Consultancy proposal

Video Game development

Project's objective:
Analyze the global video game sales market and its trends

What data do we have?

2 Datasets

Dataset	vgsales-12-4-2019-short.csv	vgsales-12-4-2019.csv
# Rows	55792	55792
# Columns	16	23

What is the difference between them?

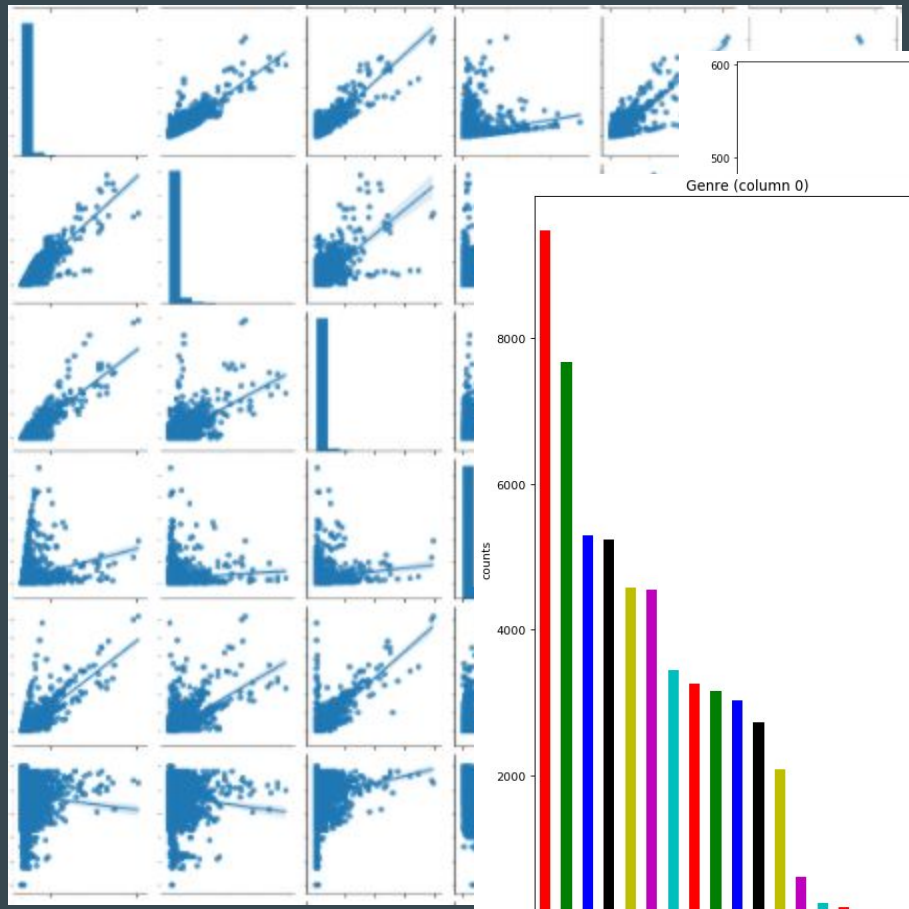
Differences between dataset-1 and dataset-2

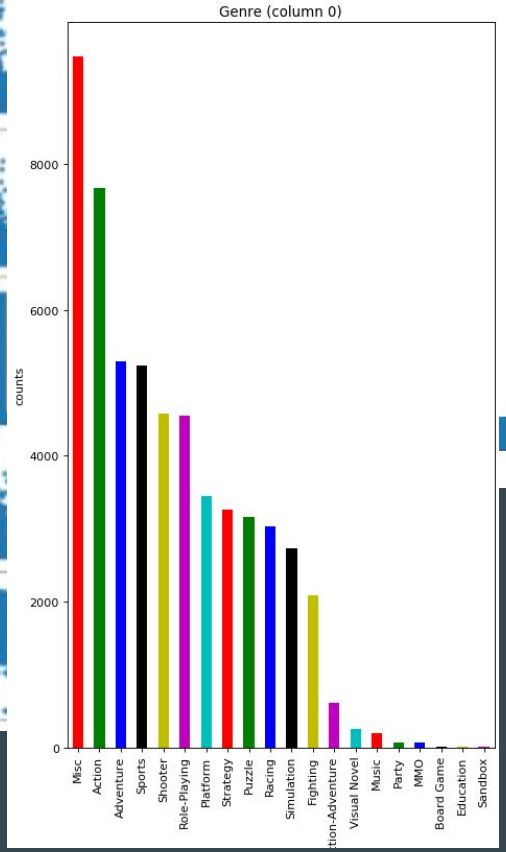
Equalization
Elimination of extra columns in dataset-2

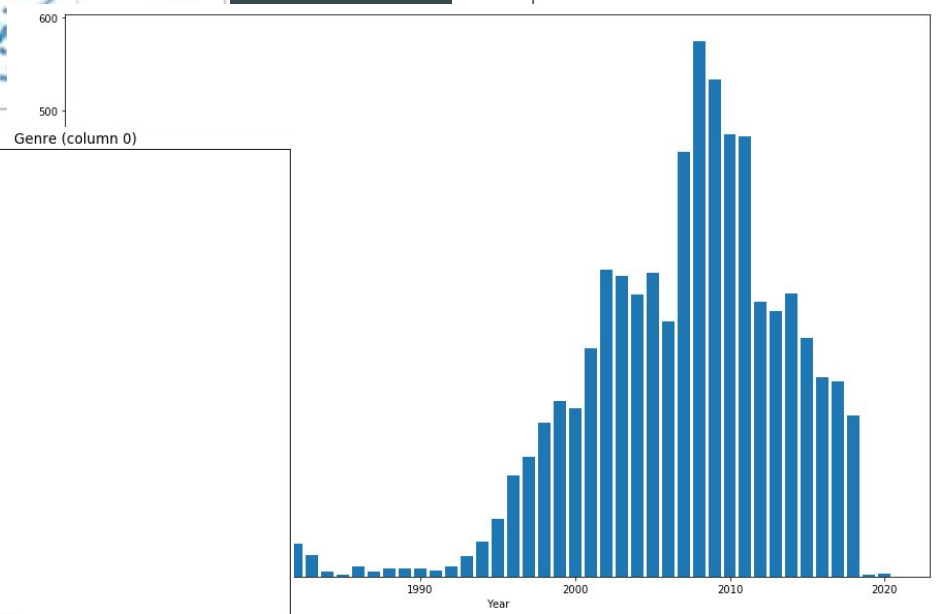
Comparison
Row-wise comparison between dataset-1 and 2

