

AMENDED Exhibit 220

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

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1 UNITED STATES DISTRICT COURT
2 NORTHERN DISTRICT OF CALIFORNIA
3
4

5 IN RE: SOCIAL MEDIA ADOLESCENT MDL No. 3047
6 ADDICTION/PERSONAL INJURY Case No. 4:22-md-
7 PRODUCTS LIABILITY LITIGATION -03047-YGR (PHK)
8 This Document Relates to:
9 ALL ACTIONS
10
11

12 VIDEOTAPED DEPOSITION OF
13 EMILIO FERRARA, Ph.D.
14 HIGHLY CONFIDENTIAL
15 WEDNESDAY, AUGUST 13, 2025
16 LOS ANGELES, CALIFORNIA
17
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Reported By:

24 KATHLEEN A. MALTBIE, STENOGRAPHIC REPORTER
California CSR 10068, Nevada CCR 995, Texas CSR
25 12212, RPR-RMR-CRR-CCRR-CLR-CRC-RDR

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1 AUGUST 13, 2025 9:13 A.M. PACIFIC TIME
2 P R O C E E D I N G S
3

4 MORNING SESSION

5 THE VIDEOGRAPHER: Here begins the
6 videotaped deposition of Dr. Ferrara. Today's date
7 is August 13, 2025. The time on the record is
8 9:13 a.m. My name is Tim Hunter, your legal
9 videographer. Our court reporter is
10 Kathleen Maltbie.

11 Counsel, would you please introduce
12 yourselves and state whom you represent for the
13 record, starting with noticing counsel, and the
14 witness will be sworn.

15 MR. OLIVER: Good morning. Lance Oliver
16 from MotleyRice, and I represent the MDL personal
17 injury plaintiffs and school district plaintiffs in
18 this Multidistrict litigation. With me, my
19 paralegal, Katy Lawrimore.

20 MS. BARNHART: Lindsey Barnhart,
21 Covington & Burling, for the Meta defendants, and
22 I'm joined by my colleague, Patrick Nutter.

23 MS. SHEIKH: Shaheen Sheikh for the State
24 of Colorado on behalf of the MDL State Attorney
25 Generals.

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1 MR. PHELPS: Brian Phelps and Jimmy Webb
2 for the State of Tennessee from our office here as
3 well. Good morning, everybody.

4 MR. OLIVER: Is that everybody?

5 MS. AGEE: Alex Agee, Bass Berry & Sims,
6 for Meta.

7 MS. DAVIDSON: Callie Davidson from Wilson
8 Sonsini for defendants Google and YouTube.

9 MR. OLIVER: Anybody else?
10 Great.

11 Dr. Ferrara, are you ready to begin?

12 THE WITNESS: Yes.

13 THE REPORTER: Good morning. My name is
14 Kathleen Maltbie. I am a certified shorthand
15 reporter, License No. 10068. Today's date is
16 August 13th, 2025.

17 Would you raise your right hand, please?

18 EMILIO FERRARA, Ph.D.,

19 having been duly sworn,

20 was examined and testified as follows:

21 MR. OLIVER: We're ready to go, Madam
22 Court Reporter?

23 THE REPORTER: Yes.

24 EXAMINATION BY MR. OLIVER

25 / /

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1 BY MR. OLIVER:

2 Q. Good morning, Dr. Ferrara. It's afternoon
3 my time. My name is Lance Oliver. As I said
4 earlier, I represent the plaintiffs in this
5 litigation. I'm with the law firm of MotleyRice.

6 Are you ready to proceed?

7 A. Good morning. I'm ready.

8 Q. Can you state your full name for the
9 record?

10 A. Emilio Ferrara.

11 Q. I understand from reading the materials
12 you introduced to us that you have been deposed at
13 least one time in the past; is that correct?

14 A. Yes. Not in this exact format, though.

15 Q. Okay. How was the format different?

16 A. I was deposed, testified at a trial in
17 front of a judge.

18 Q. So you were deposed and there was a judge
19 present at the deposition?

20 A. Correct.

21 Q. Okay. Because you've only -- have you
22 ever been -- other than that deposition, have you
23 ever been deposed at any other time?

24 A. No.

25 Q. Because you've only been deposed once in

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1 the past, I'm going to go over some ground rules
2 about how this works. You may know these things,
3 but it will help to refresh your memory, I hope.

