

Who will win - PlayStation 4 or Xbox One?

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

The first
mass-
market
console..

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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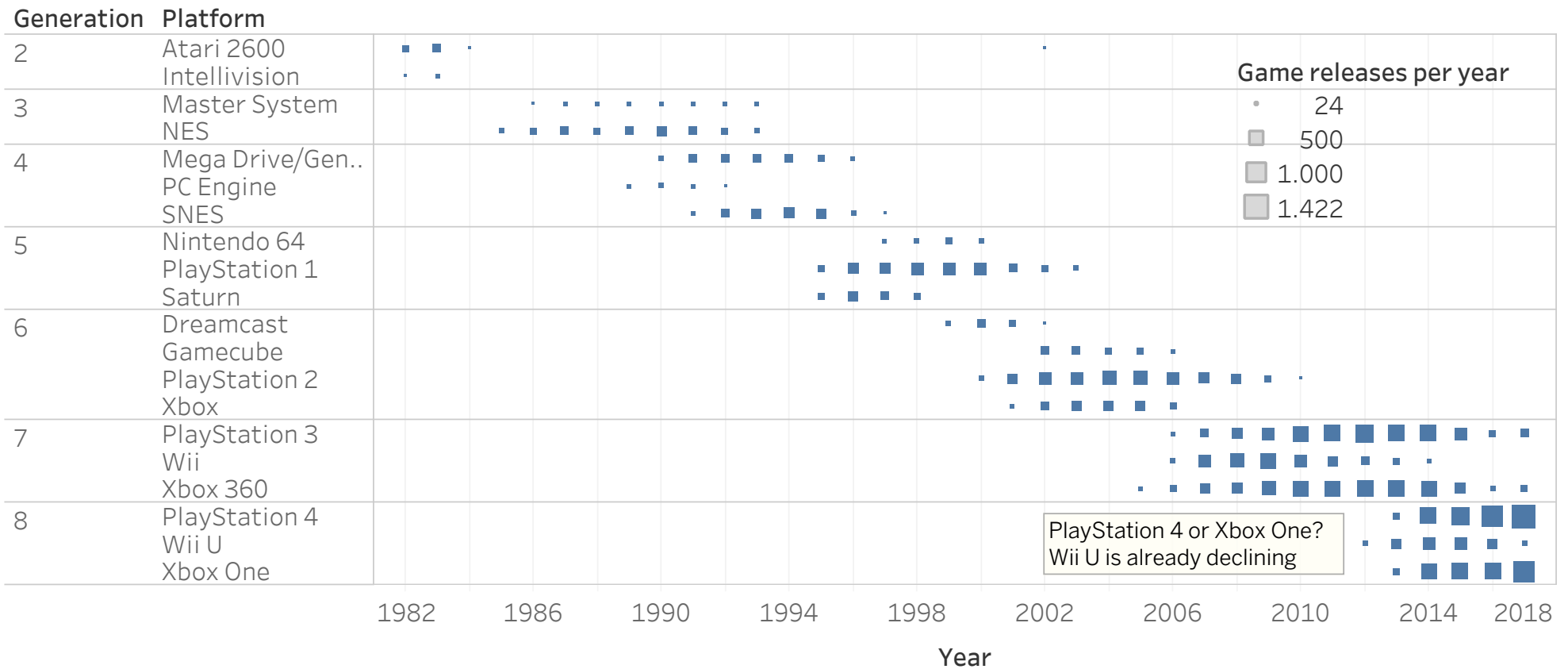
What is MobyGames?

MobyGames 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 first mass-market console was Atari 2600, historians name this "generation 2". The console with the longest lifetime (years with >24 game releases per year) is Microsoft's XBox 360 with 13 years, and still going. But who will be the longest runner of current generation 8?

