

AMENDED Exhibit 401

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

[WIP][P&C] Minor Safety Age Assurance 2023 Product Roadmap Copy

Age Assurance at TikTok

Age Assurance establishes the age of a user with a level of certainty that is proportional to the level of risk, taking into account a user's right to privacy. Typically, it requires a multifaceted strategy in which self-declaration of age plays a part. While our age assurance strategy includes some reliance on hard identifiers, we seek to minimize our dependence on them.

Age assurance provides the foundation for every Minor Safety and Privacy strategy at TikTok. This program is dedicated to understanding the age of our users, which helps across an array of use-cases. Without a comprehensive age assurance strategy, other safety strategies fall down.

Detection and enforcement- without user input

We have many problems, privacy and legal issues, we are being investigated by many governing bodies and we are limited in what we can do. There are many opportunity areas, 1 we need a Strategy for under 13 one of them being we need allowable metrics to track our initiatives,

we need launch of under 13 models in eu and us, and there is knock on effects,

another problem related to under 13 is recidivism, ie users that have been banned and return we have a lot of info on this and we can use this info to made better decisions.

New policies are necessary for this to take effect. One problem is age isnt static, minors that have been previously banned will age into compliance,

Hidden minors problem, minors who are of age over 13 but under 18, and all of what we build to protect minors is based on knowing their accurate age, we need methods to detect age lying to a certain level. There are many ways to do that.

Age verification and user identified age piece,

last years we launched underage appeals solution, if you are banned for being underage and have a mechanism to prove you are of age

There has been pressure to use face scanning, which is different than biometric data, to determine someone's age. We want to test this in underage appeals for proof of concept, and then potentially expand to other places in the product

Having a unified age tagging st

We have the info to age verify people based on their usage, but because of privacy issues, we cannot use it.

We have a level model that puts users in an age bucket, say user inputted age gate and the level model prediction is way off that should trigger a verification step . That 's the ultimate plan, but it's tricky from so many different angles and its hard to sell that to product as it will negatively impact growth

Metrics

We do not have guiding metrics for age "north star metrics" if we think 10% are underage adjust model thresholds hire more moderators, everyone banned for underage is done by a human moderator, if we have metrics, we will be able to increase banning we have currently, user

We are widening the gap on we have way too many underage users

Mission Statement, The following questions guide the roadmap and future solutions to improve minor safety on the platform across Detection and enforcement, age verification and Metrics via

Mission statement

The roadmap ahead will ensure significant progress over 2023 in key areas of age assurance. These key areas include: account detection and enforcement, user age estimation and verification, policy updates, and metrics.

Guiding Questions and Vision for 2023 Age Assurance

wolf

How do we detect and remove users who are too young to be on the platform?

- * Establish legally approved North Star metrics to target underage users, enabling us to increase underage banning rather than remain steady
- * Launch new U13 model in the US and the EU
- * Enhance existing models/build new models to include additional underage signals
- * Develop recidivist policy and enforcement strategy

How do we establish confidence in user age?

- * Develop methods to detect age liars and add additional friction to nudge

them to prove their age

- * Add additional age estimation/verification methods
- * Continue to expand and enhance underage appeals

What will these solutions do for our platform?

- * We will be more legally compliant per COPPA and GDPR by removing U13 users
- * Our users ages 13-17 will be safer because they will be in the correct age appropriate experience
- * This will enable TikTok to continue to be an industry leader in Minor Safety and Age Assurance

How will we do this?

****insert roadmap****

round_pushpin

Core Themes / Priorities

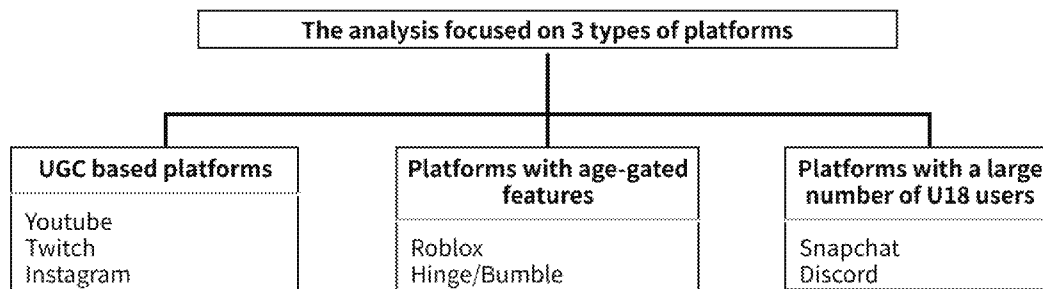
- * What **methods** do we use to establish confidence in user age?
 - User features: exploration into face scanning
 - Internal models
- * How **proactively** do we establish confidence in user age?
 - Prevention: KYC scenarios, risky feature scenarios
 - Interruption: underage access, age gate violations
- * What **harms** are we protecting against?
 - U13 age-lying: Underage minor lying to gain access to TikTok
 - 13-17yo upward age-lying: Early and late teens lying to gain access to features and content
 - 16+ downward age-lying: Late teens and adults lying to gain access to minors
 - Recidivism: Banned users regaining access to TikTok