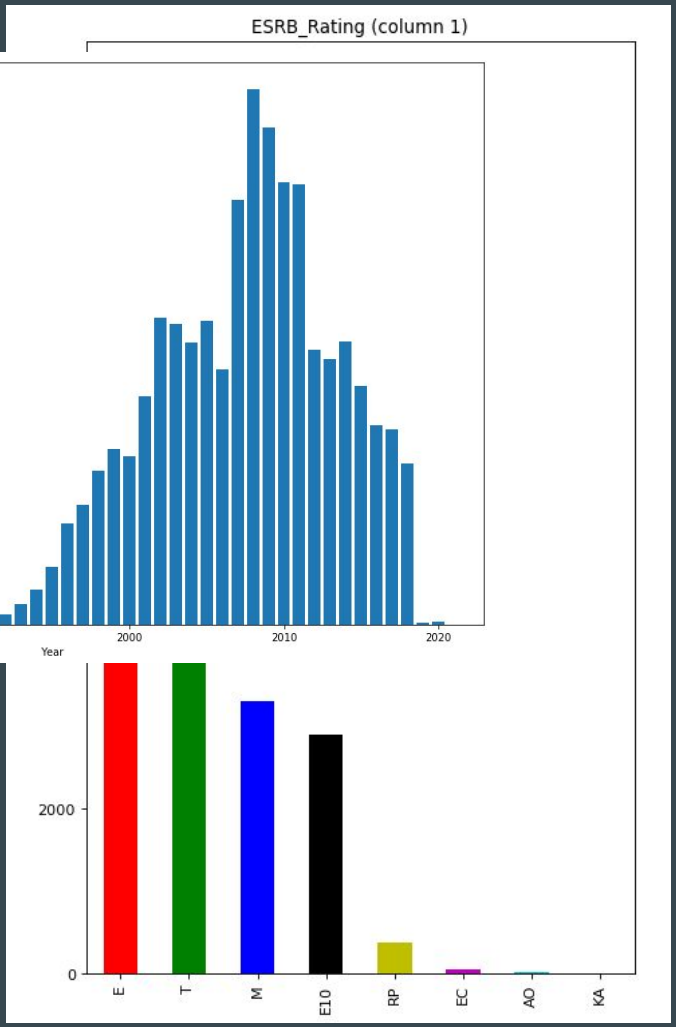
Result
Both contain the same information, but in dataset-2 it is extended with 8 extra columns

We will use only the dataset-2

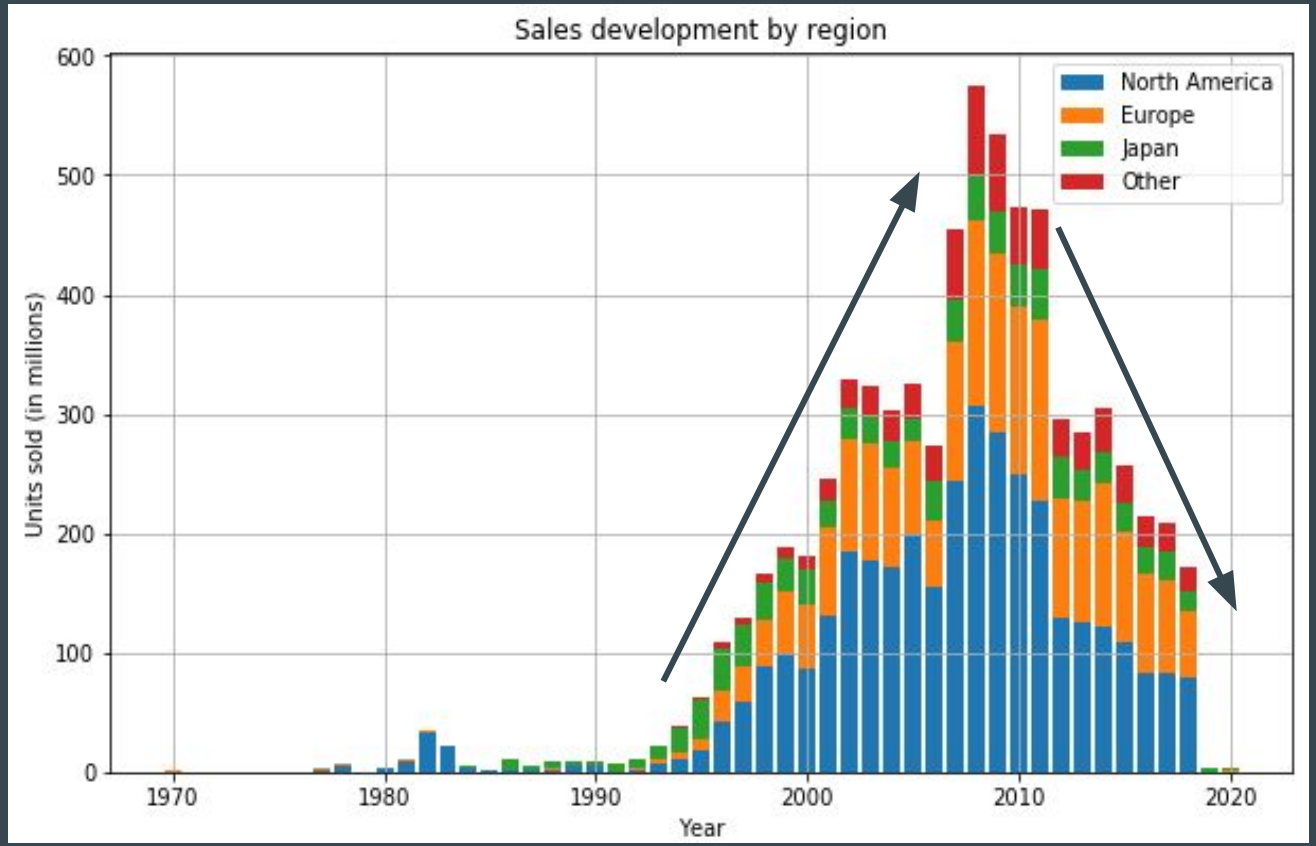



Genre (column 0)
counts
8000
6000
4000
2000
0
Misc
Action
Adventure
Sports
Shooter
Role-Playing
Platform
Strategy
Puzzle
Racing
Simulation
Fighting
Visual Novel
Music
Party
MMO
Board Game
Education
Sandbox