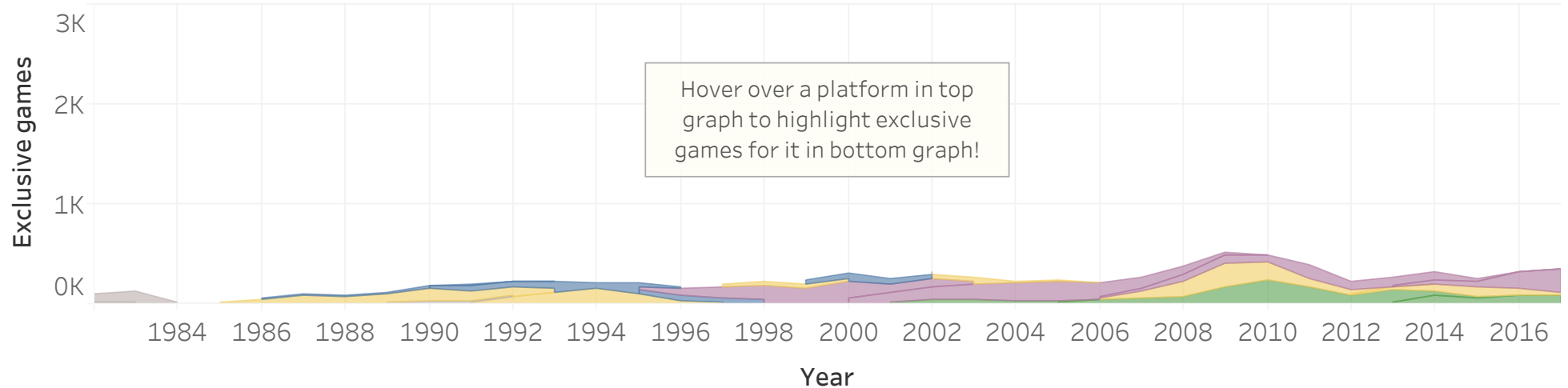
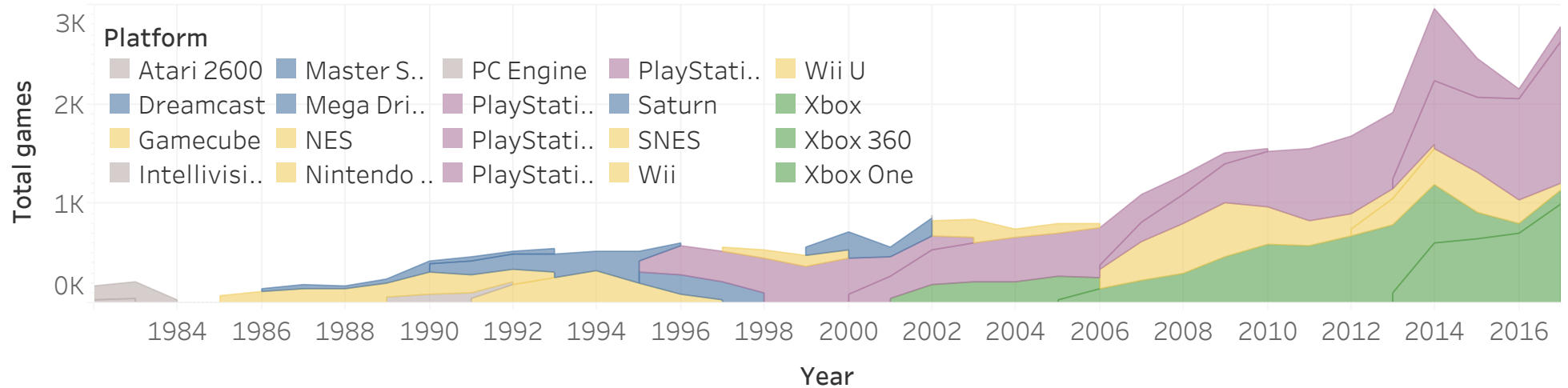
Platform Lifetime



Who will win - PlayStation 4 or Xbox One?

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).

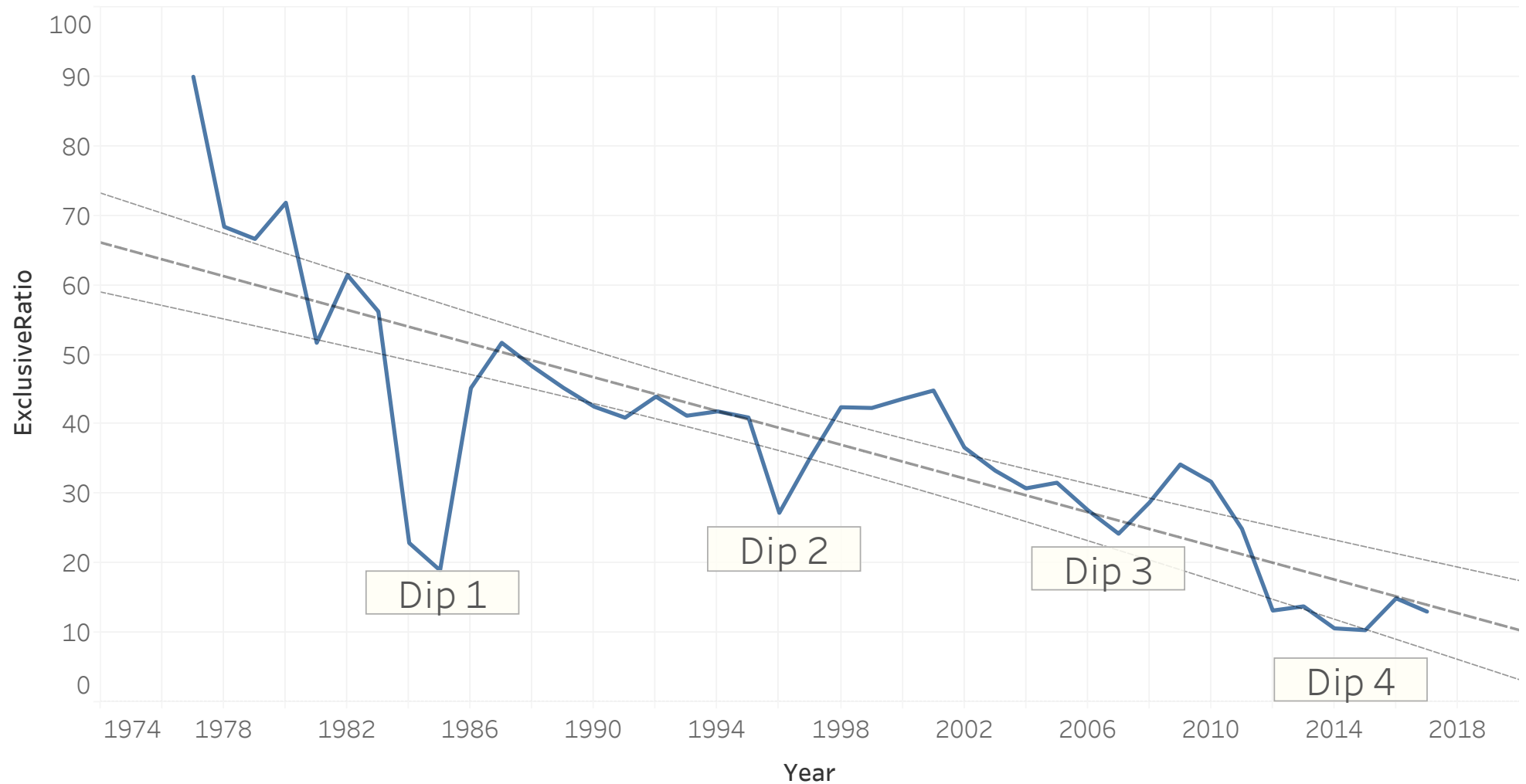
Looking at the overall...