4 The court reporter is doing her best to
5 take down all of my questions and all of your
6 answers, and that requires us to speak as slowly as
7 we can.

8 Can you agree to do that?

9 A. I do.

10 Q. That will also require you to give audible
11 yes-or-no answers to questions. In other words,
12 there's no nodding of heads or saying nuh-uh or
13 uh-huh.

14 Do you understand?

15 A. I understand.

16 Q. It will also require you and I to pause.
17 I will need a pause before you answer sometimes, and
18 you will need a pause to make sure that your counsel
19 has a chance to lodge an objection if she sees fit.

20 Can we agree that we will do our best to
21 do that?

22 A. I agree with that.

23 Q. You understand you are under oath today,
24 correct?

25 A. I do.

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1 Q. You understand that that oath applies with
2 the same full force and effect here as it would in a
3 courtroom as if you were in front of a jury or in
4 front of the judge?

5 A. I understand.

6 Q. Occasionally, and probably more than
7 occasionally, given the differences in accents here,
8 I'm going to ask a question that you may not
9 understand. That's okay. However, if I do ask a
10 question that you don't understand, can we agree
11 that you will ask me to clarify my question?

12 A. I will.

13 Q. If you do not ask me to clarify your
14 question, do you understand that your answer to that
15 question will stand?

16 MS. BARNHART: Object to the form.

17 THE WITNESS: I understand.

18 BY MR. OLIVER:

19 Q. Occasionally, your attorney, Ms. Barnhart,
20 is going to object, as she just did.

21 Do you understand that unless she
22 instructs you not to answer, you still have to
23 answer my question?

24 A. I understand.

25 Q. This is a deposition. It is not an

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1 inquisition. I will do my best to take breaks on a
2 regular basis.

3 Can we agree that if you need a break for
4 any reason, you will ask me?

5 A. I will.

6 Q. There's one exception to that rule, and
7 that is, if I ask a question and the question is
8 pending, you must answer the question before taking
9 a break.

10 Do you understand that?

11 A. I do.

12 Q. I'm going to ask a lot of questions today.
13 Some other lawyers might as well. Many times those
14 questions will call for a yes-or-no answer.

15 Is there any reason you have trouble
16 giving yes-or-no answers?

17 A. No.

18 MS. BARNHART: Object to the form.

19 THE WITNESS: Nothing that I can think of.

20 BY MR. OLIVER:

21 Q. Occasionally you will want to explain
22 after giving me a yes-or-no answer.

23 Can we agree that you will first give me
24 the yes-or-no answer and then offer your
25 explanation?

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1 MS. BARNHART: Object to the form.

2 And why don't we just start asking
3 questions, Counsel. These are inappropriate.

4 BY MR. OLIVER:

5 Q. Dr. Ferrara, did you hear my question?

6 A. I heard your question.

7 If I will be able to answer with a yes or
8 no, I will do that.

9 Q. Okay. Thank you.

10 Do you agree that's a reasonable request?
11 Correct?

12 MS. BARNHART: Object to the form.

13 THE WITNESS: It's gonna depend on the
14 question.

15 MR. OLIVER: We're going to mark as
16 Exhibit 1 the notice of deposition and Schedule A in
17 this case that we issued for Dr. Ferrara.

18 BY MR. OLIVER:

19 Q. Dr. Ferrara, really quickly, did you
20 receive a box of documents that we're going to use
21 in this case?

22 MS. BARNHART: We did, Mr. Oliver.

23 MR. OLIVER: Okay. And, Ms. Barnhart, you
24 didn't open those until now, I assume?

25 MS. BARNHART: Correct.

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1 MR. OLIVER: Okay. So Dr. Ferrara has not
2 seen those documents?

3 MS. BARNHART: Correct.

4 MR. OLIVER: Okay. Thank you for that. I
5 just wanted to get that on the record.

6 All right. Madam Court Reporter, we'll
7 mark as Plaintiffs' Exhibit 1 the notice of
8 deposition for Dr. Ferrara's deposition.

9 BY MR. OLIVER:

10 Q. Dr. Ferrara, have you seen this
11 document --

12 (Whereupon, Deposition Exhibit 1 was
13 marked for identification.)