600
500
1990
2000
2010
2020
Year


ESRB_Rating (column 1)
2000
0
E
T
M
E10
RP
EC
AO
KA

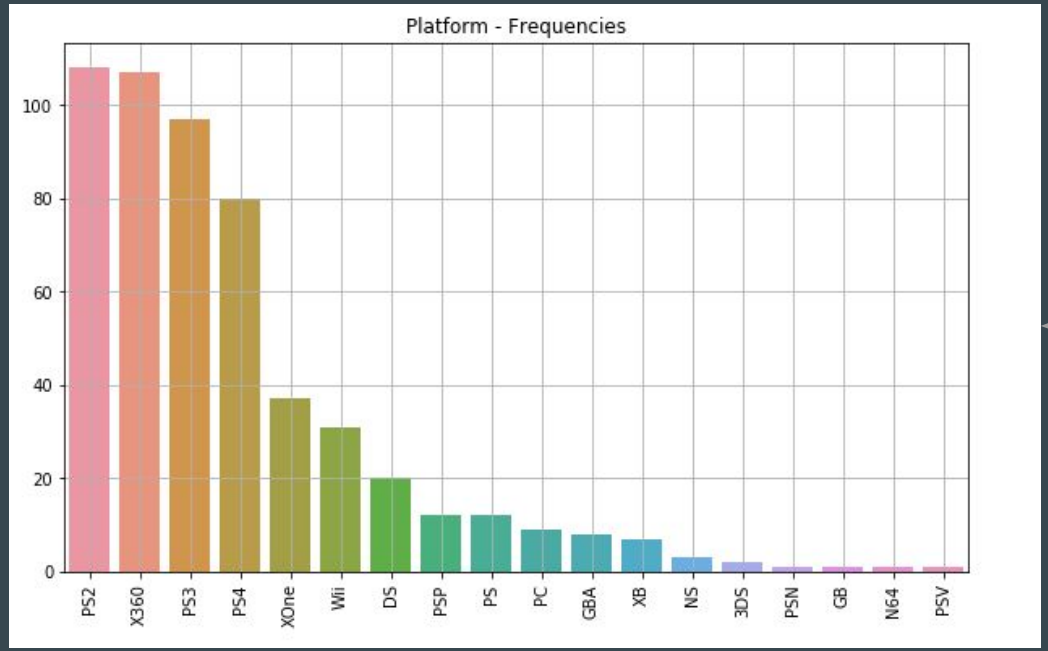
Are our data reliable?



	Year	NorthAmerica	Europe	Japan	Other
26	2000.0	86.28	53.47	30.46	10.32
27	2001.0	130.55	73.99	21.76	18.54
28	2002.0	185.12	94.09	25.90	24.20
29	2003.0	176.81	97.85	22.82	25.33
30	2004.0	171.70	84.02	21.62	24.83
31	2005.0	199.48	77.40	19.61	28.98
32	2006.0	154.39	56.68	33.23	28.61
33	2007.0	244.43	115.23	35.31	60.15
34	2008.0	306.64	155.13	37.48	75.31
35	2009.0	283.84	150.41	34.97	64.54
36	2010.0	249.72	139.27	36.54	48.50
37	2011.0	227.58	151.98	42.07	50.49
38	2012.0	128.66	99.41	35.24	32.10
39	2013.0	124.93	102.67	24.70	32.94
40	2014.0	122.21	119.34	26.60	36.14
41	2015.0	109.36	92.22	22.84	31.67
42	2016.0	83.48	81.79	23.61	25.68
43	2017.0	83.10	77.49	23.62	24.77
44	2018.0	78.76	56.14	16.45	20.72
45	2019.0	0.00	0.04	2.37	0.00
46	2020.0	0.52	0.40	2.20	0.09

Evolution of video games sales worldwide

```
['2600', '3DO', '3DS', '5200', '7800', 'ACPC', 'AJ', 'AST', 'Aco', 'Amig', 'And', 'ApII', 'Arc', 'BBCM', 'BRW', 'C128', 'C64',
'CD32', 'CDi', 'DC', 'DS', 'DSi', 'DSiW', 'FMT', 'GB', 'GBA', 'GBC', 'GC', 'GEN', 'GG', 'GIZ', 'Int', 'Linux', 'Lynx', 'MS', 'M
SD', 'MSX', 'Mob', 'N64', 'NES', 'NG', 'NGage', 'NS', 'OSX', 'Ouya', 'PC', 'PCE', 'PCFX', 'PS', 'PS2', 'PS3', 'PS4', 'PSN', 'PS
P', 'PSV', 'S32X', 'SAT', 'SCD', 'SNES', 'TG16', 'VB', 'VC', 'WS', 'WW', 'Wii', 'WiiU', 'WinP', 'X360', 'XB', 'XBL', 'XOne', 'Z
XS', 'iOS', 'iQue']
```



Nº video games with:

- Sales > 2M units
- Release > 2010

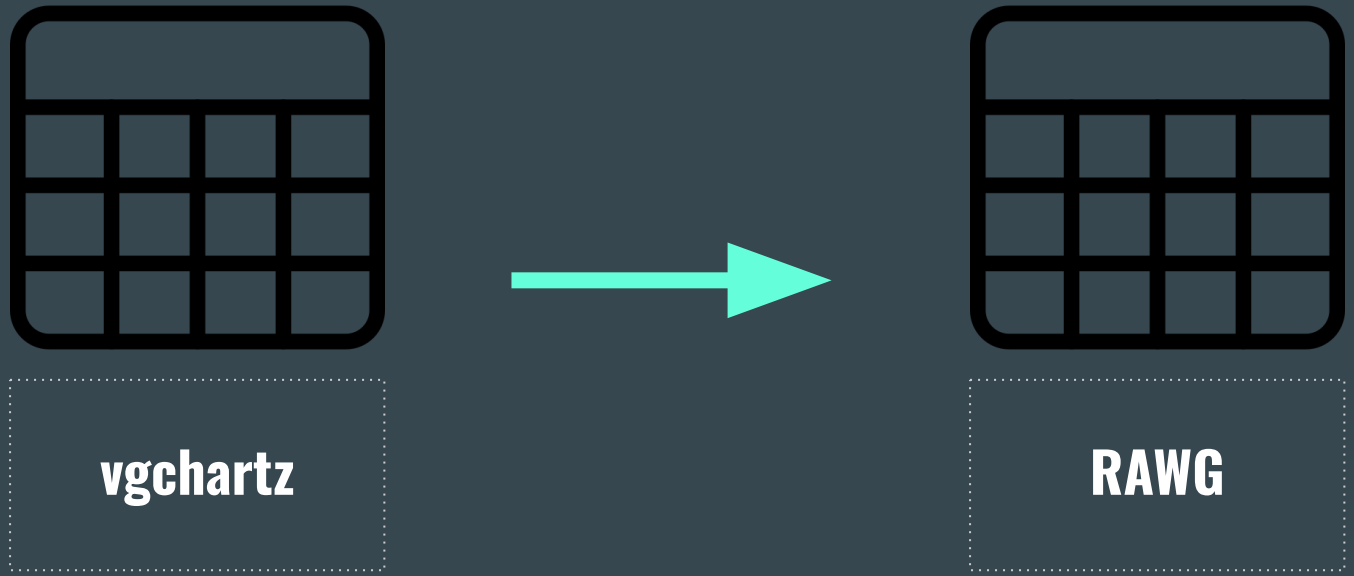
Evolution of the different platforms

“Since the end of 2018 VGChartz no longer produces estimates for software sales [...] because the high digital market share for software was making it both more difficult to produce reliable retail estimates and also making those estimates increasingly unrepresentative of the wider performance of the games in question”