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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 ..

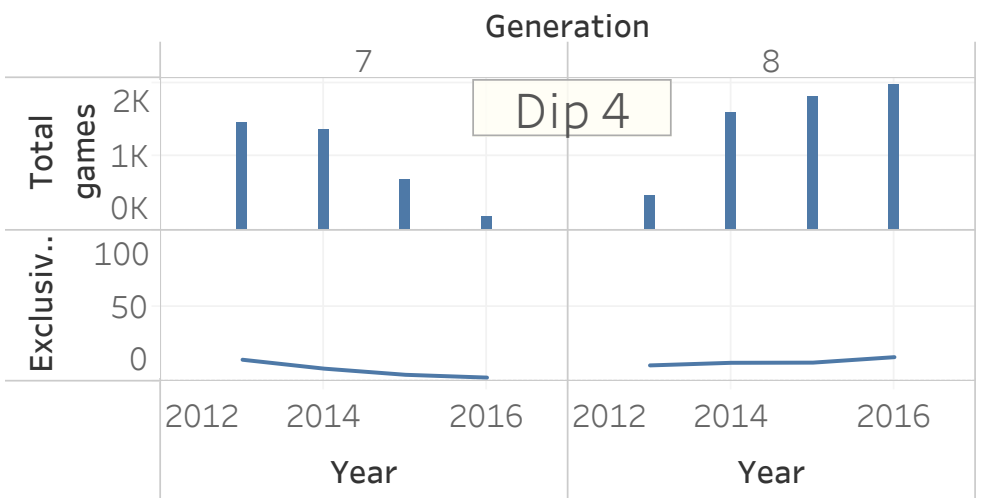
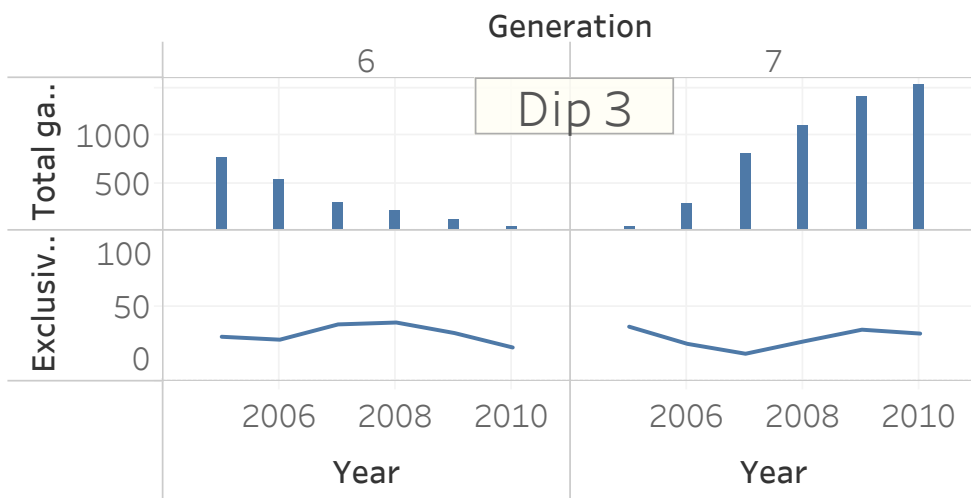
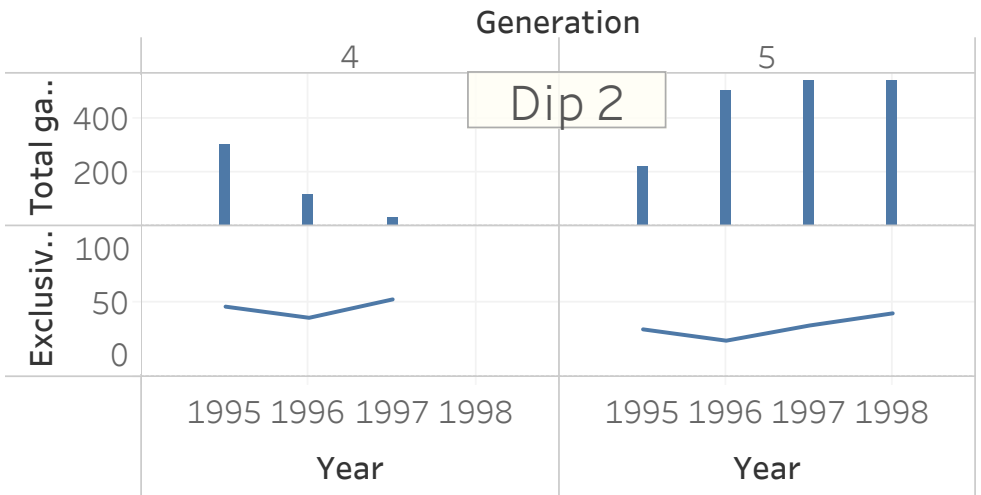
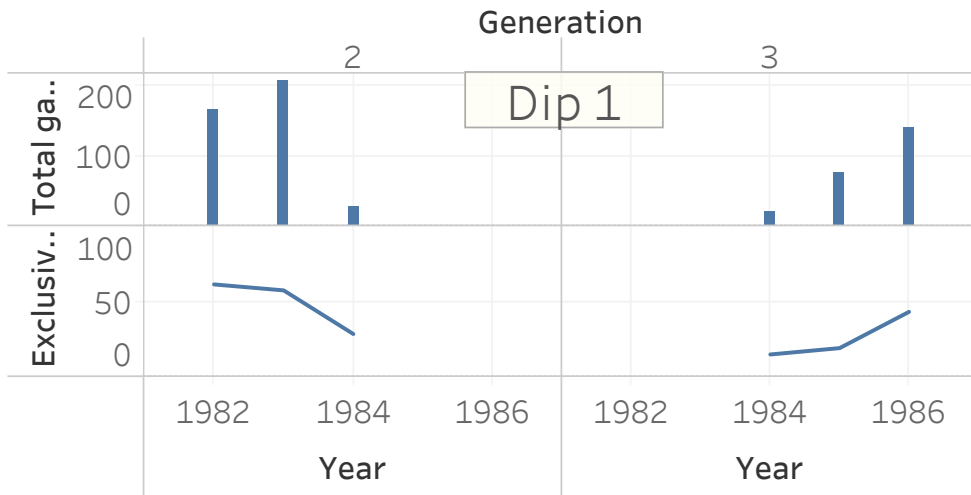


