



Consumer Analysis of the Gaming Industry

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TABLE OF CONTENTS

01

The Goal

02

The Data

03

The Analysis

04

The Take Aways

05

Annexes

01

THE GOAL



THE GOAL

[Extract consumer insights from an online gaming dataset]

02

THE DATA



3 MERGED DATASETS



VGChartz

Rows \approx 55700
Columns = 23



Metacritic

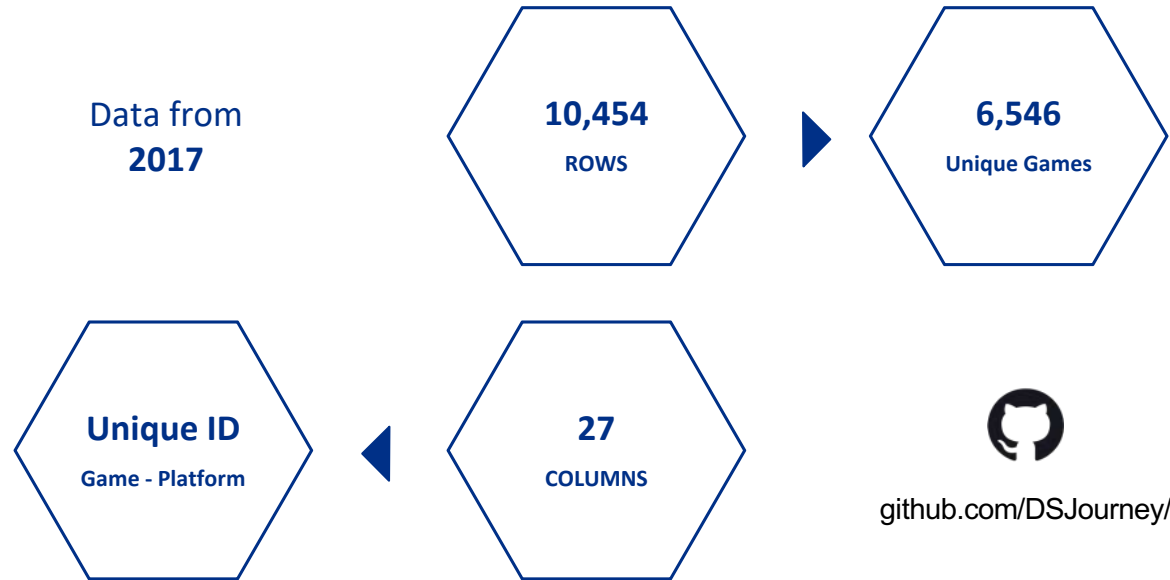
Rows \approx 20400
Columns = 18



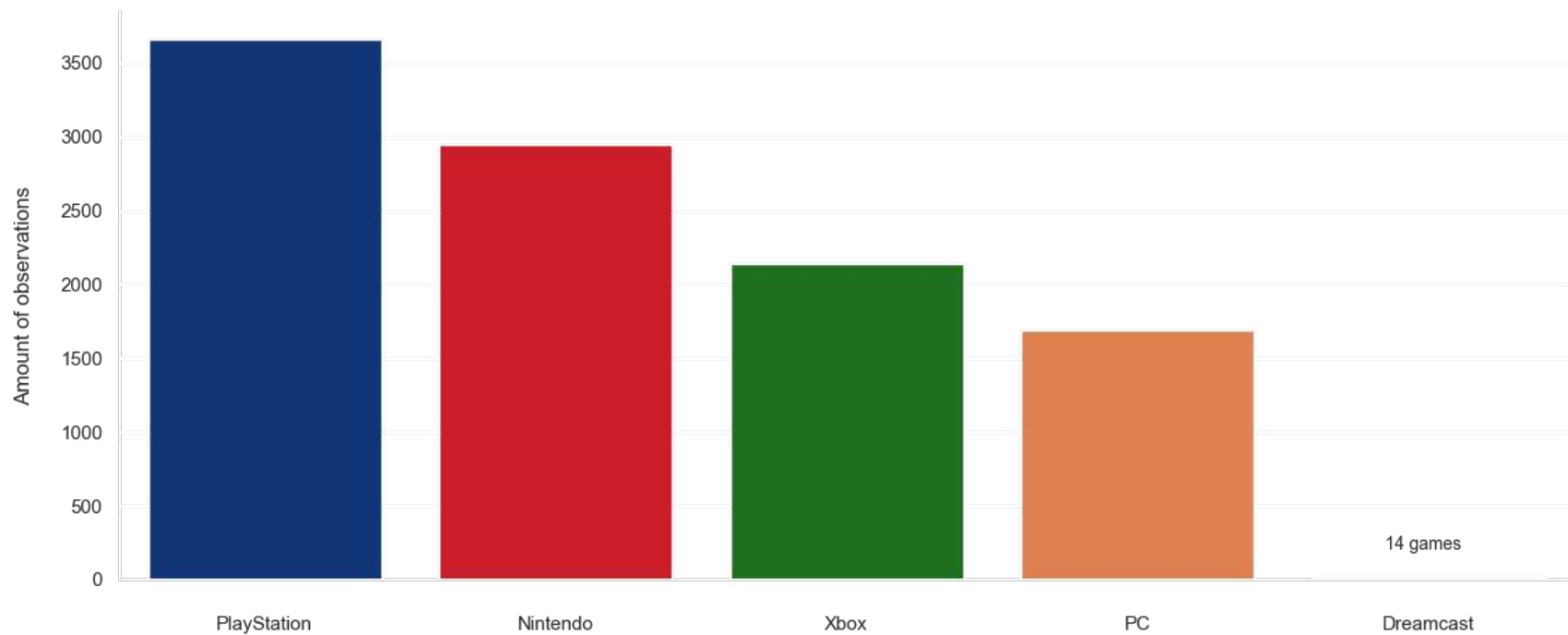
DataWorld

Rows \approx 16600
Columns = 11

THE FINAL DATASET



Number of games by Platform



03

THE ANALYSIS





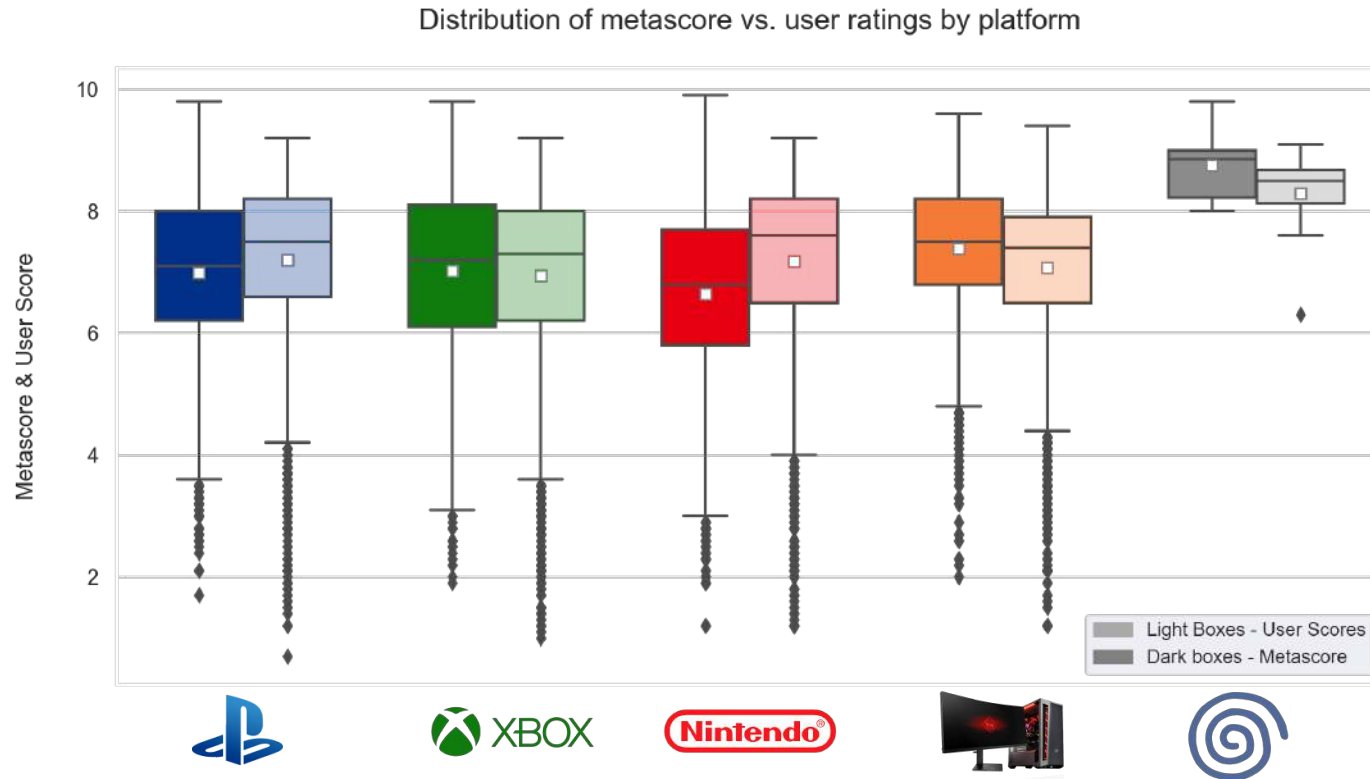
Let's begin
by looking at
users &
critics review
scores