14 MS. BARNHART: Hold on. Mr. Oliver, you
15 got to give us a minute. We both have to stop
16 talking in order to mark this exhibit, so let's just
17 give it a second.

18 Do you want me to do those? Do you want
19 me to do the stickering?

20 (Discussion held off record.)

21 MS. BARNHART: Mr. Oliver, we're set now.

22 MR. OLIVER: Okay. I'll try to give you
23 the appropriate amount of time. And maybe I'll just
24 ask, you know, if we're ready to go forth.

25 / /

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1 BY MR. OLIVER:

2 Q. Dr. Ferrara, we've marked as Plaintiff's
3 Exhibit 8 an article that you contributed to in the
4 association for the advancement of artificial
5 intelligence; is that correct?

6 A. Yes.

7 Q. It's from 2025, correct?

8 A. Yes, I believe so.

9 Q. Do you stand by the fact that your name is
10 on this article?

11 MS. BARNHART: Object to the form.

12 THE WITNESS: My name is on this article.
13 I am a coauthor of this paper.

14 BY MR. OLIVER:

15 Q. Do you believe that since you've endorsed
16 the article, it's a reliable publication?

17 A. I stand by the quality of my research and
18 I consider my research reliable. I would say that
19 in general, as I established earlier, the fact that
20 some statements are in the paper, because perhaps
21 they are part of literature review, doesn't
22 necessarily mean that I agree or that I validate
23 those statements.

24 But in general, yes, I would stand by the
25 article.

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1 Q. Okay. If you look under the abstract,
2 Mr. Ferrara, it says (as read):

3 TikTok, a platform with over
4 a billion predominantly adolescent
5 users, has become a key space
6 where eating disorder content is
7 shared with increasing concerns
8 about its impact on vulnerable
9 populations.

10 Did I read that correctly?

11 A. Yes.

12 Q. Do you understand that TikTok is a
13 defendant in this case?

14 A. I do.

15 Q. Do you understand that teenagers, in
16 particular, teenage females, are vulnerable
17 populations when it comes to eating disorders?

18 A. I think I have a commonsensical
19 understanding of that, but I don't have any specific
20 expertise in the medical domain to consider myself
21 an expert or knowledgeable about this specific
22 aspect.

23 Q. Under the introduction, there is a
24 statement that -- it's about the third or fourth
25 sentence down. It says (as read):

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1 COVID-19 has made the
2 landscape of eating disorders more
3 challenging.

4 Do you see that?

5 A. Yes.

6 Q. Right after that, it says (as read):

7 Research shows that during
8 this period, there was an increase
9 in symptomology and diagnosis.

10 Did I read that correctly?

11 A. You did.

12 Q. Do you understand that to be true?

13 A. I frankly have no element to speak to any
14 of that, because the research that is cited, once
15 again, here is part of a literature review, and we
16 are just trying to establish the landscape of
17 publications in these areas.

18 So I personally not -- I'm not even
19 familiar with any of the names that I see listed
20 here. I -- I can check the references to -- to tell
21 you definitively if that's the case, but I don't
22 think I have read any of those papers, so I cannot
23 speak to the validity of that.

24 Q. You see the section in this paper on page,
25 I believe it's 7, that's titled "Multimodal

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1 Analysis"?

2 A. I see the section, yes.

3 Q. Okay. What is the Multimodal Analysis
4 section? Can you just tell me?

5 A. Multimodal analysis in general refers to
6 the process of looking at more than one data or
7 content modality at the same time. For example,
8 looking at text plus images or video plus audio,
9 video plus text, et cetera, et cetera. When you
10 combine two or more different modalities of
11 information, that's a multimodal analysis.

12 Q. And this section is -- is this a section
13 that you contributed to, a multimodal analysis?

14 A. In general, I contributed to the study,
15 design and met, of course, with the students many
16 times. So I think it's fair to say that I
17 contributed to the whole project and work.

18 I don't know if, by contributing to this
19 section, you imply -- excuse me -- whether I wrote
20 it or contributed to the writing. In that case, I
21 don't recall exactly at this moment whether I wrote
22 any of the specific words or revised any of the
23 specific sentences.

