Krikey

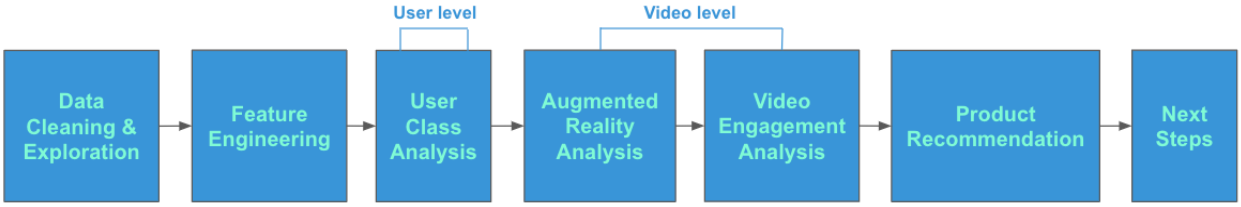
# App Usage Analysis

## 1. Executive Summary

User engagement is a critical component of assessing and measuring a mobile app's success. This analysis focuses on the key features of the application with the goal of identifying data-driven insights related to user engagement trends. This will help Krikey gain a strong foothold in its current users and develop strategies that would further improve the product and increase user retention.

The analysis shows a need to improve the Augmented Reality (AR) feature and encourage video creation among users.

## 2. Methodology Overview




## 3. Analysis

### 3.1 Data Cleaning and Feature Engineering

There were no null values and no outstanding outliers. New fields were generated based on the existing attributes:

- *country*: column Country was generated using the coordinates. *Country* represents the nation from which users watched videos. It only consists of Thailand for this dataset.
- date_diff: number of days it took for each user to create their first video from the day they registered in the app.
- month and day_of_week: months and day of the week were generated from created_date columns

#### 3.2.1 User-level Analysis

There are six different user classes in the dataset, which describe the class that the user has been classified. Since no information was provided to explain the method of this classification, I made the assumption that the class describes the users' habits (i.e. Super Creator describes users who make the most videos, etc.). However, the data proved that the number of videos created by each class was not drastically different (Figure 1). Therefore, the users might be classified randomly in

this case. This attribute doesn't offer much insight into the analysis, which led me to analyze the data based on the video level.

### 3.2.2 Video-level Analysis

*Augmented Reality*

Since Krikey is an AR gaming app, it is important to look at how users engage with this feature. Based on the analysis, 92.4% of users have experienced creating videos using AR. However, only 14% of those users included this feature in their videos frequently (>= 80% of their videos) (Figure 2).

*Video Engagement*

Another critical aspect is to understand users' video engagement in the app. For this particular dataset, monthly user engagement could be defined as created videos (number of videos created and active creators) and watched videos (number of videos watched and active watchers). The analysis shows an increase in user engagement in both cases as time progresses towards the end of the year. However, the number of videos watched and videos created have a much higher growth rate compared to that of active watchers and active creators (Figure 3). Therefore, users were making and consuming more videos. The increase in user engagement could be a result of successful marketing campaigns that Krikey was running at the end of the year, a new and better app version, or the nature of the holiday, which allowed users to have more time using the app. Moreover, the average number of videos watched per user is much higher than the average number of videos created per user (Figure 4). Many users also take a long time to create their first videos from the day they registered (Figure 5).

## 4. Product Recommendations

*Improve the Augmented Reality feature*

Based on the analysis, even though a large number of the existing user base has experienced AR when creating videos, they do not use this feature persistently. As an AR-based game app, Krikey could improve this feature to encourage more video creation with AR.

*Make the video creation experience more intuitive*

The analysis shows that users view Krikey as a platform to watch videos rather than a place to create videos. It took them roughly 35 days to create their first videos. Therefore, one hypothesis is that users could encounter challenges while navigating through the video creation process. I recommend Krikey do further investigation and perhaps could make the video creation experience more user-friendly in order to have users engaged in this activity.

## 5. Next Steps

Krikey team could do the following to further understand the users' behaviors:

- Perform A/B testing (e.g: testing the placement of the creating video button, such as top right corner vs. at the bottom in the middle) to see whether placement affects the number of videos created per user.
- The analysis shows a surge in user registration in July, September, and November, with a significant drop in December (Figure 6). Did Krikey launch new changes in the app that resulted in this trend?
- The analysis also shows a decrease in video consumption on Thursday that gradually picked up towards the end of the week (Figure 7). However, video consumption was still higher on weekdays (beginning of the week). If the user class was not assigned at random, which user class contributed the most to the drop and why.