Do games from different platforms differ on their review scores?

Dreamcast games had significantly better reviews than games from other platforms.

The limited number of observations for Dreamcast is possibly the culprit.





Do users & critics usually agree on their reviews?

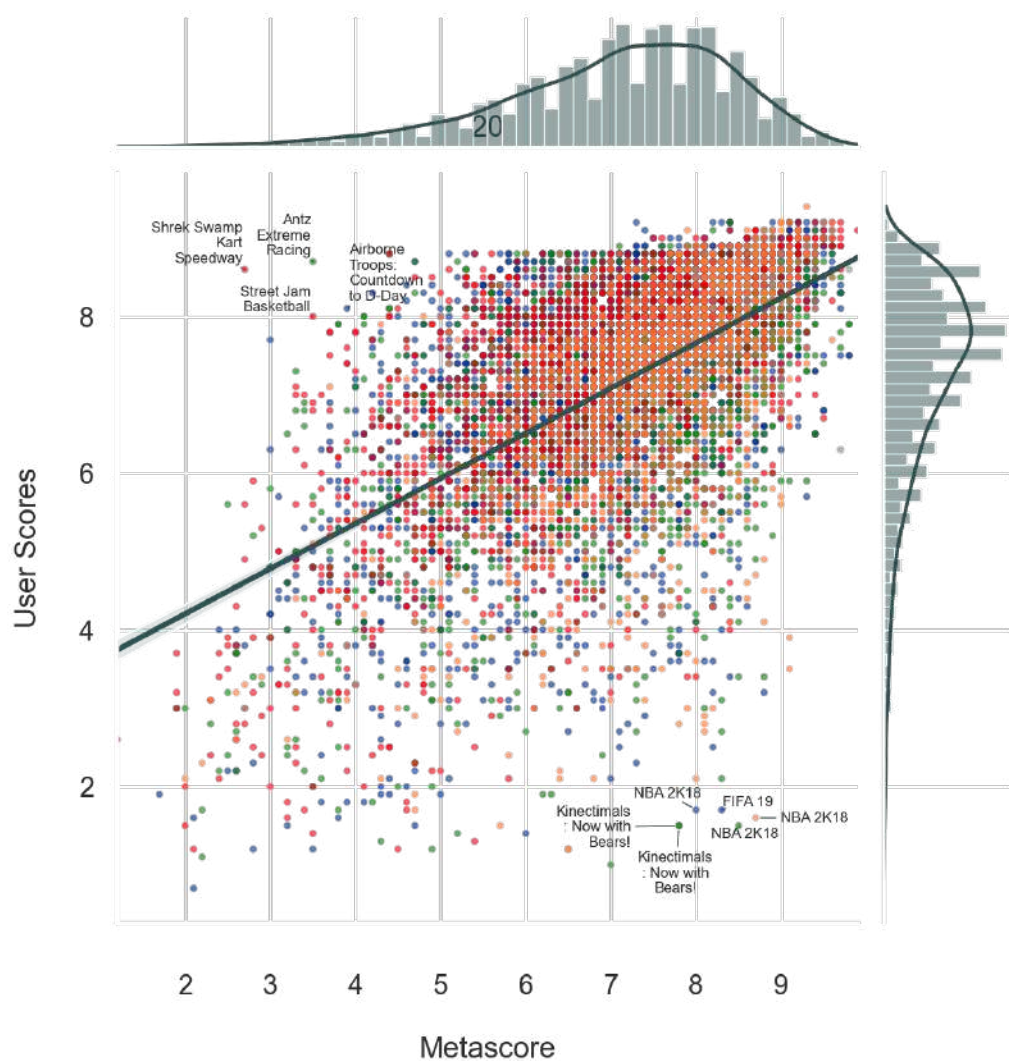
Are users and critic scores correlated?

Users & critics scores are positively correlated in all platforms.

This correlation is statistically significant, with the only exception of Dreamcast due to its small game sample size.

Spearman's Rho = 0.53 $p < 0.001$

- PlayStation: $R = 0.5$, $p = 0.0$
- Xbox: $R = 0.49$, $p = 0.0$
- Nintendo: $R = 0.63$, $p = 0.0$
- PC: $R = 0.58$, $p = 0.0$
- Dreamcast: $R = 0.23$, $p = 0.42192$



