harmful advertising content. For example,

- 2 d. Alexis was only 11 years old when she opened her first Instagram account and, as
- 3 such, was particularly vulnerable and the impact of her developing addiction to
- 4 Instagram was made worse as a result.
- 5 e. Meta designed its Instagram product to default minors to public profiles, exposing
- 6 11-year-old Alexis to inappropriate sexual content and serving her up for access to
- 7 complete strangers who Meta knew posed the risk of bullying and exploitation.
- 8 f. Instagram's product design, including things like search and explore and photo
- 9 editing and filtering features, and Instagram's emphasis on advertiser content,
- 10 caused Alexis to question her appearance and worth, and made her increasingly
- 11 anxious and depressed.
- 12 g. Because Meta does not limit the time young users spend on Instagram, Alexis began
- 13 stealing her tablet out of the hallway at night to access her Instagram account,
- 14 resulting in severe sleep deprivation, which only made things worse.

15 190. In 2016, Meta added several additional product features that Meta knew or should
16 have known would be harmful to minor users of its Instagram product. For example,

- 17 a. In February 2016, Instagram started enabling users to easily switch between
- 18 multiple accounts. Alexis opened at least three more FINSTAs (secret Instagram
- 19 accounts) in 2016 alone and Meta exposed Alexis to addictive design, harmful
- 20 advertising, and other, Meta-backed content through those accounts too.
- 21 b. In February 2016, Instagram added view counters to videos, increasing the social
- 22 comparison harms already caused to Alexis by Instagram.
- 23 c. In March 2016, Meta switched its feed from chronological to algorithm-driven

1 ordering. Alexis no longer simply saw posts made by “friends” in the order they
2 were made but, instead, Meta prioritized and escalated certain posts and content in
3 Alexis’s Instagram feed. More specifically, it promoted and prioritized harmful
4 content based on the determination that such content was more likely to keep
5 Alexis’s attention, thereby increasing her use of its product and its resulting
6 revenue. While Meta’s prior product design was pushing constant social
7 comparison and eating disorder content to Alexis, the new design bombarded her
8 with it and Alexis’s exposure to super thin models and eating disorder content
9 increased exponentially.

10 d. In August and November 2016, Instagram implemented Stories and Live product
11 features, respectively, which again increased Alexis’s exposure to harmful content,
12 as well as her social pressure to participate and engage with Instagram.

13 e. In December 2016, Instagram implemented the ability to mark comments as
14 “liked,” which was initially available only on the mobile application, which is how
15 Alexis accessed Instagram most of the time by 2016—via her cell phone. The “like”
16 feature was particularly harmful to young users, as Meta discovered, and this
17 product feature resulted in increased feelings of depression, anxiety, and low self-
18 worth.

19 191. The more Alexis accessed and used the Instagram social media product, the worse
20 her mental and physical health became, which eventually included a life-threatening eating
21 disorder and suicidal ideation.

22 192. Alexis had always been slender, but after Instagram’s algorithm and design started
23 pushing extreme weight loss content and bulimia purging instructions, and recommending pages

1 featuring excessively thin models, Alexis became obsessed with her weight. From the outset,
2 Alexis' Explore page was filled with nothing but overly thin models and thigh gaps.

3 193. Alexis started looking into diets and healthy eating, which led to more harmful
4 content. Eventually, Instagram's algorithms led her to the terms "ana" and "pro-ana" in hashtags
5 Meta permitted in its Instagram user Stories. Pro-ana refers to the promotion of behaviors related
6 to the eating disorder anorexia nervosa. As made clear through internal Meta documents,
7 Instagram's provision of that material to Alexis was both harmful and the result of a design defect.

8 194. Meta amplified and pushed Alexis toward harmful content through various
9 recommendation mechanisms built into its Instagram product. For example, Meta sent Alexis
10 recommendations to eating disorder and self-harm themed pages and groups. Meta also sent Alexis
11 recommendations for "friends" who were, in fact, adult Instagram users either suffering from these
12 mental health issues themselves or using the Instagram product to find and exploit young girls;
13 and, likewise, Meta recommended Alexis to these same types of adult users, who then sought to
14 connect with her. As made clear through internal Meta documents, these product features are
15 harmful to a significant percentage of Instagram users, particularly teens and young women.

16 195. Meta also harmed Alexis through specific product features like direct messaging
17 and group chat. For example, Instagram's Direct Message and group chat features allowed adult
18 users to message Alexis directly, and to create eating disorder and self-harm themed group chats,
19 exposing Alexis (a child) to several of these adult users at one time. As made clear through internal
20 Meta documents, these product features are harmful to a significant number of underage users.
21 They also are not necessary to Instagram's operation and are features Meta can restrict and/or
22 disable—but Meta makes calculated and economic-based decisions to keep them in place because
23 Meta knows that restricting or disabling them would negatively impact engagement and revenue.

