

AMENDED Exhibit 519

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

[T&S/Algo] Non-Personalized Feed

Commented [1]: Feature is currently on hold as we need to use another solution

Basic Info

Change Log

Date//日期	Description // 描述
11/30	✓"Why build it" trimmed down, additional research referenced for Solution Validation ✓Metrics updated and aligned with algo team ✓Clarified UX writing ✓Design updates: 1 time feedback collection, Not interested entry point

Partners // 合作方

PRD status: Under PRD writing/Finish T&S product review/ Under development/ AB test/Launched

Region: Global

Team [POC
HYPERLINK
"https://www.teamganttt.com/blog/racichart-definition-tips-and-example"\h]

PM R @Jordan Furlong T&S
TikTok PM

Data	R	[REDACTED] T&S *Algo will own AB test, T&S will own functional metrics
UX Design	R	@ [REDACTED]
UX Writing	R	@ [REDACTED]
Strategy	R	@ [REDACTED]
T&S Eng	R	[REDACTED] T&S Server [REDACTED] T&S Android [REDACTED] T&S IOS
TikTok Algo	R	[REDACTED] TikTok Algo US [REDACTED] TikTok Algo US
Public Policy	C	[REDACTED] EU [REDACTED] NA
Comms	C	[REDACTED] EU @Jamie Favazza NA

Execution Plan

Deadline	Description	Who
11/5	Feature kick off ☒ [HYPERLINK] [REDACTED] ☒ Finalize execution plan 11/2 ☒ Algo+PnP brainstorm? 11/4	All
11/10	☒ Competitor research	[REDACTED]

11/23-30	☐ PnP internal product review	@Jordan Furlong
11/30	☒ Submit for compliance review	@Jordan Furlong
12/2	☐ T&S product review	@Jordan Furlong
12/6-13	☐ TikTok comprehensive review	@Jordan Furlong [REDACTED]
TBD	☐ Technical review	
TBD	☐ Launch AB test - US+EU first	
TBD	☐ GR/PR announcement plans	
TBD	☐ Launch review	
TBD	☐ Launch feature	

Commented [2]: We should have a GR/PR plan on announcing this in advance. High level of (positive) interest from policymakers & regulators.

Commented [3]: @Michael BeckermanAgreed. Working closely with those POCs on this features

Relevant Links

	Links	POC
Link to Meego Ticket	[HYPERLINK [REDACTED]	PM
Link to Legal Ticket	[HYPERLINK [REDACTED]	Legal
Link to Figma/Demo		Designer
Link to Starling		UX writer
Link to Event Tracking		DA
Other Useful		PR, etc.

Links

Projected Impact & Comprehensive Review // 项目影响&是否参加TikTok 综合评审

[[HYPERLINK](#)

	Region	DAU Percentage	Projection Confirmed by (Product Leader or DA)	Key Feature ?	Comprehensive Review Date
Overall	All	<.01%		Yes	TBD

Feature Target User: ~70k DAU

$$\text{Target User} = \text{DAU} * \text{Estimated Percentage} = 697,849,918 * 0.01\% = 69,785$$

DAU is calculated on average Feb 2022 date, [[HYPERLINK](#)]

Our best reference point for DAU % is Toutiao, which has 6k DAU for non-personalized feed. That infers ~12k DAU for TikTok, but this is a low confidence estimate. We will update this after our AB test as that will inform a more accurate DAU % estimate.

Commented [4]: Is this accurate?

Commented [5]: [REDACTED] That's the data [REDACTED] got from the Toutiao team. It's not very useful in my opinion though since it's a very different app with different user problems

Commented [6]: [REDACTED]@Jordan Furlongupdate
another calculation logic here

Clients

We don't advise against adding new features to Kids mode be default need to go through legal review process. If you want to, read this document [[HYPERLINK](#)

Feature Results

Complete this section after development. This section is for sharing your feature results in two dimensions:

1. **Visual representation:** Before the feature becomes available to any user, PM owner is responsible for sending a notification with screen recording to the Lark group **[TikTok New Feature Initial Release Notification]**.

2. **Usage data:** PM owner is responsible for sharing experiment results of the feature to the Lark group [TikTok Feature Result Sharing].

Intro & Goal

What are we building?

Users who are dissatisfied or troubled by the content they are seeing on TikTok can enable a non-personalized feed.

This is the first of several features we plan to build that will comprise an industry leading algorithm management solution. This feature is primarily aimed to help a small sub-set of users on TikTok and to address regulators concerns about our algorithm. More details can be found here: [HYPERLINK ██████████]

Why build it?

User Problems

- * Users dislike the concept and user experience of filter bubbles. We confirmed that users find it inappropriate to show only one type of content, particularly with harmful content [[HYPERLINK](#)] (N = 1610, conducted Nov. 2021)

Commented [7]: Shall we adjust part2 ahead of part 1 given that regulatory pressure is the main purpose of the feature?

