

Who will win - PlayStation 4 or Xbox One?

First, a big THANK YOU, and terms of usage.

The past 40 years saw 7 generations of video game consoles come and go. The console with the longest lifetime (>24 game releases per year) is Microsoft's Xbox 360 with 13 years, and going! But who will be the toprunn..

This data story has been created by Christian A. Schiller
for Udacity Data Analyst Nanodegree (DAND) in January 2018.

A big **thank you** goes to www.MobyGames.com for providing API access to the huge games database for purpose of this Udacity DAND student project.

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What is MobyGames?

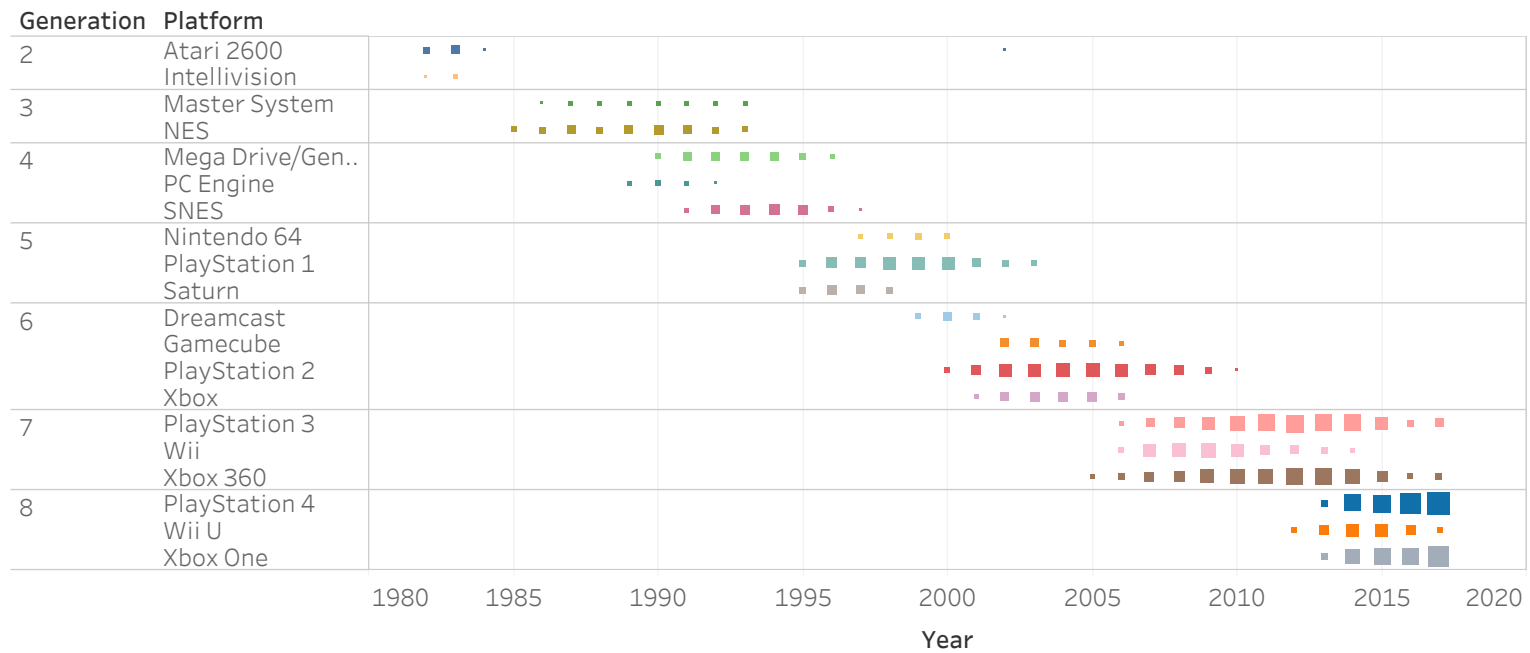
[MobyGames](http://www.MobyGames.com) is the working name of an extremely ambitious project: To meticulously catalog all relevant information - credits, screenshots, formats, and release info - about electronic games (computer, console, and arcade) on a game-by-game basis, and then offer up that information through flexible queries and "data mining". In layman's terms, it's a huge game database. MobyGames is the world's largest and most flexible electronic game documentation project in existence. And best of all, it's added to, rated, and reviewed by *you*--the gaming public. MobyGames is, literally, built by gamers.

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The past 40 years saw 7 generations of video game consoles come and go. The console with the longest lifetime (>24 game releases per year) is Microsoft's Xbox 360 with 13 years, and going! But who will be the toprunner of generation 8? What drives a console generation's lifetime?

The view on total game releases per platform over time shows a general increase of games, reflectin..