24 Q. Okay. If you look with me at the bottom
25 of the second column, there's a sentence that begins

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1 with "Together" --

2 A. Yes.

3 Q. -- in the last paragraph.

4 Do you see that?

5 A. Yes.

6 Q. It says (as read):

7 Together, these themes
8 illustrate how TikTok has become a
9 critical space for addressing
10 eating disorders and body image
11 concerns, highlighting the
12 platform's dual role in the
13 challenging, harmful cultural
14 norms and potentially perpetuating
15 them.

16 Did I read that correctly?

17 A. You did.

18 Q. Do you know who drafted that sentence?

19 A. I don't recall off the top of my head if
20 it was drafted by one single person or it was
21 perhaps revised over different iterations by
22 multiple people. I don't remember.

23 Q. Certainly, because it made it into the
24 final publication, you did not object to including
25 it in the publication, correct?

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1 A. With the same caveats that I made already
2 a few times, that for the sake of time, I'm not
3 going to repeat, yes, I did not object to the
4 inclusion of the sentence, yes.

5 Q. You don't -- other than your Keck School
6 of Medicine experience we talked about earlier,
7 Mr. Ferrara, you don't have any special background
8 in healthcare, do you?

9 A. I do not have any formal training or
10 background in healthcare, that's correct.

11 Q. And you are not going to be offering any
12 opinions about features of Instagram that are
13 harmful other than the content moderation structure;
14 true?

15 MS. BARNHART: Object to the form and the
16 characterization.

17 THE WITNESS: My expert opinion is about
18 the content moderation system, so Meta Platforms
19 inclusive, Instagram, yes.

20 BY MR. OLIVER:

21 Q. You're not going to offer any opinion
22 about whether Meta's features on Instagram can cause
23 depression?

24 A. I am not going to offer any opinions in
25 any thoughts about general causality or causation

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1 with regard to any of these issues that fall in the
2 medical domain, depression and so on.

3 Q. Okay. You would give the same answer for
4 eating disorders, correct?

5 A. Correct.

6 Q. You would give the same answers for
7 suicidality, correct?

8 A. Yes.

9 Q. And do you agree that social media can
10 contribute -- well, strike that.

11 Are you going to offer any opinions about
12 the concept of addiction and Instagram?

13 A. No, I'm not an expert on addiction. I
14 don't have any -- any expertise on that, so I'm not
15 going to offer any opinions on addiction.

16 Q. You have never been a Meta employee, have
17 you?

18 A. I have not.

19 Q. Have you ever designed a content
20 moderation classifier?

21 A. Yes.

22 Q. For what company or for what purpose?

23 A. I designed such classifiers both in the
24 context of my, let's say, day-to-day research
25 activity as well as in the context of my engagement

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1 with Amazon, specifically, content moderation
2 systems that the Alexa AI relies upon.

3 Q. You have -- you never designed or worked
4 on the content moderations for Meta's products,
5 correct?

6 A. I have never worked for Meta products or
7 Meta in any -- in any of their products in any
8 capacity.

9 Q. And the answer would be the same for
10 YouTube, Snap and TikTok, correct?

11 A. Correct.

12 Q. So do you understand that in this case,
13 there are a number of individual plaintiffs that
14 will have trials?

15 A. I understand that, yes.

16 Q. Do you understand that some of the
17 plaintiffs are teenage men and women?

18 A. I understand.

19 Q. Do you understand that some of the
20 plaintiffs are school districts?

21 A. I understand.

22 Q. You did not look at any of the viewing
23 histories on Instagram of any of the individual
24 plaintiffs?

25 A. I missed the first part of your question.

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1 Can you repeat it?

2 Q. Sure.

3 You didn't look at any information
4 specific to any individual plaintiff, did you?

5 A. No, I did not.

6 Q. So that would include school districts as
7 well, right?

8 A. That's correct.

9 Q. Meta's content moderation structure or
10 infrastructure has changed over time, right?

11 A. Yes.

12 Q. Okay. You did not create -- I didn't see
13 it in your report, a timeline of when the relevant
14 changes took place over a certain period of time,
15 did you?

16 MS. BARNHART: Object to the form and the
17 characterization.

18 THE WITNESS: I -- I believe that these
19 systems change continuously, and they are constantly
20 undergoing refinement and over the course of
21 different iterations and improvements, they -- they
22 constantly evolve.