Core Themes and State of the Industry

Industry Trends

computer

We conducted a competitive analysis across top global platforms to inform our recommendations for age estimation. Below is a summary of the analysis - for more details, please see the [[HYPERLINK](#)



1. Across these platforms, the following were common with their Age Assurance/Estimation and Age Verification processes:

- Almost all platforms use self-identified age at sign up as the first (and sometimes only) method of age verification.
- No "golden standard" or "one size fits all" solution to age verification across platforms
- Research shows that users have a preference for non-financial methods for age verification

2. The current industry standard positions age moderation/appeals as a reactive measure:

- Age moderation is reactive and typically only based on UGC/user reports
- Lack of transparency on the moderation and appeals process
- Photo IDs are primary way to verify user age after appeals process
- Age appeals typically happen off platform (usually via email or webform)

3. Use of biometrics and face scanning is rapidly increasing in the industry.

- Platforms are starting to explore and test biometric/face scanning solutions for age estimation
- It should be noted that the media tends to conflate age and identity when discussing biometrics
- Platforms are primarily use biometrics/face scanning to determine if a user is O18, not to determine the minor's age

Competitor Landscape

Competitor	Comparison Criteria					
	User-identified age	Document verified age appeals	# of age appeals / verification options	PII- based age appeals	Underage detection via ML	Face Scanning
TikTok	At sign up	Yes	3	Yes	Yes - excluding US	No
META	At sign up	Yes	2	Yes	Yes - comment sweeps based on keywords	Yes - partnered with Yoti
YouTube	At sign up	Yes	2	Yes	No	No
Bumble	At sign up w/ opt-in age verification to access age gated features	Yes	1	Yes	No	Yes - partnered with Veriff
Snap	At sign up	N/A	N/A	N/A	No	No
Twitch	At sign up	Yes	1	Yes	No	No
Discord	At sign up	Yes	1	Yes	No	No
Yubo	No - live photo taken at sign up	Only if face scan fails	2	Yes	No	Yes - partnered with Yoti
Industry Leader						

Regulatory Pressure

[REDACTED]

2023 Planning

Age Assurance Minor Safety Product Team

@Natalie MedoffPillar Lead

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

XFN Age Assurance partners

Policy

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

EU Privacy Legal	[REDACTED]
	[REDACTED]
	[REDACTED]
	[REDACTED]
	[REDACTED]
Global Privacy Legal	[REDACTED]
	[REDACTED]
	[REDACTED]
	[REDACTED]
	[REDACTED]
Data Science	[REDACTED]
	[REDACTED]
	[REDACTED]
Core Safety	[REDACTED]
	[REDACTED]
Core Product	[REDACTED]
	[REDACTED]
	[REDACTED]
USDS	[REDACTED]

Focus Areas for 2023

1. **Age Metrics - Until early 2021,** **Redacted - Attorney Client**
Redacted - Attorney Client
 - a. Gain legal **Redacted - Attorney Client**
 - b. Start tracking these metrics and work with XFN partners such as algo and ops to achieve goals we set
 - c. Develop a new age dashboard that can be used by key MS members and XFN partners
2. **Proactive U13 Detection**
 - a. **U13 model in the EU** The EU is currently training a new AI model to predict underage users in UK, EEA, CH. In 2023, Privacy Legal will continue engaging with the relevant regulators.
 - b. **U13 model in the US** Global privacy legal has recommended **Redacted - Attorney Client**
Redacted - Attorney Client
 - c. **U13 model for ROW** Similar to the US, **Redacted - Attorney Client**
Redacted - Attorney Client
3. **Policy Updates**
 - a. **Guardian Accounts:** Write, socialize, and defend an issue policy for Guardian Managed Accounts to inform the underage banning guidelines as well as the actioning strategy for suspected underaged users.
 - b. **Underage Banning Guidelines:** Using the Suspected Underage User PBR update, improve the underage banning guidelines with more clarity on how to action on grey area cases specifically within the Underage Banning Review.
 - c. **Targeted ads:** **Apply Age Tag signal for 18+ ads gating**
 - d. **Age deceptive behaviours:** Using updated banning guidelines, clarify what policy strategies need to be deployed to address users with incongruent age gate and real age data across varying feature experiences.
4. **Age verification/estimation enhancements** - Recently, more platforms are partnering with Yoti to utilize their face scanning to enhance age estimation. We are prioritizing integration based on these important factors:
 - a. Improve user experience
 - b. Mitigate regulatory risks
 - c. Optimize costs