Source: https://www.vgchartz.com/methodology.php

New data source

New data source



Getting to know the market

How are our data?

RAWG Dataset

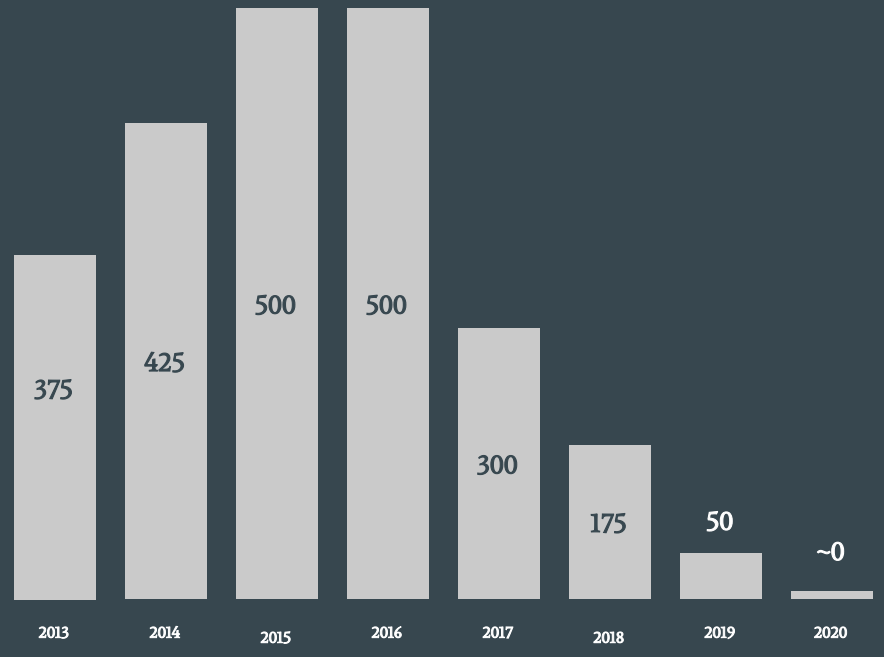
Dataset	vgsales-12-4-2019.csv	rawg.csv
# Rows	55792	345667
# Columns	23	27
Last update	April 2019	November 2019
# Video games	37102	345667

Trends analysis

Previous considerations

- Absolute numbers not representative (users with a game $\propto$ units sold*)
- The dates show *release date*, not the number of sales on that date
- The release dates chosen will always be between 2010-2020

Global sales by release year



Trends analysis

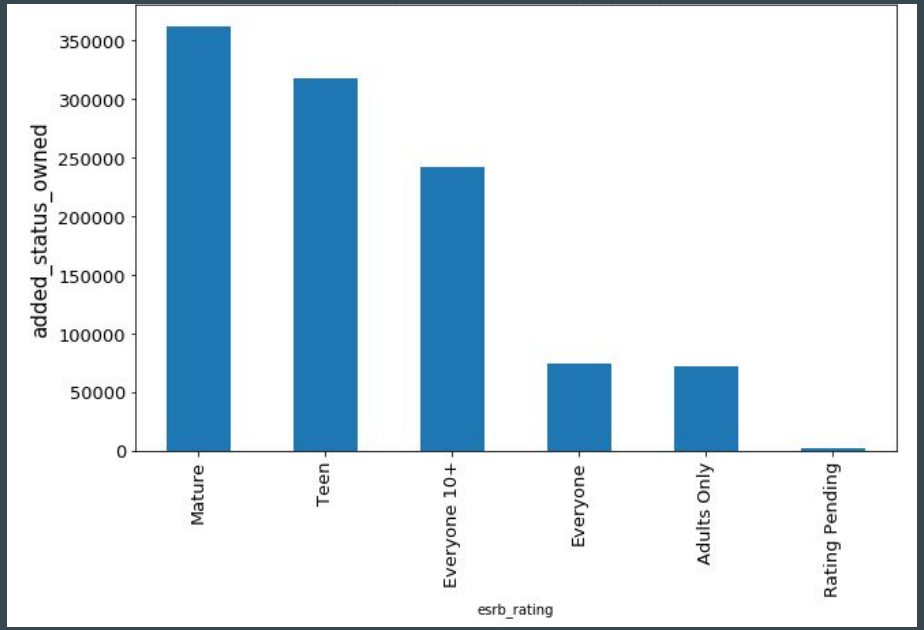
Global status

- Games with ratings between ‘Everyone 10+’ and ‘Mature’ are majority
- ‘Everyone’ or ‘Adults Only’ games are minority