23 So I don't believe it would be -- I don't
24 believe a timeline -- an exact timeline would have
25 been useful for the purpose of the -- of the -- of

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1 the report, since there are hundreds, if not
2 thousands, of such classifiers and such systems.

3 BY MR. OLIVER:

4 Q. Well, you couldn't tell the jury in this
5 case what the state of the content moderation engine
6 was at any particular time that an individual
7 plaintiff was using it, correct?

8 A. I don't think that's, let's say, entirely
9 accurate because Meta is quite transparent when it
10 comes to documenting publicly the different
11 iterations of their policy guidelines.

12 And, therefore, it is -- in practice, it's
13 possible to go back to a specific date and look at
14 the state of the policy guidelines for those
15 particular time frames and their analysis.

16 So I think if required, I -- I could be
17 able to do that.

18 Q. Okay. Let me -- this is helpful. Let me
19 just make this really easy.

20 What you're -- you believe it's possible
21 to do that, correct?

22 A. I think so.

23 Q. Okay. But you haven't done it to date,
24 right?

25 A. Correct. I have not done that.

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1 Q. It's not -- it's not in your report or
2 your rebuttal report; true?

3 A. You're right.

4 Q. Okay. Thank you.

5 You understand that the plaintiffs, the
6 individual plaintiffs in this case, the teenagers,
7 allege that they saw both violating and borderline
8 content in their Instagram feeds.

9 Do you understand that?

10 A. I guess at a high level, I understand
11 that's part of the claims. I don't expect to
12 understand the legal definitions of, you know, what
13 would qualify content as violent or any other --

14 Q. I'm sorry. I didn't say "violent." I
15 said "violating."

16 A. Violating. Sorry.

17 Q. So just so we're clear, when I say
18 "violating content," that's a technical word you
19 understand, right?

20 A. If by "violating content" you mean content
21 that violates the policies of Meta, yes, I
22 understand what you're saying.

23 Q. Correct. I'm using that term the same way
24 your report uses it.

25 Does that make sense?

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1 A. Yes. Yes. Thank you for the
2 clarification.

3 Q. So now we have a clear understanding of
4 what's going on, let me reask the question, because
5 you didn't understand, and that's okay.

6 Do you understand that the plaintiffs --
7 the teenage plaintiffs in this case allege that they
8 saw both violating and borderline content in their
9 Instagram feeds?

10 A. Yes. I understand that now.

11 Q. You would agree with me that if that, in
12 fact, happened, whatever they received in their
13 Instagram feed was not stopped by the content
14 moderation engine, right?

15 MS. BARNHART: Object to the form.

16 THE WITNESS: I'm not entirely sure that I
17 understand exactly what you mean by "the content
18 wasn't stopped by the content moderation system," so
19 I can't definitively answer that.

20 It's possible that the content was, for
21 example, stopped after it was exhibited or shown to
22 a particular user, if that makes sense.

23 BY MR. OLIVER:

24 Q. And that does make sense. Let me just try
25 to clarify. That's a fair -- fair clarification.

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1 My point is this: If our plaintiffs
2 received violating or borderline content, whatever
3 happened with the content moderation engine, that's
4 not really relevant related to the fact they
5 received it. That just happened and it happened,
6 right?

7 MS. BARNHART: Object to the form.

8 THE WITNESS: I'm not sure really that I
9 understand what you mean by what happened happened.

10 I think I agree with you that if the
11 content that the plaintiffs claim to have seen,
12 indeed, was surfaced, then, yes, that's what
13 happened. If that's true, that's what, you know,
14 Meta Platforms surfaced to those users.

15 BY MR. OLIVER:

16 Q. So if that happened, Meta Platforms
17 surfaced the content to those users, correct?

18 MS. BARNHART: Object to the form.

19 THE WITNESS: Yes, I am assuming that that
20 is true. So, yes, I'm agreeing with you that
21 platform -- the platform in question --

22 (Simultaneous speaking - inaudible.)

23 (Reporter clarification.)

24 BY MR. OLIVER:

25 Q. That would mean that either the content

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1 moderation classifier did not cover that content,
2 and that would be borderline content, right?

3 MS. BARNHART: Object to the
4 characterization and the form.

5 And I'll again request, Mr. Oliver, please
6 let the witness finish his answers before starting
7 your next question.

8 BY MR. OLIVER:

9 Q. I'm sorry. I didn't mean to cut you off.
10 Did I cut you off?

11 A. The court reporter interjected. The court
12 reporter interjected for a minute, because she
13 wasn't able to catch on record. I don't know if she
14 wants me to repeat.