Who will win - PlayStation 4 or Xbox One?

Look in g..

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.

What does this ..



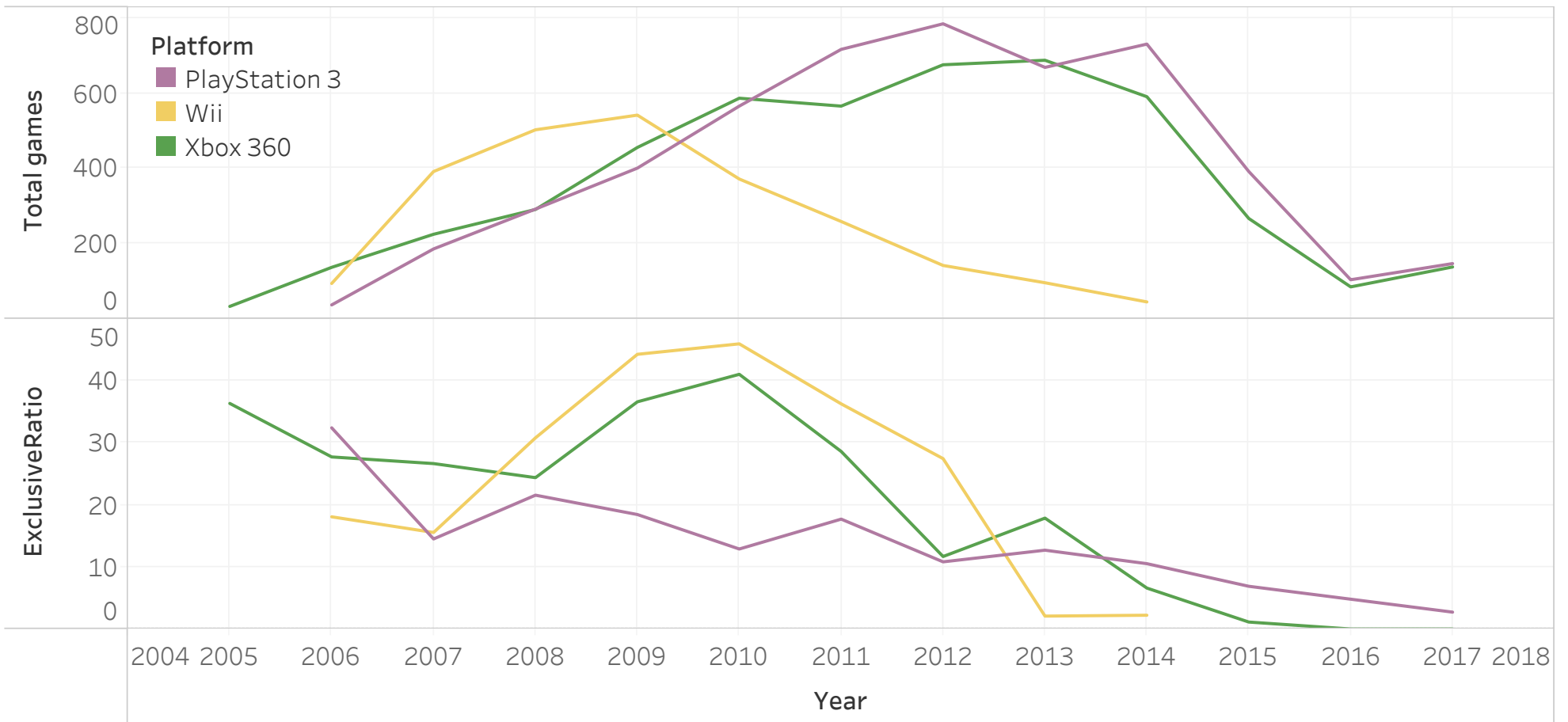
Who will win - PlayStation 4 or Xbox One?

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What does this mean for the current generation 8? First, look at the whole lifetime of generation 7. For PlayStation 3 and Xbox 360, peaks of exclusivity ratio are BEFORE peaks of game releases. For Nintendo Wii, it is the opposite - Exclusivity ratio peaks AFTER game release peak.