Recommendation

- Video games for a teenage age range between 10 and 16 years old

Sales vs. ESRB Rating



Trends analysis

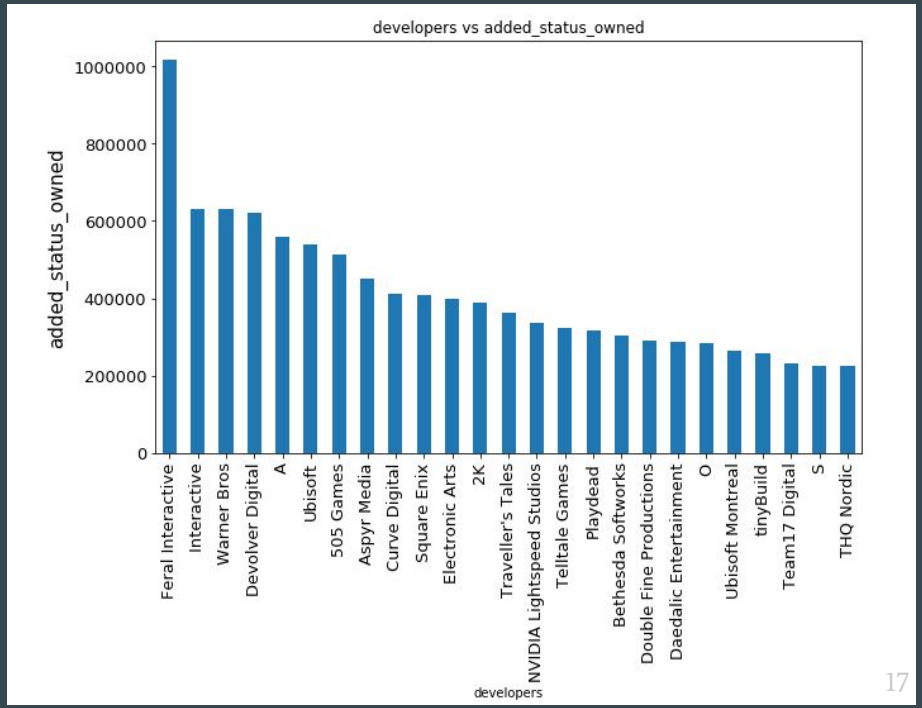
Global status

- The best-selling games always belong to big companies (Ubisoft, Square Enix, EA, etc.)

Recommendation

- Analyze the evolutionary trends in the field of developers

Sales vs. Developer



Trends analysis

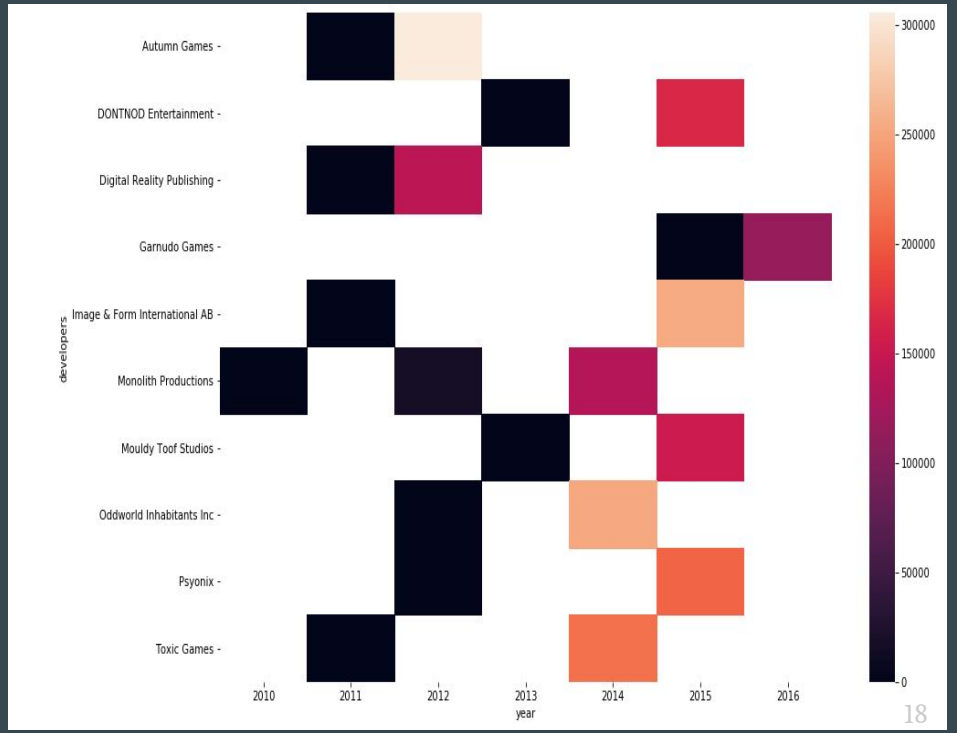
Top 10 featured trends

- Studies with more consistent sales growth are not as well known
- *Life is Strange*, *Imperium* or *LOTR: Mordor Shadows* are some of the video games from these developers

