

AMENDED Exhibit 484

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



Data Analysis - Family Users Role & Age Mismatch

TL;DR

art

There is no pre-check on age when users enable family pairing, Teens can enable 'parent role' without restriction, and adults can also enable 'teen role' without restriction.

As a consequence, 85% of Role - Teens users are 'adults' based on birthday value declared by user, and the users in different roles(teen/parents) are at a similar age level.

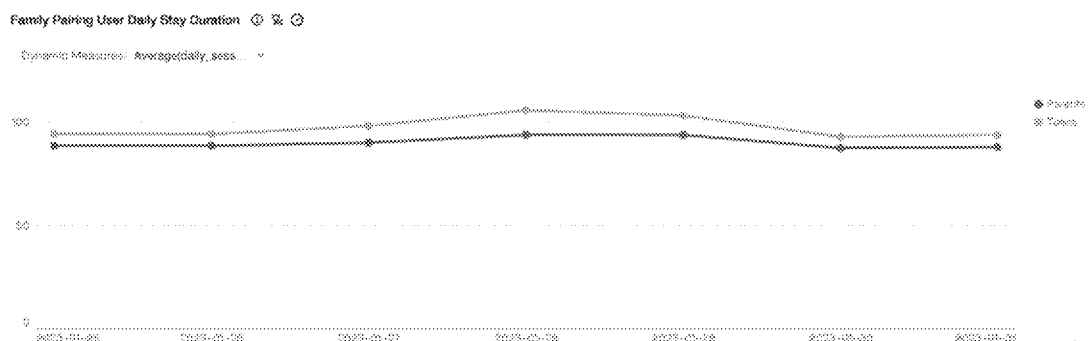
We suggest adding age-check by age gate data on the family pairing feature to ensure the feature is functioning on target family users, and users are in the right role of the feature.

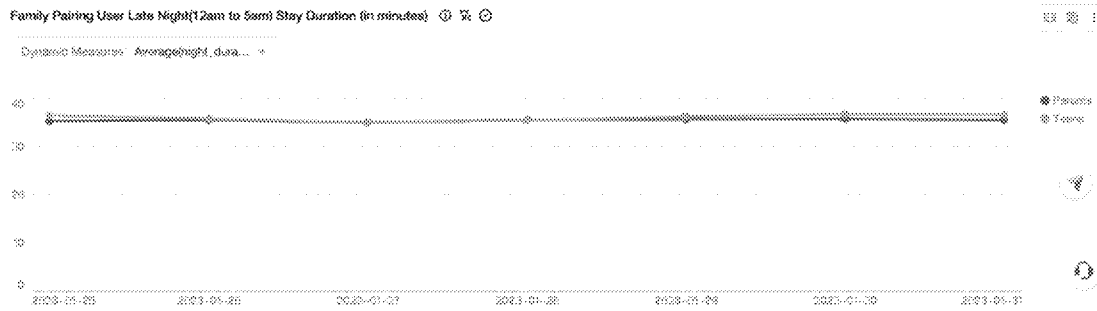
1. Background

By exploring the family pairing feature dashboard, we noticed the daily duration and night duration for family users in the 'Parent' role and 'Teen' role are close to each other day by day.

These results are not fully aligned with general user behavior, as parents of L5(35+) users should have less stay duration, and teens of L1/L2(13-18) users should have longer stay duration.

Our assumption for this is the users in their role of 'Parent' and 'Teen' might not be real parents and teens, and Minor users could enable family pairing as the role of 'parent' to take advance of the restricted features related with family pairing.





2. Analysis

We use the family pairing users active from 2023-01-23 to 2023-01-30 as the sample to build our analysis.

We use two user level age values to check the age distribution for fp users:

- Age Gate Age Level: Calculated by the birthday value declared by user.
- Predicted Age Level: Predicted by our model based on user behavior data.

Family pairing users distribution by age gate

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sunrise

Only 12% of Role - Teen users are Minors based on birthday value declared by user.

91% of Role - Parents users are 'adults' based on birthday value declared by user.

85% of Role - Teens users are 'adults' based on birthday value declared by user.

Family pairing users distribution by predicted age

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bullettrain_front

13% of Role - Teen users are predicted as Minor by the model.

81% of Role - Parents users are 'adults' based on prediction of age model.

62% of Role - Teen users are 'adults' based on prediction of age model. Another 22% are 'unknown' from the age model.

3. Update 2-8 EDA on Teen Users with Age Level 3+

We made a cohort analysis to better understand the user engagement and behavior of strange teen users(users are 'adults' based on age level, but enabled family pairing and enabled role of teen).

We select one week data for those users from 2023-01-23 to 2023-01-30:

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beach_with_umbrella

- * Comparing strange age 'fp-teen' users with users at the same age level, 'fp-teen' users are more engaged on the platform, strange age 'fp-teen' users have longer stay duration, more vv, and more active on publishing videos as well as commenting.

- * One explanation for this phenomenon:

those strange age 'fp-teen' users are minors, but they mis-represent their birthday information in order to avoid protional restriction on minor users. However, they need to enable the family pairing on teen mode by request from their parents.

4. Read outs and Suggestions

pushpin

From the age distribution of age gate data and predicted age data, the family pairing users in the role of 'Teens' and 'Parents' have similar age distribution, and the majority of them are adult users.

The age distribution could be the reason for the close daily duration and night duration. The users in different roles are at a similar age level.

By checking the feature UX, currently there is no pre-check on age when users enable family pairing, Teens can enable 'parent role' without restriction, and adults can also enable 'teen role' without restriction.

We suggest adding age-check by age gate data on the family pairing feature to ensure the feature is functioning on target family users, and users are in the right role of the feature.

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