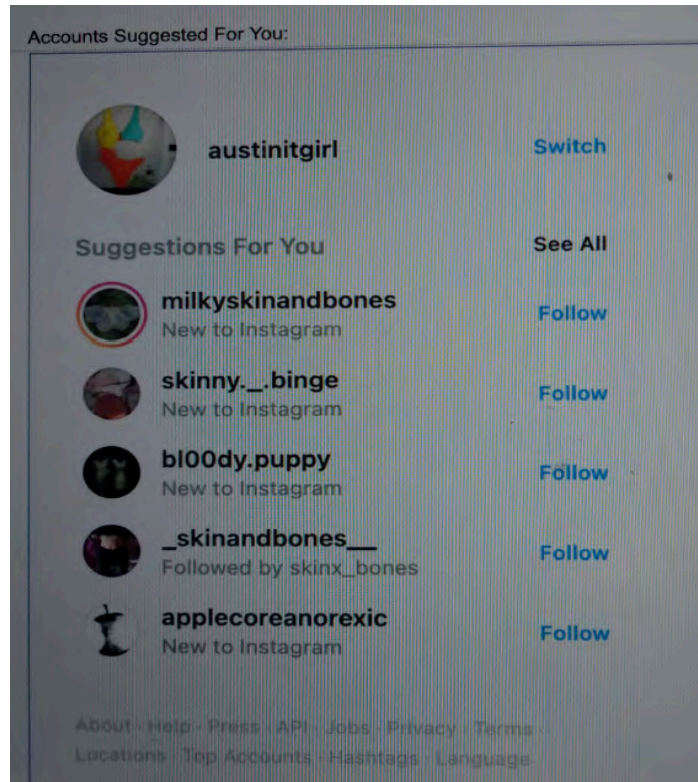
196. Meta documents discuss how the Instagram social media product causes these exact harms. For example, Meta conducted testing on harmful eating disorder content and Instagram features Suggestions for You and IG Explore. Test 1 showed Instagram amplifying and pushing harmful eating disorder content to the user,

Test 1

- **Hypothesis:** If you are seeking out eating disorder type content, you will be served more of it over time through discover/explore/accounts you may know. This content could be considered for our borderline ED policy.
- **Risk Area:** *Harmful Content Risk, Operational Risk, Regulatory Risk*
- **Evidence:** Based on the way our algorithms are designed to work, the content you seek is the content you will be served. Based on accounts you currently follow, you will be served more of those.
- **Test:** By using a test account I followed authentic content dealing with but not limited to dieting, weight loss, content tagged with #skinny, #skinnywoman, #thin etc. I will follow those hashtags and accounts as well. I did not follow private accounts, like or comment on any content. I recorded the way the content served to me changes over time, and documented content served that appears violating or borderline.
- **Results:** My test user was served violating content and accounts through IG explore surface and Accounts Suggested For You after following other ed-related accounts.
- **Problem:** Violating accounts and content for eating disorders were recommended through Suggestions For You and IG Explore.
- **Root Cause(s):**
 - At the time the accounts were recommended, we had not launched account level proactive detection.
 - There are legal limitations to proactively detecting content and accounts in the EU.
 - It was not user reported.
 - The content shown in IG Explore is not tagged with any known ED hashtags.

Test 2

- **Hypothesis:** IG stories can be named things that violate our policies for ED, making it appear that we allow users to spotlight violating content within their profiles.
- **Risk Area:** *Operational risk, Governance risk*
- **Evidence:** Using my test account I was able to create story highlights and name them anything I chose, including words that we have blocked or downranked. This is a violation agnostic issue found.
- **Test:** Use a test account to post stories, highlight them and then name them "Thinspo" or "Ana" or "nazi"
- **Problem:** Users can create and maintain IG Story Highlights that are named violating terms.
- **Root Cause:**
 - We currently don't have mechanisms for preventing users from titling their stories to anything they choose.
 - Story Highlights are not reviewed differently than stories that are only on the platform for 24 hours (without a title).
 - We currently don't show stories in any IGPR review queues.



FBP 19/21, “Eating Disorders [Risk Assessment] [Proactive Risk Investigation Request]” (March 2021), at p. 9, 11, 15.

197. Meta documents also discuss how the Instagram social media product causes harms to teens through Meta’s recommendation systems and product features like direct messaging. To name only a few examples, *see, e.g., supra*, FBP 42/16, “How should we default new teens into new interactions settings?: a survey of safety and value” (H1 2020); FBP 36/38, “Growth, Friending + PYMK, and downstream integrity problems”; FBP 09/21, “Giving People What They Want to See?” (September 16, 2019); FBP 20/08, “Replacing Downstream MSI for Civic and Health - Phase 1.”

198. At some point Alexis’s mother also discovered that she had an Instagram account, which resulted in more fighting and separation between Alexis and her parents. Ultimately, it was clear that Instagram would provide Alexis with means to access their product no matter what

1 Alexis's parents did and, by then, Alexis was already over the age of 12. There was nothing
2 Alexis's parents could do, other than to keep an eye on her account usage and to remind her that
3 she still had to abide by the house rules relating to electronic devices.

4 199. However, Alexis only disclosed the existence of one account—the account she
5 considered to be her “personal” account—and none of her secret accounts. Instagram’s provision
6 of multiple accounts ensured that Alexis was able to continue hiding her most harmful Instagram
7 activities from her parents. This is precisely what she did, and Alexis’s continued addiction and
8 sneaking around led to even more arguments and even greater anxiety and depression.

9 200. At one point, Kathleen Spence started trying to catch her daughter so she could find
10 out what was wrong and why her daughter’s mental health was not improving. On one occasion
11 she thought she saw Alexis sign out of her one Instagram account and onto another. But again,
12 Alexis vehemently denied it,

SOCIAL MEDIA VICTIMS LAW CENTER PLLC
821 2ND AVENUE, SUITE 2100
SEATTLE, WA 98104
TELEPHONE: 206.741.4862

1 of harms that were now happening to Alexis because of Instagram.

2 202. Alexis's parents had no way to even determine Instagram's role in Alexis's ongoing
3 battle with severe depression, anxiety, self-harm, and eating disorders and as a direct result, could
4 not obtain the information that they needed to enlist professional help.

