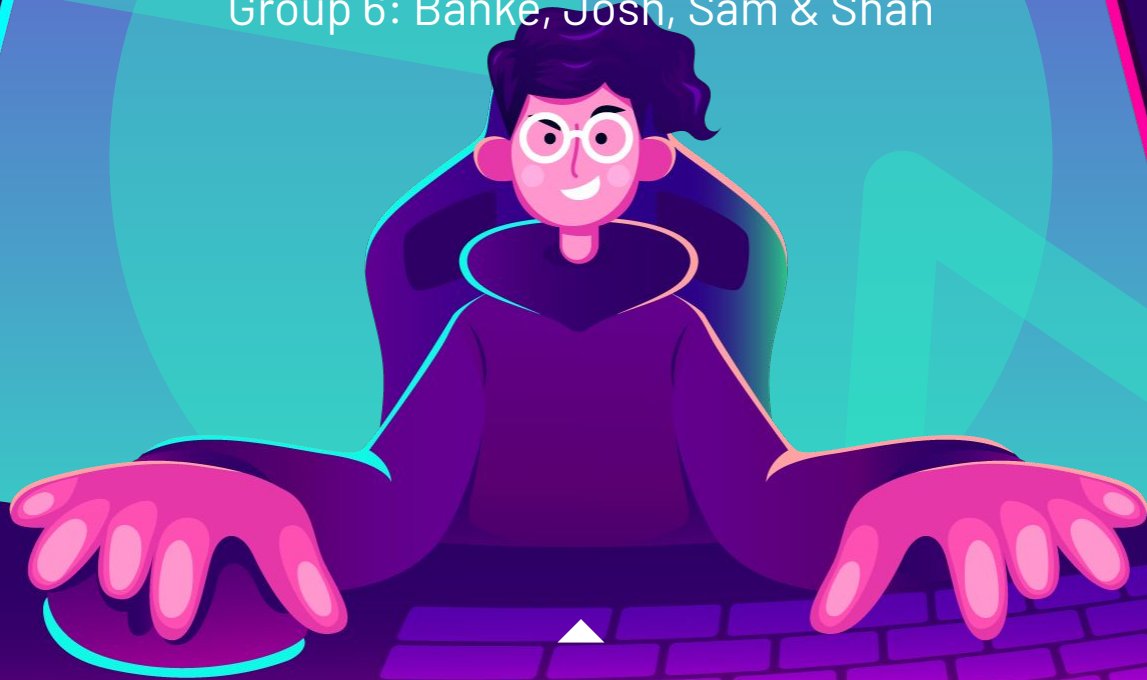


Games & Twitch

Group 6: Banke, Josh, Sam & Shan



Topic

Gaming and Streaming Industry

- ★ Video games sales in N.A. and in the world
- ★ Twitch
- ★ Relationship between two industries



Data

Datasets



Video Game Sales with Ratings

- Contains name, genre, platform, sales in millions, etc.
- From 1980 to 2020



Top Games on Twitch Data

- Top 1000+ Games on Twitch
- Contains viewer number and channel numbers, etc.
- From 2016 to 2021





+

Questions

▼

Is there any information in our datasets that affects game sales regionally and globally?

□

Hypothesis

Both positive ratings and high viewer/streamer count on Twitch have a positive effect on game sales

