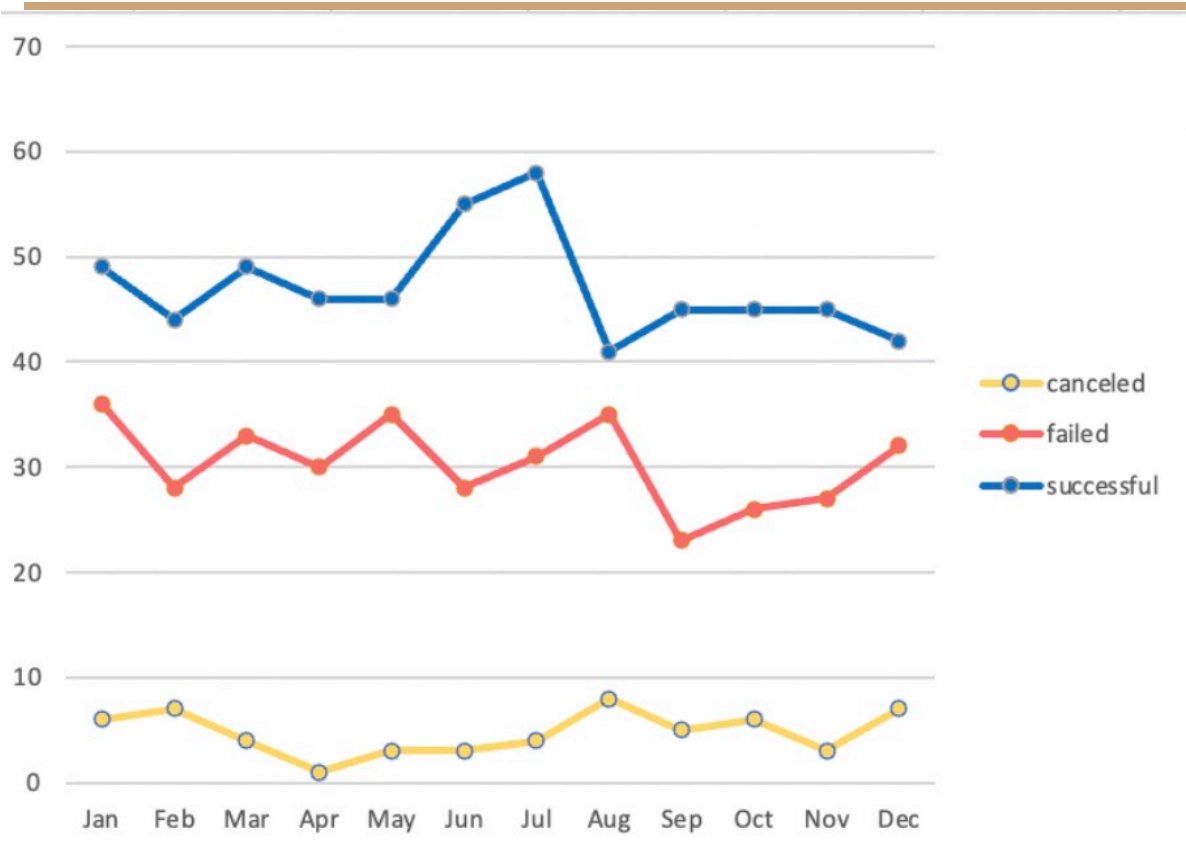Aaron A. Otto

Challenge 1 -Observations

Crowdfunded Theater efforts during the summer enjoy high rates of success!