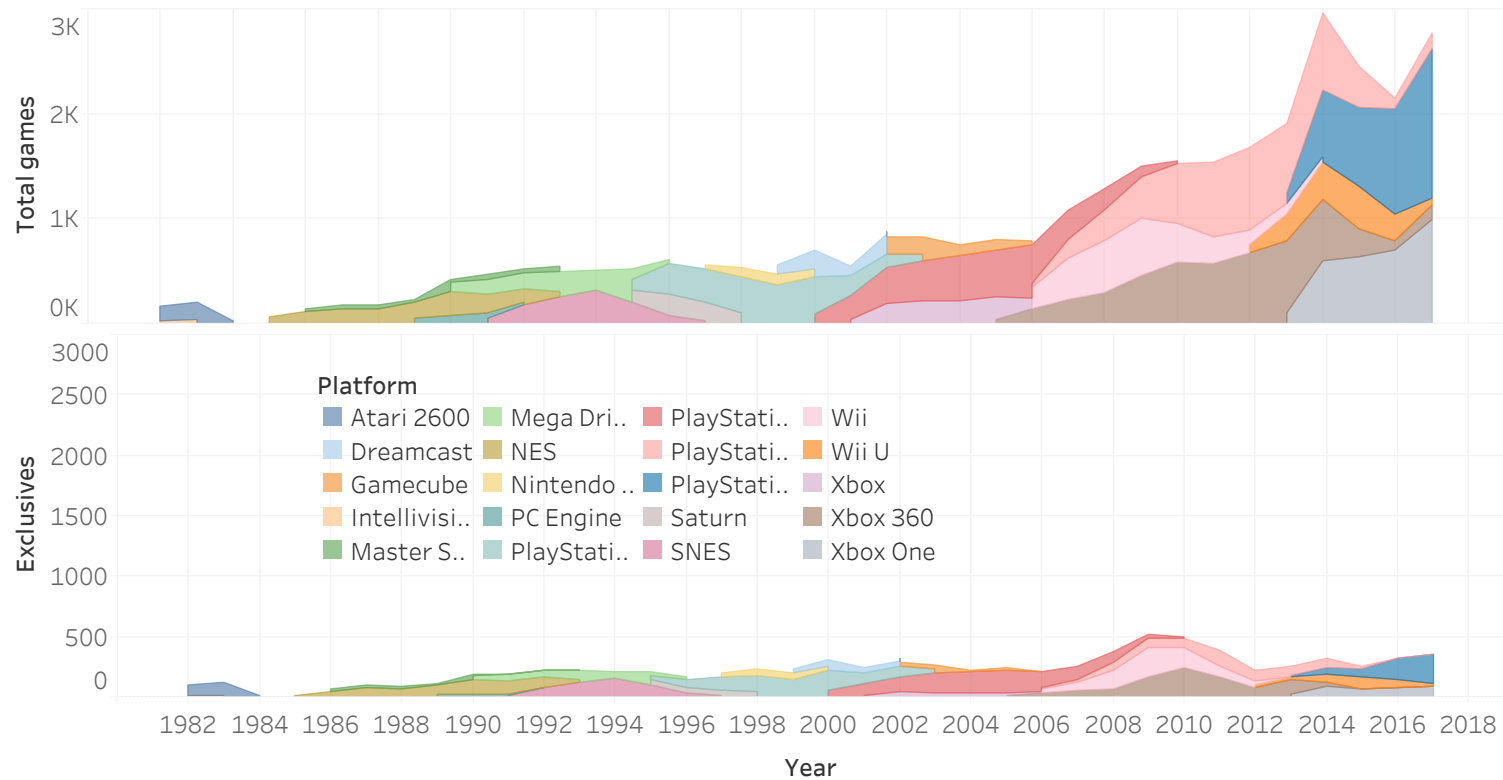


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The past 40 years saw 7 generations of video game consoles come and go. The console with the longest li..

The view on total game releases per platform over time shows a general increase of games, reflecting the videogame industry growth (top graph). There has always been a "battle of systems" - some games are released exclusively for only one platform (bottom graph).

Looking at the overall ratio of exclusive game releases (independent of platform) reveals a steady decline, sho..