Recommendation

- Consider a collaboration with one of those mentioned here

Δ Sales vs. Developer



Trends analysis

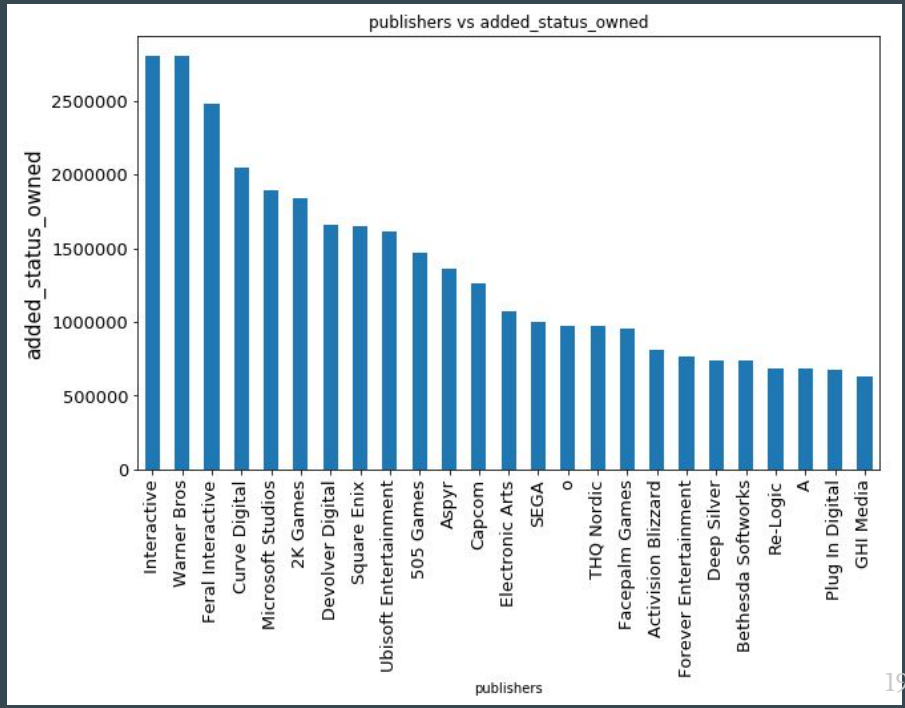
Global status

- As with the developers, the best-selling games belong to large companies

Recommendation

- Again, we will analyze the evolutionary trends in the field of *publishers*

Sales vs. Publisher



Trends analysis

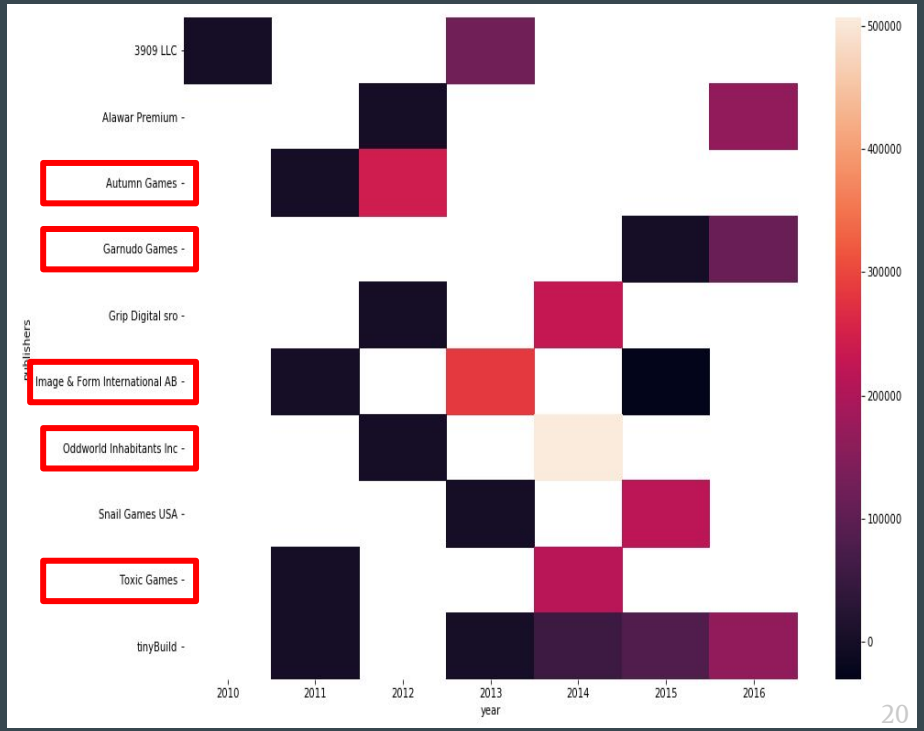
Top 10 Featured trends

- Small and medium studies that present a solid growth
- Featured companies that also appeared in the top 10 developers (Autumn Games, Garnudo, etc.)

Recommendatio n

- Consider a collaboration with one of those mentioned here

Δ Sales vs. Publisher



Correlation between Platform and Genre

Correlation between Platform and Genre

1. Trends analysis
    a. Trends in genre
    b. Trends in platforms

2. Find out for each case which option is more suitable

3. General recommendations

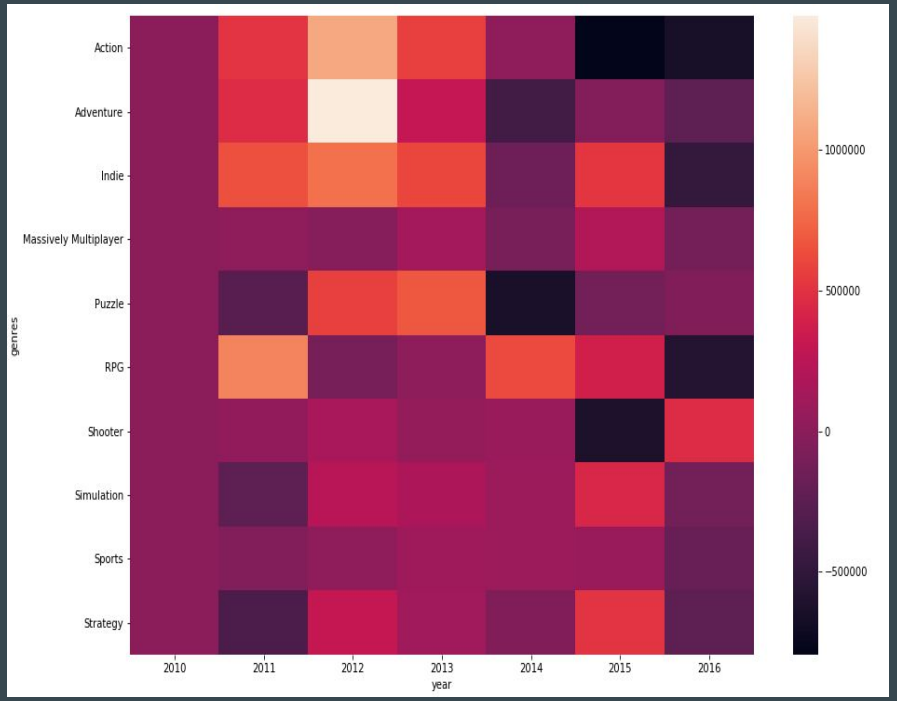
1. Trends Analysis

Trends analysis

Top 10 Featured trends

- The genres that are growing the most are:
  - Action
  - Adventure
  - Indie
  - MMO
  - Puzzle
  - RPG
  - Shooter
  - Simulation
  - Sports
  - Strategy

Δ Sales vs. Genres



Trends analysis

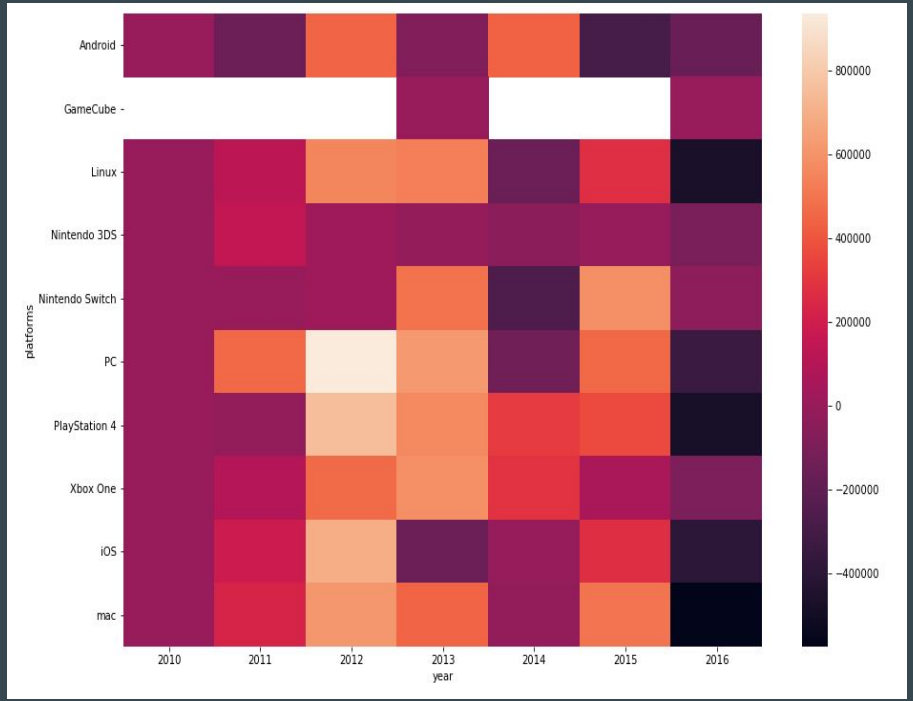
Top 10 Featured trends

- 3 Featured groups
  - New-gen consoles (PS4, XB, NS)
  - Computer (PC, Mac, Linux)
  - Mobile (Android, iOS)