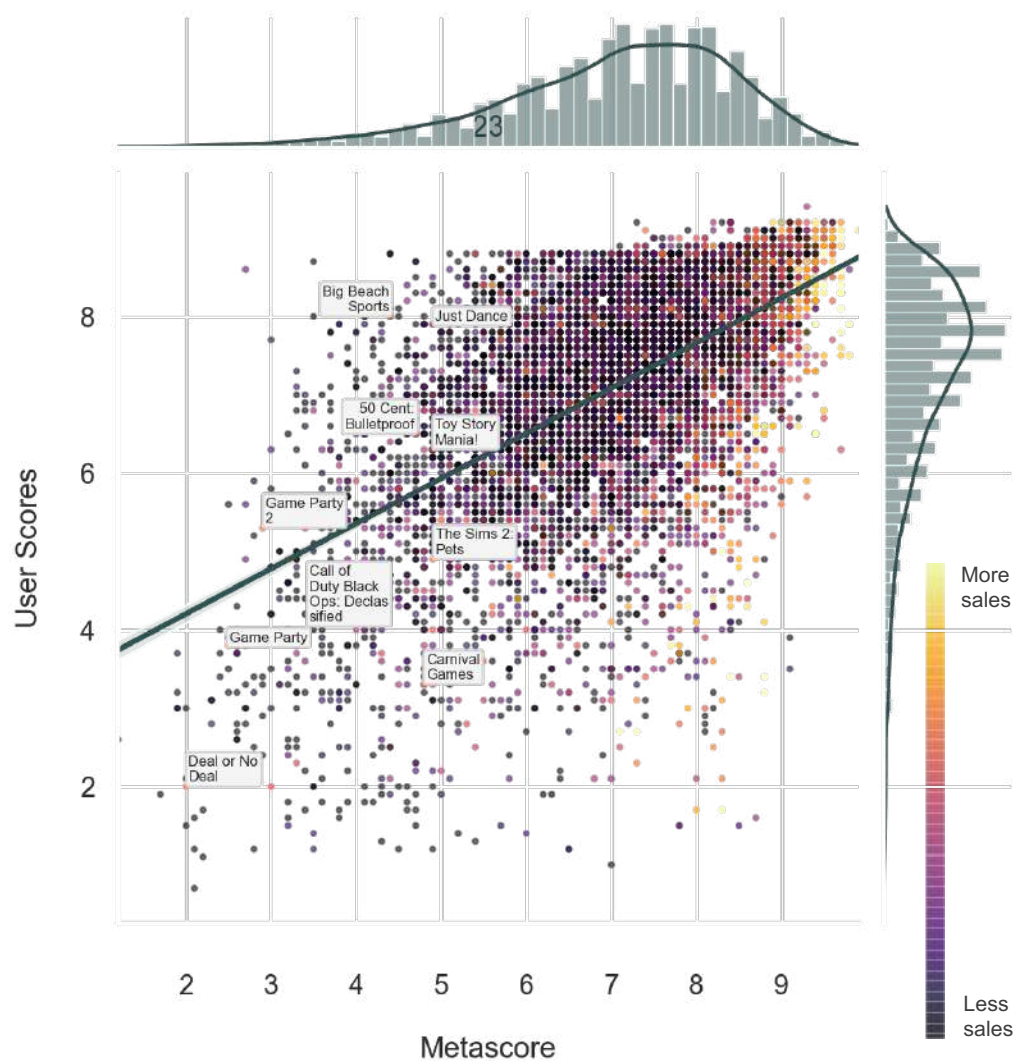


Are games with good reviews sold more & games with bad reviews sold less?

Are users & critics scores associated with the number of sold copies from each game?

Games with good reviews are sold more than those with bad reviews and viceversa.

Labeled games are those that fall into the 10% of most copies sold but have a critic or user score lower than 5



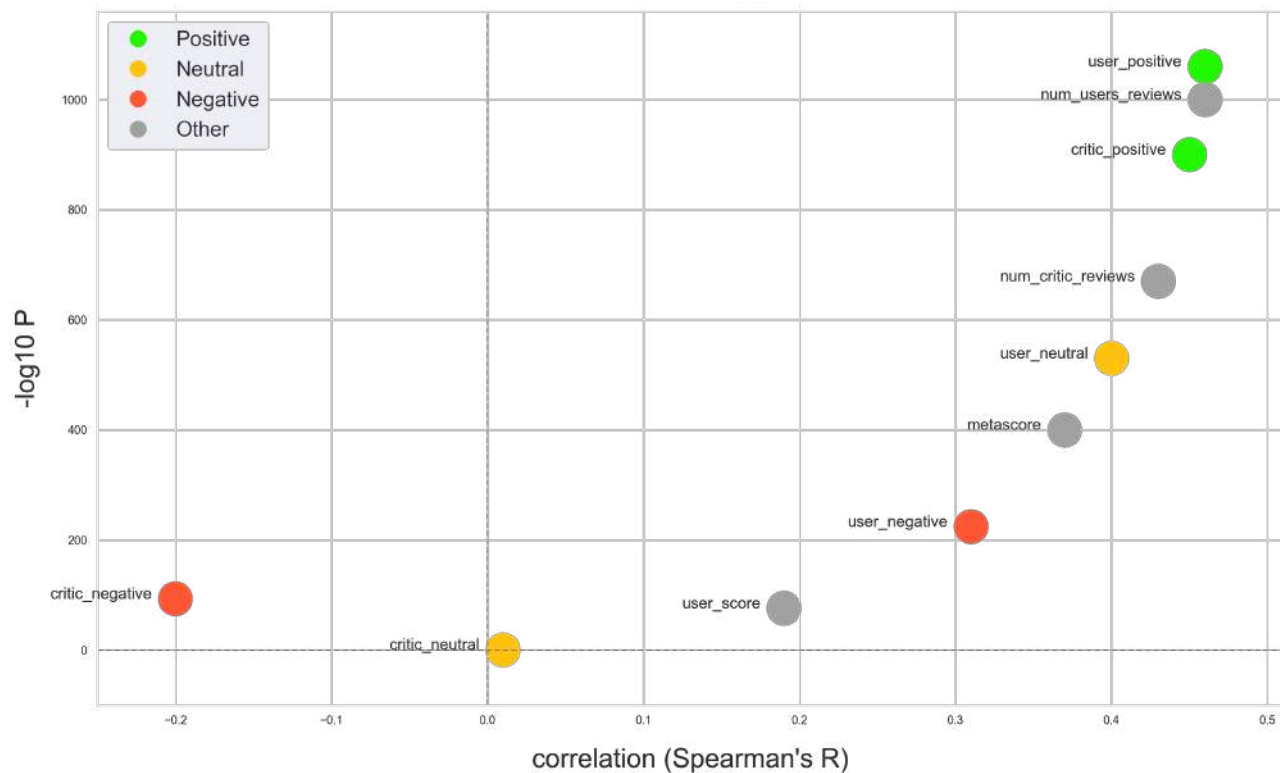


Which review metric is a better predictor of how well/poorly a game is going to sell?

The “number of users positive reviews” and the “number of users total reviews” are the best predictors of games success (number of sold copies).

These metrics are much more important than the actual users/critics scores.

Curiously, having a high “number of user negative reviews” is associated with HIGHER sales.



Insight 1:

It is more important that people speak about a game than how they speak about it.