15 MS. BARNHART: I'd just suggest we go on
16 at this point.

17 Mr. Oliver, be careful going forward. You
18 are speaking over the ends of his questions on our
19 end -- sorry, the ends of his answers.

20 MR. OLIVER: I'll just have to pause. I
21 think it's a delay, because I'm not perceiving it
22 here.

23 BY MR. OLIVER:

24 Q. What I'm trying to establish is this: If
25 our plaintiffs claimed that they received some bad

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1 content in this case, you agree that they do allege
2 that, correct?

3 MS. BARNHART: Object to the form.

4 THE WITNESS: I agree that that's what's
5 alleged, yes. That's my understanding.

6 BY MR. OLIVER:

7 Q. Okay. If the content moderation engine
8 did not stop that content from getting to them, one
9 possibility is the content did not violate Meta's
10 policies, correct?

11 A. Yes.

12 Q. Okay. Therefore, the content moderation
13 engine wouldn't have stopped something that's
14 non-policy violating, right?

15 A. Correct.

16 Q. And that content could include something
17 that you defined as borderline content, right?

18 MS. BARNHART: Object to the form.

19 THE WITNESS: Well, I wouldn't define it.
20 I think you're utilizing the language that Meta
21 adopts for borderline content.

22 So if that's the case, then yes, Meta has
23 a category for borderline content that I believe is
24 defined as content that doesn't explicitly violate a
25 policy, but perhaps comes close to a possible

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1 violation under certain contexts or circumstances.

2 BY MR. OLIVER:

3 Q. So one possibility of bad content getting
4 to a plaintiff is that it's borderline content that
5 doesn't actually violate Meta's policy, right?

6 A. Yes.

7 Q. And another possibility of bad content
8 getting to the teenage users is that the content
9 moderation engine simply did not catch that piece of
10 violating content, right?

11 A. I --

12 MS. BARNHART: Object to the form.

13 You can answer.

14 THE WITNESS: Yes. I don't necessarily
15 agree on the qualification of the content as "bad"
16 or not. I wouldn't be able to, you know,
17 deterministically say whether each of the pieces of
18 content that plaintiffs have been supposed to were
19 bad or not, and according to what definition.

20 But in general, I think your statement is
21 correct. One of the possibilities of why any
22 content is served to a user is because it was not
23 flagged and moderated automatically by the content
24 moderation system, and also because if this was
25 borderline, it was not flagged and moderated by

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1 human review -- by the human review process that
2 Meta Platforms have in place to analyze borderline
3 content.

4 BY MR. OLIVER:

5 Q. You would agree with me then, that in
6 terms of what the individual plaintiffs saw on their
7 Instagram feeds, your testimony is not relevant to
8 that because you just don't know, right?

9 A. I do not know what the plaintiffs saw on
10 these platforms. That's -- that is an accurate
11 statement. Certainly, I don't have a good
12 understanding of all the materials that the
13 plaintiffs claim to have seen.

14 I would, however, reject that particular
15 characterization regarding to whether my testimony
16 is relevant to that, since I'm speaking with regard
17 to the way the content moderation system itself
18 works.

19 And, therefore, any content that is served
20 on these platforms, the Meta Platforms and any
21 content that is instead moderated and not served by
22 the Meta Platforms, for whatever the reason, sort of
23 falls within the scope of content moderation system
24 and my expert opinion on this -- on this subject.

25 Q. Okay. You agree with me -- and maybe you

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1 don't understand this.

2 Do you understand that the school
3 district's claims are not necessarily tied to the
4 concept that their students are getting bad content?

5 A. I think it's fair to say that I don't
6 think I understand exactly what that means or what
7 are the implications of that.

8 Q. Okay. One of the claims, for example, is
9 that students are distracted by social media and,
10 therefore, they can't pay attention to their
11 studies.

12 Do you understand that?

13 A. I understand that, if explained that way,
14 yes.

15 Q. Okay. And you understand that high school
16 teenagers or junior high school teenagers could be
17 distracted by social media for many, many reasons
18 that have nothing to do with violative content,
19 right?