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Generation 7

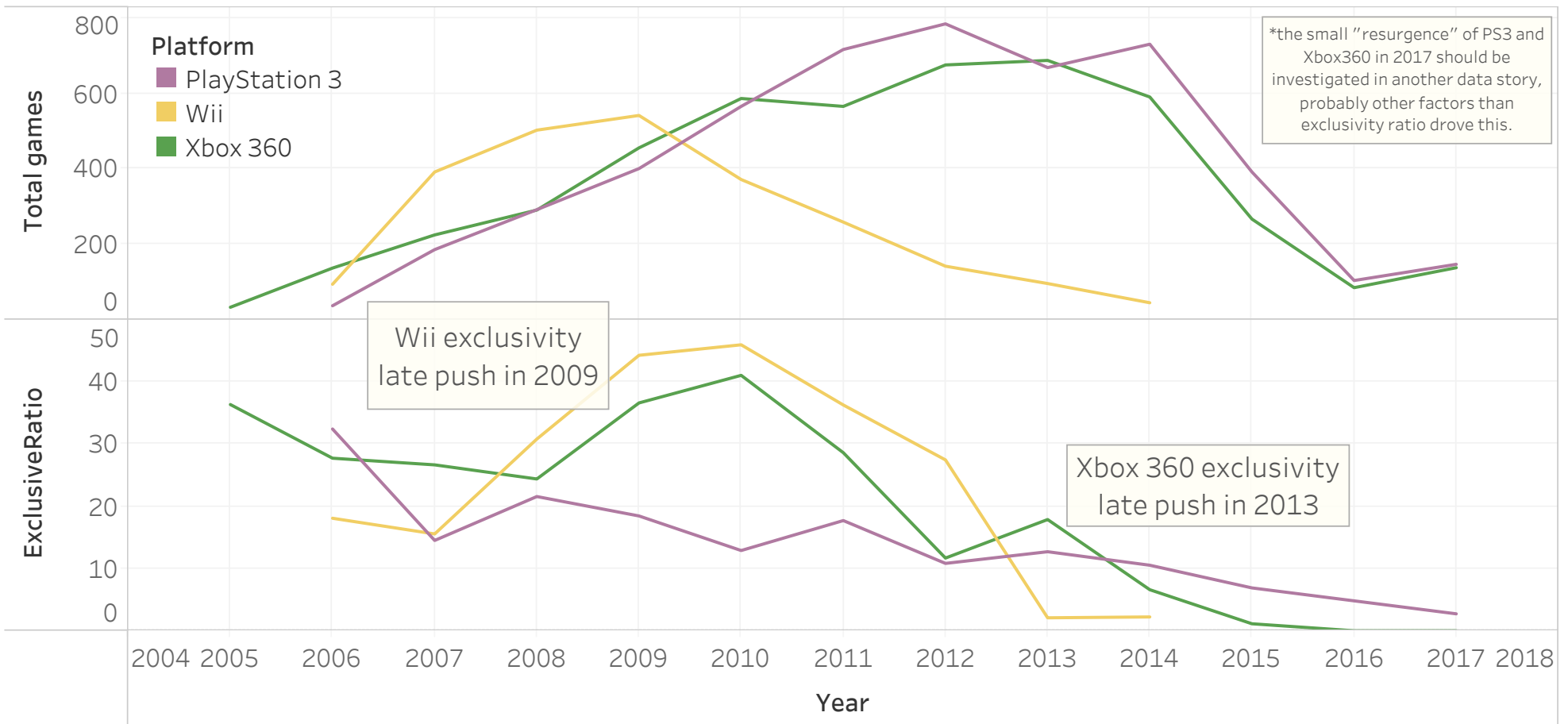


Who will win - PlayStation 4 or Xbox One?

What do PlayStation 3 shows a steady decline in exclusivity ratio after introduction. Wii and Xbox 360 show late pushes of exclusive games after initial peaks of game releases. After the respective exclusivity peaks, all platform game releases decline, resulting in end of life.

Investigation of..