- * A small group of users have reported feeling like they are trapped in a **rabbit hole** of ineffectively personalized content [[HYPERLINK](#)] (focus groups across 5 EU countries)

- [Placeholder] Negative Affect, $\leq X\%$ US DAU will fall into a filter bubble

Commented [8]: Update later

Jordan Furlong : [THUMBSUP] 2021-11-12 09:24:29

- * Users stop using the platform due to **content quality and trust** related issues [[HYPERLINK](#)]
(311 inactive users)

- 50% cited content quality issues; 31% cited repetitive content, 18% cited content not being useful, and 18% cited content not being relevant.
- "Technical" and "Trust" related issues were slightly less common (30% of users cited each)

2. Regulatory Pressure / Brand Safety

- * "Offering users a full reset button would go a long way to addressing policy makers' concerns about our algorithm" [[HYPERLINK](#)]

[REDACTED] (focus groups across 5 EU countries)

- * Lack of transparency is at the core of policymaker concerns over the use of algorithms in social media [HYPERLINK]

[REDACTED]

- Another prominent concern is the potential for biases to be amplified by algorithms
- Amongst the most challenging policy remedies are proposals to allow users to opt out by default and use alternative recommender systems
- At an international level, the focus has been primarily on cross-sectoral themes concerning the ethics of AI rather than detailed assessments of algorithms in social media

3. **Solution Validation**

- * "... [it would] help vulnerable users who need to distance themselves from their current viewing preferences. The research indicates that we could offer a reset option for those 'in extremis' and the majority would not misuse it. [HYPERLINK]

[REDACTED] (focus groups across 5 EU countries)

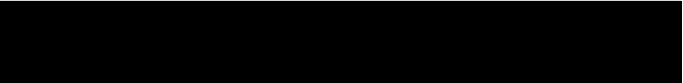
- * Algo proposed "non-personalized feed" in consideration of algo explainability and technical feasibility.

	Algo proposed plans	Pros	Cons
1	Non-personalized feed	* High feasibility for algo; * Algo Explainable for GR and PR	* Ads revenues decrease * Potential effect to Live/ Commerce business
2	Create a new account for Reset and start as new users, won't delete history data	* High feasibility for algo; * Support switch back to old account if possible	* Low feasibility with backend engineers
3	Not totally delete users' history in database but reset the 'embedding' (engagement data)	* High feasibility for algo	* The reset won't last too long((~x batches) ,not consistent in terms of user experience

- | | | | |
|---|-------------------------------|--------------------------|---|
| 4 | Totally delete users' history | * Meet GR's requirements | * High risk and investment for algo (≥ 2months) |
|---|-------------------------------|--------------------------|---|

4. **Industry Leadership**

- * This is an opportunity to innovate and lead our industry [HYPERLINK



Commented [9]: Please update this section, currently it is not reflecting the actual practice.
Jordan Furlong : [THUMBSUP] 2021-12-18 02:39:57

Commented [10]: Update this

How to define success?

A non personalized feed provides users a way to escape unwanted rabbit holes and enhanced data privacy for users

Commented [11]: 1. Add engagement metrics 2. [REDACTED] to review proposal below and provide feedback + thoughts on how best to list out engagement metrics

Metric Type	Pri ority	Goal	Metric	Expected Behavior
TikTok Brand	P0	Increase Algo Transparency in public	* Feature positive blogposts	* ≥1 positive blogposts when feature fully launches
User consumption	P0	Provide another option for users who have privacy concerns or dissatisfied with contents	* Feature user penetration	* User penetration: X% DAU
Observation			* % of User breakdown by feedback reasons	
			* Frequency of switching back to For You Feed	
			* When users are in popular feed	
			◦ Report Rate	
			◦ Badness	

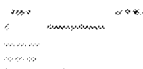
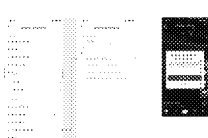
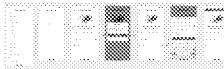
Guardrail	P1	Observe potential trade-offs and impacts	Rate		Commented [12]: Badness is kind of Hard to measure or need a new definition. SO there will no "Not interested feature " in this No-personalized feeds?
			* Core Metrics: (New user & All users) ◦ Stay duration ◦ 1dRetention ◦ Active Days/U ◦ Publish * Monetization Metrics: ◦ Ad Revenue ◦ CPM ◦ ARPU * Feed quality metrics: ◦ report penetration ◦ survey_not_like_rate ◦ unapprove_vv_rate ◦ violation_vv_rate	* Core Metrics: ◦ Stay duration loss $\leq -0.3\%$ ◦ Others: stable, non-significant decrease * Monetization Metrics: ◦ Ad Revenue loss $\leq X\%$ * Feed quality metrics: ◦ stable, non-significant decrease	

Monetization impacts

- * Should be $<.3\%$
- * What is the current revenue from this target audience? Maybe it's not a 90% drop for them
- * Can we run a simulation to see different scenarios play out?