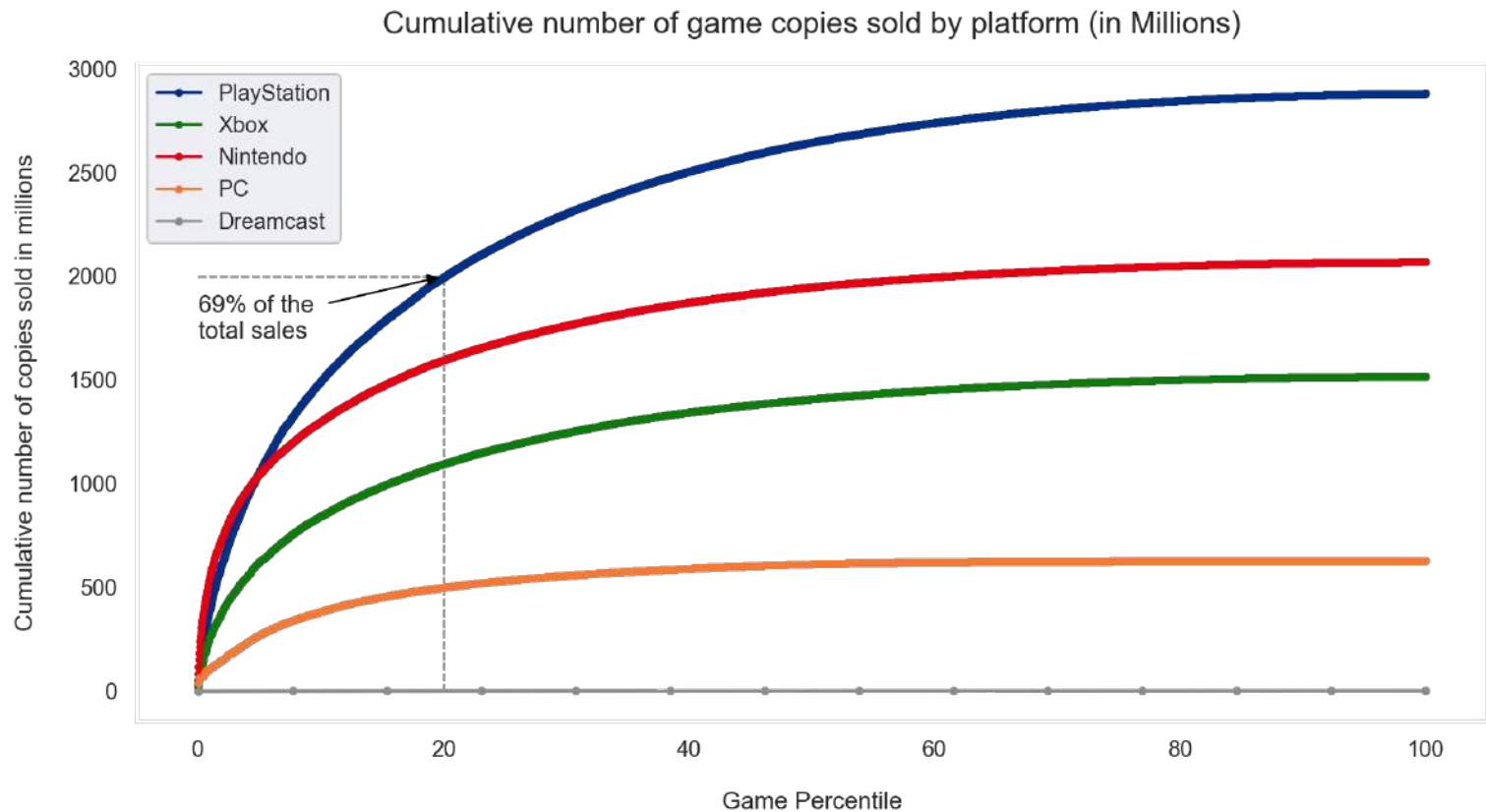
“Bad press is better than no press”.

Talking about
games
sales...



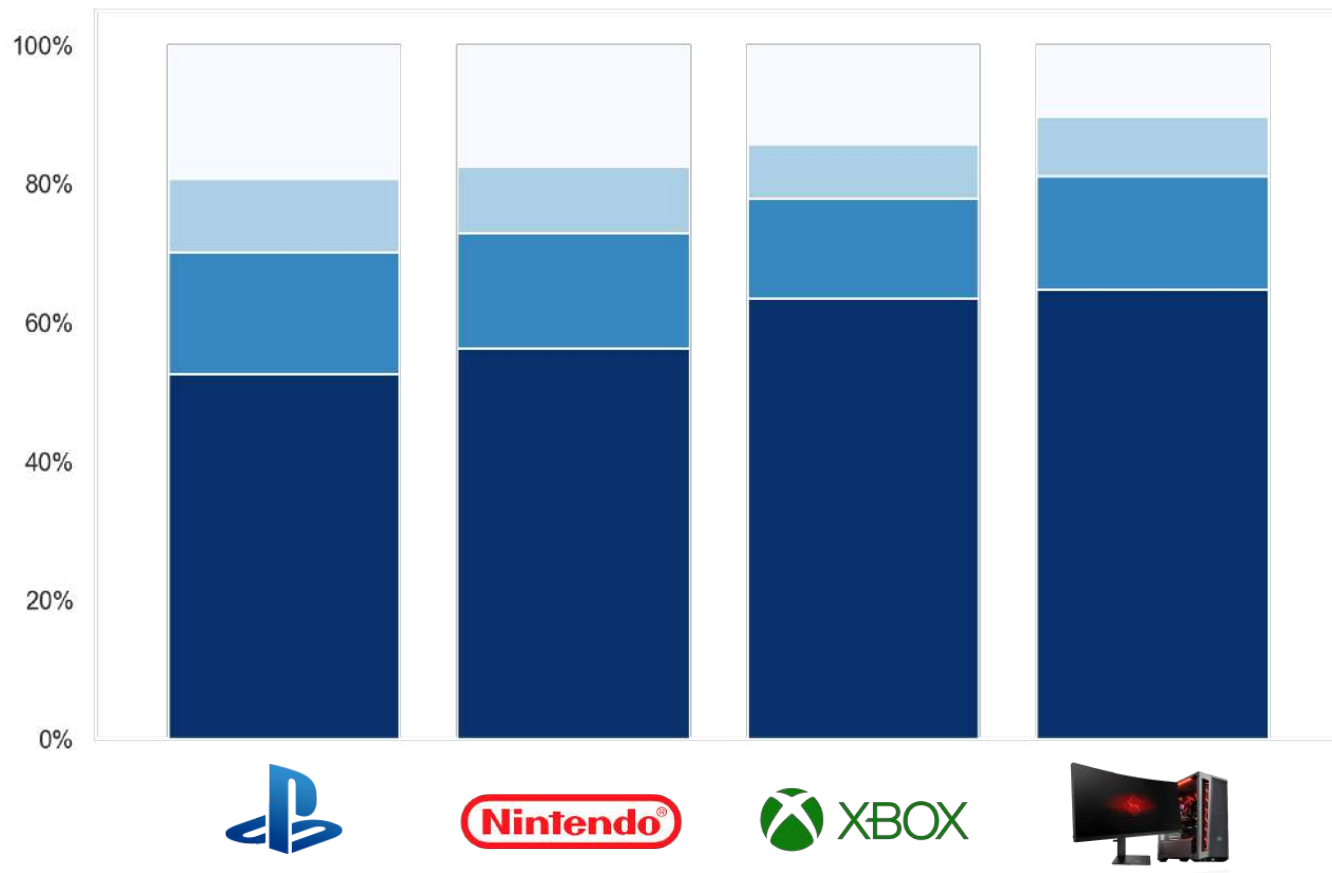
How does the distribution of global sales per game look like?

There is huge inequality in the number of sales from different games (log. distribution).



A minority of games generate the majority of sales.

Percent of global sales grouped by percentiles



Insight 2:

It is much more effective to focus on producing a few blockbuster games than many “okay” ones.

“Quality is better than quantity”.



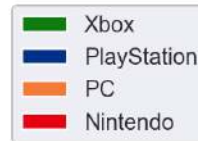
But let's go
local...