Our initial plan is to integrate face scanning as an option in underage appeals and launch in the EU first as a proof of concept before deploying globally and in other features.
5. **Hidden Minors (upward age lying)** TikTok does not currently have a comprehensive strategy for tackling hidden minors. A hidden minor is a user who is 13-15 or 16-17 years old but who provides an age gate age of 16+ or 18+ and does not receive all

elements of TikTok's Age Appropriate experience. At the direction of our partners in Privacy Legal, the following steps are recommended:

Redacted - Attorney Client

6. **Downward age lying**
 - a. As a first priority, the area of focus here is predatory age lying. There will be an assessment on predator propensity for feature usage, in terms of interacting with minors, as well as previously unknown vulnerabilities. The risk of disocverability and interaction via that feature will then be quantified. This information could be used to create limits on the interactions between high risk accounts and vulnerable accounts as a safety feature.
7. **Underage Recidivism**
8. **Other U13 Strategies**
 - a. Continue to maintain stability in our banning numbers in the absence of North Star Metrics
9. **Age Gate**
 - a. Gain 100% coverage globally
10. **Edit Birthdate**
11. **Age tagging [[HYPERLINK](#)]**

Face Scanning for Age Estimation

True Age >> v. Age Data	U13	13-15	16-17	18+
Unknown	0%	0%	0%	0%
13-15	0%	100%		

16-17	0%		100%	
18+	0%	0%	0%	100%
		But prob >>	But prob >>	
		0%	0%	

2023 Roadmap

H1 2023

- * Guardian accounts [REDACTED]
 - o completion of policy
 - o create enforcement plan @Natalie Medoff [REDACTED]
- * Underage appeals [REDACTED]
 - o Face Scanning integration to underage appeals [REDACTED]
 - o Other enhancements? [REDACTED]
- * Face scanning integration into other features and areas in TikTok [REDACTED]
[REDACTED]
- * U13 [REDACTED]
 - o Approved metrics, new dashboard [REDACTED] @Natalie Medoff
 - o Launch of new EU model [REDACTED]
 - o Integration of INV underage results to models [REDACTED]
- * Age Lying [REDACTED]
 - o Hidden minors
 - o Hidden adults
- * Edit birthdate [REDACTED]
 - o Age truth incentive
- * Updates to underage banning guidelines/ age policy gaps [REDACTED]
[REDACTED]
- * Underage Recidivism [REDACTED]
- * Age Gate [REDACTED]

- 100% US coverage, increase coverage for ROW based on legal prioritization

Jan-Feb Bi-Month OKR

		Jan-Feb	Owner(s)	Documents
O 1	Set compelling vision and strategy for age assurance	K R 1. 1	Complete Age Assurance roadmap for 2023	@Natalie Medoff
O 2	Enhance Pillar 3's usage of metrics and data	K R 2. 1	Gain alignment with legal to establish what metrics we are allowed to track, eventually agreeing on North Star Metrics	@Natalie Medoff
		K R 2. 2	Work with DS to create a new age dashboard that will be meaningful cross functionally and have ease when non-DS users need data.	@Natalie Medoff
O 3	Integrate Face Scanning into underage appeals	K R 3. 1	Complete product proposal and leadership one pager for Face Scanning for Underage Appeals	
		K R 3. 2	Finalize vendor selection for face scanning/age estimation	

