

Project: Visualizing Movie Data

Step 1: Data Cleanup and Attribute Selection

- Clean up any missing information and choose the most important attributes you will explore further in your visualizations.

Split genre and used the first split instead of genres, did the same for cast as well

- List out the attributes (or variables) you plan to dive further with your visualizations. You should explore no more than 8 attributes.

Dimensions used: Title, Genre, Keywords, Release Year

Measures used: Budget, Revenue, Runtime, Vote Count

Used on additional dimension – actor(cast) for Q4 – self question

Step 2: Tableau Visualizations

- Please make sure you follow the [rubric](#) and include Tableau Dashboards, Stories, and the appropriate visualizations (small multiples, scatter plot, bar chart, etc..) your reviewer expects your visualizations to contain. Remember: You need one Dashboard for every question (Q1-Q4) and in addition, you also need one Story, pertaining to a question of your choosing.
- Attach your visualizations as Tableau Workbooks in a zip file along with this report.

IMPORTANT: Please upload the workbooks to **Tableau Public** to allow reviewers to access your workbooks. Note that simply saving your file as a “.twbx” is not enough to allow all reviewers to access. [Instructions on how to do this.](#)

Attached workbooks as zip and also added links to public tableau website. Q3 has been worked as a story.

Step 3: Questions

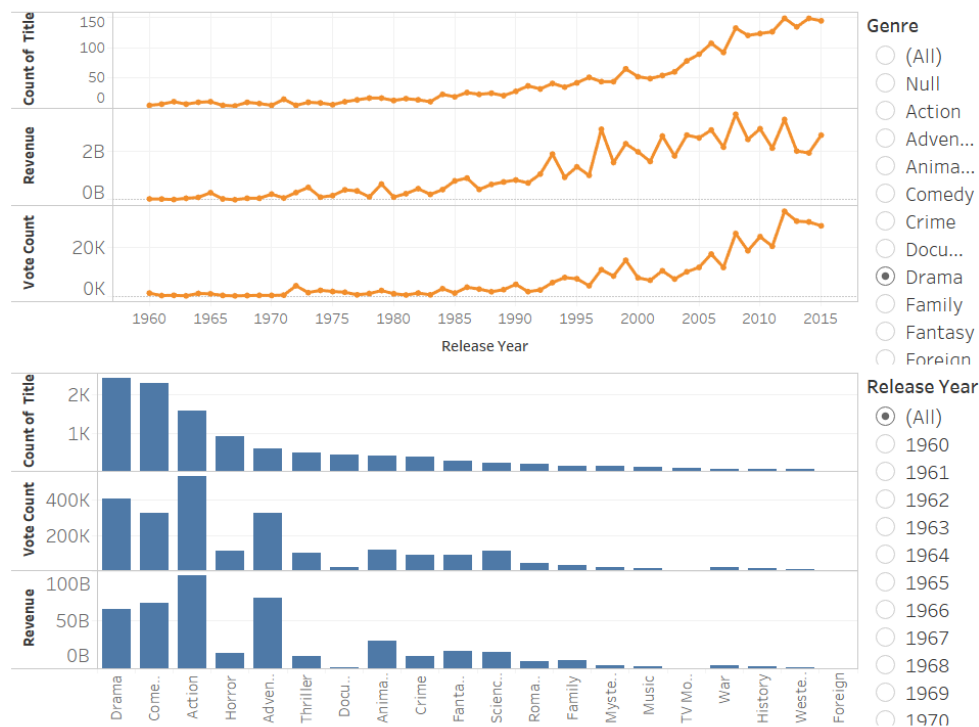
- Answer the following questions. Refer to your online visualizations to back up your answers:
 - **Question 1:** How have movie genres changed over time?

<https://public.tableau.com/profile/pushkar.b5724#!/vizhome/movies-genre-over-time/Genresovertime>

Description - In the visualization, graph 1 shows timeline of how individual genres have performed over time and graph 2 shows how all genres have performed year to year or across all years.