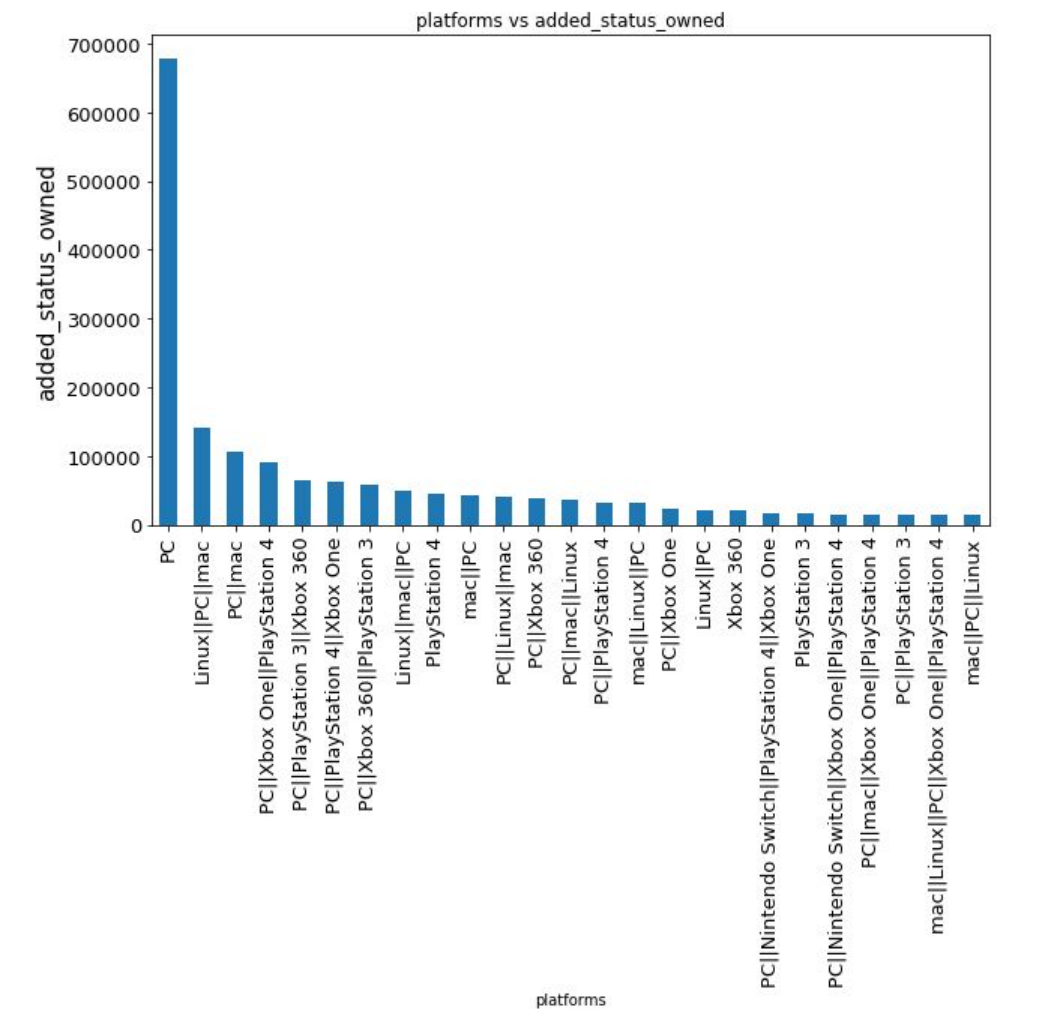
- Nintendo presents a large mass of fans (NGC and N3DS are still relevant)

- Mac and Linux strongly decreased as platforms against PC (Windows)