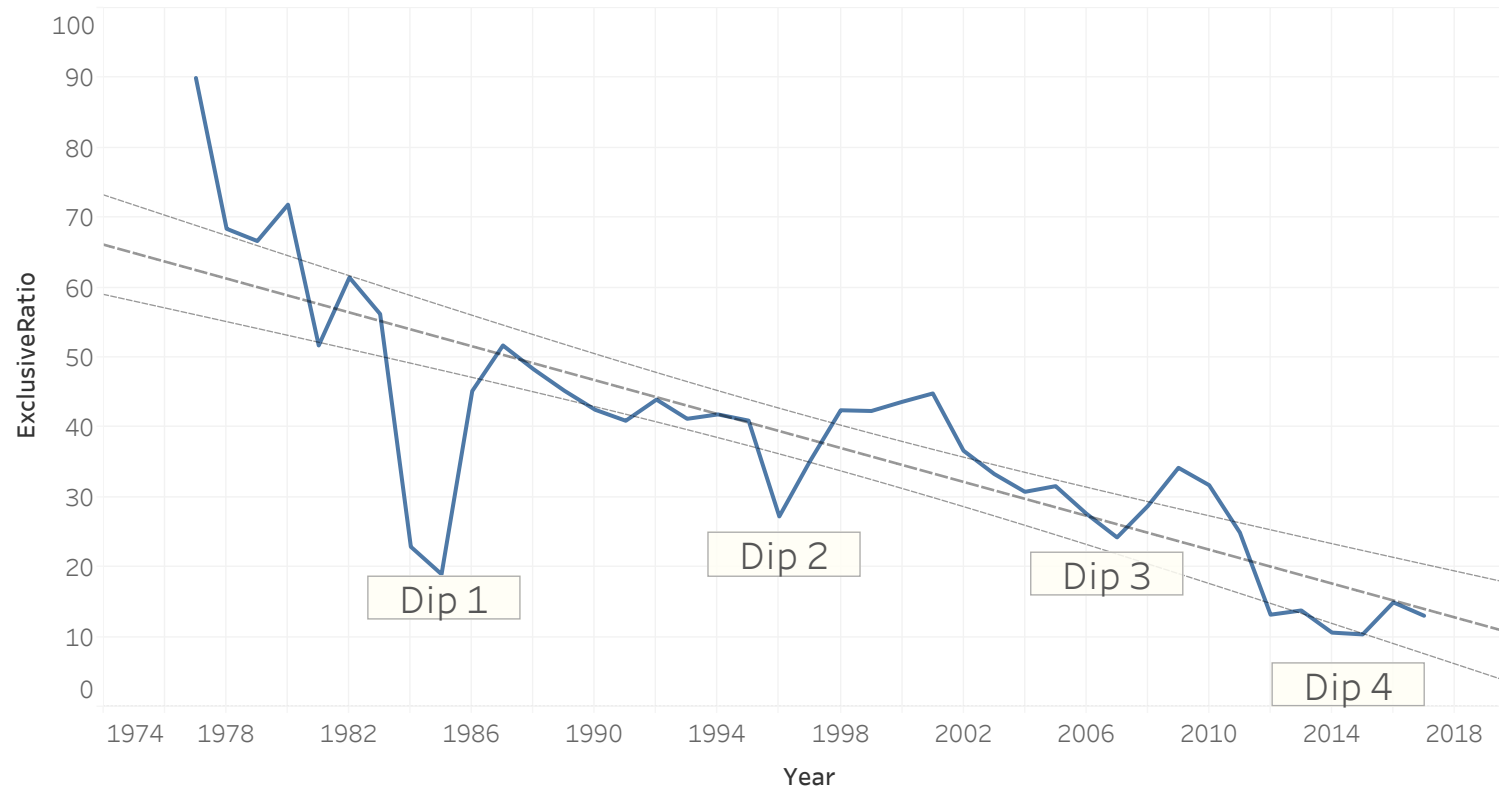


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The view on total game releases per platform over time shows a general increase of games, reflecti..

Looking at the overall ratio of exclusive game releases (independent of platform) reveals a steady decline, showing an industry-trend towards more multi-platform games. But there are visible dips in the years 1984/85, 1996, 2006/07 and 2014/15! - Let's investigate those.

The investigation shows that these dips correlate with video game generation changes, when game release..