▲

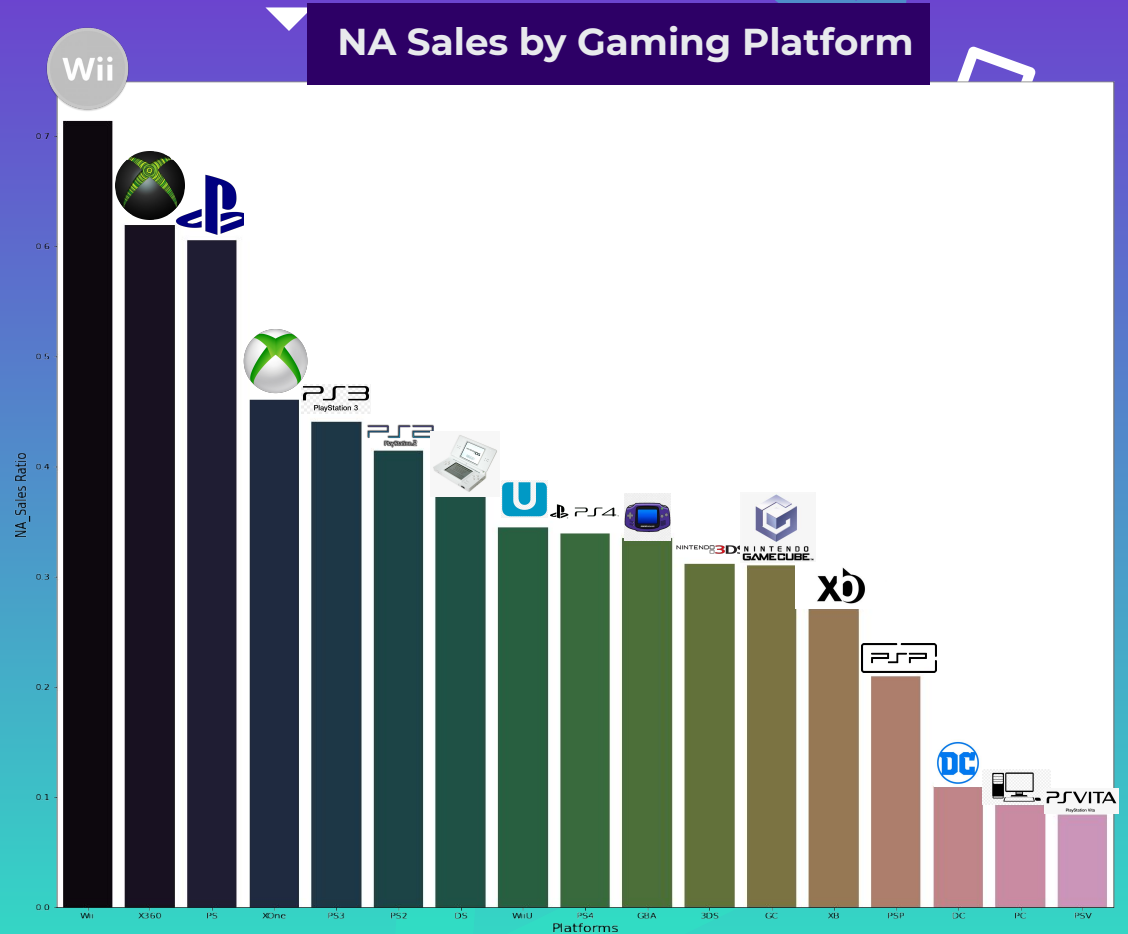
○

⚡



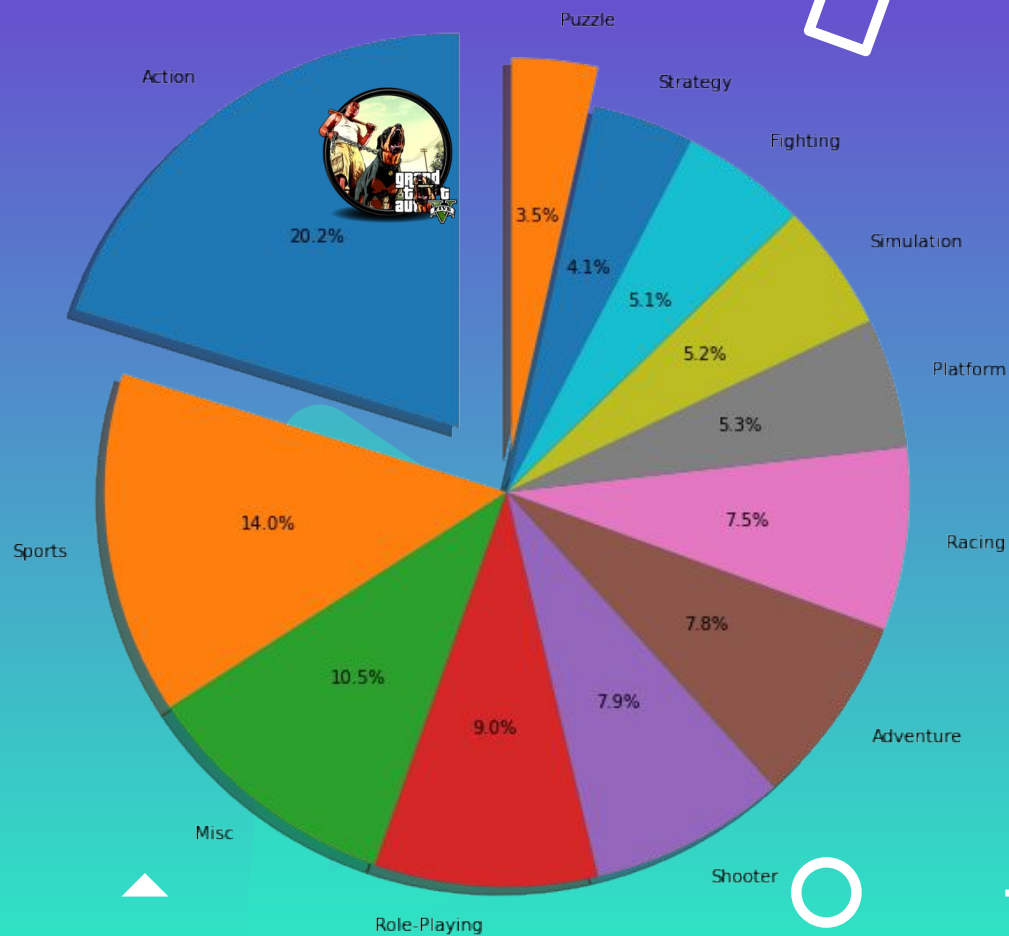
Video Game Sales Dataset

Most Popular Platform



Most Popular Genre

