

AMENDED Exhibit 381

PLAINTIFFS' OMNIBUS OPPOSITION TO DEFENDANTS' MOTIONS FOR SUMMARY JUDGMENT

Case No.: 4:22-md-03047-YGR

MDL No. 3047

In Re: Social Media Adolescent Addiction/Personal Injury Products Liability Litigation

Message

From: Moira Burke [/O=THEFACEBOOK/OU=EXTERNAL (FYDIBOHF25SPDLT)/CN=RECIPIENTS/CN=F7A519D1BA3B4C229AE1652BAFFA72D6]
Sent: 2/2/2020 10:55:51 PM
To: Jennifer Guadagno [REDACTED]; Pratiti Raychoudhury [REDACTED]; [REDACTED]; [REDACTED]
CC: [REDACTED]; Kristin Hendrix [REDACTED]
BCC: Moira Burke [REDACTED]
Subject: Re: Social Comparison & Well-being

Hi, Pratiti. The table below has our past well-being experiments. The main point is that Daisy/Blue Daisy had relatively large impact on well-being domains/drivers compared to past experiments.

Below the table, I described some alternatives techniques for reducing social comparison and why Daisy is a more feasible way to start.

Daisy vs. other well-being experiments:

	Daisy/Blue Daisy	On This Day	Thank a Friend	Caring Cards
What it was	Hiding like counts on others' posts	Showing memories	QP encouraging people to tag a friend in a gratitude post	QP encouraging people to send a card over Messenger to a "friend in need"
Effect on overall well-being	None	None	+1.3% perceived meaningful interactions	None
Effect on well-being domains/drivers	3.6% reduction in social comparison (FB, adults) 8-12% reduction in feeling judged from posting (FB) 7% reduction in comparing like counts (IG) 3-4% reduction in caring about how many likes other posts	None When filtering test group to those who remembered seeing the memory (no longer causal): 0.5-1.5% improvements in social support, loneliness, sense of meaning, and recent negative affect	None (we tested gratitude, loneliness, and support)	1% increase in "you can help friends on Facebook when they're going through difficult times"

	receive 6-9% increase in feeling that hiding like counts is good for self, and for others. (IG all ages, FB teens)			
Other notes	Survey results in Mark review deck (see multiple slides)	Full report	OBPS increased by 1% and Messenger threads by 0.6%. Versions of the experiment had +1% CAU, +0.6% GFW Full report	Full report

Why Daisy is more feasible than other approaches for reducing social comparison:

Hiding Like counts may seem like an unimportant change for well-being. But as Jennifer outlines below, [like counts are a key driver of social comparison](#), and [social comparison is a key driver of well-being](#). There are many other things we could do to reduce social comparison (e.g., downranking self-aggrandizing content, positive emotion, or certain topics in News Feed, or identifying people who may be vulnerable and providing special tools for them). However, those approaches require complex (infeasible) machine learning, the triggers are different for everyone, may do more harm than good (seeing friends' happy moments is beneficial to most people), may reinvigorate the emotional contagion press, and may be inconsistent with GDPR (e.g., inferring mental health status, even with a goal of helping). By comparison, Daisy will have real (if moderate) impact on people's lives, and our tests have been well received by the press. This google doc has [more detail on Daisy tradeoffs and relationships to past social comparison research](#).

We understand that there are many factors to consider in this decision, including sessions, revenue, finding popular content, and the comms environment. I hope that the well-being implications can be factored into the decision, as well.

Moira

From: Jennifer Guadagno [REDACTED] >
Date: Sunday, February 2, 2020 at 2:47 PM
To: Pratiti Raychoudhury [REDACTED] >, [REDACTED] [REDACTED] >, [REDACTED]
 [REDACTED] >
Cc: Moira Burke [REDACTED] >, [REDACTED] [REDACTED] >, Kristin Hendrix [REDACTED] >
Subject: Re: Social Comparison & Well-being

Hi Pratiti,

All good questions. Please see responses below. As important context, this survey is foundational in nature and aims to understand the associations of topics/behaviors (loneliness, social comparison, etc) to well-being so we can understand what's most important. Surprisingly, this hasn't been comprehensively done in the literature – using FB/IG populations to do this allows us to ensure we're getting what is most important for our users (and as a bonus helps advance knowledge in the academic field). This also sets the recommended model for addressing well-being – essentially, don't measure/seek to address well-being overall, rather to have impact on well-being we need to focus on specific drivers (like social comparison).