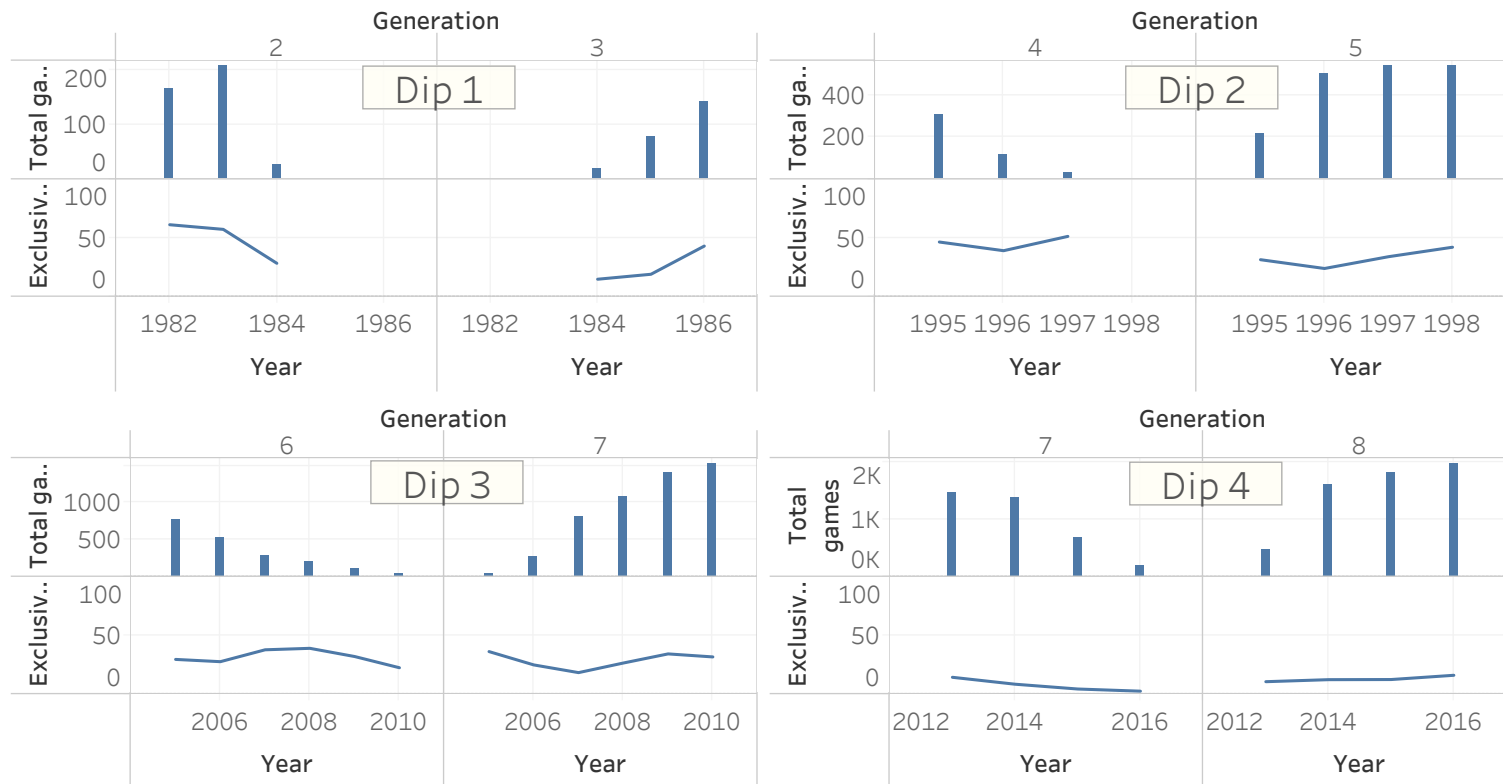


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Looking at the overall ratio of exclusive game releases (independent of platform) reveals a steady decline, s..

The investigation shows that these dips correlate with video game generation changes, when game releases decline for the then-current generation and ramps-up for the new generation ("total games"). The four graphs show total games and exclusives per dip & generation

So what does this mean for the current generation 8? Let's compare this one to the previous one (7). First, choo..



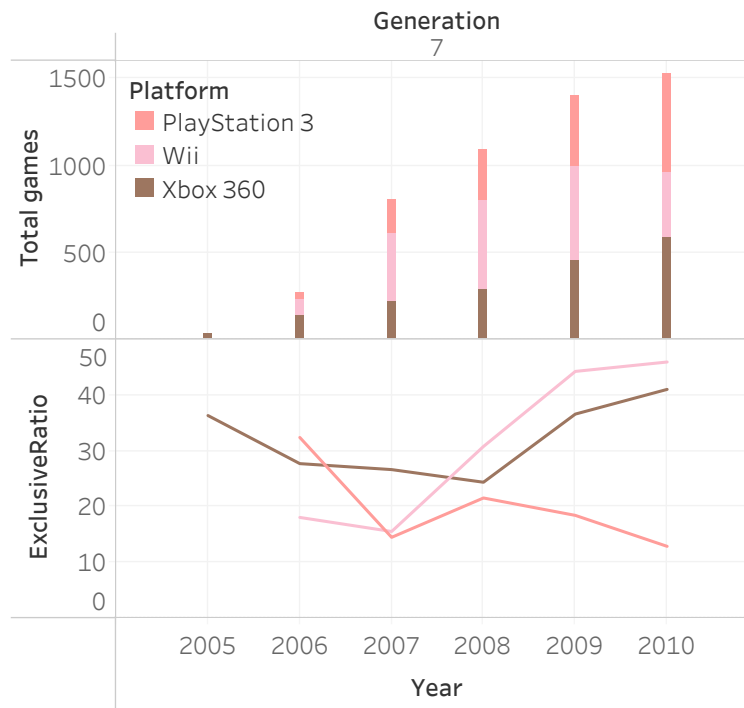
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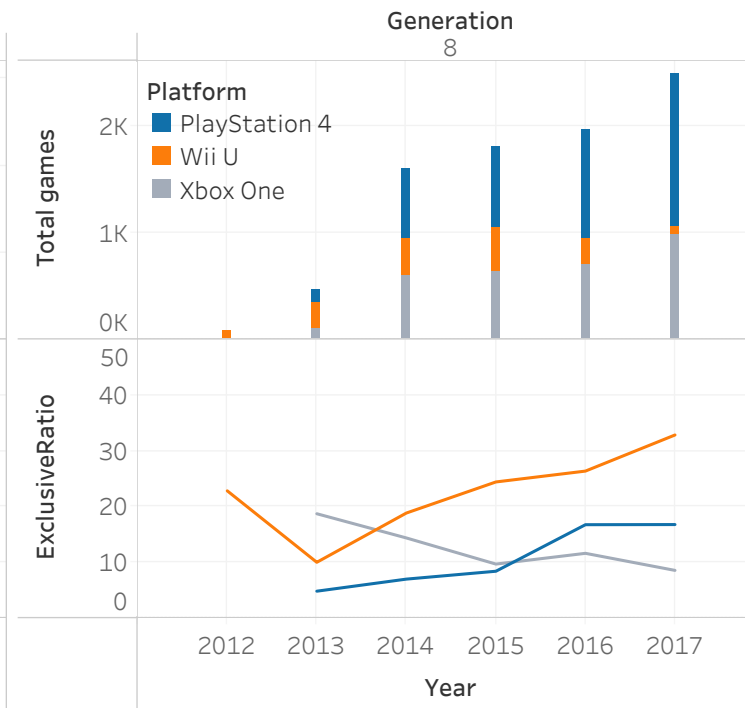
So what does this mean for the current generation 8? Let's compare this one to the previous one (7). First, choose a comparable time frame concerning generation lifetime. Generation 8 is "alive" for 6 years now, so let's compare it with the first 6 years of generation 7.