5 203. By early 2018, Alexis's parents were aware of the self-harm and had just started to
6 become aware of the eating disorder. They were getting medical treatment for Alexis and
7 rearranging their schedules to make sure they could help her in any way she needed. To help Alexis
8 further, they purchased her a therapy dog, Draco, and got him trained—at considerable expense—
9 so that he would alert Alexis and her family if Alexis engaged in harmful behavior. Draco has
10 helped Alexis in so many ways and saved her life on more than one occasion.

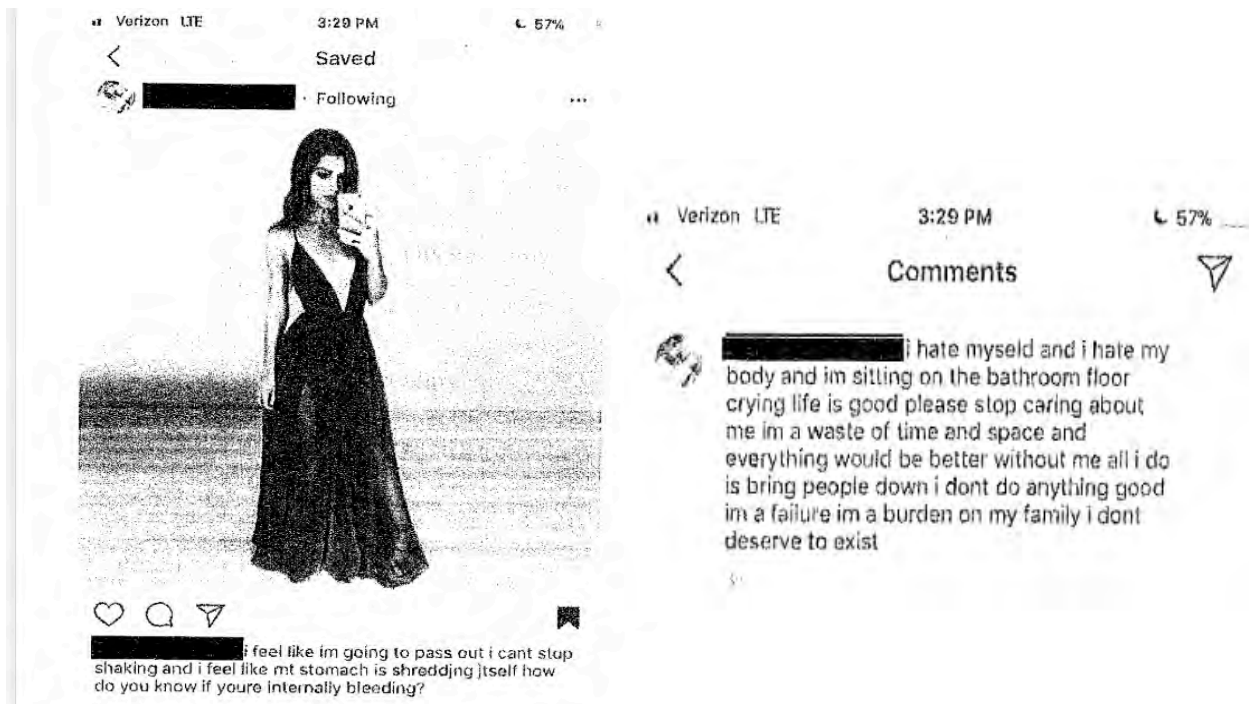
11 204. Then, on May 8, 2018, Alexis's school contacted Kathleen Spence and told her to
12 come to school immediately. Kathleen was on her way to work, turned around, and called her
13 mother and asked her to meet her at the school. Kathleen and her mother met with someone in the
14 school guidance department, who told them that another student had sent some photos of messages
15 Alexis sent and Instagram posts expressing a desire to commit self-harm and suicidal ideation. The
16 guidance department employee showed Kathleen some of the documents but not all, and she still
17 did not have the usernames on Alexis's secondary Instagram accounts. Moreover, at that time,
18 Kathleen's only priority was to keep her daughter alive, so she contacted Stony Brook Children's
19 Hospital for a referral and took Alexis to Mather Hospital.

20 205. Mather did not have an available bed but was the only viable option for the
21 treatment Alexis required. As such, Plaintiffs Alexis Spence and her parents, Kathleen and Jeffrey
22 Spence, stayed in the psychiatric wing of Mather for five days, while waiting for an available bed.

23 206. As documented in hospital records, Alexis was hospitalized for a total of ten days

in connection with “Anorexia Nervosa and associated habits of purging, as well as major depressive disorder and anxiety. Since outpatient treatment has begun, Alexis has continued to struggle. Over the past weeks these struggles have intensified including suicidal ideation. She was seen today after school alerted parents of various social media posts, including suicidality.” (Referral letter from Stony Brook Children’s Hospital, dated May 8, 2018).

207. The following are just some examples of information that had been provided to the school. To the best of Kathleen Spence’s recollection, these specific examples were not provided in 2018 but were obtained from the school years later (in 2022),



208. In May 2018, Alexis’s parents did not have access to Alexis’s “personal” Instagram account and did not know of the several other accounts to which Instagram provided her with access—or the harmful content contained in those accounts. Alexis’s parents were still struggling to understand what was happening and how they could help their daughter.

209. After Alexis’s release from Mather Hospital, on May 18, 2018, she received home

1 teaching for the remainder of her 10th grade year. Alexis had always done well in school and
2 wanted to go to college and have a career, so her parents did everything they possibly could to
3 prevent these events from derailing her education. They worked with teachers to get her
4 assignments and tutoring, and enlisted family to help with home schooling. Alexis was able to
5 finish 10th grade and keep her grades up only because of the incredible support and resources her
6 family was able to provide.