Generation 7

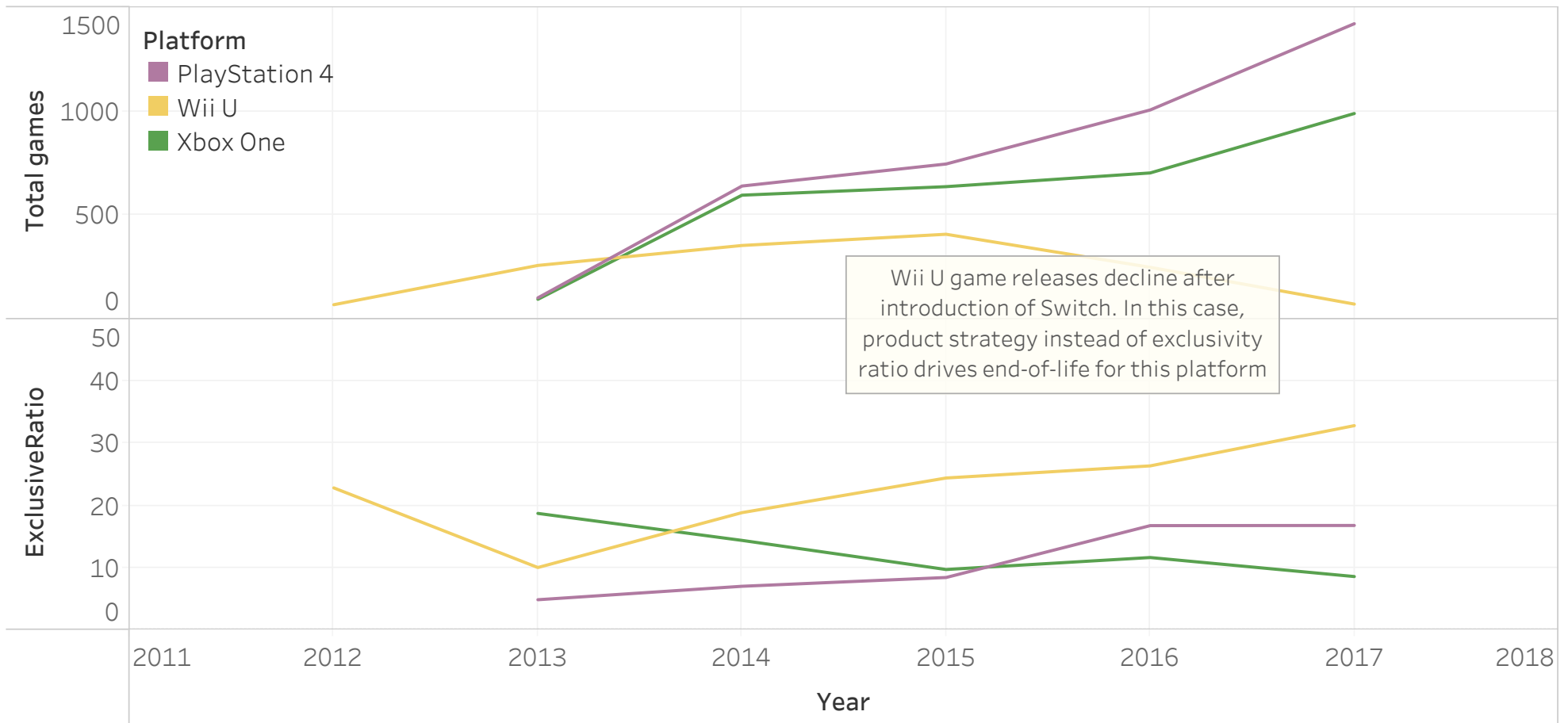


Who will win - PlayStation 4 or Xbox One?

Investigation of the current generation 8 reveals that Nintendo's Wii U is already declining due to the shift to the Switch console. Therefore, the contest of "winning" this generation (=longest lifetime) is really boiled down to a decision between PlayStation 4 and Xbox One!

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Generation 8 - Nintendo drops out



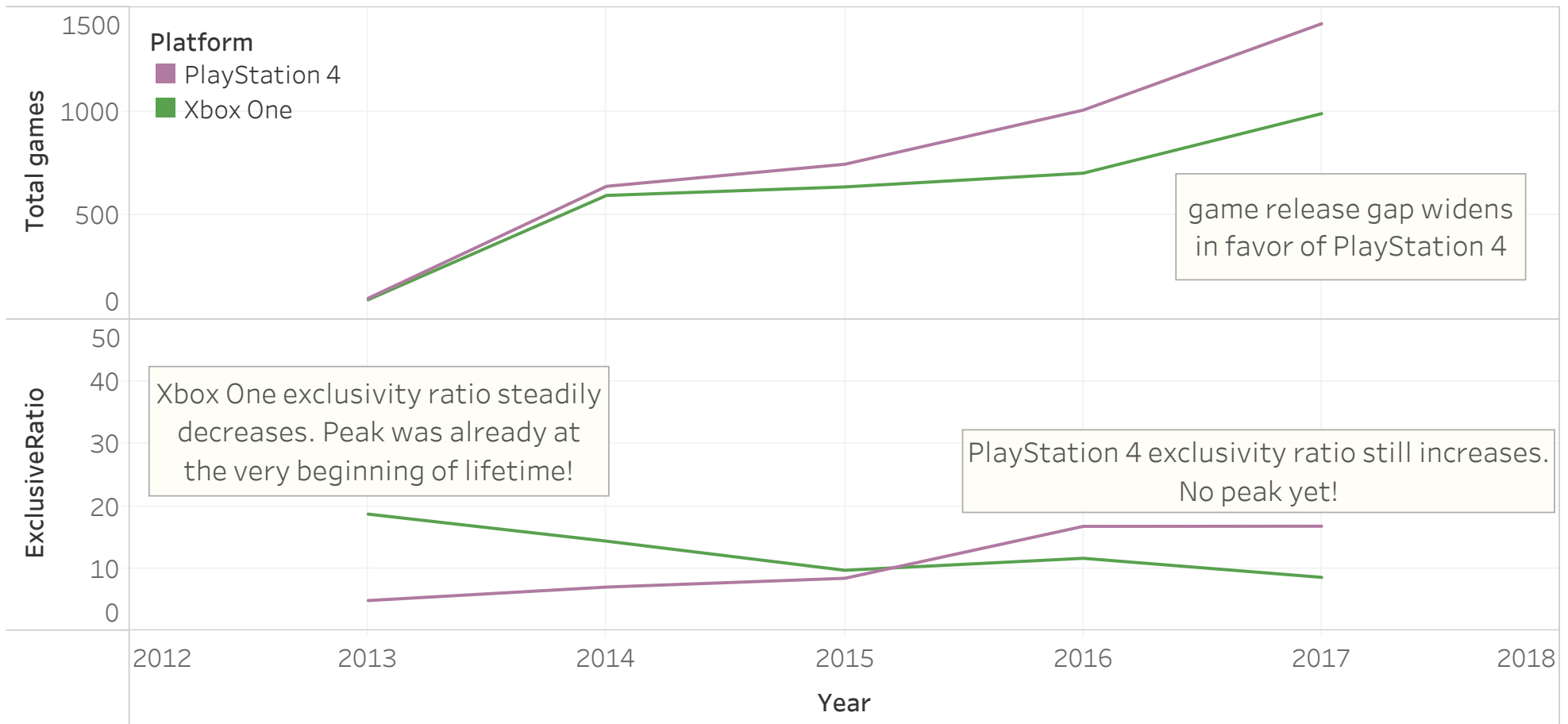
Who will win - PlayStation 4 or Xbox One?