There are two important next steps from here:

(1) I will be creating an overarching strategy for the company of how we can best address/support well-being by combining this info with other information like public perception of where we're harming well-being, areas where we have a unique/competitive advantage, and areas that are hot/of concern for the company leaders, comms, & policy. Given social comparison's prominence on many of these dimensions, it will feature prominently as one of the most important areas to address.

(2) The next phase of this project is for [REDACTED] to pair the top well-being areas (determined by these data) with on-platform behavior to derive which FB & IG behaviors are associated with well-being domains/drivers of interest, like social comparison (though we already have some insight on here from past [quant](#) and [qual](#) research on social comparison).

Answers to your questions:

- I couldn't click on the download full survey. Can you send me the survey questions? I want to take a closer look so that I can answer any questions that might come up.
 - [Yep, here's the full list of survey questions.](#)
 - [Also here's an overview of project that was sent for XFN review that has a bit more context/details.](#)
- Also (since I haven't seen the questions), how is social comparison defined? Is it Likes/ Reactions or does it encompass other variables?
 - [The question for social comparison is "How often do you feel worse about yourself after comparing yourself to someone else?" \(Always, Often, Sometimes, Rarely, Never". This is in line with academically validated questions.](#)
- For the sample – were they weekly active FB/IG users or were there any other criteria (i.e. they started posting less etc.). Trying to get a crisper definition of the sample.
 - [Given the aim of this survey was to test a general model of well-being \(not to drill into on-platform behaviors\) criteria was weekly active FB or IG users. Teens and adults.](#)
- Were there any country specific differences in the results?
 - [From this survey's data, the association between social comparison and well-being is consistent between countries – social comparison is strongly related to well-being across all countries. You can see model for India in slides 28-32 in deck linked below \(they're work in progress slides but give a general idea\). \(We highlighted India here as India shows some differences in domain priorities but not in driver/behavior associations to well-being ... we're currently running models for other regions\).](#)
 - [From previous research, we know that experiencing social comparison itself differs significantly between countries \(significantly more frequent in India, Vietnam, Philippines than US/UK\).](#)
- Was this on or off platform survey?
 - [Off platform \(yougov\) branded survey](#)
- What was the source for the 26 domain and the 25 attributes?

- [REDACTED] did an [extensive literature review](#), documenting 87 peer-reviewed articles, describing over 1000 relationships between well-being domains and drivers, counting 77 unique domains and 72 unique drivers. Those were paired down to 26 domains and 25 drivers based on:
 - academic validity (there was a validated scale to measure)
 - defensibility (external expert would easily agree this area was important to well-being)
 - uniqueness (removing redundant concepts)
 - and FB feasibility (made sense in context of FB).
 - 17 of the domains are from the [Comprehensive Inventory of Thriving](#) – a widely used measure of well-being from leading academics. Others were added in based on above criteria.
 - See slides 13-17 in deck linked below. Slide 17 lists the 26 domains and 25 drivers we included.
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- If possible, can you send me the full report? I am more interested in the detailed analysis.
 - Yep. Here's the link – [Well-being Model: Areas of Prioritization \[WIP\]](#). Please note, this is very much a work in progress and isn't yet intended for prime time viewing as we're still refining and adding in more detail so please keep that in mind. Though you'll at least see the main info/what this work is about and see how centrally social comparison features.
 - When was the survey fielded?
 - Fall of 2019

Please let me know if I can answer any other questions here!
-jennifer

From: Jennifer Guadagno [REDACTED] >
Date: Sunday, February 2, 2020 at 11:28 AM
To: Pratiti Raychoudhury [REDACTED] >, [REDACTED] [REDACTED] >, [REDACTED] [REDACTED] >
Cc: Moira Burke [REDACTED], [REDACTED] [REDACTED] >, Kristin Hendrix [REDACTED] >
Subject: Re: Social Comparison & Well-being

+ [REDACTED]

Combining all threads and adding [REDACTED]. Responses to all your questions coming shortly, Pratiti!