7 210. Alexis graduated from high school in June of 2020 and started St Joseph's
8 University in September of 2020. Shortly after the start of the school year, however, Alexis re-
9 lapsed and engaged in extensive outpatient treatment. Alexis is aware of the challenges ahead and
10 works hard every day to not slip back into her eating disorder.

11 211. Alexis's addiction and resulting mental health disorders were the proximate result
12 of the unreasonably dangerous Instagram product Meta made accessible to her and that she used.
13 As set forth in detail below, Meta's products were not reasonably safe due to their defective design
14 and inadequate warnings.

15 212. To this day, Meta has actively concealed the fact and has "sought to stonewall and
16 block this information [information about the dangerousness of their products, especially to young
17 users] from becoming public."²⁵ Meta "intentionally"²⁶ hid vital information in its possession from
18 the public, the US government, and governments, including information relating to the safety of
19 children and the role of its algorithms and other Instagram product features in causing addiction,
20 depression, anxiety, eating disorders, and other harms.

21 213. Meta made false statements to the press and public, designed to cover up the
22

23 ²⁵ October 5, 2021, Senate Hearing Transcript, Mr. Chairman Blumenthal at 00:05:21.

²⁶ *Id.* at 00:29:25.

1 inherent dangers of their products and, even when asked direct questions as to how those products
2 “impact the health and safety of our children, they choose to mislead and misdirect.”²⁷

3 214. Plaintiffs did not discover, or in the exercise of reasonable diligence could not have
4 discovered, that Alexis’s addiction, depression, anxiety, eating disorders, and other harms were
5 caused by Meta’s unreasonably dangerous products until September or October of 2021.

6 215. In April 2022, Alexis disaffirmed all contracts Instagram may purport to have with
7 her and stopped using all Instagram accounts. She has not accessed those accounts since (and any
8 access to those accounts was undertaken by legal counsel and counsel’s vendors for purposes of
9 this lawsuit). Nor does she intend to access those accounts in the future.

10 216. As a result of Alexis Spence’s social media addiction and the harmful content and
11 features Instagram relentlessly promoted and provided to her in its effort to increase engagement,
12 she had to undergo professional counseling, in-patient programs, outpatient programs, and eating
13 disorder programs, and she will likely require help in the form of a service dog for the rest of her
14 life. She must stay in constant contact with her doctors, and fights to stay in recovery every day.
15 Alexis will suffer permanent mental and emotional damages because of what Instagram has done.

16 217. Alexis’s doctors have also advised that long term physical damage is likely.

17 218. Alexis also requires the support of her parents and her service dog, Draco, and
18 cannot live the independent and successful life she planned for herself. This situation is a direct
19 and proximate result of the social media addiction Instagram fostered and encouraged for its own
20 financial gain and harms that resulted therefrom.

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²⁷ October 5, 2021, Senate Hearing Transcript, Ms. Francis Haugen, at 00:32:20.

VI. PLAINTIFFS' CLAIMS

COUNT I - STRICT PRODUCT LIABILITY (Design Defect)

219. Plaintiffs reallege each and every allegation contained in paragraphs 1 through 218 as if fully stated herein.

220. Meta's product is defective because the foreseeable risks of harm posed by the product's design could have been reduced or avoided by the adoption of a reasonable alternative design by Meta and the omission of the alternative design renders the product not reasonably safe. This defective condition rendered the product unreasonably dangerous to persons or property and existed at the time the product left the Meta's control, reached the user or consumer without substantial change in the condition and its defective condition was a cause of Plaintiffs' injury.

221. Meta designed, manufactured, marketed, and sold a social media product that was unreasonably dangerous because it was designed to be addictive to the minor users to whom Meta actively marketed and because the foreseeable use of Meta's product causes mental and physical harm to minor users.

222. Meta's product was unreasonably dangerous because it contained numerous design characteristics that are not necessary for the utility provided to the user but are unreasonably dangerous and implemented by Meta solely to increase the profits they derived from each additional user and the length of time they could keep each user dependent on its product.

A. Inadequate Safeguards From Harmful and Exploitative Content

223. As designed, Instagram algorithms and other product features are not reasonably safe because they affirmatively direct minor users to harmful and exploitative content while failing to deploy feasible safeguards to protect vulnerable teens from such harmful exposures. It is feasible to design an algorithm that substantially distinguishes between harmful and innocuous content and

1 protects minor users from being exposed to harmful content without altering, modifying, or
2 deleting any third-party content posted on Meta's social media product. The cost of designing
3 Meta's algorithms to incorporate this safeguard would be negligible while benefit would be high
4 in terms of reducing the quantum of mental and physical harm sustained by minor users and their
5 families.

6 224. Meta also engages in conduct, outside of the algorithms themselves, that is designed
7 to promote harmful and exploitative content as a means of increasing its revenue from
8 advertisements. This includes but is not limited to efforts to encourage advertisers to design ads
9 that appeal to minors, including children under the age of 13; and product design features intended
10 to attract and engage minor users to these virtual spaces where harmful ad content is then pushed
11 to those users in a manner intended to increase user engagement, thereby increasing revenue to
12 Meta at the direct cost of user wellbeing.

13 225. Reasonable users (and their parents) would not expect that Meta's product would
14 knowingly expose them to such harmful content and/or that Meta's product would direct them to
15 harmful content at all, much less in the manipulative and coercive manner that they do. Meta has
16 and continues to knowingly use its algorithms on users in a manner designed to affirmatively
17 change their behavior, which methods are particularly effective on (and harmful to) Meta's
18 youngest users, like Alexis Spence.