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CONCLUSION: PlayStation 4 wins, most likely! Based on the correlation found between exclusive ratio and platform decline over the past four decades, and the fact that this ratio is already declining for Xbox One, it is highly likely that PlayStation 4 will enjoy a longer lifetime.

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Generation 8 - Final Contest



Who will win - PlayStation 4 or Xbox One?

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

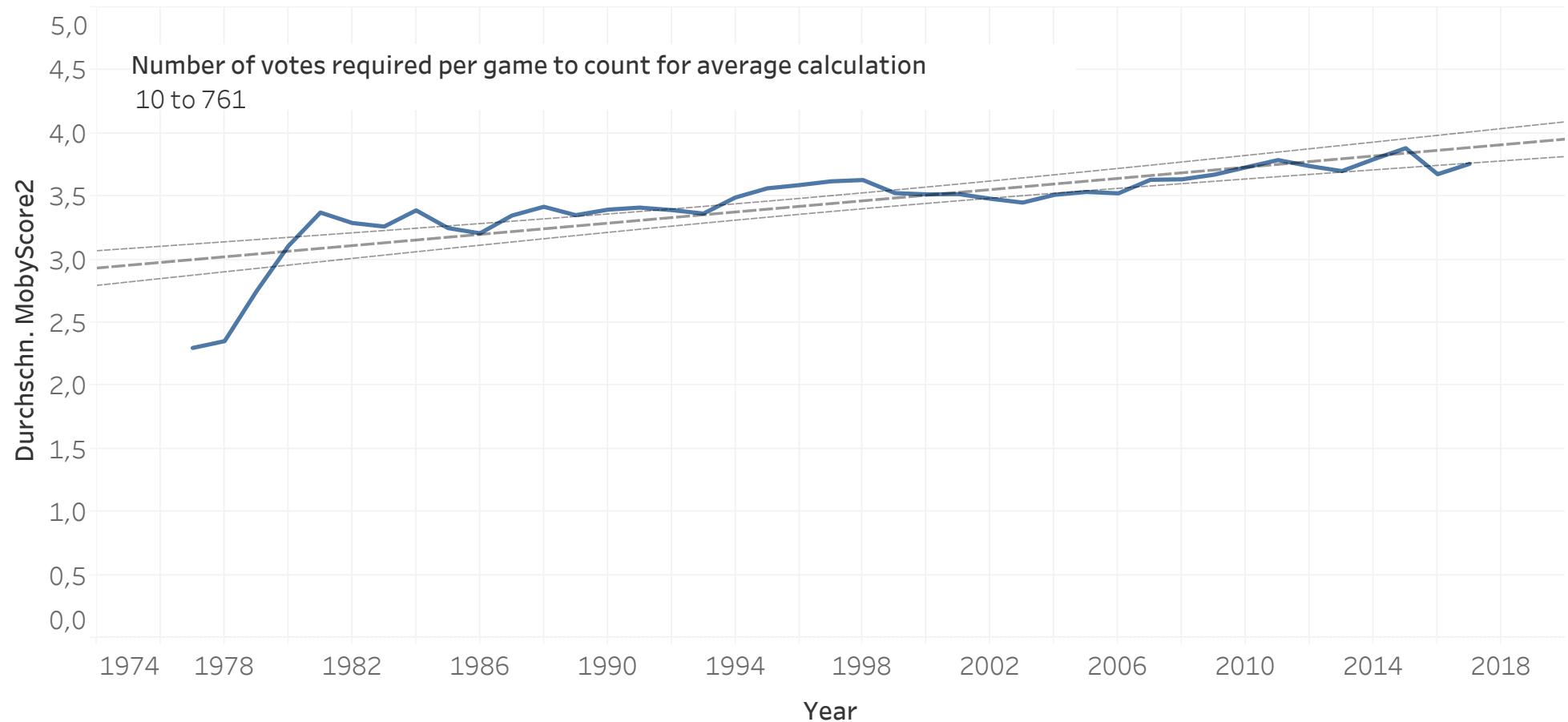
More interesting correlation investigations, such as based on geography or publisher/developer data, require different usage of APIs (requests per game instead of per platform - would result in thousands of API queries!), which could not be realised within the timeframe of the Udacity DAND project.

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BOUNUS
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..