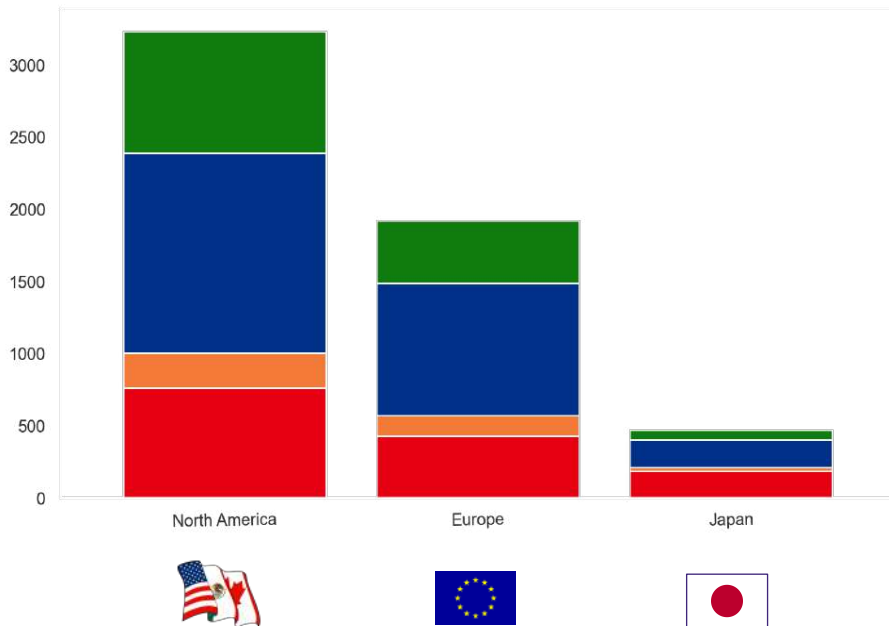
Does platform popularity differ between regions?

The share of games sold by each platform differs between regions.

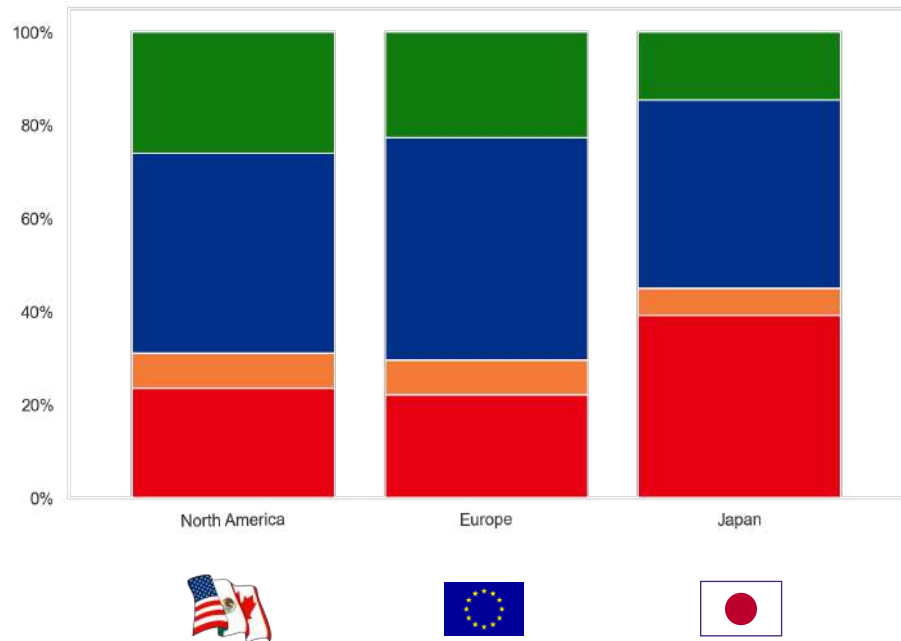
In Japan Nintendo's relative market share is bigger than in Europe and Northamerica, while Xbox's is smaller.



Absolute Sales by Platform in Each Region



Percent of Sales by Platform in Each Region



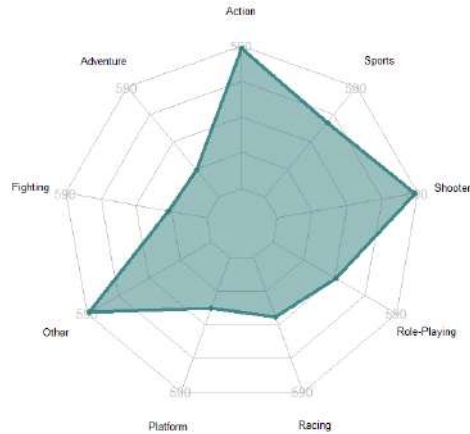


Does game genre popularity differ between regions?

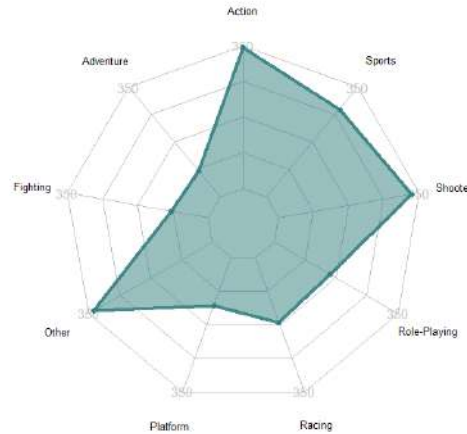
Genre preferences in North America & Europe are very similar, while more different in Japan.
Action games are popular everywhere. In NA and EU, Sports and Shooter games are well-liked. In Japan, Role-Playing games are big.



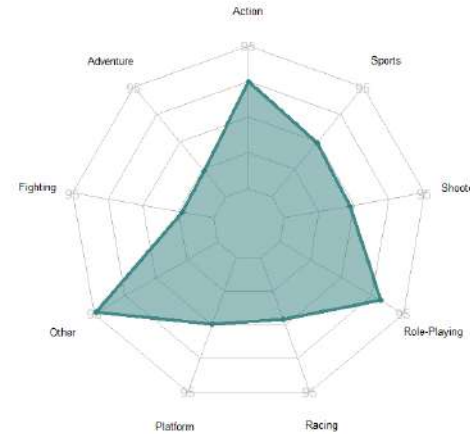
North America sales per genre



Europe sales per genre




Japan sales per genre



Axes = Copies sold per genre (Millions of units)

Insight 3:

To target worldwide consumers, **Action** games are the safest choice. To target Japanese consumers, go for **Role-Playing** games. For North American and European ones, go for **Sports** or **Shooter** games.