## Appendix

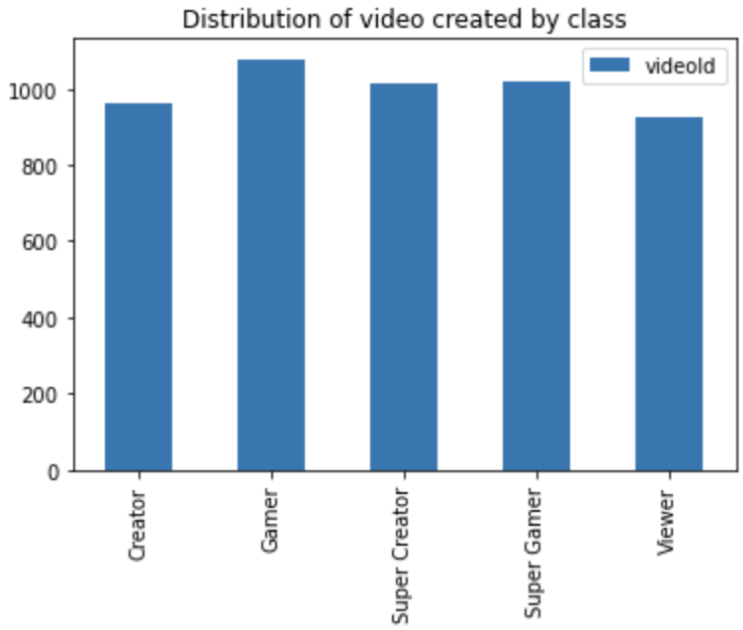



Figure 1. Distribution of Videos Created by Class

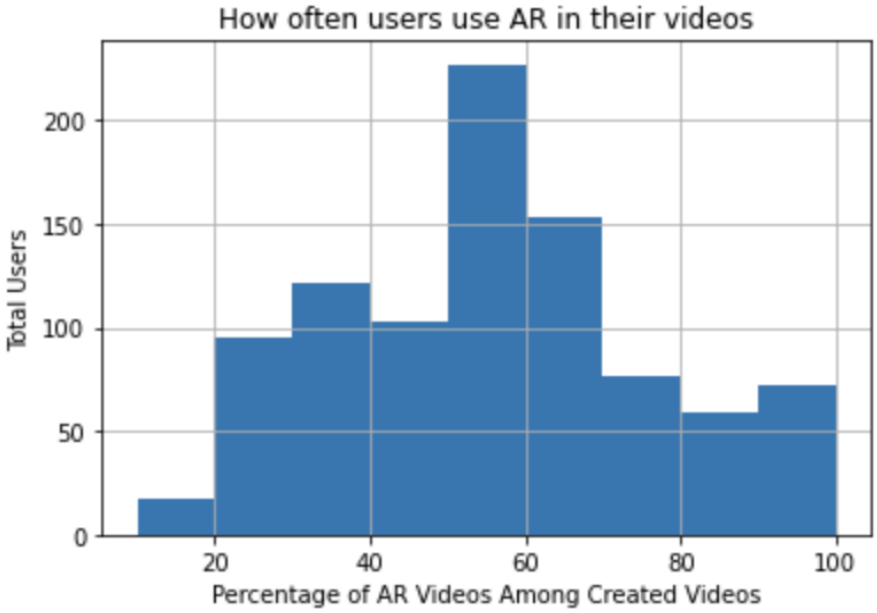



Figure 2. Frequency of AR Videos Among Videos Created

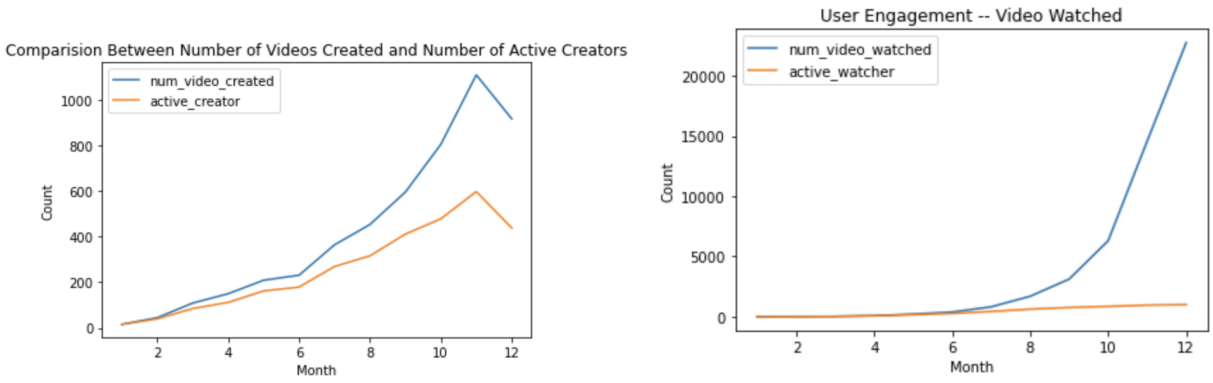



Figure 3. Growth Rate of Video Creation and Consumption vs. Active Users By Month