19 **B. Failure to Verify Minor Users' Age and Identity**

20 226. As designed, Meta's product is not reasonably safe because they do not provide for
21 adequate age verification by requiring users to document and verify their age and identity.

22 227. Adults frequently set up user accounts on Meta's social media product posing as
23 minors to groom unsuspecting minors to exchange sexually explicit content and images, which

1 frequently progresses to sexual exploitation and trafficking.

2 228. Minor users of social media and their parents do not reasonably expect that prurient
3 adults set up fraudulent accounts on Meta's social media product and pose as minors for malign
4 purposes.

5 229. Likewise, minor users who are under the age of 13 and/or whose parents have taken
6 affirmative steps to keep them away from Meta's product often open multiple accounts, such that
7 Meta knows or has reason to know that the user is underage and/or does not have parental
8 permission to use its product. Meta already has the information and means it needs to ascertain
9 with reasonable certainty each user's actual age and, at least in some cases, Meta utilizes these
10 tools to investigate, assess, and report on percentages and totals of underage users for internal
11 assessment purposes. They simply choose to do nothing about that information as it relates to the
12 specific, underaged users themselves.

13 230. Moreover, reasonably accurate age and identity verification is not only feasible but
14 widely deployed by online retailers and internet service providers.

15 231. The cost of incorporating age and identify verification into Meta's product would
16 be negligible, whereas the benefit of age and identity verification would be a substantial reduction
17 in severe mental health harms, sexual exploitation, and abuse among minor users of Meta's
18 product.

19 **C. Inadequate Parental Control and Monitoring**

20 232. Meta's product is also defective for lack of parental controls, permission, and
21 monitoring capability available on many other devices and applications.

22 233. Meta's product is designed with specific product features intended to prevent and/or
23 interfere with parents' reasonable and lawful exercise of parental control, permission, and

1 monitoring capability available on many other devices and applications.

2 **D. Intentional Direction of Minor Users to Harmful and Exploitative Content**

3 234. Default “recommendations” communicated to new teenage users, including Alexis
4 Spence, purposefully steered her toward content Meta knew to be harmful to children of her age
5 and gender.

6 235. Ad content pushed to new teenage users, including Alexis Spence, because of their
7 age and vulnerability, purposefully steer those users toward content Meta knows to be harmful to
8 children of their age and gender.

9 **E. Inadequate Protection of Minors from Sexual Exploitation and Abuse**

10 236. Meta’s product is not reasonably safe because it does not protect minor users from
11 sexually explicit content and images or report sex offenders to law enforcement or allow users’
12 parents to readily report abusive users to law enforcement.

13 237. Parents do not expect their children will use Meta’s product to exchange sexually
14 explicit content and images, and minor users do not expect that prurient adults pose as minors for
15 malign purposes or that exchange of such content will be deleterious to their personal safety and
16 emotional health.

17 238. Minor users of Meta’s product lack the cognitive ability and life experience to
18 identify online grooming behaviors by prurient adults and lack the psychosocial maturity to decline
19 invitations to exchange salacious material.

20 239. Meta’s product is unreasonably dangerous and defective as designed because it
21 allows minor children to use “public” profiles, in many cases default “public” profiles, that can be
22 mass messaged by anonymous and semi-anonymous adult users for the purposes of sexual
23 exploitation and grooming, including the sending of encrypted, disappearing messages, and cash

1 rewards through Meta's integrated design features.

2 **F. Design of Addictive Social Media Products**

3 240. As designed, Meta's social media product is addictive to minor users as follows:
4 When minors use design features such as "likes" it cause their brains release dopamine which
5 creates short term euphoria. However, as soon as dopamine is released, minor users' brains adapt
6 by reducing or "downregulating" the number of dopamine receptors that are stimulated and their
7 euphoria is countered by dejection. In normal stimulatory environments, this dejection abates, and
8 neutrality is restored. However, Meta's algorithms are designed to exploit users' natural tendency
9 to counteract dejection by going back to the source of pleasure for another dose of euphoria. As
10 this pattern continues over a period of months and the neurological baseline to trigger minor users'
11 dopamine responses increases, they continue to use Instagram, not for enjoyment, but simply to
12 feel normal. Once they stop using Instagram, minor users experience the universal symptoms of
13 withdrawal from any addictive substance including anxiety, irritability, insomnia, and craving.

14 241. Addictive use of social media by minors is psychologically and neurologically
15 analogous to addiction to internet gaming disorder as described in the American Psychiatric
16 Association's 2013 Diagnostic and Statistical Manual of Mental Disorders (DSM-5), which is used
17 by mental health professionals to diagnose mental disorders. Gaming addiction is a recognized
18 mental health disorder by the World Health Organization and International Classification of
19 Diseases and is functionally and psychologically equivalent to social media addiction. The
20 diagnostic symptoms of social media addiction among minors are the same as the symptoms of
21 addictive gaming promulgated in DSM 5 and include:

22 242. Preoccupation with social media and withdrawal symptoms (sadness, anxiety,
23 irritability) when the device is taken away or access is not possible (sadness, anxiety, irritability),

1 including,

- 2 a. Tolerance, the need to spend more time using social media to satisfy the urge.
- 3 b. Inability to reduce social media usages, unsuccessful attempts to quit gaming.
- 4 c. Giving up other activities, loss of interest in previously enjoyed activities due to
- 5 social media usage.
- 6 d. Continuing to use social media despite problems.
- 7 e. Deceiving family members or others about the amount of time spent on social
- 8 media.
- 9 f. The use of social media to relieve negative moods, such as guilt or hopelessness.
- 10 g. Jeopardized school or work performance or relationships due to social media
- 11 usage.

