

AMENDED Exhibit 719

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

Attorney Client Privileged

Global age inference model 2023 [YouTube only]

Author: [REDACTED] <add> | Status: Draft | Last Updated: Oct 21, 2022

Background

Youth is a key YouTube initiative in 2023 and responsibly growing the youth segment is a top priority for YouTube across multiple product strategies ([HYPERLINK [REDACTED] " \h], [HYPERLINK [REDACTED] " \h], [HYPERLINK [REDACTED] "https://docs.google.com/[REDACTED] \h]). There are 3 key principles that will require a robust age inference capabilities to be successful:

- (1) **Youth North Star:** Declared age has low recall but high precision for u18 - meaning those who say they're under 18 are likely to be u18, but only a small fraction of those who are actually u18 are declaring accurately. To set a higher bar for safety, we'd like to expand our protections, globally, to users that could be minors, independent of their declared age.
- (2) **Building the fundamental muscle to enable scaling age-appropriate experiences:** We can't ignore the fact that minors are looking for ways to [HYPERLINK [REDACTED] "https://docs.google.com/[REDACTED] \h] online and to crave for meaningful connections via user to user iterations, and we are looking to support those needs via multiple [HYPERLINK [REDACTED] "https://docs.google.com/[REDACTED] \h]. We believe that an age inference model is critical to improving the baseline of safety and responsible youth consumption and to allow the company to effectively land those fun initiatives in a responsible manner and with a narrative regulators would support. For example, based on the age signals we can serve content that promotes youth wellbeing and define updated policies on who can discover and connect with whom.
- (3) **Proactively address Compliance:** Policy makers remain skeptical that age declaration is sufficient for a platform to know the age of the user and protect that user based on age. With the recent passing of the US CA Age Appropriate Design code and strong advocacy by other organizations such as , modeled after the already enforced UK AADC code, it's imminent that we should move with urgency to determine our global strategy for age assurance and the best way to move forward ([HYPERLINK [REDACTED] " \h]).

Today, age inference / verification capabilities are not globalized and ready for a global expansion. As shown above, x-Google teams, primarily Google Identity and Unicorn own those age inference and age verification methods. We either need to **design around that or partner more closely with the Google teams driving this workstream to determine together how to drive faster improvements in this space.**

Current Problem

- **REDACTED - PRIV**
- We have not used age inference beyond compliance efforts, and need further discussion and risk assessments to expand into targeted Youth responsible growth initiatives.
- Google wide age assurance model needs to consider all PA needs, that might have diverting interests from YouTube.

Out of scope

- **<18 Age inference buckets:** This document focuses on mechanisms that provide more confidence to determine if a user is a minor or not, independent of declared age. In this case, a minor is defined as someone that is under 18. Opportunities such as inference of minor age boundaries (e.g 13 yo vs. 16 yo) or if the user is under the age of consent is out of scope, and can be assessed later.

What is needed for 2023?

Note: for more info on what's supported today, check the [[HYPERLINK \l "_t4v8udjohjfl" \h](#)] below.

In 2023, youth users are a top focus for YouTube and YouTube's strategy is to build a fun, responsible (including compliant), and useful product, and be able to measure the experience for youth. **Global and Robust age inference is key to the success of this strategy due to these areas:**

- **Compliance & Responsibility:** Privacy protections, age-appropriate and wellbeing guardrails
- **Fun:** Appealing and valuable recommendations
- **Measurement:** Measure the impact of launches and today's youth experience

REDACTED - PRIV

Commented [2]: I'm not sure if making the model robust enough for US will be sufficient for a global launch.

I do agree that US is the P0 and perhaps the only P0 for 2023, however to really be proactive, my recommendation would be to align on a multi-year global roll out plan, so we can decide the opex investment on required eval and training data sets to ensure we have models and metrics that represent each geo need, and achieving this goal takes \$\$ and time.

e.g I expect India to be very different from US.

What are your thoughts on this?