Trend lines show that for generation 7, there is one platform - Sony's PlayStation 3 - with already declining exc..

Generation 7: First 6 years



Generation 8: First 6 Years



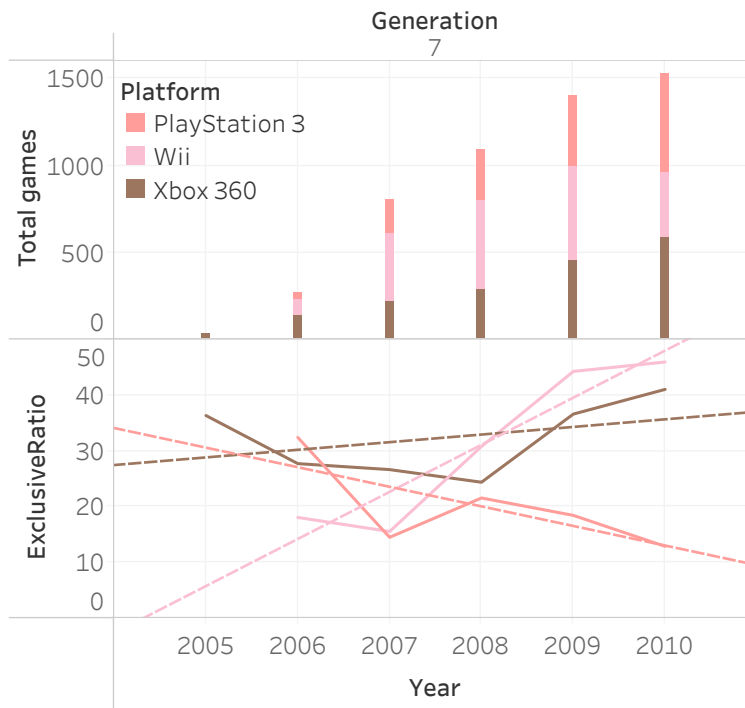
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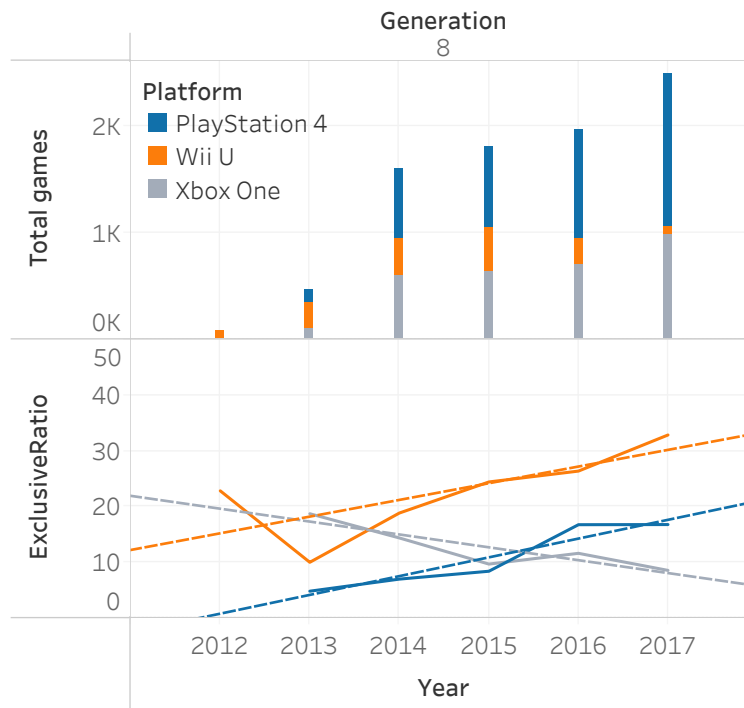
Trend lines show that for generation 7, there is one platform - Sony's PlayStation 3 - with already declining exclusive ratio. In generation 8, there is also already one platform with that trend: Microsoft's Xbox One!

Let's look at the remaining lifetime of generation 7 to see how the trends continued for the generation's platfor..