12 243. Meta's advertising profit is directly tied to the amount of time that its users spend
13 online, and its algorithms and other product features are designed to maximize the time users spend
14 using the product by directing them to content that is progressively more and more stimulative.
15 Meta enhances advertising revenue by maximizing users' time online through a product design
16 that addicts them to the platform. However, reasonable minor users and their parents do not expect
17 that on-line social media platforms are psychologically and neurologically addictive.

18 244. It is feasible to make Meta's product less addictive to minor users by limiting the
19 frequency and duration of access and suspending service during sleeping hours.

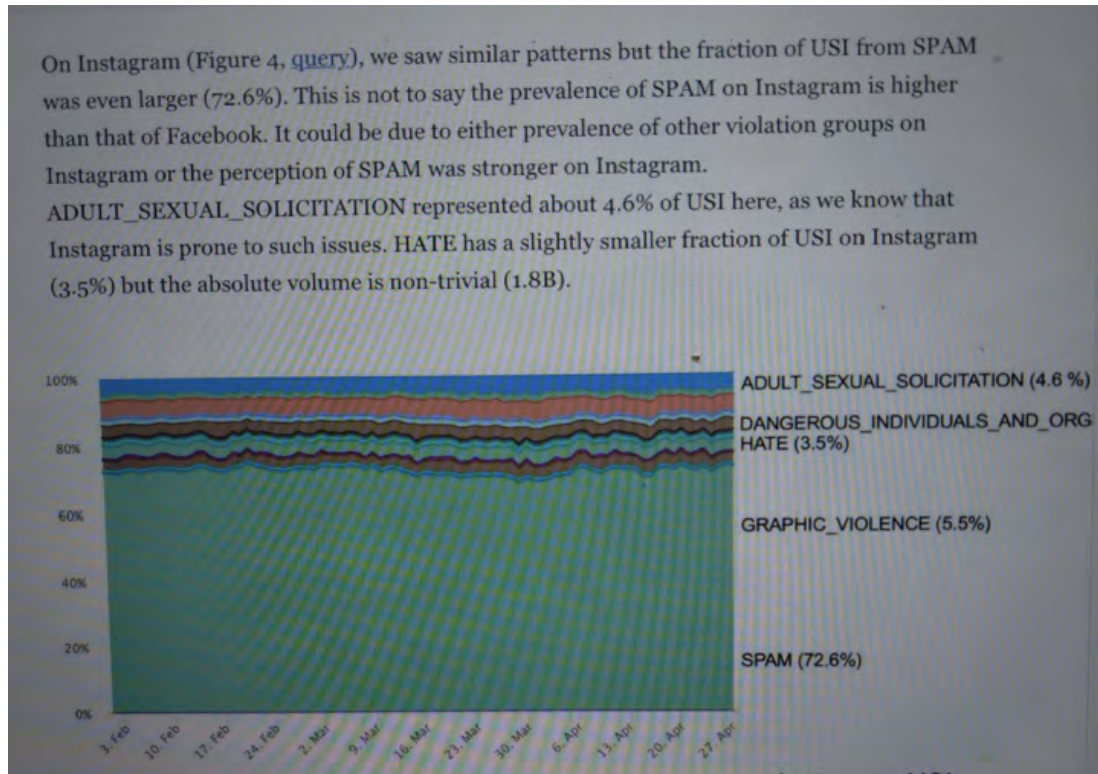
20 245. At negligible cost, Meta could design software that limits the frequency and
21 duration of minor users' screen use and suspends service during sleeping hours; the benefit of
22 minor users maintaining healthy sleep patterns would be a significant reduction in depression,
23 attempted and completed suicide and other forms self-harm among this vulnerable age cohort.

G. Inadequate Notification of Parents of Dangerous and Problematic Social Media Usage by Minor Users

246. Meta's product is not reasonably safe as designed because it does not include any safeguards to notify users and their parents of usage that Meta knows to be problematic and likely to cause negative mental health effects to users, including excessive passive use and use disruptive of normal sleep patterns. This design is defective and unreasonable because:

247. It is reasonable for parents to expect that social media companies that actively promote their platforms to minors will undertake reasonable efforts to notify parents when their child's use becomes excessive or occurs during sleep time. It is feasible for Meta to design a product that identifies a significant percentage of its minor users who are using the product more than three hours per day or using it during sleeping hours at negligible cost.

248. Meta's product is not reasonably safe as designed because, despite numerous reported instances of child sexual solicitation and exploitation by adult users, Meta has not undertaken reasonable design changes to protect underage users from this abuse, including notifying parents of underage users when they have been messaged or solicited by an adult user or when a user has sent inappropriate content to minor users. Meta is aware of these harms,



FBP 47/23, “USI Revived” (May 1, 2020), at p. 17.

249. Meta’s entire business is premised upon collecting and analyzing user data and it is feasible to use Meta’s data and algorithms to identify and restrict improper sexual solicitation, exploitation, and abuse by adult users.

250. Moreover, it is reasonable for parents to expect that platforms such as Instagram, which actively promote its services to minors, will undertake reasonable efforts to identify users suffering from mental injury, self-harm, or sexual abuse and implement technological safeguards to notify parents by text, email, or other reasonable means that their child is in danger.

251. As a proximate result of these dangerous and defective design attributes of Meta’s product, Alexis Spence suffered severe mental harm. Plaintiffs did not know, and in the exercise of reasonable diligence could not have known, of these defective design in Meta’s product until 2021.

1 252. As a result of these dangerous and defective design attributes of Meta's product,
2 Plaintiffs Kathleen and Jeffery Spence, have suffered emotional distress and pecuniary hardship
3 due to their daughter's mental harm resulting from her social media addiction.

