

Overview

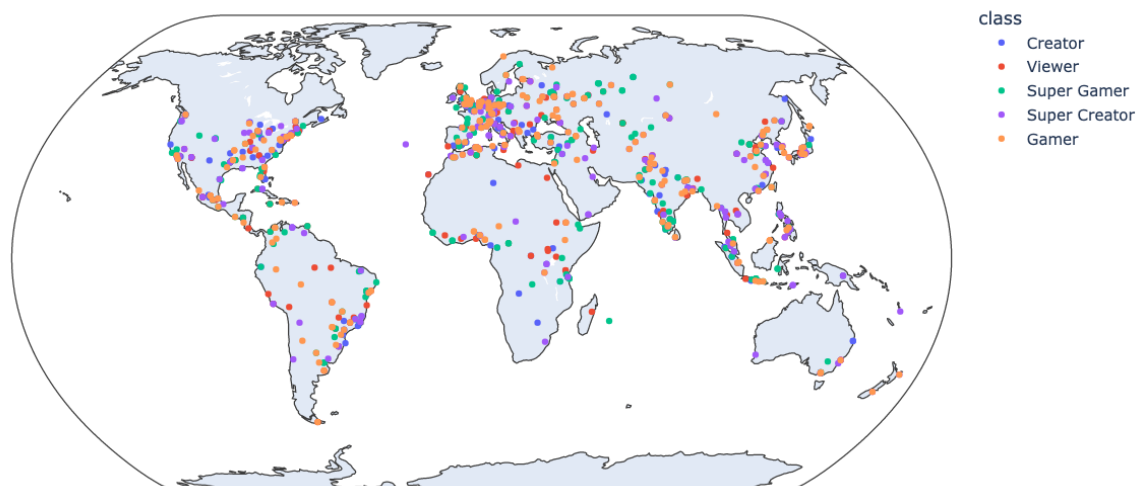
User analysis helps teams build products users love which makes them more profitable. This report contains a summary of the data analysis carried out on Krikey's user dataset and the complementary datasets. Source code that generates the analytic reports and data visualizations can be found in Agnes_He.ipynb in my Github repo.