Generation 7: First 6 years



Generation 8: First 6 Years



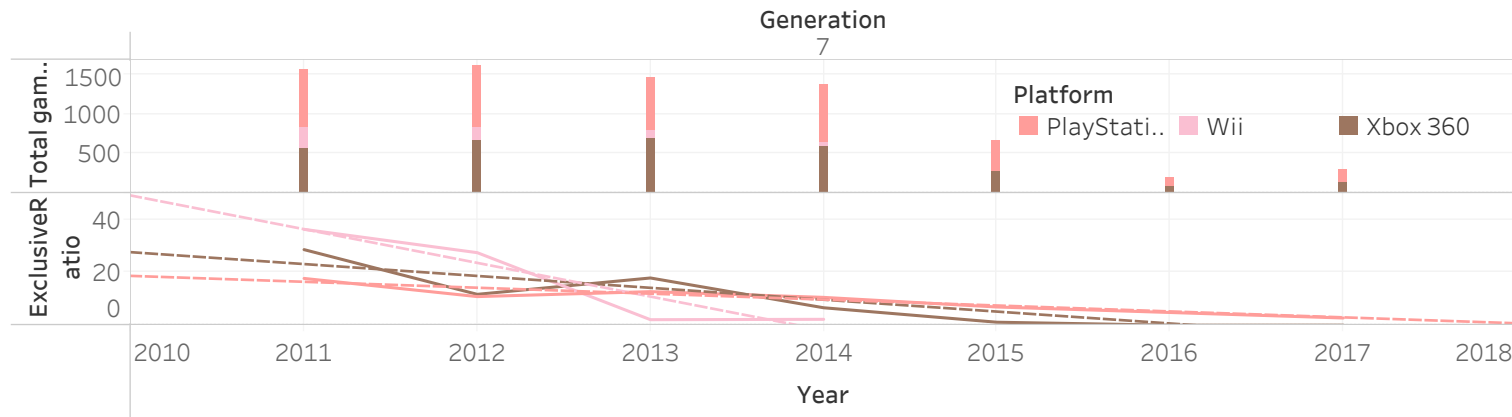
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Trend lines show that for generation 7, there is one platform - Sony's PlayStation 3 - with a lead.

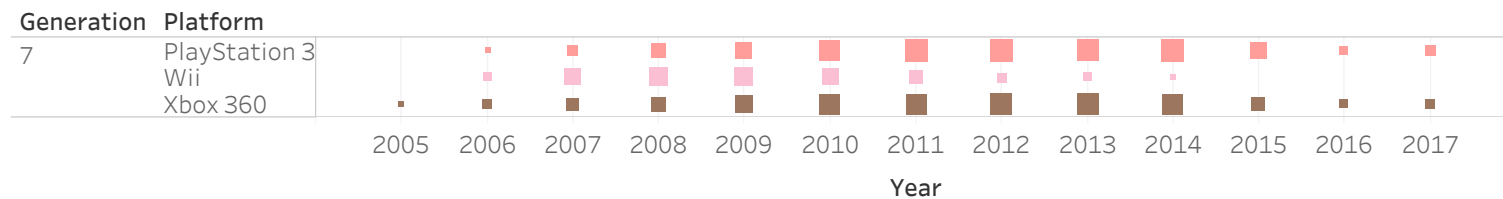
Let's look at the remaining lifetime of generation 7 to see how the trends continued for the generation's platforms. The trends show a declining exclusivity ratio for all platforms. The platform with the steepest decline - Nintendo Wii - showed the shortest lifetime.

CONCLUSION: Based on the correlation found between exclusive ratio and platform decline over the past four de..

Generation 7 - Remaining Years Exclusivity Trend



Generation 7 Platform Lifetime



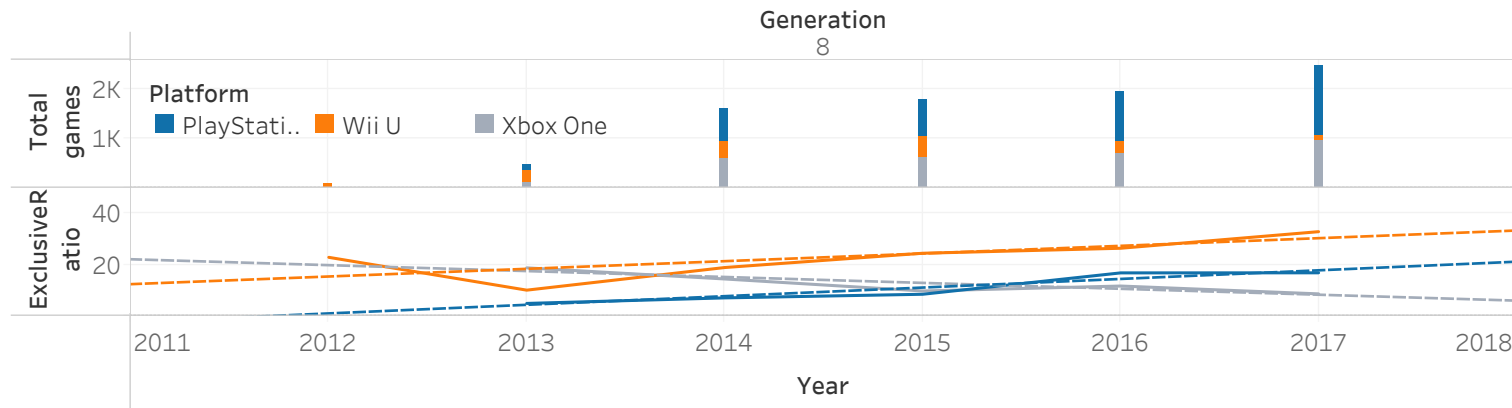
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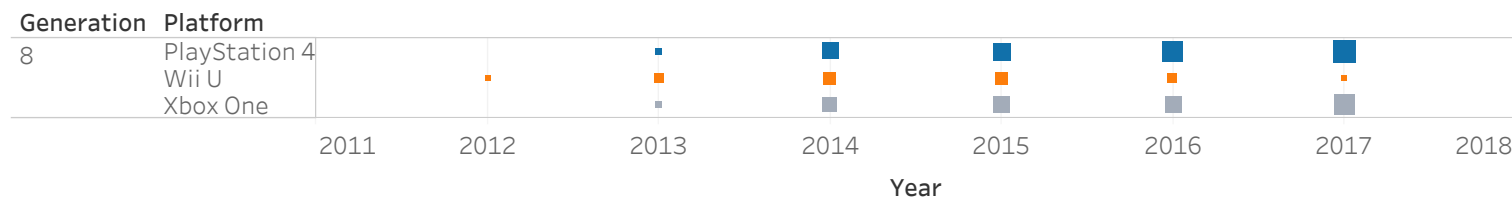
CONCLUSION: Based on the correlation found between exclusive ratio and platform decline over the past four decades, it is highly likely that the next platform to decline will be Microsoft's Xbox One. Nintendo has already reacted by replacing Wii U with Switch - what will Microsoft do?