		K R 3. 3	Gain legal approval for face scanning integration	
O 4	Underage Appeals Enhancements	K R 4. 1	[Launch]: [HYPERLINK [REDACTED]	
		K R 4. 2	[PRD approved and ready for development]: [HYPERLINK [REDACTED]	
		K R 4. 3	[PRD approved and ready for development]: [HYPERLINK [REDACTED]	
O 5	Underage recidivist accounts	K R 5. 1	Understand the key elements of recidivist accounts via soft and hard signals (Analysis Of Recidivists)	
O 6	Age Lying	K R 6. 1	Work with Legal to [REDACTED - Attorney Client]	
		K R	Predator U13 follower research, Phase 1	

	6.2	completion and analysis	
	K R 6.3	Identify signals of Hidden U18 accounts	
	K R 6.3	Complete documentation and strategy for predator U13 follower phase 2 in APAC	
O 7	Guardian Accounts	K R 7.1	
	K R 7.2		
O 8	U13 enforcement	K R 8.1	
	K R 8.2		
O 9	Enhancement of Age Gate coverage	K R 9.1	
		Research, identify and address the long tail of US users without DOB information.	

bar_chart

1. **O: Enhance Age Assurance's usage of metrics and data** @Natalie Medoff

2.1 KR: Gain alignment with legal to **Redacted - Attorney Client**
Redacted - Attorney Client

2.2 KR: Work with DS to create a new age dashboard that will be meaningful cross functionally and have ease when non-DS users need data.

Age Appeals

2. **O: Integrate face scanning into underage appeals** [REDACTED]

3.1 KR: Complete product proposal and leadership one pager for Face Scanning for Underage Appeals

3.2 KR: Finalize vendor selection for face scanning/age estimation

3.3 KR: Gain legal approval for face scanning integration

3. **O: Underage Appeals Enhancements** [REDACTED]

4.1 KR: [Launch]: [HYPERLINK

4.2 KR: PRD approved and ready for development]: [HYPERLINK

4.3 KR: [PRD approved and ready for development]: [HYPERLINK

Underage Enforcement

4. **O: Underage Recidivist Accounts** [REDACTED]

5.1 KR: Understand key elements of recidivist accounts via soft and hard signals

5. **O: Age Lying Strategy** [REDACTED]

6.1 KR: Work with Legal to **Redacted - Attorney Client**

Redacted - Attorney Client

6.2 KR: Identify signals of Hidden U18 accounts

6. **U13 Strategy and Enforcement** [REDACTED]

[Underage Strategy] Maintain overall volumes for underage account bans (100%+ compared to prior bi-month) without major fluctuations in overall AR*ASR (+/- X%).

2022 Review

white_check_mark

Highlights

- ✦ The new Underage Appeals process started to launch since November of 2021 and achieved 100% US launch on 8/10/2022 and global launch on 8/30/2022. This new process provides more user appeal methods, including 'ID verification', 'selfie with adult' and credit card appeal method. ([HYPERLINK [REDACTED])
- ✦ Enhancement features have been launched to improve the ease of use, regional compliance, and discoverability of Underage Appeals. These enhancements include Appeal Notifications, Appeal Flow Screens 2nd Iteration, and Underage Deletion Period Extension.
- ✦ Underage Appeals process is expanding to other businesses. Our Underage Appeals process has been integrated into a variety of workflows, including Creator Fund's age verification, LIVE minor appeal, LIVE KYC, etc. More integration requests are coming in.

exclamation

Lowlights

- ✦ Based on increased scrutiny, we were unable to increase the overall volume of underage bans. The ban rate has remained status quo since early 2022

Redacted - Attorney Client

Reference/Appendix

Relevant Media Articles

<https://tech.facebook.com/artificial-intelligence/2022/06/adult-classifier/> Can we build our own classifier in house?

<https://about.fb.com/news/2022/12/facebook-dating-age-verification/>

<https://www.yoti.com/blog/louisiana-age-verification-law-arriving-2023/>

[HYPERLINK [REDACTED]

<https://www.elysee.fr/en/emmanuel-macron/2022/11/10/laboratory-for-childhood-protection-online-charter>

<https://twitter.com/RTEbusiness/status/1589602834215235585>

<https://techcrunch-com.cdn.ampproject.org/c/s/techcrunch.com/2022/10/13/instagram-expands-ai-powered-age-verification-program-to-india-and-brazil/amp/>

<https://www.ofcom.org.uk/news-centre/2022/a-third-of-children-have-false-social-media-age-of-18>

<https://techcrunch-com.cdn.ampproject.org/c/s/techcrunch.com/2022/09/14/yubo-is-about-to-verify-the-age-of-all-its-users-using-facial-age-estimation/amp/>

DOCUMENT METADATA

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Page 18 of 18

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