Introduction

During the time period of January 2010 and the corresponding ten years ending in February 2020 analysis has been conducted on crowdfunded efforts success, failure, and canceled rates. This analysis illustrates three main trends. First, arts related parent categories (Theater, film & video, music) have the highest success rates. Additionally, there is statistical significance to campaigns' success rate for efforts over the summer months. In particular, inside the parent category of "Theater", the sub category of "Plays" has the highest support amongst all crowdfunded efforts. Finally we will talk through the data set limitations offering up suggestions to enrich the dataset for future use.
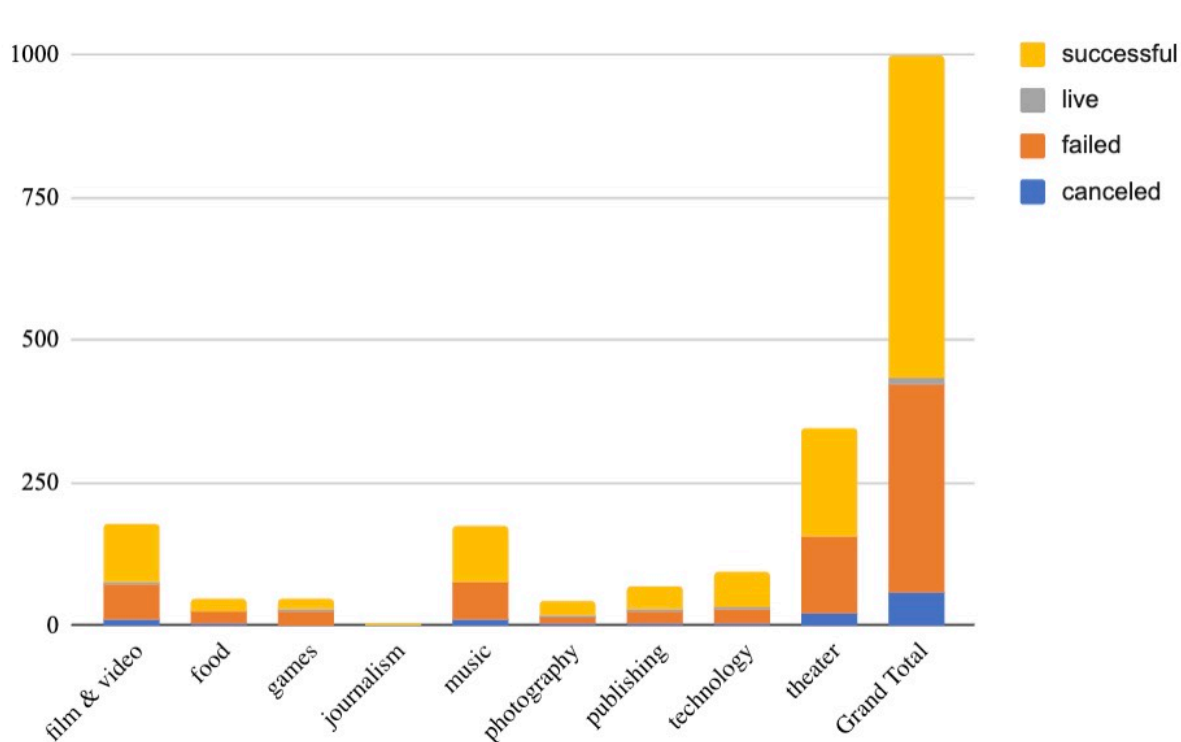

Parent Categories is more Art than Science

Theater with 189 successful campaigns was 45.45% higher than the next most successful category film & video. Music is a close third, only 47.03% less than theater with 99 successful campaigns. Categories like technology summarily were down in all categories with a mere 96 total instances and just under 30% of those failed.