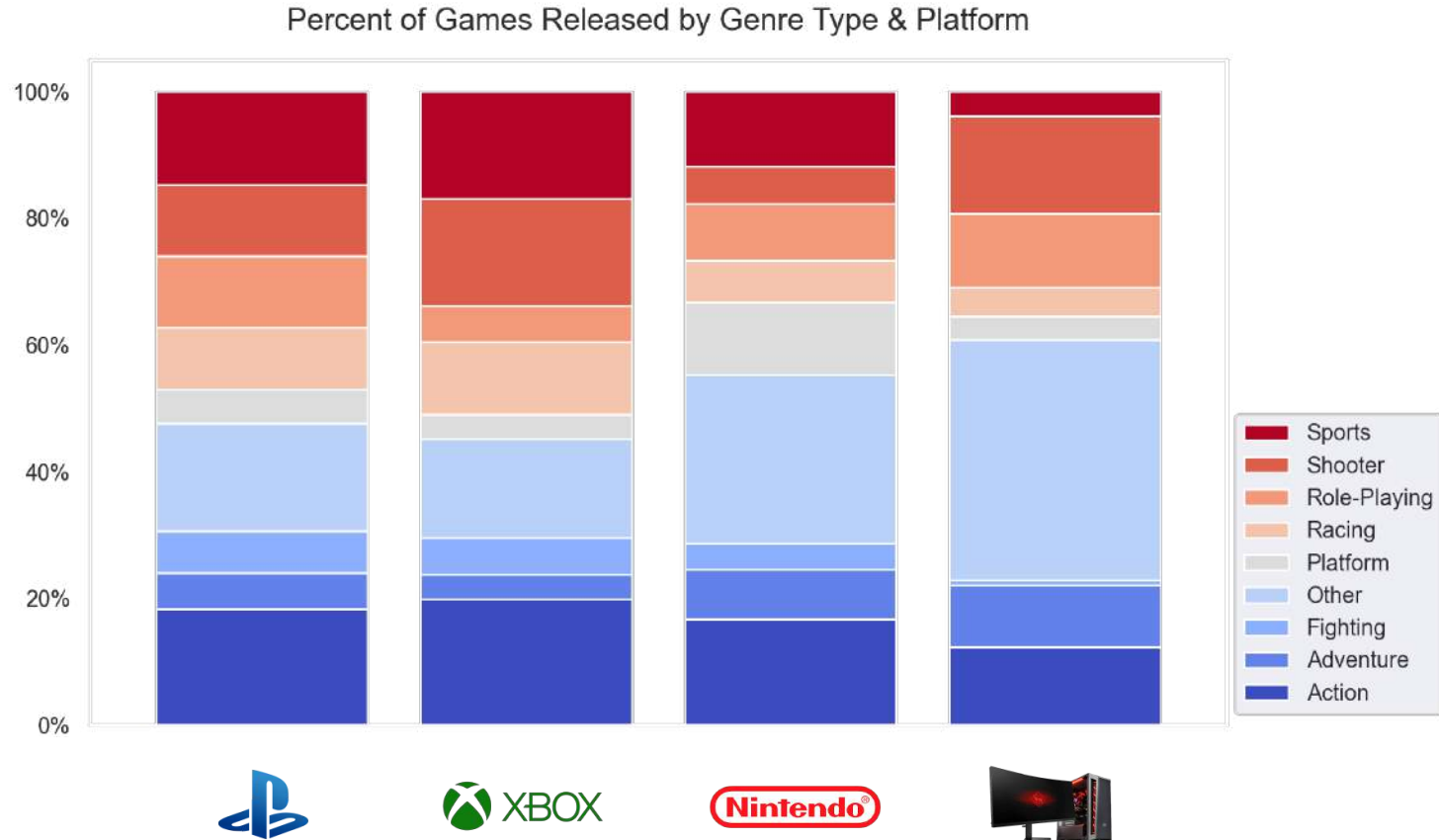


Since we are
getting into
genres...



Do platforms differ on the genres of their released games?

Platforms differ slightly on the percent of some game genres in their overall portfolio.



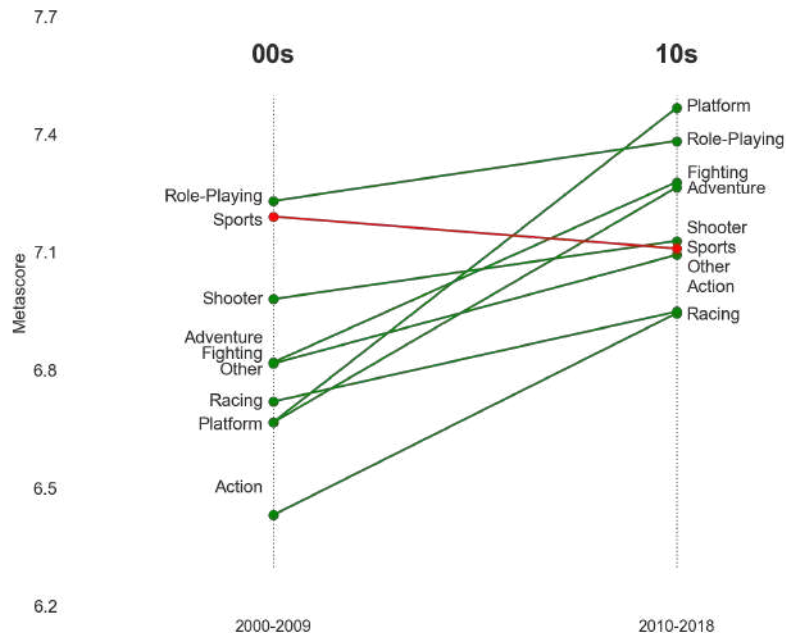


Have genre reviews changed in the last decades?

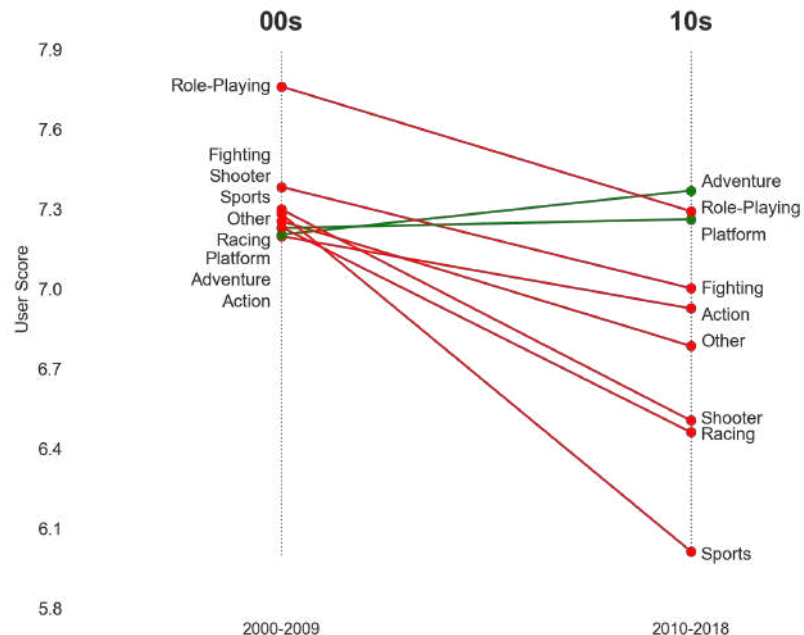
Critics have become more benevolent in their ratings, users have become...

We can highlight the extrem cases, Sport, Platform and Adventure games, which have opposite movements to their peers