20 MS. BARNHART: Object to the form. Beyond
21 the scope.

22 THE WITNESS: Well, I assume that
23 teenagers, or really anybody, can be distracted by
24 many things. So I'm not sure I understand exactly
25 the nature of the question.

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1 BY MR. OLIVER:

2 Q. The nature of the question -- let me try
3 to do a better job. I'm certainly not faulting you.
4 Let me try to do a better job.

5 Social media platforms could, for example,
6 feed a teenager a lot of information about ESPN
7 sports statistics, correct?

8 A. I assume that that would be the case,
9 could be the case, yes.

10 Q. Sure.

11 And if that teenager stayed up all night
12 reading those sports statistics and was constantly
13 distracted at school because they were tired, that
14 phenomenon has nothing to do with content
15 moderation, right?

16 MS. BARNHART: Object to the form.
17 Incomplete hypothetical.

18 THE WITNESS: I think that the general --
19 the general level, I -- I can agree with you. Of
20 course, with the caveat that if one is talking about
21 content that is policy violating or potentially
22 policy violating, then that would affect content
23 moderation systems and therefore fall within the
24 broader scope of things that I am opining about.

25 I don't think personally that the ESPN or

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1 sports would generally fall under, potentially,
2 policy-violating content, but there might be
3 exceptions to that, especially related to, perhaps,
4 violence or graphical images, et cetera.

5 BY MR. OLIVER:

6 Q. Dr. Ferrara, do you -- are you personally
7 on social media platforms?

8 A. Yes.

9 Q. Which ones are you on?

10 A. I believe I have accounts on a variety of
11 different platforms including Meta Platforms, but
12 not exclusively. I -- off the top of my head, I
13 cannot enumerate all the accounts that I have,
14 because I have subscribed, over the course of the
15 last, perhaps, 20 years or more, to different
16 platforms.

17 The accounts or the platforms that I use
18 these days are a very small number, and they have
19 changed over time.

20 So to answer your question directly, I
21 certainly have more accounts than I utilize that
22 have been registered under my name, but perhaps are
23 inactive or -- or simply unutilized.

24 Q. Why don't you tell me which social media
25 platforms you currently use?

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1 A. I think the platforms that I use more
2 frequently include Reddit and LinkedIn. I also
3 occasionally utilize Facebook. I believe I have
4 accounts for platforms such as Threads, Instagram,
5 Bluesky, and perhaps some other platform.

6 I do not utilize those platforms almost at
7 all, if not at all, or perhaps very, very rarely.

8 I don't believe I have any accounts or any
9 active accounts on many other platforms, including
10 some of the platforms that have been discussed in
11 this litigation, such as Snapchat, I don't believe I
12 have an account, and I don't utilize it.

13 I have a Google account, which means that
14 I also automatically have a YouTube account, and I
15 utilize Google products as well as YouTube as a --
16 as a service.

17 So I think that counts towards your
18 question of what accounts I have. Off the top of my
19 head, I think that's a fairly comprehensive list of
20 platforms that I currently use.

21 Q. You referenced earlier that you are
22 married or you have a partner?

23 A. I am married, yes.

24 Q. I note from my research that you have --
25 you have one daughter?

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1 A. I'm sorry, what?

2 Q. You have a daughter or son?

3 A. I do have one daughter and one son.

4 Q. Okay. You have one daughter and one son.

5 Your daughter is the older of the two; is
6 that correct?

7 A. Yes. My daughter is the older.

8 I am going to point out that your audio is
9 breaking up April.

10 Q. How old is your daughter today?

11 A. [REDACTED]

12 (Reporter clarification.)

13 THE WITNESS: [REDACTED]

14 BY MR. OLIVER:

15 Q. Okay. How old is your son?

16 A. Sorry, I was repeating myself for the
17 court reporter.

18 [REDACTED]

[REDACTED]

20 Q. And have you and your wife set any rules
21 about the use of social media for your children?

22 A. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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Q.

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A. I don't think that particular discussion occurred. So I guess, you know, we'll see when that particular issue manifests, if it manifests. But I don't have a discussion in mind where we agreed upon or set any -- any specific rules about that.

10

11

Q. What rule or limit would you set for your children with regard to social media

12

13

14

MS. BARNHART: Object to the form. Calls for speculation, well beyond the scope.