4 253. Meta is further liable to Plaintiffs for punitive damages based upon the willful and
5 wanton design of its product that was intentionally marketed and sold to underage users, whom
6 they knew would be seriously harmed through their use of Instagram.

7 **COUNT II – STRICT PRODUCT LIABILITY (Failure to Warn)**

8 254. Plaintiffs reallege each and every allegation contained in paragraphs 1 through 253
9 as if fully stated herein.

10 255. Meta's product is defective because of inadequate instructions or warnings because
11 the foreseeable risks of harm posed by the product could have been reduced or avoided by the
12 provision of reasonable instructions or warnings by the manufacturer and the omission of the
13 instructions or warnings renders the product not reasonably safe. This defective condition rendered
14 the product unreasonably dangerous to persons or property, existed at the time the product left
15 Meta's control, reached the user or consumer without substantial change in the condition in which
16 it was sold, and was a cause of Plaintiffs' injury.

17 256. Meta's product is unreasonably dangerous and defective because it contains no
18 warning to users or parents regarding the addictive design and effects of Instagram.

19 257. Meta's social media product relies on highly complex and proprietary algorithms
20 that are both undisclosed and unfathomable to ordinary consumers, who do not expect that social
21 media platforms are physically and/or psychologically addictive.

22 258. The magnitude of harm from addiction to Meta's product is horrific, ranging from
23 simple diversion from academic, athletic, and face-to-face socialization to sleep loss, severe

1 depression, anxiety, self-harm, and suicide.

2 259. The harms resulting from minors' addictive use of social media platforms have
3 been not only well-documented in the professional and scientific literature, but Meta had actual
4 knowledge of such harms.

5 260. Meta's product is unreasonably dangerous because it lacks any warnings that
6 foreseeable product use can disrupt healthy sleep patterns or specific warnings to parents when
7 their child's product usage exceeds healthy levels or occurs during sleep hours. Excessive screen
8 time is harmful to adolescents' mental health and sleep patterns and emotional well-being.
9 Reasonable and responsible parents are not able to accurately monitor their child's screen time
10 because most adolescents own or can obtain access to mobile devices and engage in social media
11 use outside their parents' presence.

12 261. It is feasible for Meta's product to report the frequency and duration of their minor
13 users' screen time to their parents without disclosing the content of communications at negligible
14 cost, whereas parents' ability to track the frequency, time and duration of their minor child's social
15 media use are better situated to identify and address problems arising from such use and to better
16 exercise their rights and responsibilities as parents.

17 262. Meta knew about these harms, knew that users and parents would not be able to
18 safely use its product without warnings, and failed to provide warnings that were adequate to make
19 the product reasonably safe during ordinary and foreseeable use by children.

20 263. As a result of Meta's failure to warn, Alexis Spence suffered severe mental harm,
21 leading to physical injury from her use of Instagram.

22 264. As a result of Meta's failure to warn, Plaintiffs Jeffery and Kathleen Spence, have
23 suffered emotional distress and pecuniary hardship due to their daughter's mental harm resulting

1 from social media addiction.

2 265. Meta is further liable to Plaintiffs for punitive damages based upon its willful and
3 wanton failure to warn of known dangers of its product that was intentionally marketed and sold
4 to teenage users, whom they knew would be seriously harmed through their use of Instagram.

5 **COUNT III – NEGLIGENCE**

6 266. Plaintiffs reallege each and every allegation contained in paragraphs 1 through 265
7 as if fully stated herein.

8 267. At all relevant times, Meta had a duty to exercise reasonable care and caution for
9 the safety of individuals using its product, such as Alexis Spence.

10 268. Meta owes a heightened duty of care to minor users of its social media product
11 because adolescents' brains are not fully developed, which results in a diminished capacity to make
12 good decisions regarding their social media usages, eschew self-destructive behaviors, and
13 overcome emotional and psychological harm from negative and destructive social media
14 encounters.

15 269. As a product manufacturer marketing and selling products to consumers, Meta
16 owed a duty to exercise ordinary care in the manufacture, marketing, and sale of its product,
17 including a duty to warn minor users and their parents of hazards that Meta knew to be present,
18 but not obvious, to underage users and their parents.

19 270. As a business owner, Meta owes its users who visit Meta's social media platform
20 and from whom Meta's derive billions of dollars per year in advertising revenue, a duty of ordinary
21 care substantially similar to that owed by physical business owners to its business invitees.

22 271. Meta was negligent, grossly negligent, reckless and/or careless in that they failed
23 to exercise ordinary care and caution for the safety of underage users like Alexis Spence using its

1 Instagram product.

2 272. Meta was negligent in failing to conduct adequate testing and failing to allow
3 independent academic researchers to adequately study the effects of its product and levels of
4 problematic use amongst teenage users. Meta has extensive internal research indicating that its
5 product is harmful, causes extensive mental harm and that minor users are engaging in problematic
6 and addictive use that their parents are helpless to monitor and prevent.

7 273. Meta is negligent in failing to provide adequate warnings about the dangers
8 associated with the use of social media products and in failing to advise users and their parents
9 about how and when to safely use its social media platform and features.

10 274. Meta is negligent in failing to fully assess, investigate, and restrict the use of
11 Instagram by adults to sexually solicit, abuse, manipulate, and exploit minor users of its Instagram
12 product.

13 275. Meta is negligent in failing to provide users and parents the tools to ensure its social
14 media product is used in a limited and safe manner by underage users.

15 276. As a result of Meta's negligence, Alexis Spence suffered severe mental harm from
16 her use of Instagram.