Slopechart: Comparing Metascore Evolution
between 2000 vs 2018



Slopechart: Comparing User Score Evolution
between 2000 vs 2018



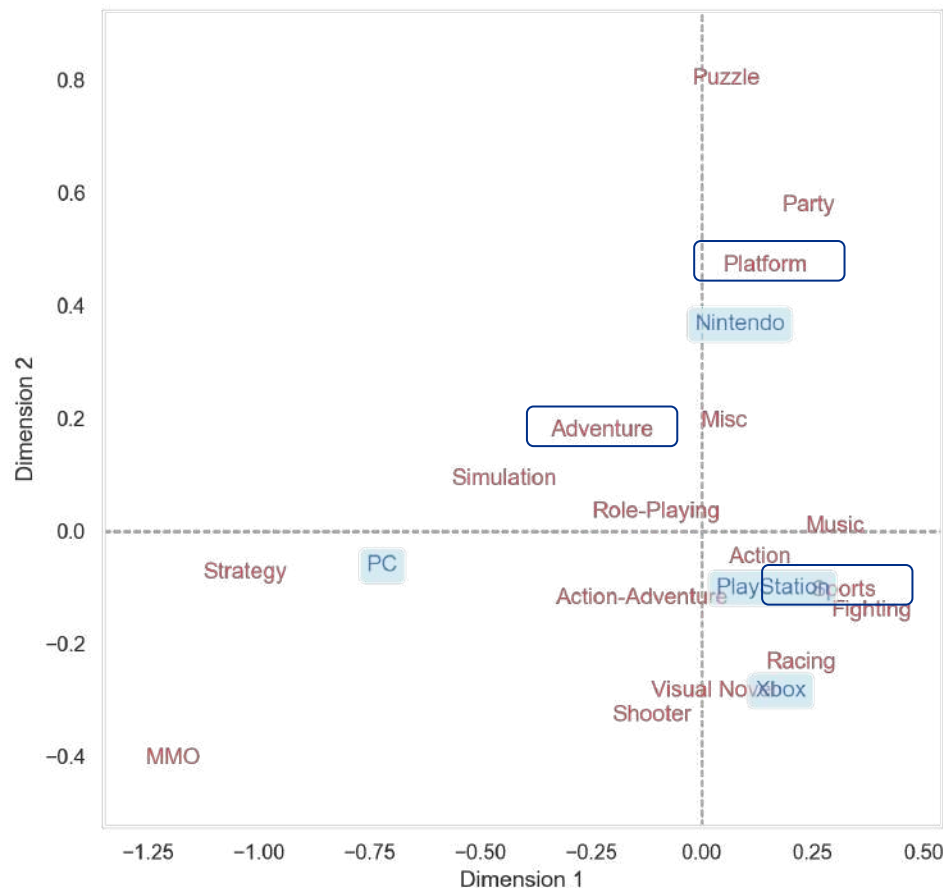
A correspondence analysis shows us that for our data, the **Platform** genre is most associated with **Nintendo** while the **Sports** genre is more associated with **PlayStation**,

This is inline with what we saw on the first figure of this section. **Adventure** seems to fall in between but this is possibly because it is being pulled by PC away from Nintendo.

Insight 4:

Keeping an eye on Platform and Adventure games can be worth it, given their surge in positive user reviews.

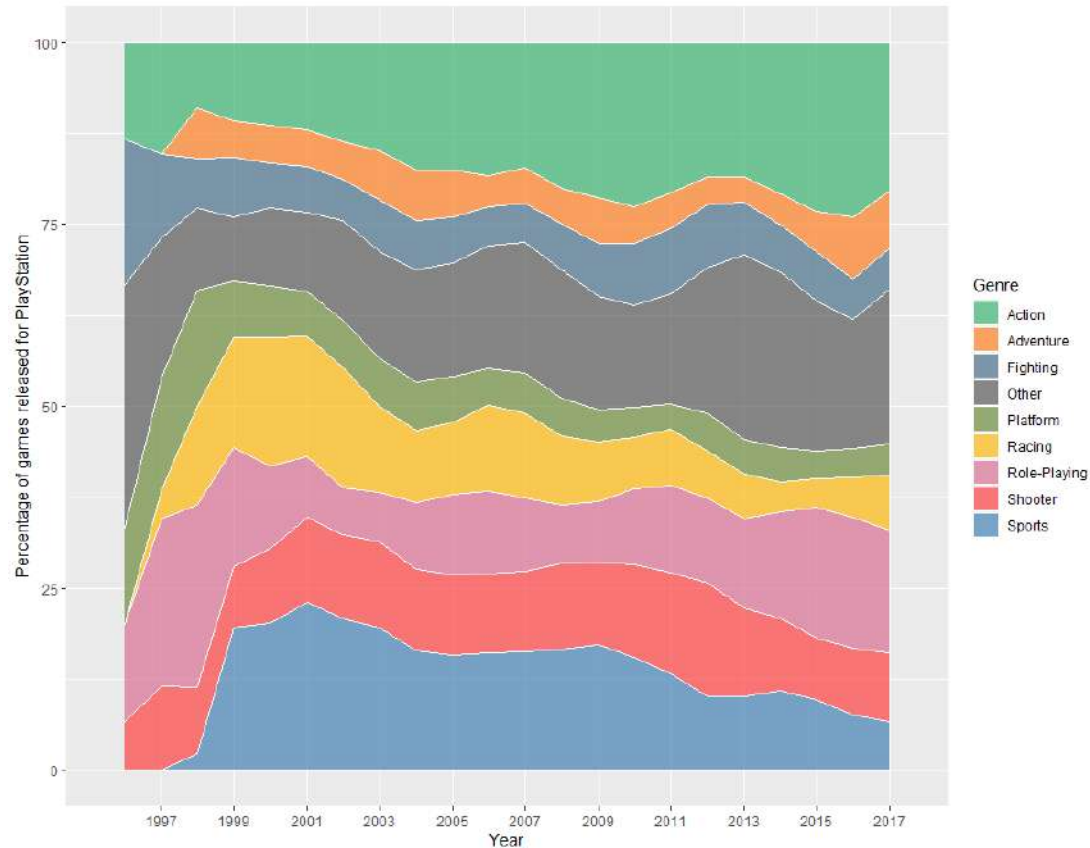
Correspondence Analysis of Platforms and Genres





In PlayStation, how has the genre of released games changed over time?

In recent years, the share of Role-Playing games released for PlayStation is increasing while the share of Sports games is decreasing.



Insight 5:

Increasing the share of **Role-Playing** games might be a good strategy to grow in the Japanese market.