Insights – From graphs 1 & 2, we can see how Drama based movies are being made in a larger quantity over the years. However, its also interesting to note that even if a lot of Drama based movies are being made, they do not bring in the highest revenue. The top genre by revenue is Action based movies which are ranked #3 vs Drama #1 for the amount of movies by genre released till now.

How have movie genres changed over time?

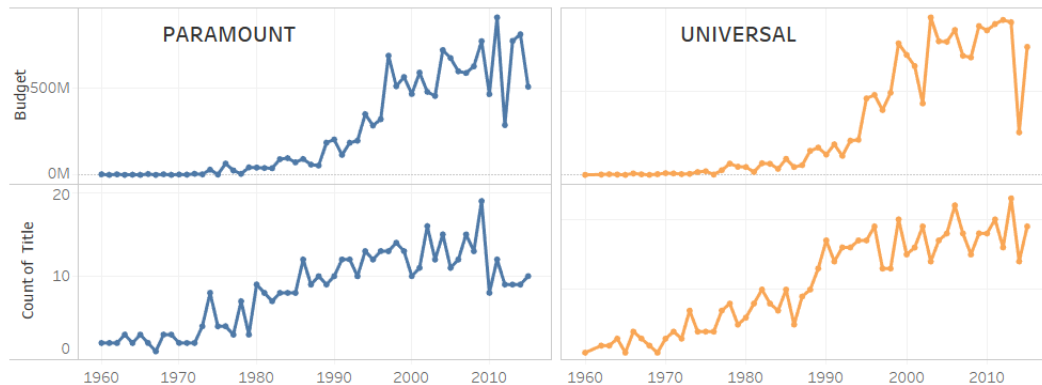


- **Question 2:** How do the attributes differ between Universal Pictures and Paramount Pictures?

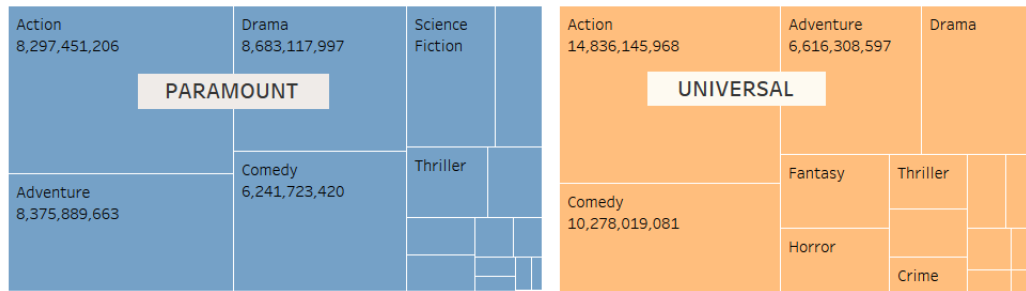
https://public.tableau.com/profile/pushkar.b5724#!/vizhome/movies-paramount-vs-universal/Paramount_vs_Universal

Description – The graphs on the top compare budgets and movies released by the two studios Paramount and Universal over time. The graphs rank genres of the studios' by size. **Insights** – Top revenue genre of Universal beats Paramount by a large margin. Both the studios started making more and more films, incrementally, beginning early 1970's but it looks like Universal had a faster growth spurt in the late 1980's. A similar trend can be observed in budgets as both the studios spent more beginning late 1980's. For the most part, Universal has had higher budget except in 2014 when Universal underspent Paramount by \$32k even when they made 5 more films than the other.

Paramount vs Universal. It looks like Universal spends more on budget. It might be so because it has released more films relative to Paramount. Its interesting to note that even #2 grossing genre, Comedy, for Universal is quite higher than each of top 3 of Paramount's genres.



Revenue Comparison



- **Question 3:** How have movies based on novels performed relative to movies not based on novels?