Average Mobygame score per year

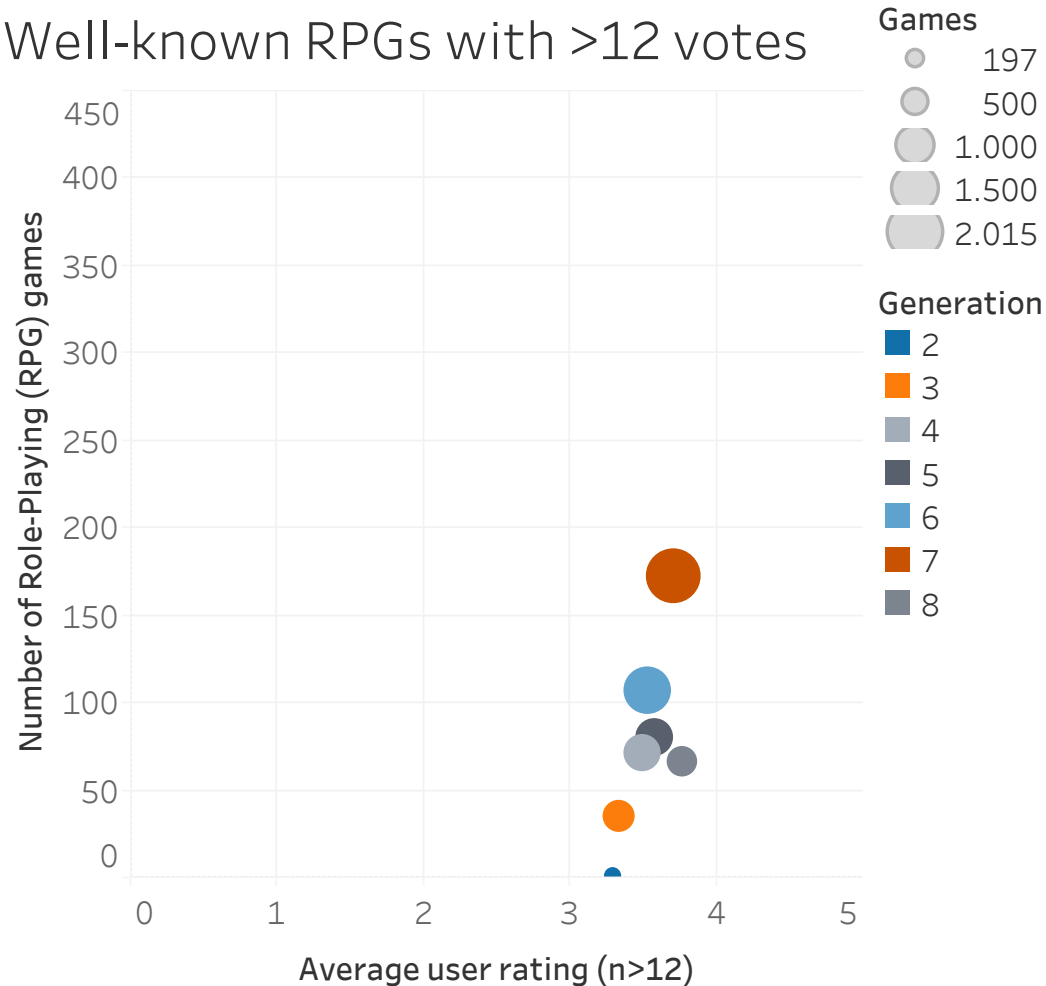


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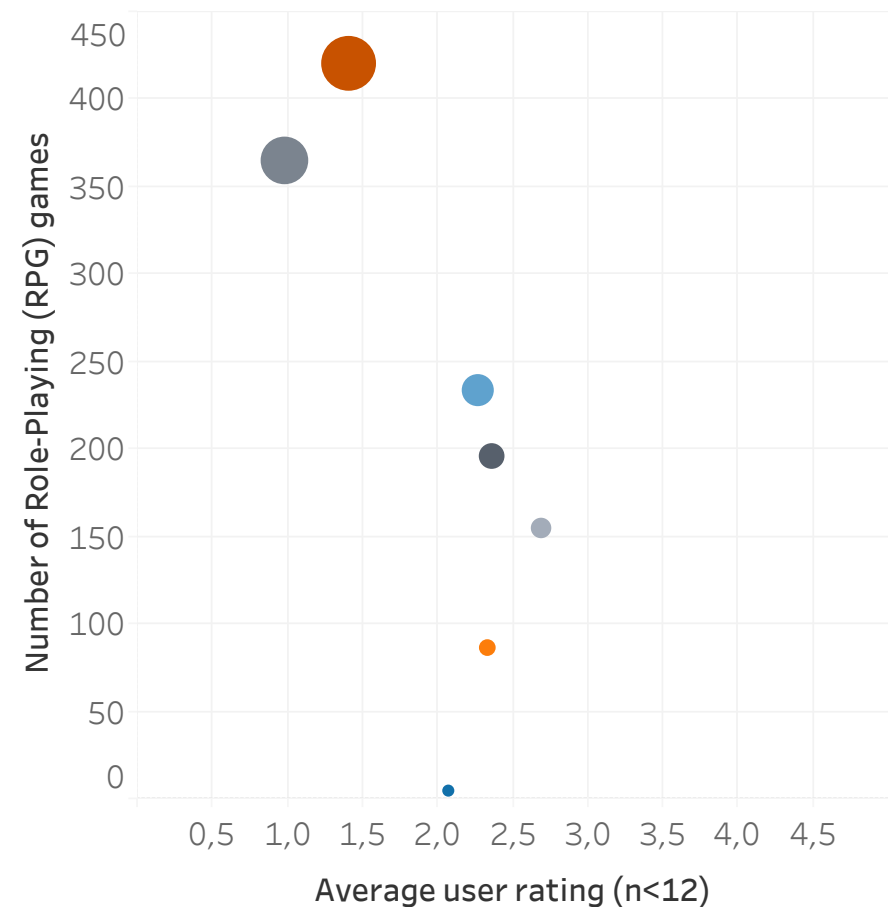
An interesting example.. The available data also includes genre information of games (action, RPG, strategy, sports, ...). An investigation could correlate that with user ratings. The example below shows the difference of number and rating of role-playing games based on number of votes >12 or <12.

BONUS - additional..

Well-known RPGs with >12 votes



RPGs with <12 votes - insider tips?



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The available data also include..

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!