Game Sale by Genre



+

Most
Popular
Game

~

▼

Wii Sports

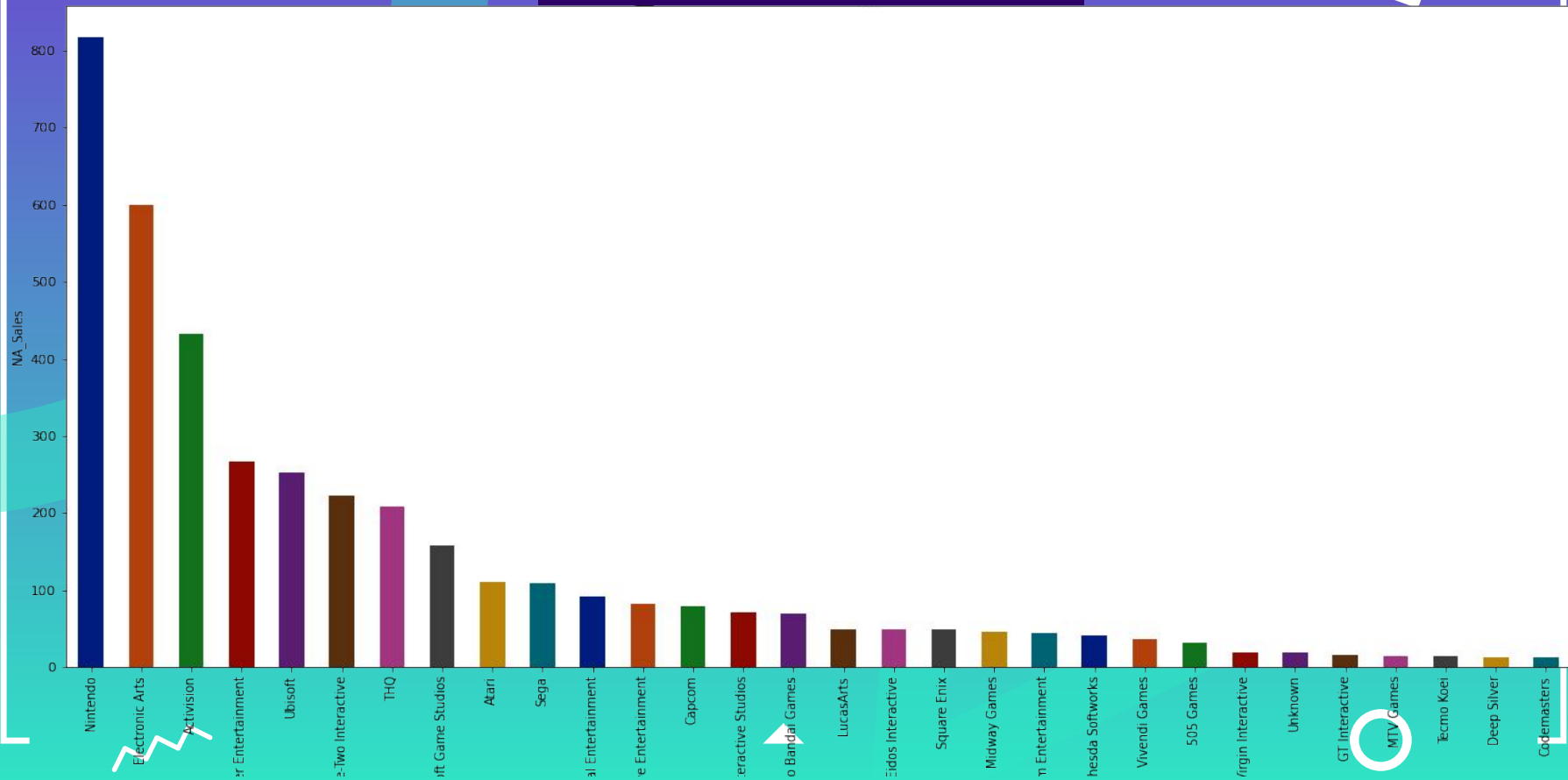
▲

Over 82 million units
sold globally!!!



Most Popular Publisher

