# Top Streamers on Twitch



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### A little about Twitch and the dataset

- Twitch is an American live streaming platform that focuses on video games and esports
  - Founded in 2011 and acquired by Amazon in 2014
  - As of February 2020, it had **3 million** broadcasters monthly and **15 million** daily active users
  - Has an advantage over YouTube Gaming

- The dataset was collected by Aayush Mishra on Kaggle.com for the year 2019
  - The dataset consists of the **top 1000 channels** on Twitch and information about their watch time, followers, etc.

# Q's For The Streaming Industry & Top Streamer

- 1. What is the distribution of watch time and followers? Any outliers?
- 2. Is the streaming industry dominated by a few big streamers or equally shared by a huge number of streamers?
- 3. What are some efficient ways to gain followers?



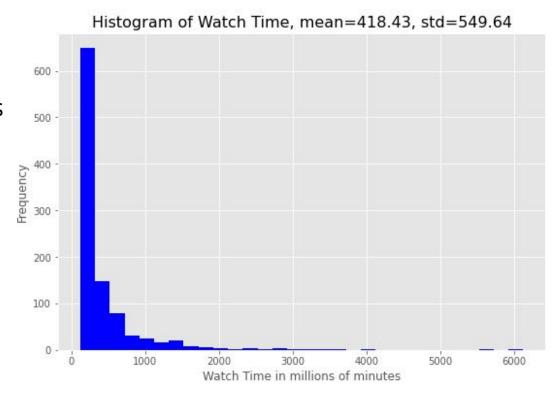
# Explore the data....

Using 2 important parameters:

**Watch Time and Followers** 

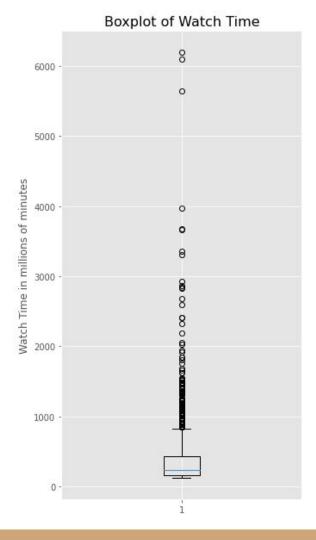
# Watch time

- The vast majority of Watch time falls in the the range of 100 - 500 millions of minutes with the mean = 418.43
- However, the data has a big deviation from the mean, which means there are a lot of outliers



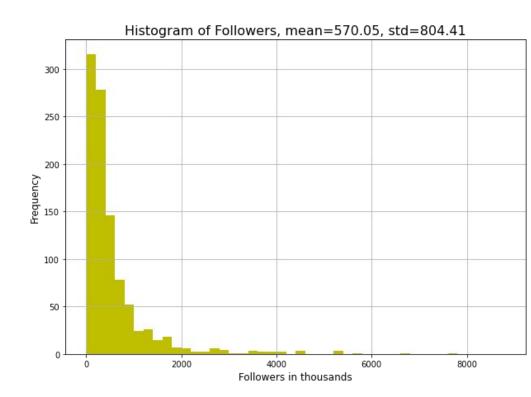
# Watch time Continued

- There are a few channels leading the competition of Watch time and the gap is huge.
- There are several big channels in between, but not as big as the ones above
- The Majority is clustered below the 500 million of minutes point



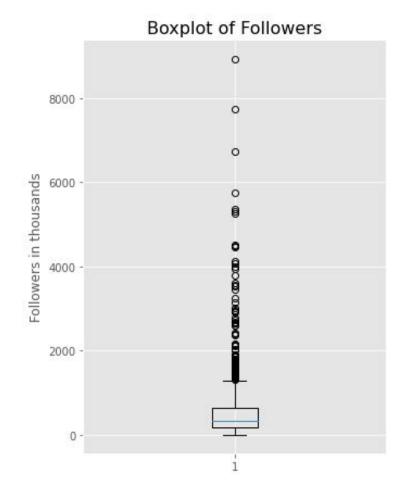
#### **Followers**

- The situation is similar for the number of followers
- The majority of channels have followers less than 600k
- The average number of followers is 570k and the standard deviation is 804, which is even bigger than for watch time