Δ Sales vs. Platforms

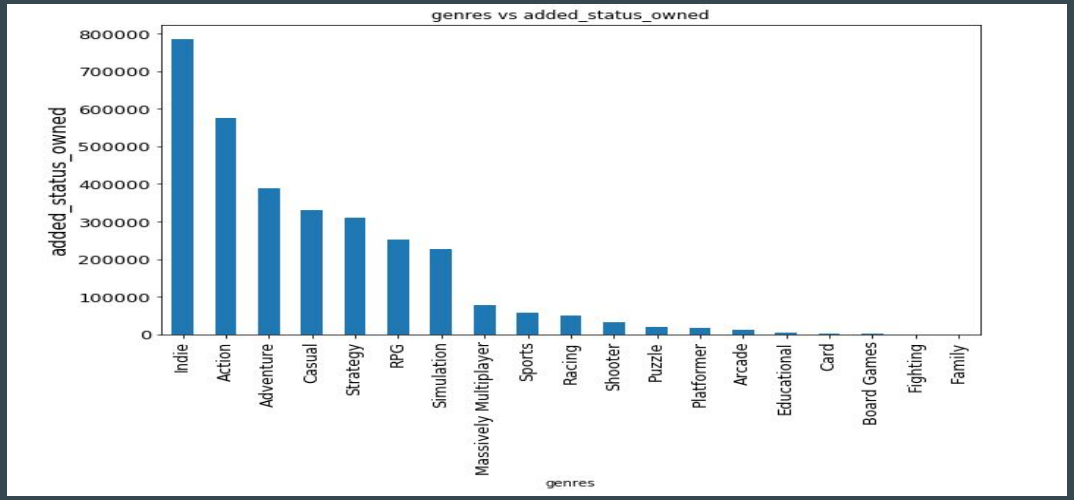


2. Most suitable options per case

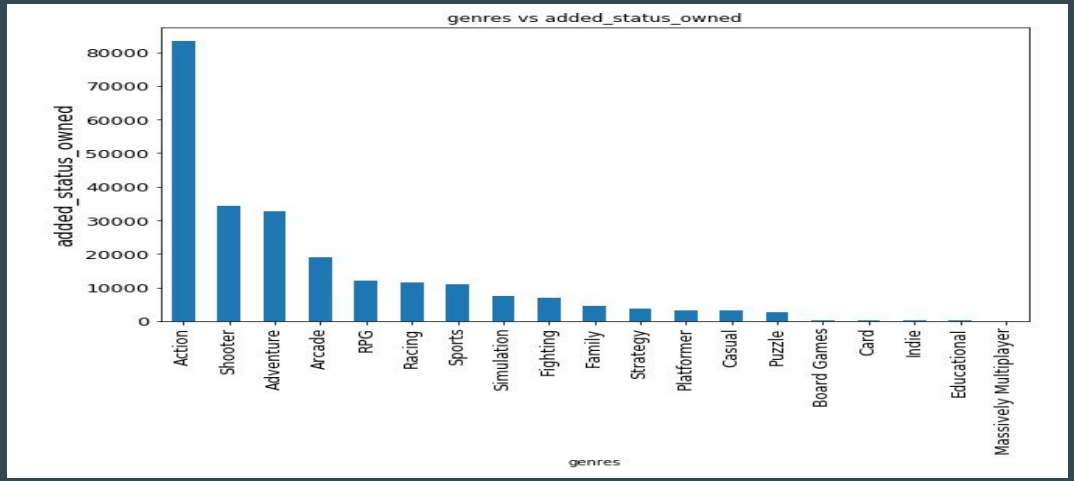


Is the computer the best option?

Genres (only considering Computer)



Genres (only considering console and mobile)



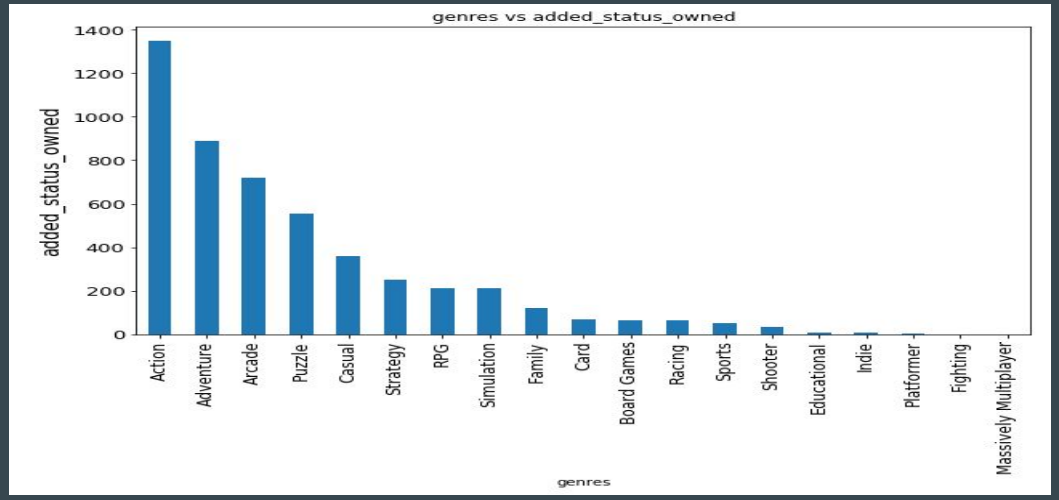
1. **Almost exclusive computer genres**

- Indie
- Strategy
- Puzzle

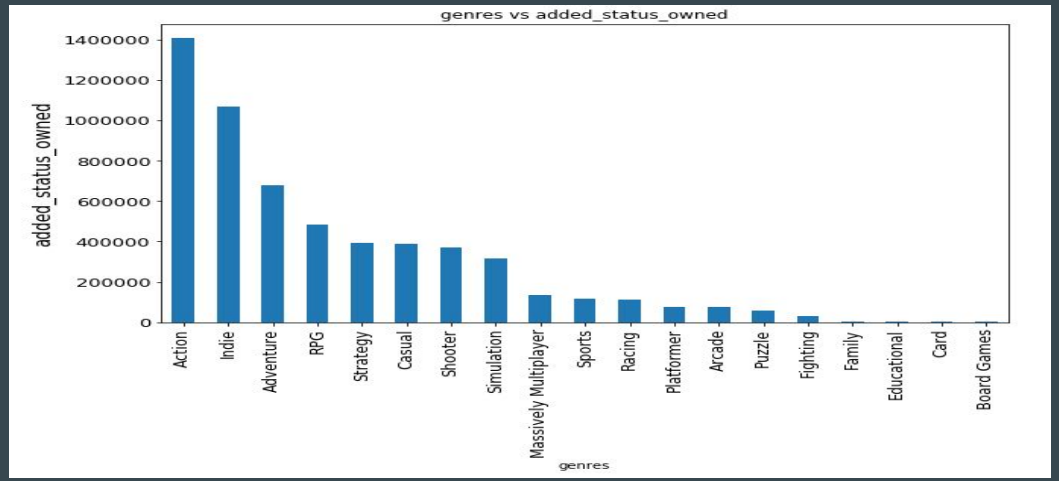
2. **High compatibility with other genres**

- Action
- Shooter
- ...

Genres (only considering mobile)



Genres (only considering console and computer)



1. **Almost exclusive mobile genres**

- Arcade
- Casual
- Family
- Board Games

2. **Popular genres in Console-PC but irrelevant in mobile**

- Indie
- Shooter
- Platformer

3. General recommendations

3. General recommendations

1. For specific niches such as Indie or Strategy, opt for the Computer only (PC-Mac-Linux-Web)

2. For niches like Arcade or Casual, opt for mobile platforms only (iOS and Android)

3. For more popular genres such as Action, Race or Adventure, it is common to find games developed for both Computer and Console

4. To point out that popular genres for Computer and Console as the Shooter are something unpopular in mobiles

Wrap-up

Recommended strategies

Suggested solutions

Solution 1	In any case, making video games for people between 10-16 years
Solution 2	Contact the publishers and developers mentioned before
Solution 3	Nintendo drags many fans (requires extra analysis)
Solution 4	Developments for Mac and Linux are losing importance

Suggested solutions

Solution 5	If Indie or Strategy → Development only computer
Solution 6	If Arcade or Casual → Development only mobile
Solution 7	If Shooter → Discard mobile development
Solution 8	Console developments also frequent in PC, but they are usually of very common genres

Next steps

Video game development customer
Consultancy company

Thanks!