15

16

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THE WITNESS: I think that in general, I believe that all technologies need to be utilized in moderation. And social media as a tool, as a technology, is no -- no exception to that.

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So I guess the closer analogy that I can think of today would be perhaps the use of television, for example. And I think that perhaps good guidelines could come from thinking about the rules and the -- and the limits that we expect our children to -- to follow when it comes to, for example, their utilization of television today.

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1 BY MR. OLIVER:

2 Q. What are those rules today for television?

3 A. I think they are relatively
4 straightforward. Too much of any technology is bad,
5 and there are -- there are -- there are limitations
6 that they -- that are also, depending on the type of
7 content that somebody is consuming. Of course, if a
8 child is looking at entertainment, I don't know,
9 Peppa Pig, for example, and other cartoons, probably
10 it's a bad idea to -- to exceed hours and hours of
11 these contents.

12 But if -- if my children are consuming,
13 perhaps, educational content and they are learning,
14 then perhaps it's okay to spend more time.

15 So I think it depends on -- on the child,
16 it depends on the context, it depends on what they
17 are consuming, it depends, of course, on the -- on
18 the -- on all these factors together.

19 I think the simple rule is if we say that
20 that's the last episode of whatever cartoon or if we
21 say that's the -- after the end of this movie, we
22 are stopping, the children understand that and they
23 follow that.

24 Q. I believe you may have alluded to this
25 before, Dr. Ferrara, and I didn't ask you a question

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1 about it, but I think you did tell me. I just want
2 to make it clear.

3 You agree that there is a difference
4 between the content moderation infrastructure, which
5 you are talking about, and the recommendation
6 engine, which you are not opining about; is that
7 true?

8 A. Yes. The two systems are distinct,
9 although they are interlocked in many ways.
10 However, yes, you are correct that I am speaking
11 specifically of the content moderation system. I
12 understand there are other experts speaking about
13 the recommendation systems.

14 Q. So you will not be offering any opinions
15 about the recommendation systems?

16 A. I did not offer any opinions in my expert
17 report on the recommendation system, and I will not
18 offer opinions on matters that are exclusive of the
19 recommendation system, yes, you are right.

20 Q. Well, the -- the content moderation
21 engines will sometimes remove content or prevent it
22 from getting to users, correct?

23 A. I think in general, it's fair to simplify
24 this pipeline, this workflow by thinking that,
25 oftentimes, the content moderation system will act

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1 on an action content before this particular content
2 reaches the algorithmic recommendation.

3 I don't know the details of what happens
4 after that. I haven't revised technical documents
5 about the way the algorithmic recommendation systems
6 processes this content. That is not filtered by the
7 content moderation system, so I cannot speak about
8 what happens past that point.

9 But I agree with you that in general, it's
10 fair to say that on most cases -- in most cases, the
11 recommendation system will operate on content that
12 has past the stage of content moderation systems,
13 yes.

14 Q. And a recommendation engine is different
15 because it surfaces or promotes content to users,
16 correct?

17 MS. BARNHART: Object to the form. Beyond
18 the scope.

19 THE WITNESS: Speaking out of my sort of
20 general knowledge as a computer scientist, I can
21 tell you that that specific definition that you
22 provided is perhaps not exact. Certainly not
23 comprehensive or entirely accurate either. I think
24 that if you want to characterize the job that a
25 recommendation system does, you would probably say

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1 that the recommendation system helps ranking the
2 content that is being served to users and providing
3 content that is in line with the users' interests.
4 And that, of course, it would account for the nature
5 of the content.

6 And that's the way that I see content
7 recommendation systems interacting with content
8 moderation systems when it comes to the nature of
9 the content.

10 BY MR. OLIVER:

11 Q. Look at paragraph -- take a minute to pick
12 up your report and look at paragraph -- we're going
13 to go through a series of questions in your report,
14 and I'm going to ...

15 A. I have the report in front of me.

16 Q. Okay. Look at paragraph 16 with me.

17 MS. BARNHART: 16? 1, 6?

18 MR. OLIVER: Yes. 1, 6.

19 THE WITNESS: I have page 16 in front of
20 me.

21 BY MR. OLIVER:

22 Q. Paragraph 16. Sorry.

23 A. Oh.

24 Q. So -- you got it?

25 A. Yes. I can see that.

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