From: Pratiti Raychoudhury [REDACTED] >
Date: Sunday, February 2, 2020 at 6:44 AM
To: Jennifer Guadagno [REDACTED] >
Cc: [REDACTED] [REDACTED], Moira Burke [REDACTED] >, [REDACTED] [REDACTED]
 Kristin Hendrix [REDACTED] >
Subject: Re: Social Comparison & Well-being

One more question- Moira, what were the experiments run on well being in the past. I want to understand 1-2 levels deeper why these results feel better. Thanks!

Sent from my iPhone

From: Pratiti Raychoudhury [REDACTED] >
Date: Saturday, February 1, 2020 at 8:27 PM
To: Jennifer Guadagno [REDACTED], [REDACTED] >
Cc: Moira Burke [REDACTED] >, [REDACTED] > Kristin Hendrix [REDACTED] >
Subject: RE: Social Comparison & Well-being

Thanks for sharing this and talking to us on Friday. A few follow-ups:

- I couldn't click on the download full survey. Can you send me the survey questions? I want to take a closer look so that I can answer any questions that might come up.
- Also (since I haven't seen the questions), how is social comparison defined? Is it Likes/ Reactions or does it encompass other variables?
- For the sample – were they weekly active FB/IG users or were there any other criteria (i.e. they started posting less etc.). Trying to get a crisper definition of the sample.
- Were there any country specific differences in the results?
- Was this on or off platform survey?
- What was the source for the 26 domain and the 25 attributes?
- If possible, can you send me the full report? I am more interested in the detailed analysis.
- When was the survey fielded?

From: Jennifer Guadagno [REDACTED]
Sent: Friday, January 31, 2020 4:18 PM
To: Pratiti Raychoudhury [REDACTED] >; [REDACTED] >
Cc: Moira Burke <[REDACTED]>; [REDACTED] > Kristin Hendrix [REDACTED]
Subject: Social Comparison & Well-being

Hi Pratiti and [REDACTED],

Thanks again for taking the time to talk with Moira and I today. In addition the points Moira has summarized about the data, I wanted to highlight well-being concerns.

I hear the point that this was intended to solve for sharing and not well-being, though now that the narrative has shifted to focus on well-being it's important we're aware of the concerns, include them in decision making, and mitigate if a no-ship FB decision is made.

Here's [data from our team's recent well-being prioritization survey](#). Main well-being related takeaways are:

- **Social comparison is the most important driver of well-being:** If we want to support/move well-being we have to break down well-being into specific domains and then understand the drivers (behaviors and experiences) that are associated with each domain. Focusing on drivers is the most direct way we'll be able to impact well-being. Social comparison is the most important driver of well-being (generally speaking, agnostic to FB or IG). *See Chart 1 & 2 in data doc.*

- **Social comparison is important to loneliness:** Social comparison is the most important driver of loneliness. Given our large Inc. wide Loneliness focus that was just approved by Mark, social comparison becomes an important area to focus on as it relates to loneliness. *See Chart 1 in data doc.*
- **People perceive FB and IG as having negative impact on social comparison:** 21% of people report that Facebook has a negative impact on social comparison (3rd worst area that we measured). 19% of people report that Instagram has a negative impact on social comparison (6th worst area that we measured). *See Chart 3 & 4 in data doc.*
- **Best way for FB to significantly contribute to reducing social comparison is through Like counts:** From Moira et al's [CHI paper](#) seeing high like counts was one of the (changeable) factors most strongly associated with frequency of social comparison on Facebook.

Taken together, as we develop the strategic plan to approach well-being across FB (which is in the works), social comparison is one of, if not THE, most important areas to focus on given associations to well-being and public perception of us harming. Removing like counts is one of, if the THE, most significant levers FB has to reduce social comparison. From a well-being perspective, a ship decision for both IG and FB is recommended – based on above data and survey data from tests related to social comparison/well-being ([see Moira's summary](#)). If we decide not to ship on FB, we should be prepared for well-being hits for Facebook in the press and deepening the narrative that FB is falling behind IG on supporting well-being.

-jennifer