Options

ce plans to Google	(2) [recommended] Take a lead with Google to drive a more ambitious plan	(3) Build a YT age inference model
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plans for globalization right now, better evaluation data is required. On OC. and panel data and leverage existing (s data, etc). Note: remember that od enough (only includes ~300 labels	• Global inference: Define a multi-year plan to land global inference by the end of 2024. Focus on TBD top markets in 2023.	Commented [17]: @ [REDACTED] How could the YT-only model possibly be more accurate than a Google-wide model for signed-in users? The Google-wide model would have significantly more data and specifically relevant signals, like payment profiles.
on/Recall): Improve minor inference '50% without impacting adult new signals.	REDACTED - PRIV	Commented [18]: YT Identity aligns with this perspective. Will defer to Linda to provide more insights on why Youth believe this is possible. Commented [19]: we agreed not to pursue this option as of now.
REDACTED - PRIV	• [Planning] Revisit re-inference: No change, needs assessment, don't recommend to be top P0. • [In progress] Expand age verification options: Same as #1.	REDACTED - PRIV Commented [16]: +1.
cture to enforce age appropriate signal ry narrative, which is more positive urance program and industry shaping	• Clear plans for globalization • YouTube representative eval test set to better define additional quality inference improvements • Leverages existing infrastructure to enforce age appropriate experiences leveraging age signal • Leverages existing regulatory narrative, which is more positive than our competitors • Leverages central age assurance program and industry shaping	That's not the proposal today in the memo shared for Velocity (which. is summarized in #1). From my POV #2 is that YT should push for at Velocity. @ [REDACTED] for his thoughts too. REDACTED - PRIV
2023 base eval test set	• Much more expensive than #1 - Increased OPEX and HC funding needs (TBD if interested in pursuing this option)	Commented [4]: Right now, we don't have a YT specific data set, so we only Google wide data set that is based on Panel data in 4 countries (20k labels, only 300 are minors). Commented [5]: @ [REDACTED] and I will ki Commented [6]: just a reminder that we should follo REDACTED - PRIV Commented [8]: Great question that will help to be
REDACTED - PRIV Can we start with responsibility only use-cases, and assess responsible growth use-case on a 'Best Interest of the Child' Would we have more flexibility if we have 2 buckets of minors: confirmed (declared) and inferred?		REDACTED - PRIV Commented [10]: correct, confirmed by Filip. Commented [11]: (also helps in AUS)
REDACTED - PRIV		REDACTED - PRIV Commented [13]: I agree that this will be difficult - Commented [20]: @ [REDACTED] Can you
p to 8 days) and re-inference: Plan to assess improvements, but no clear KRs communicated for 2023.		REDACTED - PRIV Commented [22]: ack, thank you Matt. If there is sor Commented [23]: @ [REDACTED] There is no Commented [24]: ack – thanks. Commented [25]: Thank you Jason. Perhaps, at sor Commented [26]: @ [REDACTED] is Commented [27]: That is great to hear. Thank you
What is available today?		

Inference (18 boundary) - Owned by Google Identity + Unicorn	
	- We've integrated a Google wide classifier (aka AADC model) that infers if a user is under 18 or over 18 years old, independent of declared age. - The classifier provides three signals based on user activity: inferred minor, inferred adult and unknown. Inferred minor: 81% precision, 32% recall. (signed in) - Inferred adult: 90% precision, +80% recall (signed in) - Unknown: No inference, due to lack of activity. - Important note: - Velocity in which we get inference, depends on activity and number of signals. For signed in users, ~80% of users are inferred on day 1. For a new user, it can take an average of 8 days.
	Age inference signals are <i>not</i> available globally, and exposed in the following jurisdictions: EEA, UK, CH and AU, in which a "risk based" approach to determine age with high confidence is required (AADC, AVMS)
Challenges	Improving the age inference classifier poses a big challenge due to the lack of training and global QA data available. Investing on market panel data is very expensive and high quality inference is dependent on user activity quality and frequency. Lack of industry standards on age assurance makes it more difficult.

Verification methods - Owned by Google Identity + Unicorn	
	- We've integrated with Google central flow for 18+ yo age verification. - Age verification techniques available are the following: - Government ID: 91.73% of users that choose to verify - Credit Card: 8.27% of users that choose to verify - YouTube Verification rates: - Overall: 8.84% - Excluding inferred minors: 33.17%
	Credit card and government id flows are available only in EEA+UK+CH with ≤ 1 hr SLO
Challenges	We want to ensure our services remain private and accessible to users, and current verification methods (government ID or credit card) are not sufficient to achieve this goal. Additional verification methods such as verification providers or live selfie would help to make the flow more user-friendly and having multiple options present ensure at least one verification method will work out in more strict jurisdictions. Lack of industry standards on age verification makes it more difficult.

Commented [28]: @ [REDACTED] do we do this elsewhere, but >1hr SLO?
Assigned to [REDACTED]

Commented [29]: I think for age correction flows we don't have that internal SLO. But happy to verify if urgent with Google identity (Filipv)

Age appropriate experiences for inferred minors - Owned by YT Youth + IdP	
	- To address AADC we redirected declared adult users inferred as minors to a more age appropriate experience: - Blocked high risk features, gated by age verification: - MA+ content

	■ Ads personalization ○ Provided highest defaults: ■ Uploads default to private ■ Well being settings default ON (Take a break, bedtime) ○ Transparency notices: ■ Educational notices for Uploads, Comments, Shorts, Stories ■ YouTube Minor moment to review privacy settings such as Autoplay, YTH
	● Same as #1 (Only applies where the age inference model is available)
enges	● Current age inference model is limited to compliance only efforts, limiting the ability to use this signal to support Youth growth initiatives.

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Appendix/ Graveyard

Without a global and robust age model, we're limited in our ability to deliver on

	Treatment	Example	Legal Risk
1. Compliance	Privacy & Ads	● CA-AADC	
2.Responsibility	Safety	● Age-restrict mature content	
	Wellbeing & Developmental Quality	● Limit (disperse) content that negatively impacts wellbeing in volume ([HYPERLINK ██████████ "h]) ● Digital wellbeing defaults	
3. Fun	Relevant & Relatable Discovery	● Boost content created by teens for teens b/c that is safer for teen creators and content is safer for viewers	
	Delightful Fun Interactions	● Foster meaningful connections ● Encourage expression ● XX	

DOCUMENT SLIPSHEET

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