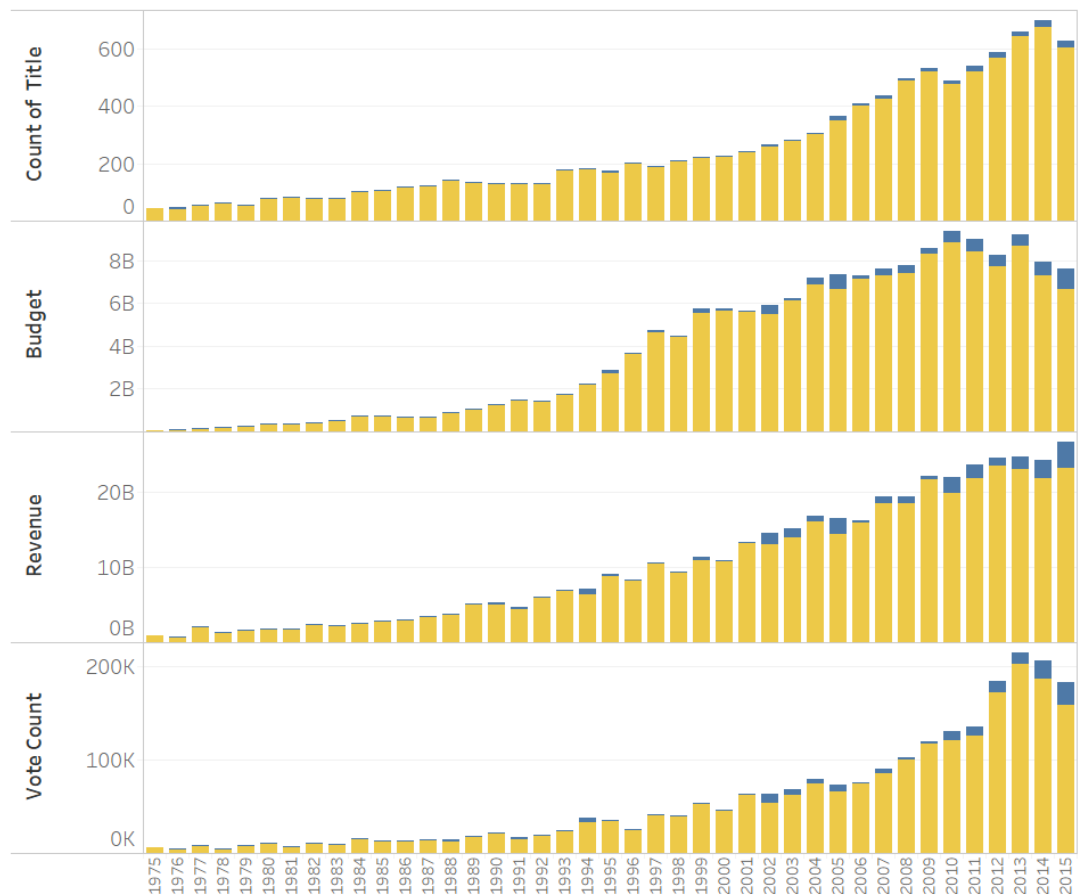
I have used this question to answer in the form of a story.

<https://public.tableau.com/profile/pushkar.b5724#!/vizhome/movies-novel-based/Anovelstory>

At the onset, it looks like the trends related to movies based on novels would be insignificant as these movies are such a so less in number compared to non-novel based movies. It looks like that irrespective of looking at number of movies released (count of title), budget, revenue or even vote count.