17 277. As a result of Meta's negligence, Plaintiffs Jeffery and Kathleen Spence have
18 suffered emotional distress and pecuniary hardship due to their daughter's mental harm resulting
19 from social media addiction.

20 278. Meta is further liable to Plaintiffs for punitive damages based upon its willful and
21 wanton conduct toward underage users, including Alexis Spence, whom they knew would be
22 seriously harmed through the use of its social media product.

COUNT IV - VIOLATIONS OF CALIFORNIA'S UNFAIR COMPETITION LAW

(Cal. Bus. & Prof. Code §§ 17200, *et seq.*)

279. Plaintiff realleges each and every allegation contained in paragraphs 1 through 278 as if fully stated herein.

280. Defendant Meta is a corporation, and thus a “person,” as defined by California Business & Professions Code § 17201.

281. The UCL prohibits all conduct that is unlawful, unfair, or fraudulent.

282. Defendant’s conduct is unlawful as set forth in Counts I–III, above.

283. Defendant engaged in fraudulent and deceptive business practices in violation of the UCL by promoting products to underage users, including Alexis Spence, while concealing critical information regarding the addictive nature and risk of harm these products pose. Defendant knew and should have known that its statements and omissions regarding the addictive and harmful nature of its product were misleading and therefore likely to deceive the members of the public who use Defendant’s product and who permit their underage children to use Defendant’s product. Had Kathleen Spence known of the dangerous nature of Defendant’s product, she would have taken early and aggressive steps to stop or limit her daughter’s use of Defendant’s product.

284. Defendant’s practices are unfair and violate the UCL because they offend established public policy, and because the harm these practices cause to consumers greatly outweighs any benefits associated with them.

285. Defendant’s conduct has resulted in substantial injuries that Plaintiffs could not reasonably have avoided because of Defendant’s deceptive conduct. This substantial harm is not outweighed by any countervailing benefits to consumers or competition.

286. As a direct and proximate result of the foregoing acts and practices, Defendant has

1 received, or will receive, income, profits, and other benefits, which it would not have received if
2 it had not engaged in the violations of the UCL described herein. As a direct and proximate result
3 of the foregoing acts and practices, Defendant has also obtained an unfair advantage over similar
4 businesses that have not engaged in such practices.

5 287. As a result of Defendant's UCL violations, Plaintiffs have suffered injury in fact
6 and lost money as set forth herein.

7 288. Accordingly, Plaintiffs seek injunctive and equitable relief to halt and remedy
8 Defendant's unlawful, fraudulent, and unfair conduct.

9 **COUNT V – UNJUST ENRICHMENT**

10 289. Plaintiff realleges each and every allegation contained in paragraphs 1 through 288
11 as if fully stated herein.

12 290. As a result of Defendant's conduct detailed herein, Defendant received a benefit.
13 Because Defendant's advertising profits are directly tied to the number of user accounts and the
14 amount of time those users spend on Instagram, Defendant benefited directly from Alexis Spence's
15 problematic use of its product, both from the amount of time she spent on Instagram and from her
16 creation of multiple Instagram accounts.

17 291. It would be unjust and inequitable for Defendant to retain the ill-gotten benefits at
18 Plaintiffs' expense, in light of Defendant's acts and omissions described herein.

19 292. Accordingly, Plaintiffs seek damages in an amount to be proven at trial.

20 **COUNT VI – INVASION OF PRIVACY**

21 **(California Constitutional Right to Privacy, Cal. Const. Art. 1, § 1)**

22 293. Plaintiff realleges each and every allegation contained in paragraphs 1 through 292
23 as if fully stated herein.

294. Defendant intentionally intruded upon Plaintiffs' solitude, seclusion, or private affairs by knowingly designing its product with features that were intended to, and did, frustrate parents' ability to monitor and control their children's social media usage.

295. These intrusions are highly offensive to a reasonable person, particularly given Defendant's interference with the fundamental right of parenting and its exploitation of children's special vulnerabilities for commercial gain.

296. Plaintiffs were harmed by Defendant's invasion of privacy, as detailed herein.

297. Plaintiffs therefore seek compensatory and punitive damages in amounts to be determined at trial, as well as injunctive relief requiring Defendant to cease the harmful practices described throughout this complaint.

DEMAND FOR JURY TRIAL

Plaintiffs hereby demands a trial by jury.

PRAAYER FOR RELIEF

WHEREFORE, Plaintiffs prays for judgment against Meta for monetary damages for the following harm:

1. Past physical and mental pain and suffering of Alexis Spence, in an amount to be more readily ascertained at the time and place set for trial.
2. Loss of future income and earning capacity of Alexis Spence.
3. Past and future medical expenses of Alexis Spence.
4. Past physical and mental pain and suffering of Kathleen and Jeffrey Spence, in an amount to be more readily ascertained at the time and place set for trial.
5. Monetary damages suffered by Kathleen and Jeffrey Spence.
6. Punitive damages.

- 1 7. For the reasonable costs and attorney and expert/consultant fees incurred in this action.
- 2 8. For injunctive relief.
- 3 9. For such other and further relief as this Court deems just and equitable.

4 DATED this 6th day of June 2022.

5 SOCIAL MEDIA VICTIMS LAW CENTER
6 PLLC

7 By: 

Laura Marquez-Garrett, SBN 221542

laura@socialmediavictims.org

8 Matthew Bergman (*Pro Hac Vice forthcoming*)

matt@socialmediavictims.org

9 821 Second Avenue, Suite 2100

10 Seattle, WA 98104

11 Telephone: (206) 741-4862

12 Facsimile: (206) 957-9549