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What makes a "Good" (highly rated) video game?

The video game industry is a very large and profitable one.

> This year, the global games market is estimated to generate USD 152.1 billion from 2.5 billion gamers around the world. [1]

However, some video game makers may be interested in making the best game, which provides the best experience to the player, rather than making the most profit. The best proxy for this intangible is the rating. Here we will consider what factors make a highly rated video game, which is a composite of the user score and critic score from Metacritic.

Data

A dataset from Kaggle with details about 11563 Video Game titles was found [2]. The data for sales come from VGChartz and were compiled by Gregory Smith, while the ratings data comes from Metacritic and were compiled by Rush Kirubi. There are about 6825 complete cases.

Our target variable is the aggregate rating of the video game found by averaging the User Score and the Critic Score into a Composite Rating. We will average the two categories, because they each have merit. The fans are the primary target of the video games, but critics have a more methodical approach with more specific criteria when rating.

To determine which factors affect composite rating, we will consider the features: Year_of_Release, Global_sales, Genre, Rating (suggested age demographic), and Platform (what hardware used to play the game).

We will perform bootstrap linear regression on the data set with these regressors vs the target variable of composite rating. We will then validate the models by calculating the Bayesian probability that the model including platform explains more of the data than the base model alone. Lastly, we will analyze these regressions as an explanatory analysis to infer what factors are most correlated with highly rated games.

[1]https://www.ejinsight.com/eji/article/id/2280405/20191022-video-game-industry-silently-taking-over-entertainment-world \

[2]https://www.kaggle.com/rush4ratio/video-game-sales-with-ratings