NA Sales by Gaming Platform





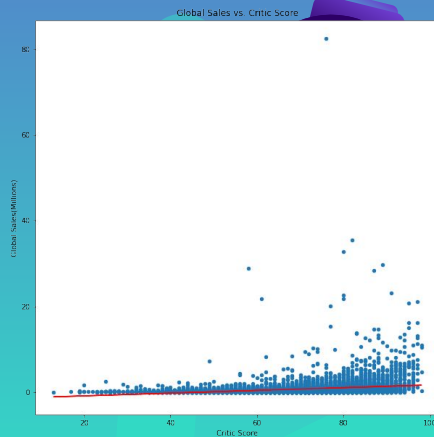
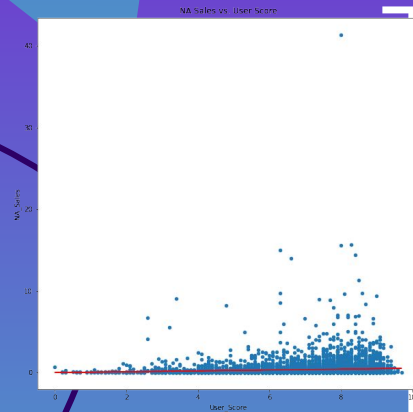
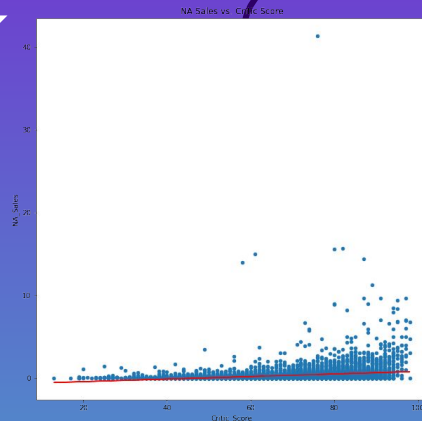
Finding Correlations