Requirement Detail

User Interaction & Design

Scenario s	Interactions	Online version	Expected design
1. En try points	- A user can access this via Content preferences in Settings and privacy - We prompt the user to switch their feeds if they press Not Interested on 3? videos in a session		
2. Un derstandin g and enabling the feature	- There is clear and concise education on the feature and the implications for their FYP UX - There is a confirmation modal presented to the user - A user can switch back to their personalized feed - When a user switches to the non-personalized feed for the first time we prompt them for feedback asking about why	-	

Commented [14]: May adjust based on data

Commented [15]: @Jordan Furlong1) should we consider press not interested N time consecutively? 2) should we consider session length here?

Commented [16]: [REDACTED] think no to both because they seem like marginal value adds in exchange for higher implementation complexity

Commented [17]: What is the user coverage if we pop up this design?

Commented [18]: [REDACTED] We are looking into that. That's probably the better DAU % estimate...

Commented [19]: I feels like user may use this feature as: Finding Popular videos on TikTok
Jordan Furlong : [JIAYI] 2021-12-01 09:49:26

Commented [20]: And their behavior in "Popular" will not impact their personal feeds recommendation system, right?
Jordan Furlong : [Yes] 2021-12-01 09:50:52

Commented [21]: Where is feedback like this typically sent?

3. No n-personalized feed experience

* There is a top level indicator for the user when they are on For You vs. Popular videos

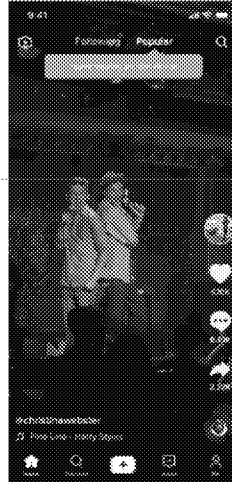
* The user is shown a non-personalized feed of content that follows the following criteria

a. Selection criteria

- i. Public videos
- ii. Status: Approve
- iii. Not any risk type
- iv. No warning
- v. Pass 3rd round of review
- vi. Audio track is not banned

b. Ranked by number of likes (Top 7, last 7 days)

c. Sample gids from US (Top 100): [HYPERLINK



Commented [22]: Please also involve [REDACTED] to review on the new feed

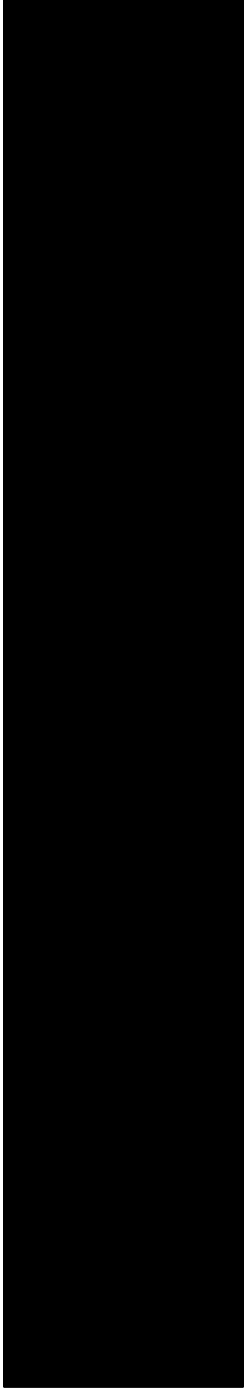
Commented [23]: Hi [REDACTED] I hope all is well. We'd greatly appreciate your review of this requirement and design

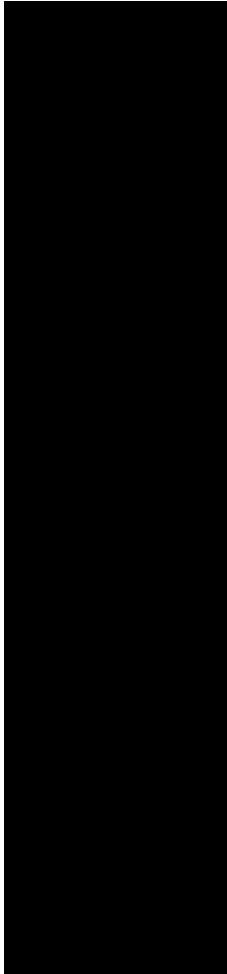
Commented [24]: Shall we add a part of non-personalized ad feed feature here?