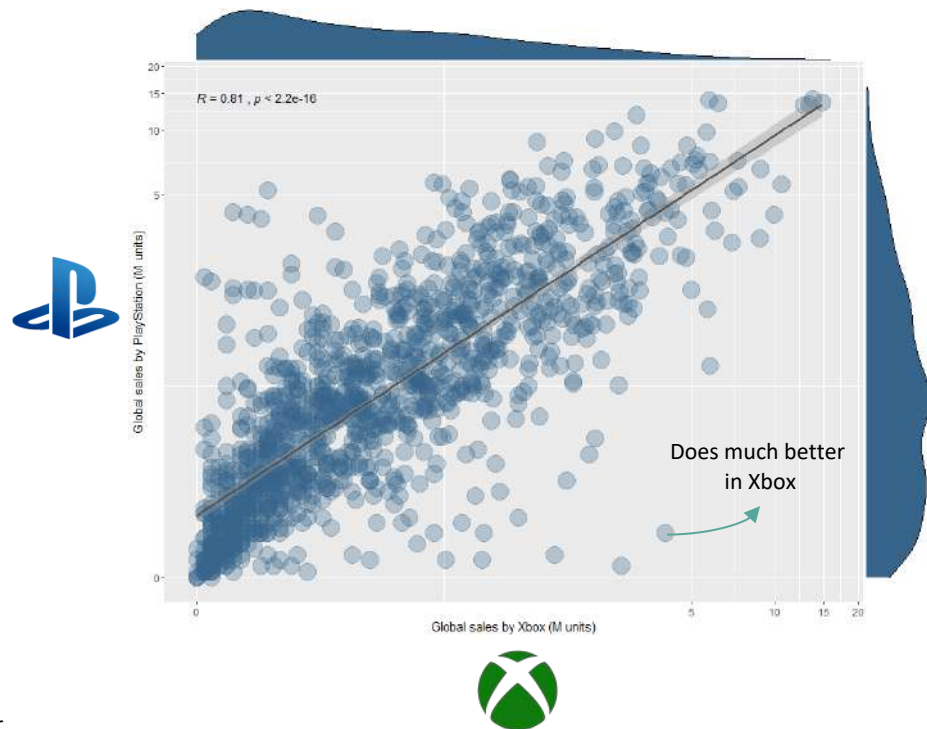
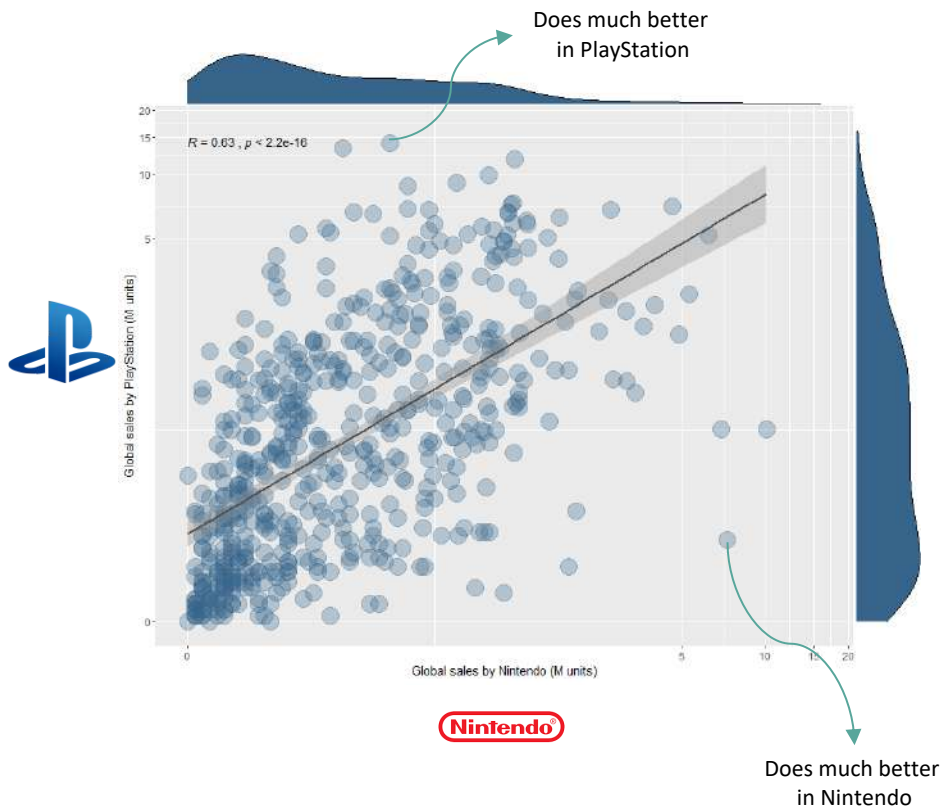
Decreasing the release of **Sports** games might be risky, given their popularity in North America and Europe.

But genre
and reviews
are not
everything
behind game
sales...



When the same games are available in more than one platform, do they sell similarly in all of them?

In general, games that sell well in one platform tend to be popular in the others and viceversa. But there are some exceptions.



R = Spearman correlation coefficient

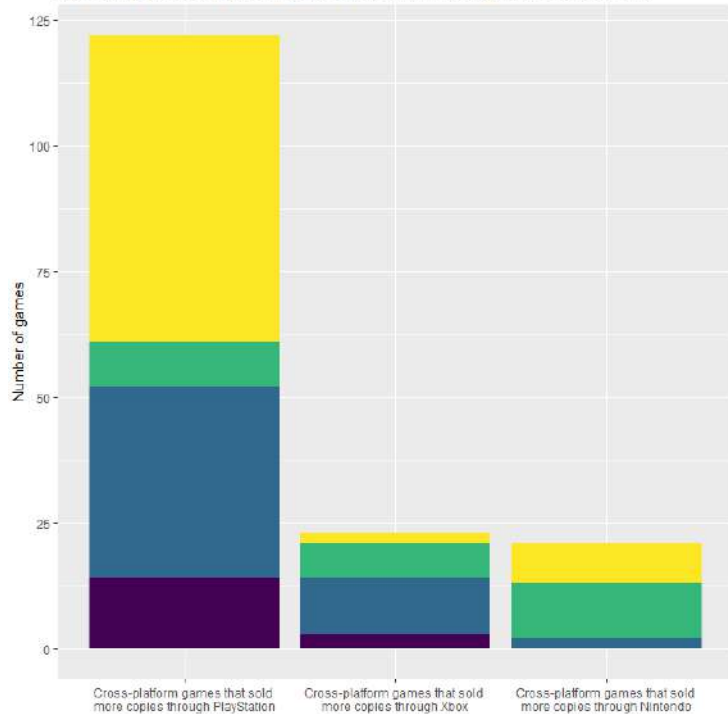


Is there are feature that influences console choice in cross-platform games?

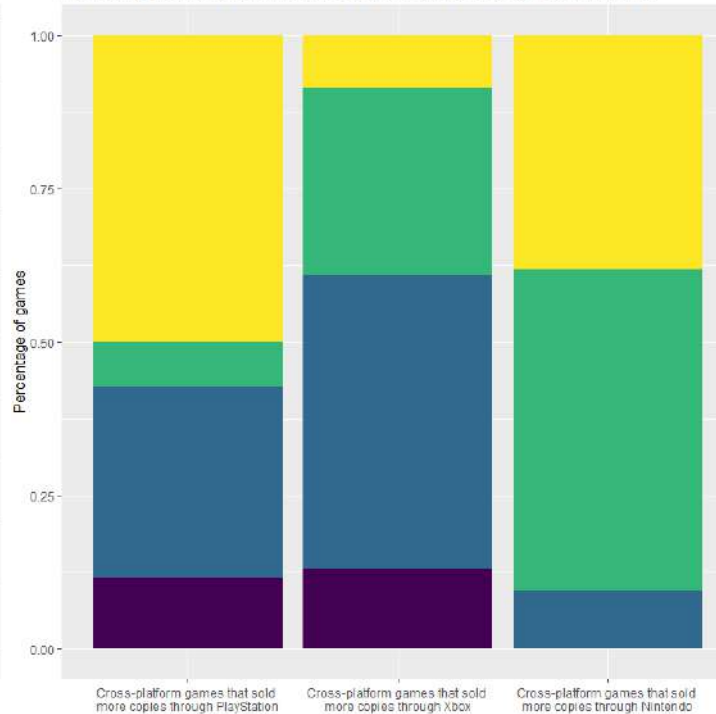
When a game is available in multiple platforms, consumers usually choose PlayStation.
A key feature influencing console choice in cross-platform games is their age rating.

Games in which Nintendo is the preferred platform target younger consumers. Games in which Xbox is the preferred platform target older audiences.

Age rating of cross-platform games that sold differently between consoles



Age rating of cross-platform games that sold differently between consoles



Games age rating



Insight 6:

Console preference in cross-platform games is dependent on their age rating.

While PlayStation takes the lead in most age ratings, in **E10** games Nintendo is the preferred console. This suggests that there is an opportunity in that segment.

04

THE TAKE AWAYS



Summary of Key insights:



It is more important that people speak about a game than how they speak about it. “Bad press is better than no press”.



It is much more effective to focus on producing a few blockbuster games than many “okay” ones. “Quality is better than quantity”.



To target worldwide consumers, Action games are the safest choice. To target Japanese consumers, go for Role-Playing games. For North American and European ones, go for Sports or Shooter games.



Keeping an eye on Platform and Adventure games can be worth it, given their surge in positive user reviews.



Console preference in cross-platform games is dependent on their age rating. Though PlayStation takes the lead in most cases, in E10 games Nintendo is the preferred console. This suggests that there is an opportunity among kids.



THANKS

Does anyone have any questions?