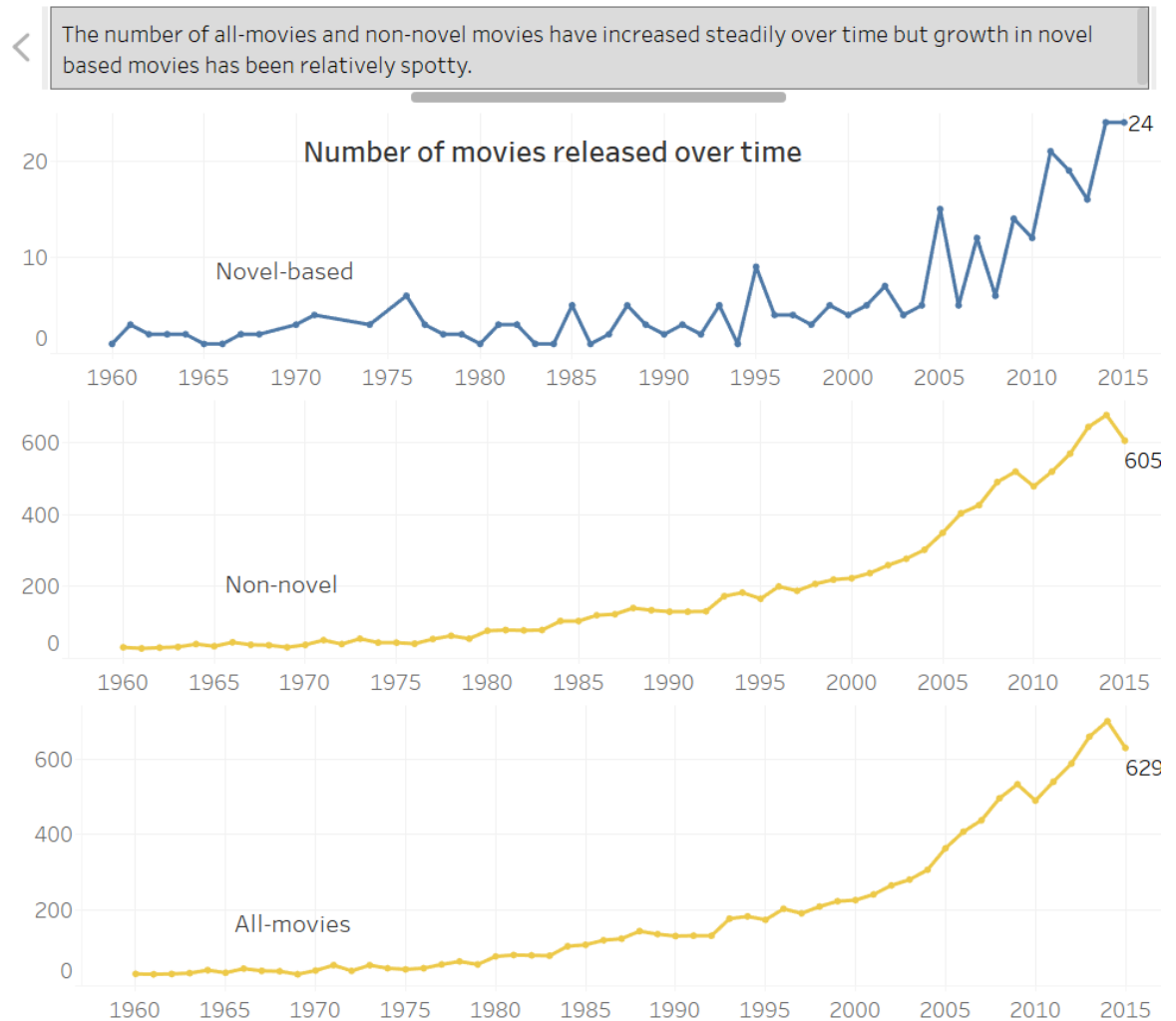
Novel based movies

< The novel-based movies account for a very small % of overall movie-industry but their presence is on the uptick in the last two decades. >