As expected all three winning categories had the highest volumes of

started efforts. Theater, film and video, music categories and highest failure rates as well. An interesting outlier is journalism with only 4 efforts all successful.
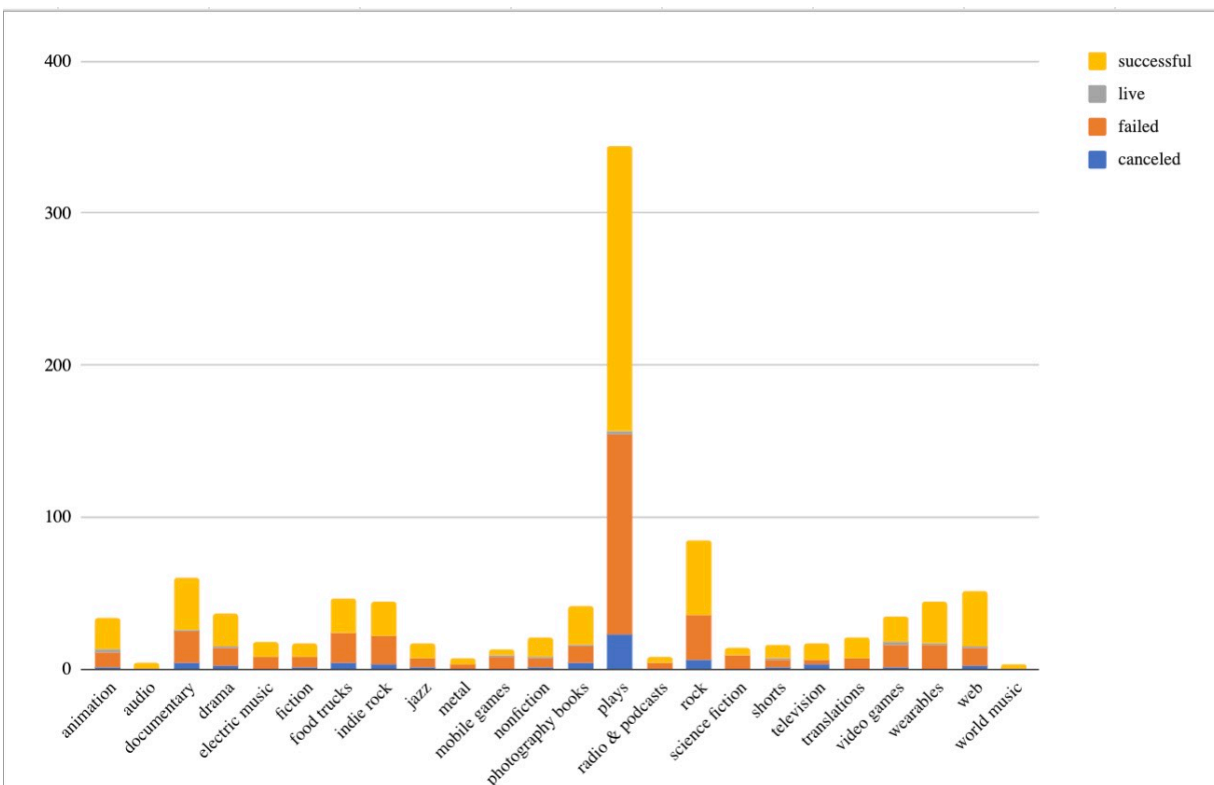
Pays to Play in sub-category analysis
Plays were the driving force in sub categories pushing its parent category "Theater", to the top. With a total success count of 187, plays towered over the next highest sub category music:Rock with 49 successful crowdfunding efforts.
Sub category topics to note, two of which had 100% success rates, were world music and audio. With no failures for either, world music only had 3 attempts and 4 for audio.

Seasonal advantages of Summer months explored
While success for efforts stays relatively stable across months, there is a definite spike in successful crowdfunding efforts in July & August. With a 9% average rise for efforts success over the ten years represented in the data starting in July and plateauing in August and then returning to normal ranges as summer ends and fall begins.   Although not required the author would like to do more analysis on months and sub category correlation for start and end dates.   Expanding the work to allow a recommendation to future crowdfunders to pick a very specific parent, sub category, start month to be most successful

with.

Limitations and Summary

There are a number of known limitations with public data sets, but specifically the set used for this work has generalization issues. Parent categories of Theater and sub categories of play can cross boundaries with musical-theater and additionally bleed into music or other sub-category areas. This most certainly dilutes the result set in any cross-categorization due to lack of specificity in closely coupled or crossing sub category genres.

Additionally, this data set is pre-covid. This time period automatically excludes the social impacts of a global isolation period. Given timing for success corresponds to summer breaks for families, the isolation of students from "stay at home learning" will have implications far beyond this data set's reach and rendering forecasting or predictive type analysis using this current data set challenging.

Purely off this data set as a future crowdfunder the data supports starting an effort in Theater, specifically Plays, in the month of June to maximize impact across parent, sub-category and highest success rate annually. With a deeper look at daily behavior the author recommends using quartiles for time periods looking at outcomes by each sub category. Additionally, would encourage the use of histograms to see if there are any relationships between distributions of sub categories and their funding amounts. Finally, geographical enrichment of this data set combined with population densities may reveal interesting location based success and failure info supporting certain locations having better success rates per category then others.