User Rating vs Sales



Critics Rating vs Sales

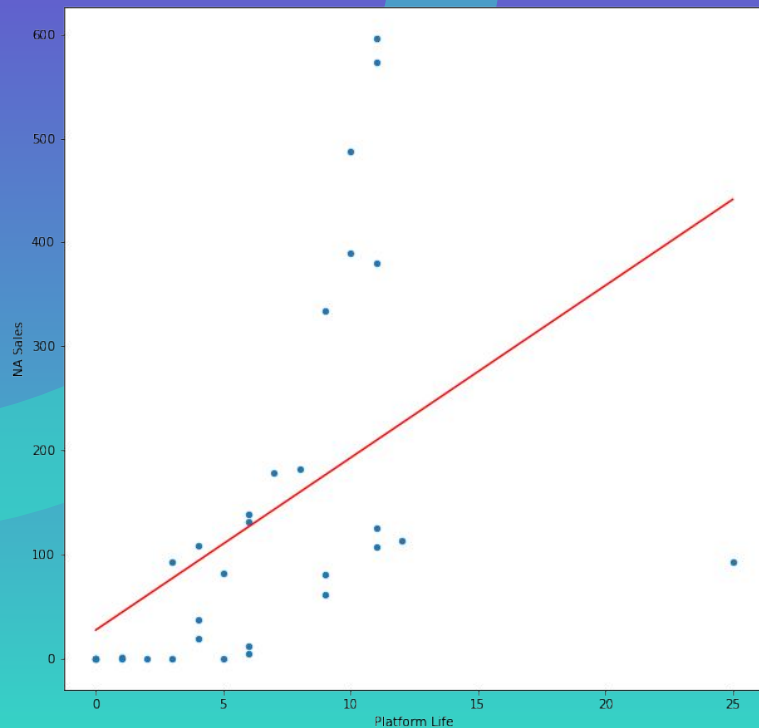




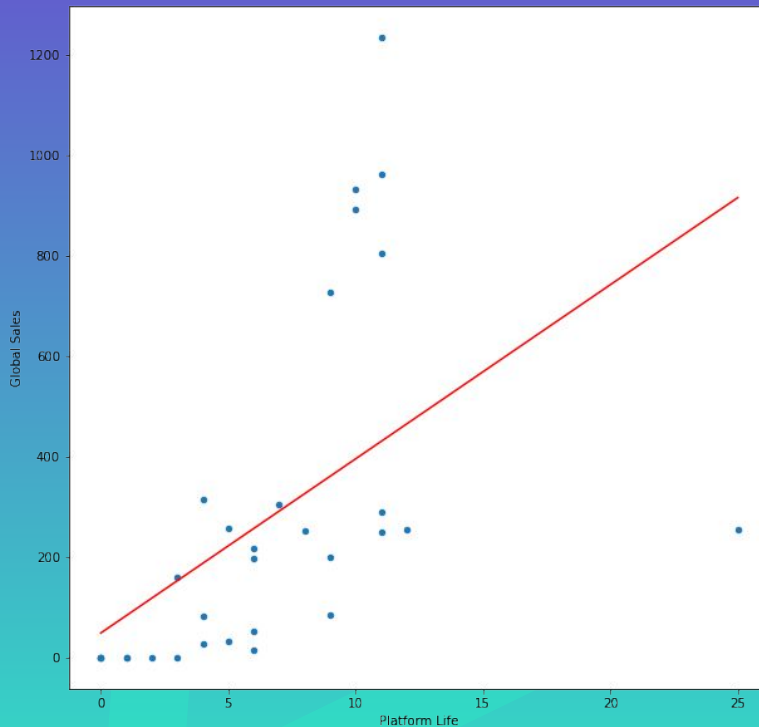
Platform Life v's Game Sales



Total NA Sale vs Platform Life



Total Global Sale vs Platform Life



Result

Low Correlation between sales and rating and platform life

Potential Reasons



There are many other aspects that impact the Gaming industry, so one factor cannot dictate sales