Data Cleaning and Analysis

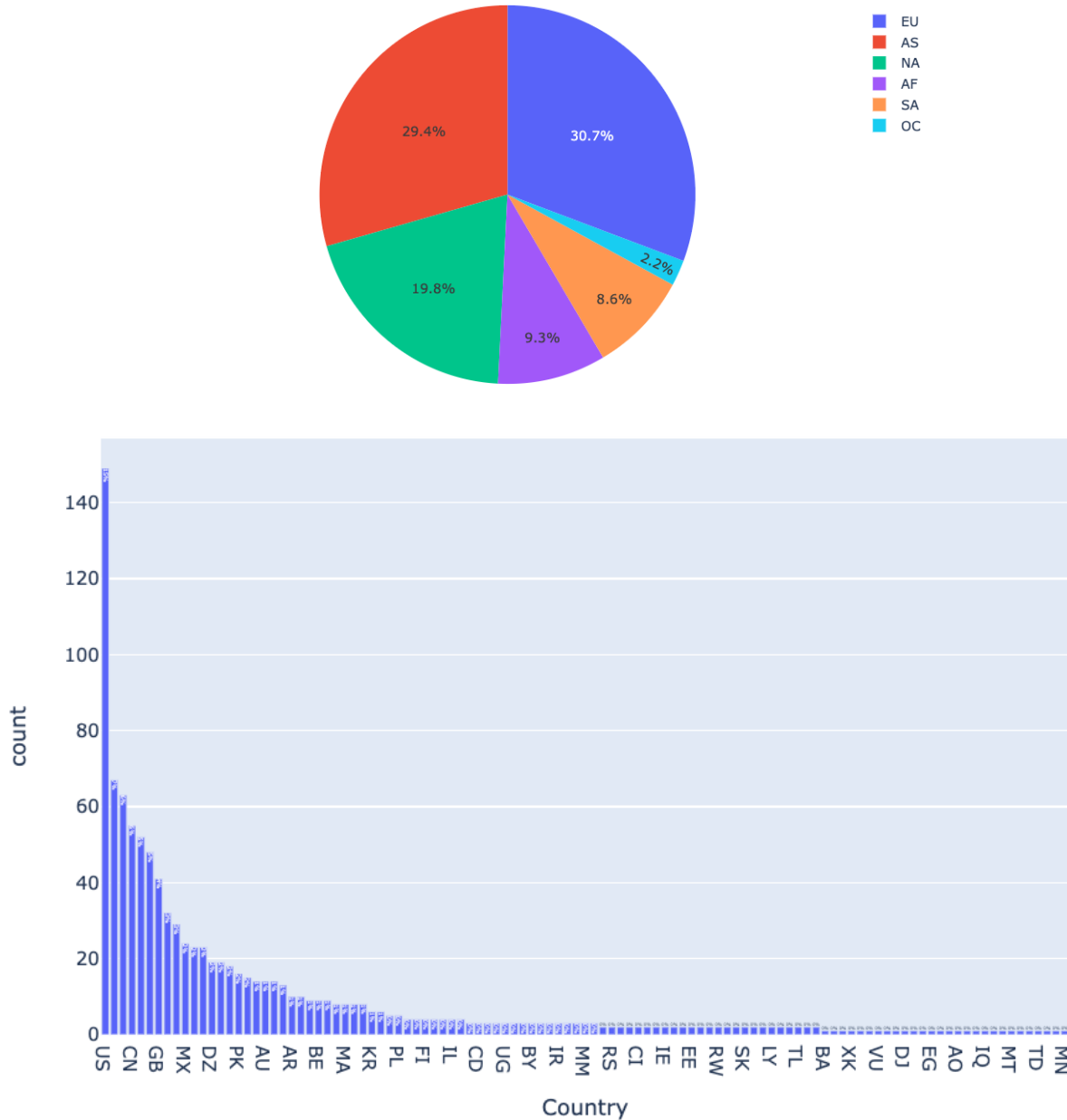
The primary dataset used in this report is the user's data. The user's data contains 1000 rows and 4 features. The data is ranging from January 2021 to December 2021. Each row of data represents one unique registered user of the Krikey App. Each user has its id, registration time, class, and coordinates at the time of registration.

The data cleaning process involves removing duplicated index columns, changing the features to correct data types, and checking for missing values.

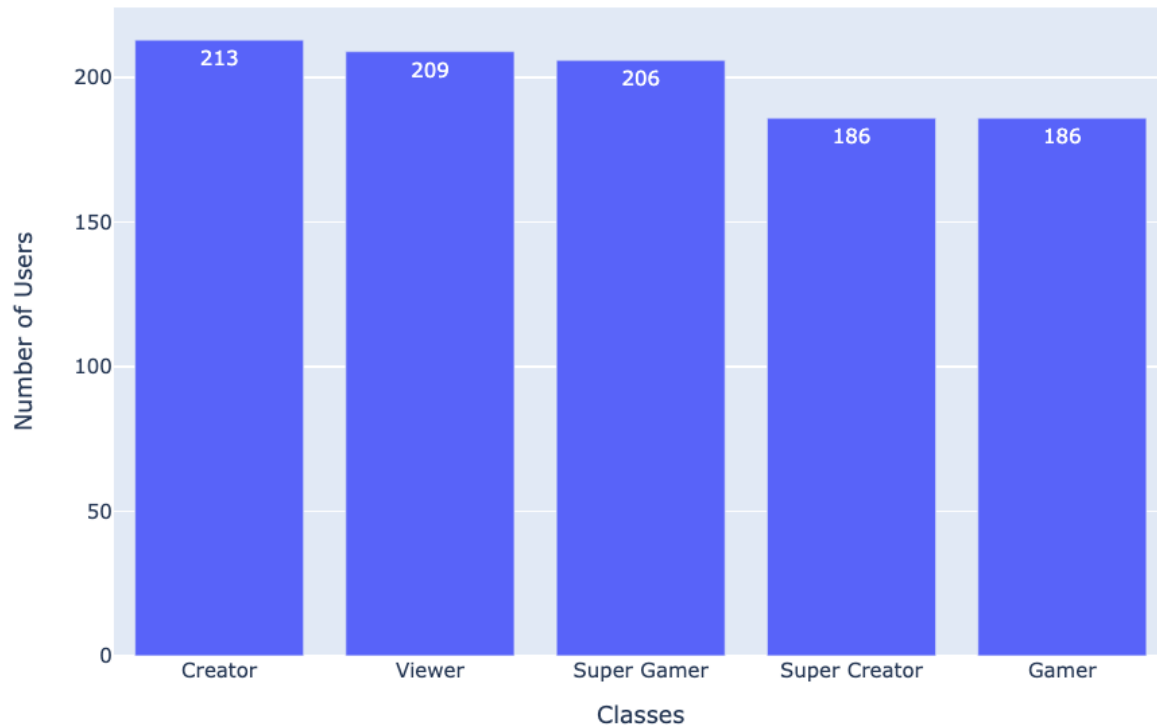
The coordinates were converted from strings to floats. By using string slicing, the latitudes, and the longitudes can be extracted and loaded into new columns. Using the coordinate, the geographical location of the users can be plotted.