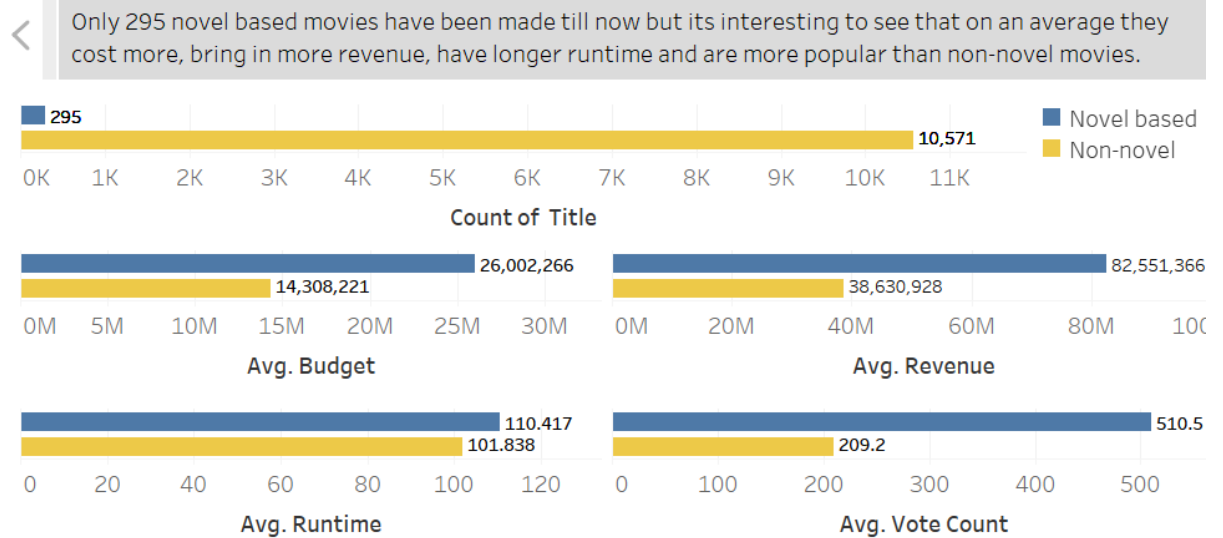
Next, I thought of plotting growth in number of movies released (count of title) over the years to see if anything interesting emerges. It looks like the non-novel based movies have increased steadily while no-doubt the novel based movies have also increased albeit being more spotty in nature. The spottiness could be a factor of magnitude, way more number of non-movies are being released compared to novel-based.

Novel based movies



An interesting pattern emerged when I looked at average measures instead of total sum. On an average, novel-based movies were allocated a greater budget, brought in higher revenues, had longer run-times and even scored higher on vote count when compared to non-novel based movies. I created a table using calculated field which compared how genres were distributed amongst novel and non-novel based movies. Looking on a % basis, ~36% of novel-based movies were Drama genre vs only ~22% of non-novel movies.

Novel based movies



Genre	Novel based	Non-novel
Drama	35.93%	22.20%
Comedy	14.58%	21.53%
Action	11.86%	14.71%
Adventure	7.80%	5.33%
Thriller	5.42%	4.49%
Crime	5.08%	3.46%
Horror	4.07%	8.54%
Fantasy	3.39%	2.48%
Romance	2.71%	1.68%
Animation	2.37%	3.75%
Family	2.03%	1.31%
Mystery	2.03%	1.13%
Western	1.02%	0.37%
Science Fiction	0.68%	2.01%
Foreign	0.34%	0.08%
Music	0.34%	0.94%
TV Movie	0.34%	0.73%

The adjacent table shows genre composition of novel based vs non-novel movies. Amongst the top 5 genres by movie releases, higher percentage of novel movies are Drama, Adventure, Thriller based.