BONUS

Generation 8: First 6 Years



Generation 8 Platform Lifetime



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CONCLUSION: Based on the correlation found between exclusive ratio and platform decline over the ..

BONUS

An interesting area of investigating could be if there is a correlation of game ratings and generation chan..

The following slides are some additional data visualisations created with the data "easily" reachable via MobyGames API.

More interesting correlation investigations, such as based on geography or publisher/developer data, require different usage of APIs (requests per game instead of per platform - would result in thousands of API queries!), which could not be realised within the timeframe of the Udacity DAND project.

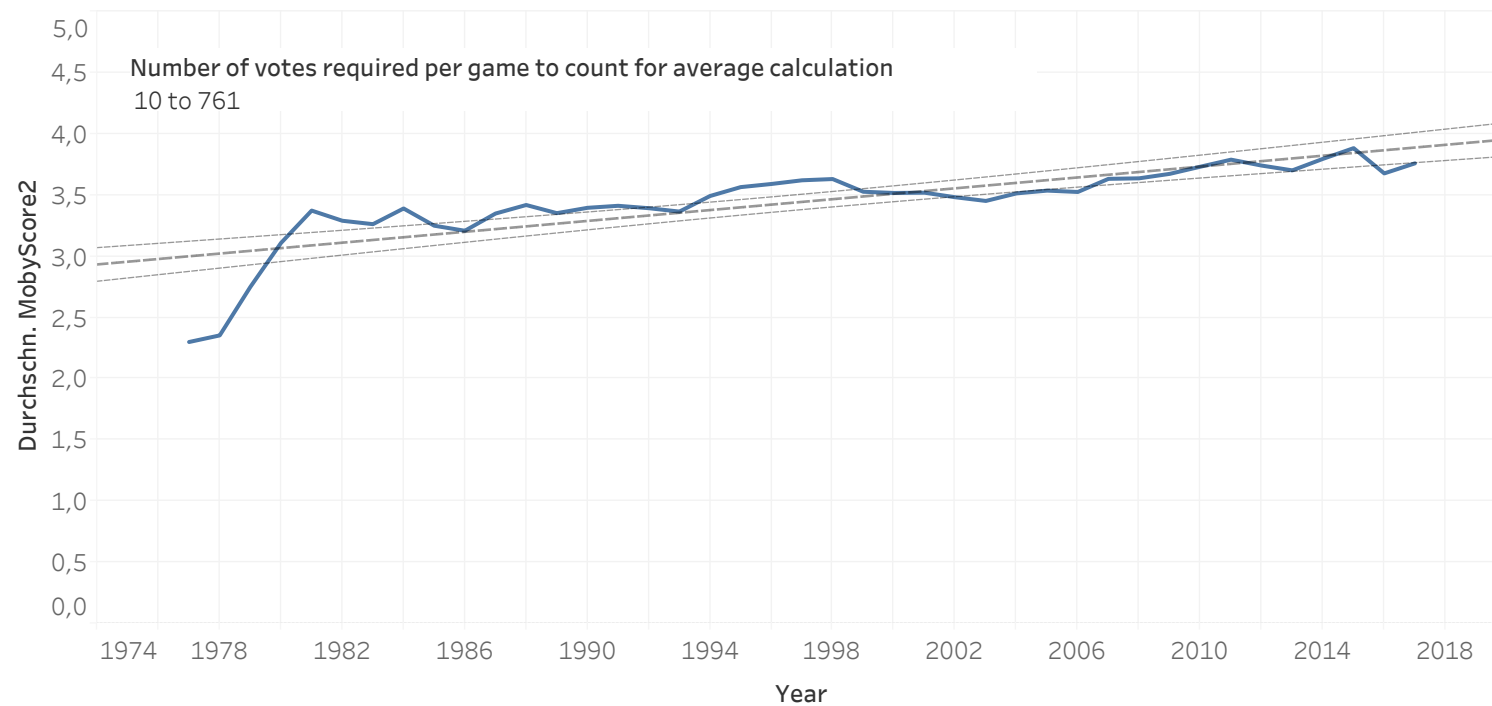
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BONUS