The countries and continents were easy to get from the coordinates data using Python build-in package Geopy. The steps to process the coordinates data can be found in the source code. Krikey's users come from 109 countries and 6 continents. 31% of the users come from Europe, 29% of them come from Asia, and 20% of them come from North America. Oceania has the least number of users. From a country-level perspective, the US has more users than other countries.



The users are classified into five groups: creator, super creator, viewer, gamer, and super gamer. How does the classification carried out? What was the methodology used for the user's classification? When I was trying out the Krikey app, during the user registration stage, there is no option or selection for users to choose which class they belongs to. If the user classification is accurate and true, we can future conduct a cohort analysis to understand cohorts' behaviors and thus improve the Krikey app accordingly.



Recommendations

Diversity is the key characteristic of Krikey's users. It is also the keyword that will help the app to grow and become more successful. The user analysis shows that the users of Krikey come from different locations and different classes.

The current avatar creator contains elements mainly targeting South Asia users. However, based on the user's geographical location, we should also design other types of avatars. One of the recommendations is to allow users to create AR avatars with more skin colors, eye colors, and hair colors to improve the user experience. In addition, different language setup options need to be available for users who come from different countries.

Next steps

One thing is also worth noticing: Some features follow highly identical distributions across different groups. For example, when plotting the histogram of video duration of different game_id, the distribution is almost identical. Similar observations also happened on other features, for example, the distribution of num_shares of different operation systems, and the distributions of different feeds of videos. In order to conduct a deeper users behavioral analysis, these data and distributions are very important. Thus getting the correct data is an actional next step.

It is also important to know how the users are classified. For instance, what's the difference between a gamer and a creator? What's the difference between a super creator and a creator? Is there a 'super viewer'? Can a user be a creator and a gamer or other classes at the same time? Answering these questions will allow us to have a better understanding of the users' behaviors.

Krikey App Data Projects

After exploring the app, the following three analytics reports would contribute to the app's overall growth and retention:

- Cohort analysis

Since we already have the overall user analysis, the next step is to dig deeper. A cohort analysis is a study that focuses on the activities of a group of users that shares some common characteristics. Questions to be answered in this report should include:

- How are different groups of users behave differently?
- Are there any relationships or correlations between user behavior and their nationality, gender, os, and user class?
- How do the characteristics of a population relate to user retention?

- Journey Analysis

This is the way to measure and understand how users are progressing through paths from the moment they interact with the app to become active users. Questions to be answered in this report should include:

- How do users download the Krikey app?
- What is the onboarding process?
- Is the guidance provided have any correlations with user experience?
- What incentives are given to return or reuse the app?

- Feature performance analysis:

There are many features in the Krikey app that a user can explore. A user can play games, create videos, watch videos, and socialize with other users. The performance of each feature is definitely very crucial to the overall success of the app. Experiments and analyses should be carried out to improve the feature performance. For example, when a user finishes watching one short video on Krikey, it automatically slides to the next short video. Experiments can be conducted here, questions to be answered are like:

- How do the video recommendation algorithms work?
- Is the algorithm pushing the content based on the user's profile?
- Can we change the time interval between each video to allow users to have more time to react to the video, e.g. adding likes or comments on the video?.