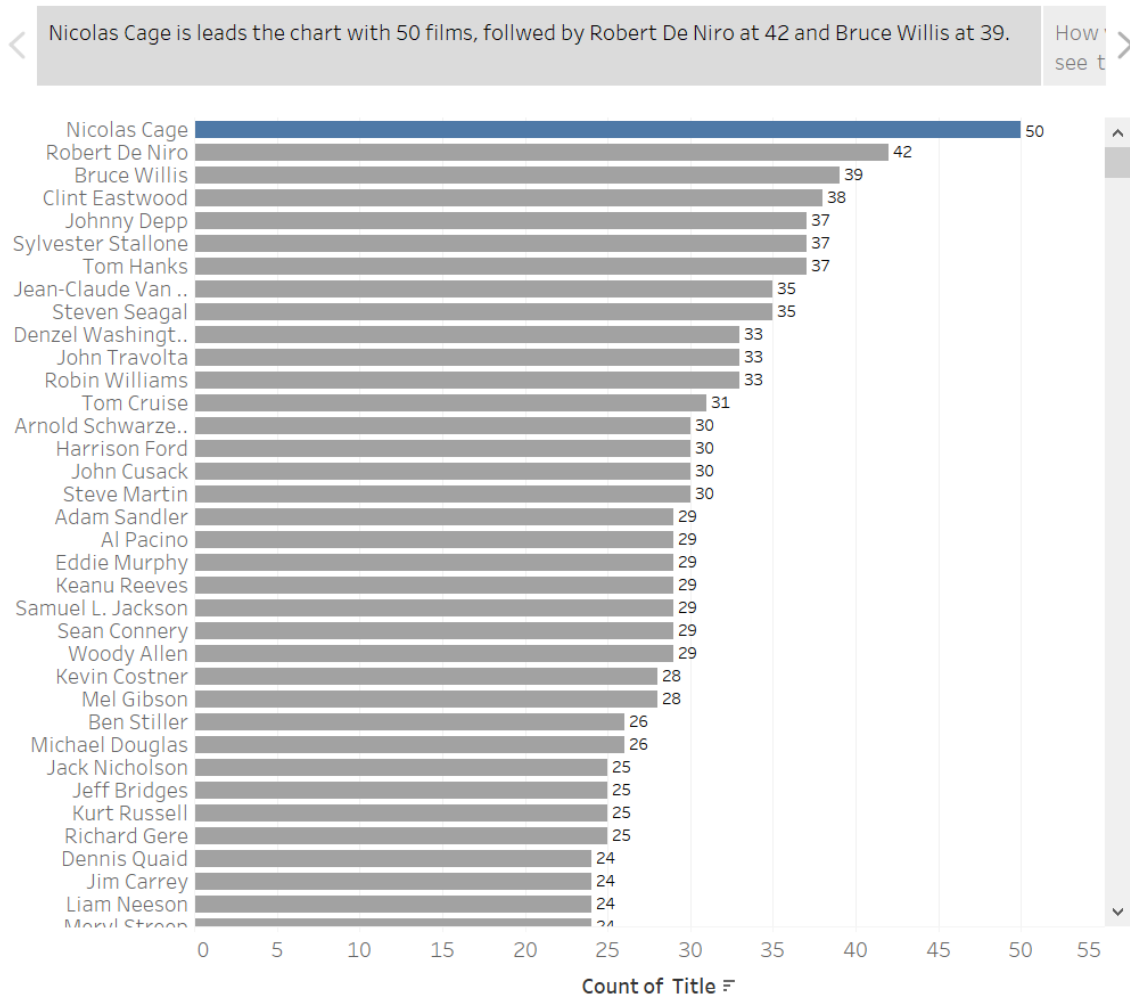
- What is your additional question that you proposed? What is the answer? How did you come up with this question?

Which actor has acted in the maximum number of films? What are the different genres this actor has acted in? Observe revenue, budget and vote count for this actor's films.

Inspiration – when I saw that 'Cast' dimension was present, I explored it, cleaned it and then tried seeing the trends in revenue, vote count, genres, budget for the actor.

https://public.tableau.com/profile/pushkar.b5724#!/vizhome/movies-max-actor/Max_acted_actor

Which actor has featured in the most number of films?



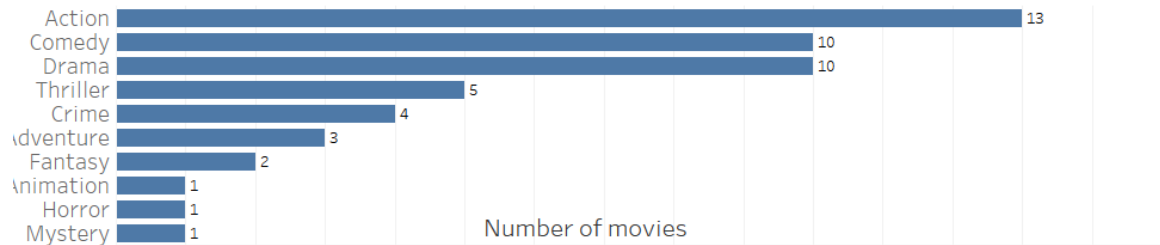
Which actor has featured in the most number of films?

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How versatile is Nicolas Cage? A lot apparently, he has acted in 10 different genres. Its interesting to see that 'The Croods', his #1 by revenue and #2 by budget film is in Adventure genre which not in

Genre division for the Nicolas Cage



Revenue vs Budget of films by Popularity for Nicolas Cage