Reviews are often subjective

| | NA_Sales | Global_Sales | NA_Percentage |
|--------------|----------|--------------|---------------|
| Genre | | | |
| Shooter | 584.83 | 1041.83 | 56.13% |
| Platform | 444.44 | 825.86 | 53.82% |
| Sports | 671.20 | 1310.39 | 51.22% |
| Puzzle | 121.13 | 240.33 | 50.40% |
| Misc | 394.01 | 783.19 | 50.31% |
| Action | 863.17 | 1717.62 | 50.25% |
| Fighting | 220.51 | 442.63 | 49.82% |
| Racing | 356.86 | 723.69 | 49.31% |
| Simulation | 180.67 | 388.22 | 46.54% |
| Adventure | 101.39 | 233.25 | 43.47% |
| Strategy | 67.69 | 172.69 | 39.20% |
| Role-Playing | 330.04 | 930.90 | 35.45% |

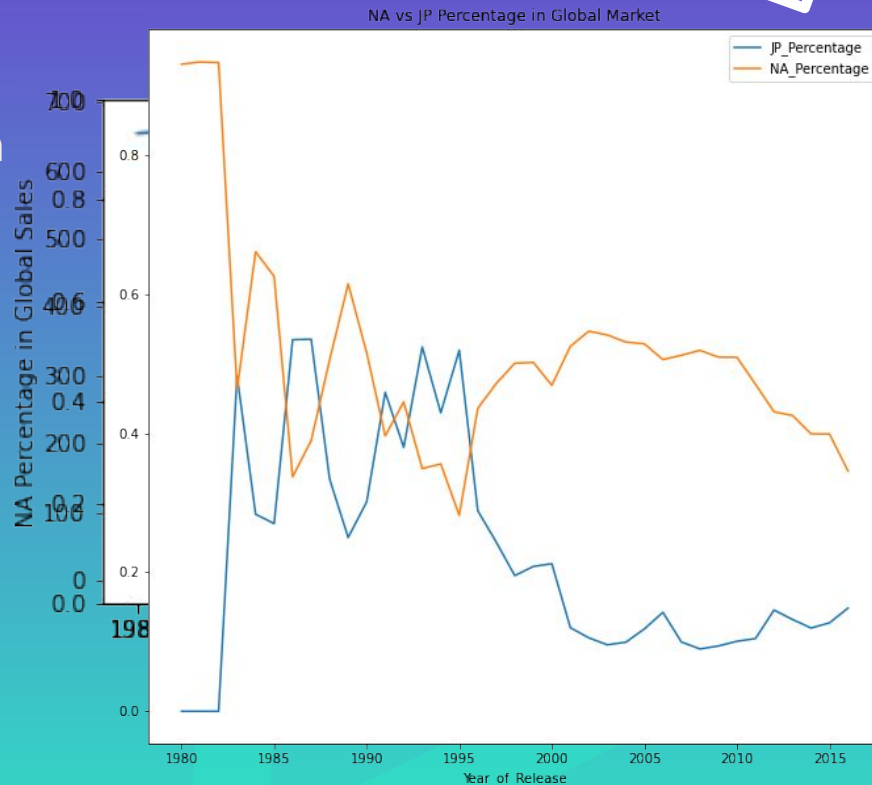
Discovery



**Strong correlation between
NA Sales and Global Sales**



**NA Percentage vs JP
Percentage in the gaming
market**



Part II

Twitch



Background Information



Live streaming service

- Focus on video games



Bought by Amazon in 2014 for \$970 million

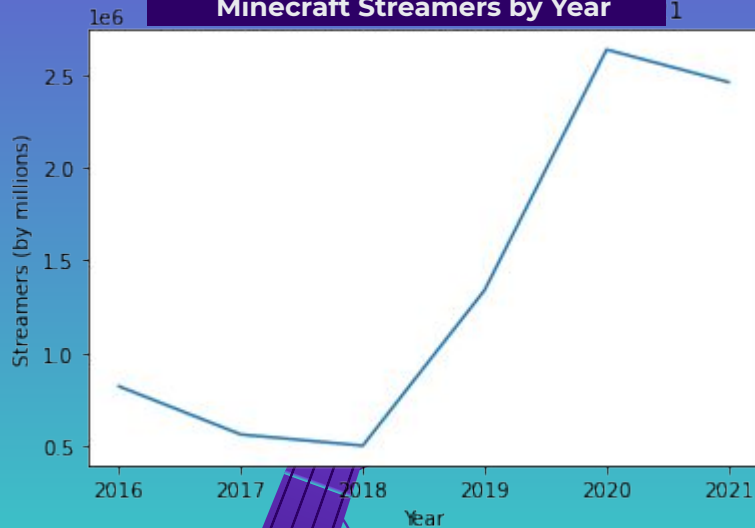


Peak Statistics:

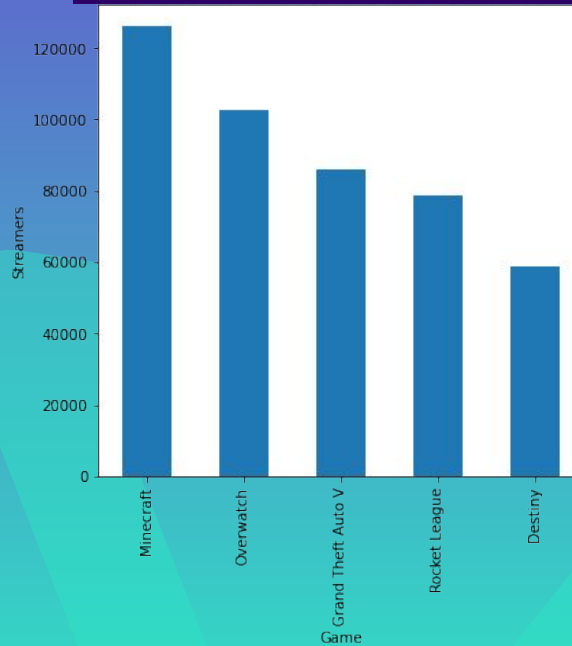
- 6,500,000+ viewers
- 200,000+ active channels

Twitch

Minecraft Streamers by Year

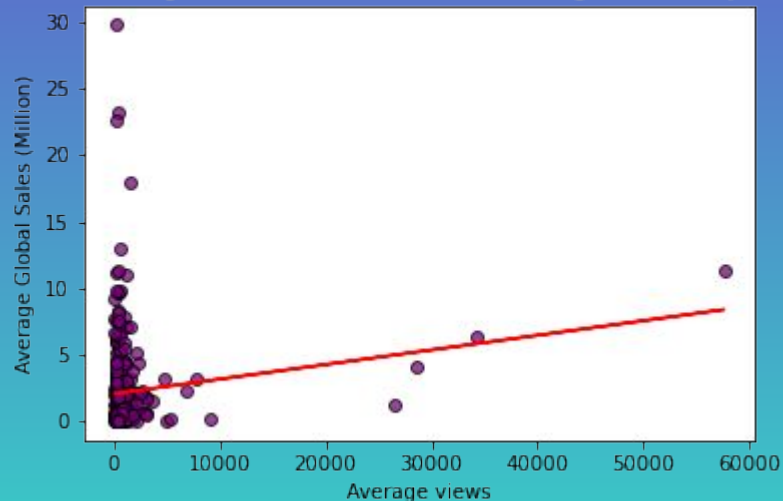


Top 5 Games by Avg Twitch Streamers



Correlation

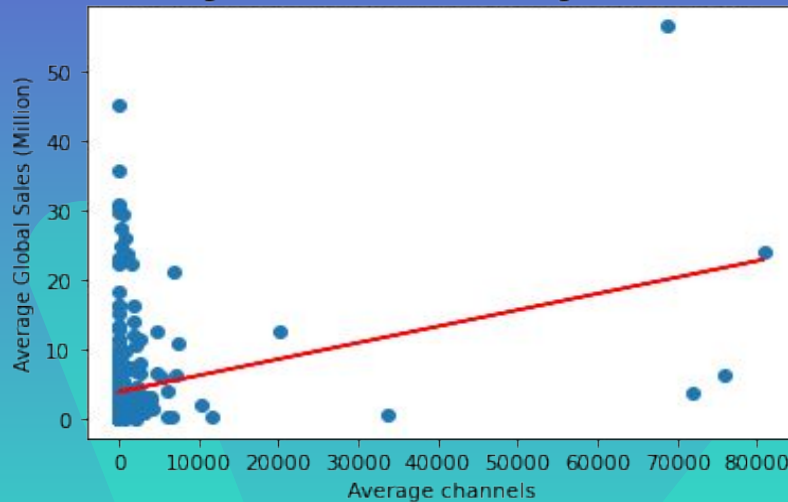
Average Global Sales (Million) vs. Average Viewership