# Followers Continued

- There is a few super popular streamers
- The majority is clustered around the mean



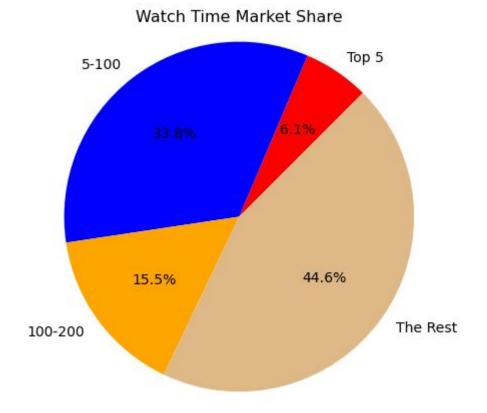
Hypothesis Testing....

# Hypothesis #1

The streaming industry is dominated by a few big streamers, ie. a minority of streamers claims the majority of watch time and followers.

# Watch time Market share

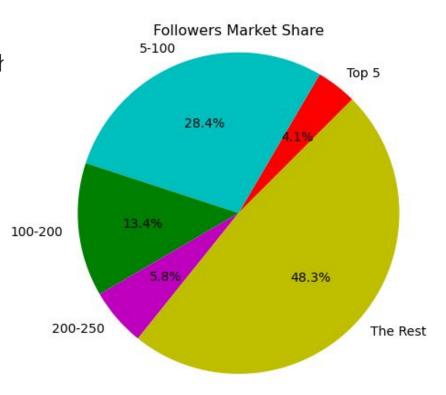
- Top 5 channels claim 6.1% of total watch time
- Top 100 channels claim 39.9% of total watch time
- Top 200 channels claim 55.4 % of total watch time



#### Followers Market Share

- Top 5 channels claim 4.1% of total watch time
- Top 100 channels claim 32.5% of total watch time
- Top 200 channels claim 45.9 % of total watch time
- Top 250 channels claim 51.7 % of total watch time





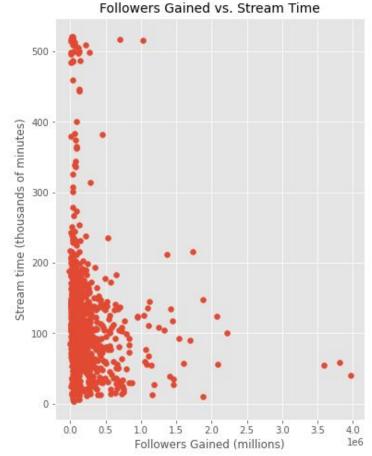
# Hypothesis #2

Increasing stream time is an efficient way to gain followers.

# Followers Gain Vs. Stream time

 There is no apparent positive correlation between Followers gained and Stream Time

Hypothesis 2 is rejected



# Hypothesis #3

Bigger streamers will be more likely to attract new followers

### Correlations

- Followers gained is most positively correlated with the number of followers, then watch time and peak viewers.
- Streamers with a big volume of followers are also more likely to attract new followers, which means big streamers will get bigger.

#### Hypothesis 3 is accepted

Watch time(Minutes)	0.514648
Stream time(minutes)	-0.158165
Peak viewers	0.470415
Average viewers	0.420097
Followers	0.715618
Followers gained	1.000000
Views gained	0.244297

# Conclusions

- The video games streaming industry is dominated by a a minority of big streamers
- There are really big streamers that create a huge gap in followers and watch time
- Streaming longer does not necessarily lead to attracting more followers
- Big Streamer are more likely to get bigger