Commented [25]: [REDACTED] Yes, will do

Commented [26]: Ads logic pending response from monetization







* Delivered ads are non-personalized

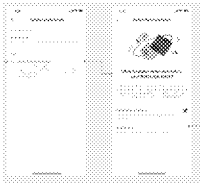
4. He
Ip Center
article

[figma]([HYPERLINK



A/B Testing Setup

Stage 1: US and EU; Stage 2: ROW

Group	Traffic Allocation	Key Hypothesis	Treatment (what's different)	Design
v1 (Control)		/	not offer "Non-personalized" Feed	
v2		Short-term: * stay duration loss; ad revenue loss; Long-term: * Increase TikTok brand safety	offer "Non-personalized" Feed	

Commented [27]: @Jordan FurlongAdd country here
Jordan Furlong : [THUMBSUP] 2021-11-30 22:16:55

To start the experiment, you'll need to **send out an email to tiktok-product-update@tiktok.com** , please find the email [[HYPERLINK](#)]

Checklist

Please fill in column B, C, and F if applicable.

Commented [28]: Patent application and GTM project plan?

Commented [29]: @Jordan FurlongI can ask PR if they are interested in PR release. For previous Tns feature launch, will there be a PR blogpost on that?

Commented [30]: Jordan to ask PR/GR what plans are for comms

Appendix

Brainstormed Ideas & Options Considered

Algo + PnP Brainstorming

[[HYPERLINK](#)]

Algo proposed plans	Pros	Cons
Create a new account for Reset and start as new users, won't delete history data	* High feasibility for algo; * Support switch back to old account if possible	* feasibility with backend engineers
Not totally delete users' history in database but reset his 'embedding' (engagement data)	* High feasibility for algo	* The reset won't last too long (~x batches)
Totally delete users' history	* Meet GR's requirements	* High risk and investment for algo ($\geq$ 2months)
Non-personalized feed	* High feasibility for algo; * Explainable for GR and PR	* Need double if this meet GR's requirement

Agency is our primary wellbeing goal

* We have thoroughly researched, validated, and cross functionally aligned on the key investment areas for wellbeing on TikTok ([HYPERLINK

External: Stanford Brainstorm, Digital Wellness Lab, [REDACTED]

Internal

- [REDACTED] - T&S PnP
- [REDACTED] - T&S PnP
- @Julie de Baillencourt - T&S Product Policy
- @Michael Beckerman - US Public Policy
- [REDACTED] - US public policy
- [REDACTED] - EU public policy
- [REDACTED] - Global Comms

* The research confirms the hypothesis that having agency can play a positive role in a teen's mental wellbeing and that a lack of agency can have a negative impact. When teens have agency, they report that life feels easier, relaxed and allows space for

other activities. Teens describe feeling happy and enjoying life. When they lack agency, they say they may experience stress and anxiety, a sense of being overwhelmed and missing out [[HYPERLINK](#)]

* [REDACTED] Harvard Professor and [HYPERLINK
"http://www.pz.harvard.edu/who-we-are/people/[REDACTED]\h"] researcher summarizes
this well in her Tiktank presentation: [Tiktank_Digital Well-being_March 22 2021 (1).pdf]

- Agency = “people’s beliefs in their capability to exercise some measure of **control over their own functioning and over environmental events.**”
- In stressful situations, people who believe they can manage or control threats are
 - more resilient
 - less vulnerable to anxious arousal, higher stress reactions
 - less vulnerable to health outcomes like depression
- People who repeatedly experience uncontrollability can develop learned helplessness

Competitors & Product Inspiration

- * This is an opportunity to innovate and lead our industry [[HYPERLINK](#)]

Implications for reset button:

- ✧ TikTok would be the first in the industry to launch a reset button
- ✧ YouTube's and Google's Incognito Mode is the most similar, i.e. thincoe opposite of a reset button
- ✧ We need to discuss whether the reset button also impacts personalized ads

*Toutiao has a non-personalized feed feature and has 6k DAU / 300m DAU

Future Work

- ❖ Algorithm reset / hard reset
- ❖ Shake it Up (1-2 bimonth)

Meetings

1. Meeting notes between T&S + Algo: [[HYPERLINK](#)

2. T&S 11/9 Brainstorm
 - a. Reset
 - i. Use case: a fresh start to help a vulnerable minority with an acute need
 - ii. Volume: low/infrequent
 - b. Shake it Up
 - i. Use case: exploration to alleviate frustration, lack of interest, curiosity, and more
 - ii. Volume: high
 - c. Why explore both
 - i. Clearly understand their relationship/place in the product
 - ii. Hard to make a decision on priority without seeing how they work - I'm wondering if PR/GR will change their minds if they see how much more broadly applicable Shake it Up could be