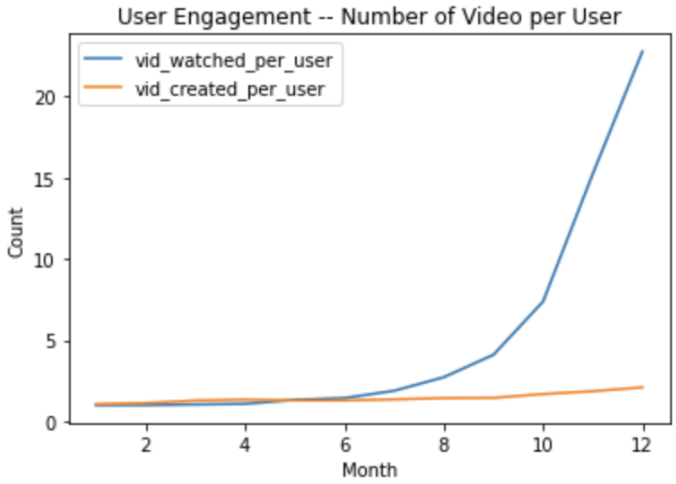



Figure 4. Number of Videos Watched and Created Per User

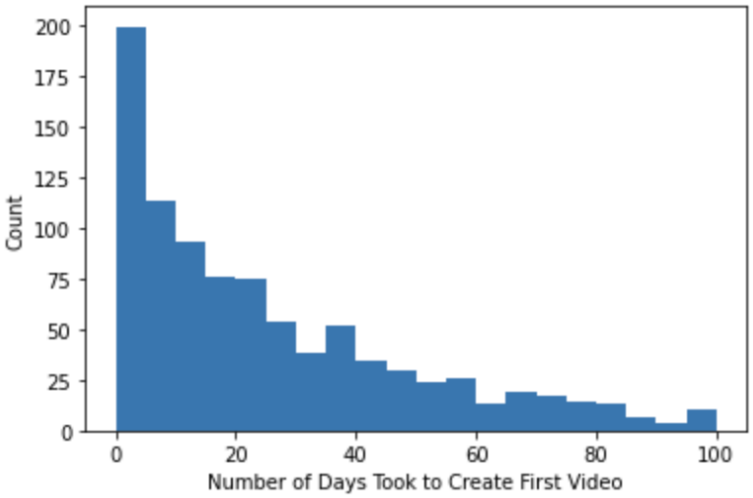



Figure 5. Distribution of Number of Days Between Registration and First Video

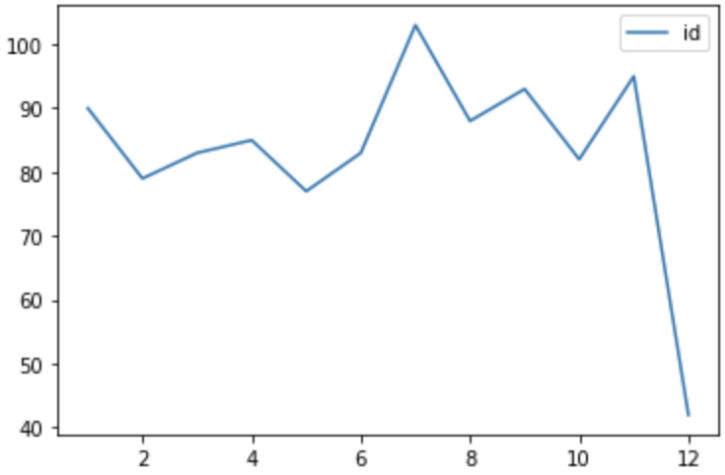



Figure 6. Count of User Registration per Month

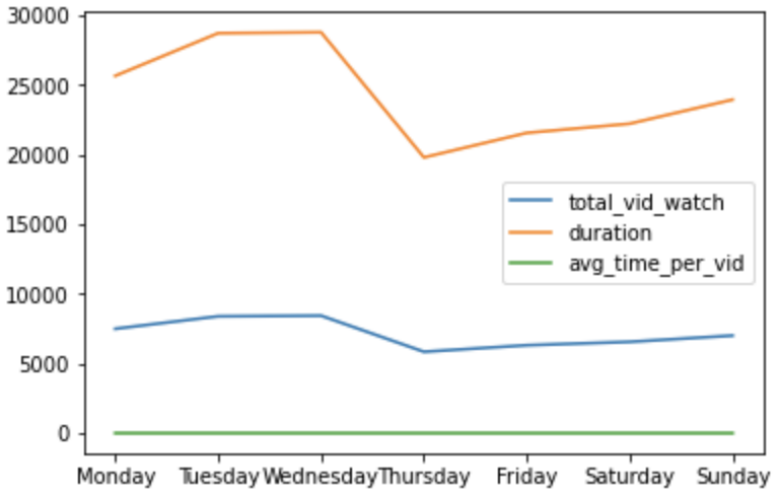



Figure 7. User Engagement per Day of Week