An interesting area of investigating could be if there is a correlation of game ratings and generation change. Data shows that in general, MobyGames user scores for games increased constantly over the last 40 years. But no (visually) significant dips like for exclusivity ratio.

The available data also includes genre information of games (action, RPG, strategy, sports, ...). An investigation ..

Average Mobygame score per year



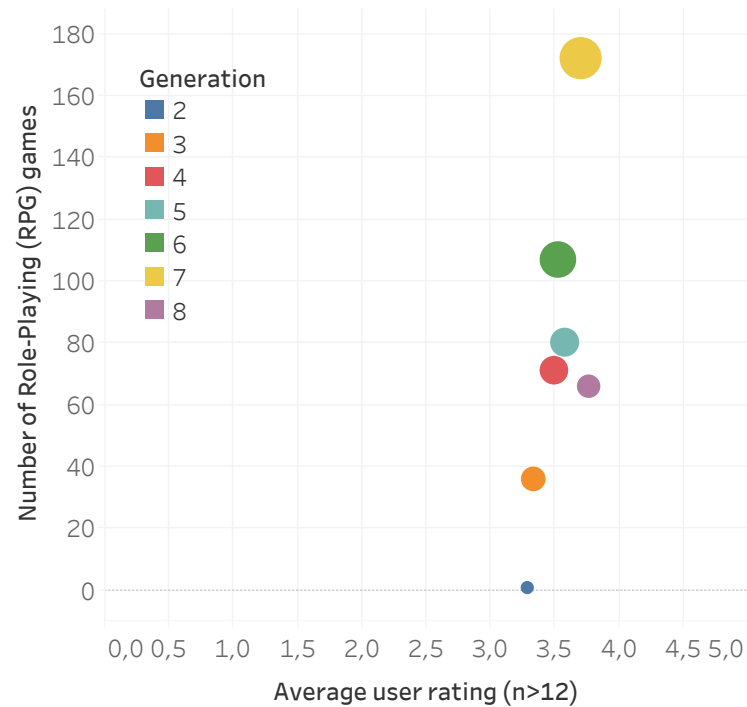
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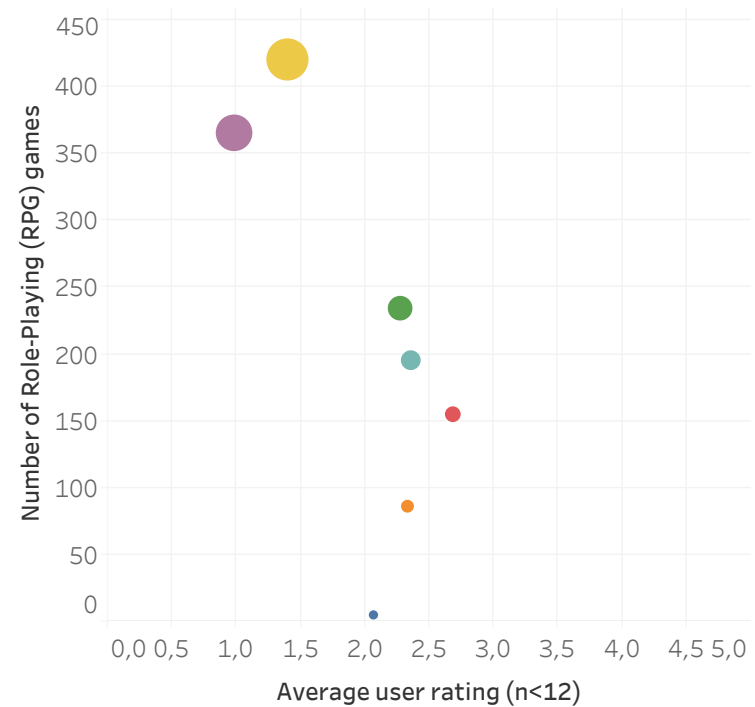
The available data also includes genre information of games (action, RPG, strategy, sports, ...). An investigation could correlate that with user ratings. The example below shows the difference of number and rating of role-playing games based on number of votes >12 or <12.

BONUS - additional data from Wikipedia. For each generation until 7, the total console sales have increased..

Well-known RPGs with >12 votes



RPGs with <12 votes - insider tips?



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BONUS - additional data from Wikipedia. For each generation until 7, the total console sales have increased so far. Generation 8 is still in it's heyday, console sales are expected to top generation 7. Top-selling console of all times is Sony's PlayStation 2!