R value ≈ 0.14



Average Channel Count vs. Average Global Sales

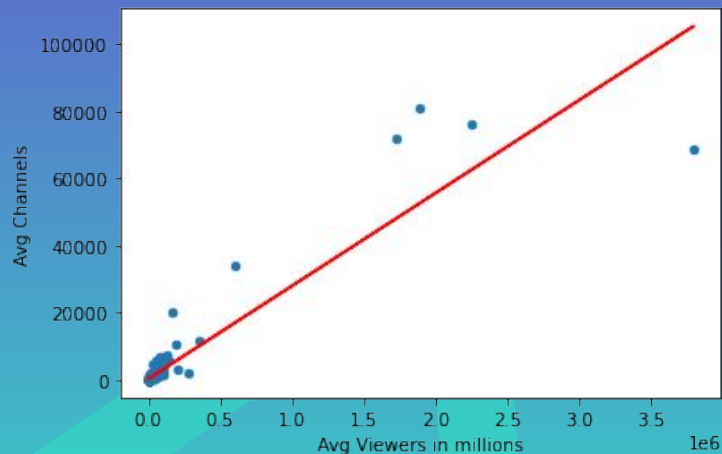


R value ≈ 0.28



Strong Correlation Between Number of Channels and Views

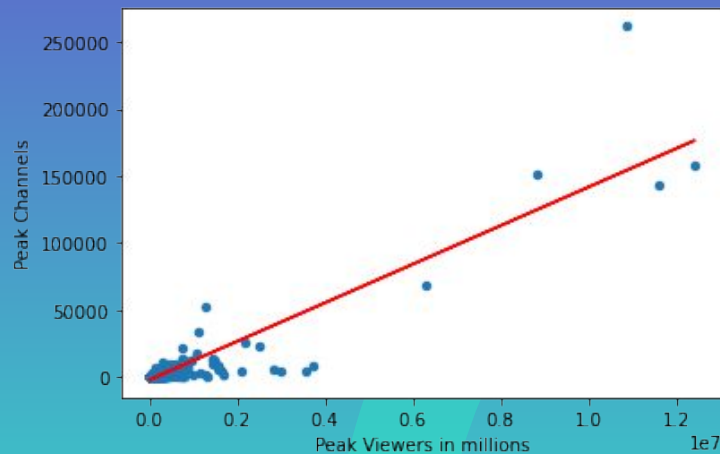
Avg. Channels vs Avg. Viewers (Millions)



R-value: 0.92



Peak Channels vs Peak Viewers (Millions)



R-value: 0.91



Strong Correlation Between Number of Channels and Views (Cont.)

Possible Reasons:



More channels for one game could imply:

- Higher output and demand
- More accumulated viewers



High views and channel counts do not mean these the streams and streamers are promoted on Twitch itself

- Twitch's algorithm promotes streams and channels based on personal preference

Main Findings

01
No correlation
between
channel/viewer
counts and game
sales

04
There is a strong
correlation between
Twitch viewership and
channel numbers.

02
No correlation
between ratings and
game sales.

03
There is a strong
correlation between
NA and global sales.

Limitations



Given project time



Outdated timeframe on Game Sale dataset



Twitch's API is only for integrating streams into applications and web-pages but not for statistics about the service



02

Future Exploration

What about future research?



Useful Resources for Further Investigation

<https://gamasutra.com/>

[https://www.pricecharting.com/a
pi-documentation](https://www.pricecharting.com/api-documentation)

For additional Gaming data!

<https://dev.twitch.tv/docs/api/>

<https://sullygnome.com/>

For additional Twitch data!



Thank you!

Kaggle, Anthony & Mark, & the whole cohort!



Q&A