Choosing one App-Environment to integrate into our operating system...

Apple Store vs Google Play

Which receives better reviews?

In this brief presentation, we will examine the following in order to answer our question:

- What Data Can We Examine?
- Can we Properly Compare Apple Vs. Google Data?
- How Can we Analyze Our Data?

Apple or Google? Which Receives Better Reviews?

Sourcing Relevant Data

What Data Can We Examine?

Source: Kaggle

- Plenty of review data regarding both ecosystems, readily available on open-source data library aggregator, Kaggle

Relevant Data: App Categories, Number of Reviews, Rating, Price

- Given the large amount of data available on both ecosystems, for our purposes we really only need the above four subsets of data

Bottom Line: There is enough relevant data to conduct our analysis

Apple or Google? Which Receives Better Reviews?

Combining & Comparing Datasets

Can we Properly Compare Apple vs Google Data?

Cleaning & Transforming Datasets

- Only slight changes needed to clean data sets, such as removing non-applicable values and miscellaneous symbols (ie "\$" signs)
- Data such as rating, number of reviews, and price can be compared numerically; data such as platform and category can be grouped by name

Combining Apple & Google Data

- We are able to combine both data from both platforms based on number of reviews and the rating
- Removed data that had less than one review as well as non-applicable rating scores
- Roughly 15.6K reviews included across both platforms
- Initial statistical findings show mean ratings on both platforms to be similar...

Bottom Line: We can accurately combine our data to compare the mean rating of each platform

Apple or Google? Which Receives Better Reviews?

Statistical Model of Ratings Data

How can we analyze our data?

Hypothesis and Method

- Null hypothesis from initial data is that platform doesn't matter: the mean rating difference is due to chance
- Ratings data is not normally distributed
- Non-Parametric Permutation test with 1000 permutations used to determine if platform makes a difference

Results

- Absolute difference in *Observed Difference* between Apple and Google Ratings is 0.1420
- We picked a significance level of 0.05
- Given the Observed Difference is larger than our significance level, we are assuming the Null is False:

The Platform DOES Matter

Bottom Line: Difference in mean ratings are statistically significant; Google Play had higher ratings