

IMDB MOVIE BIAS

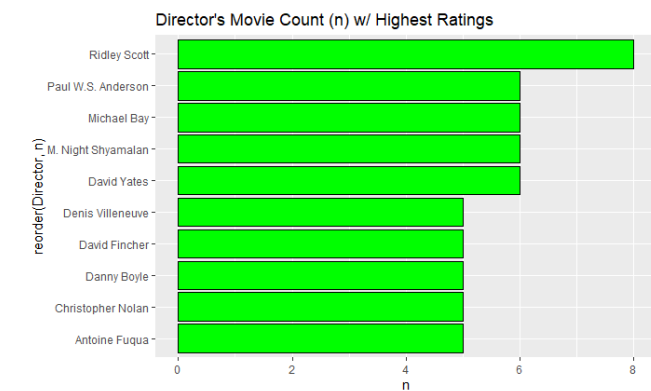
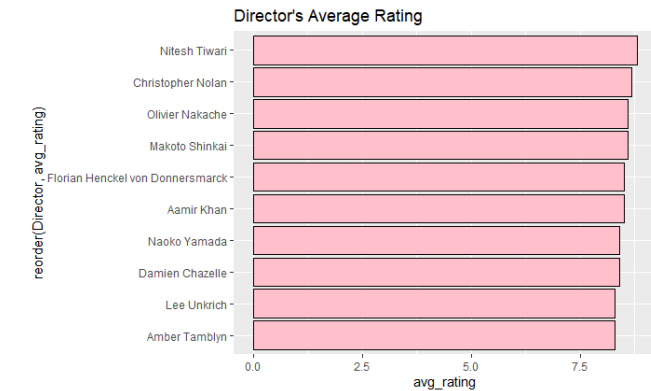
MARIE HASEGAWA

INTRODUCTION

- The **box office industry** is one of the *largest global markets* in the entertainment industry.
- The **purpose of the project** is to answer...
 - How does *Ratings, Directors, Actors, Genres, Metascores, Runtimes, and Revenue* affect the success of the movie and create bias reviews?
 - Does *Ratings* correlate with *Metascores*, or do they conflict with each other?
- This project will be using the **IMDB_movies.csv** dataset.

DIRECTOR'S EFFECT ON RATING

- The most successful Director based on frequency of Highly rated movies is **Christian Nolan**
- 3 Factors that played a role in his success...
 1. His decision to let **Christian Bale** (Avg. Movie Rating of 7.246154) play 3 major roles in *The Dark Knight*, *The Prestige*, and *The Dark Knight Rises*.
 2. His choice in popular genres has played a role in his success
 - **Drama** has the 5th highest Rating based on Genre (6.953801)
 - **Mystery** has the 6th highest Rating based on Genre (6.886792)
 - **Crime** has the 7th highest Rating based on Genre (6.786667)
 - **Adventure** has the 8th highest Rating based on Genre (6.772201)
 - **SciFi** has the 9th highest Rating based on Genre (6.716667)
 - **Action** has the 12th highest Rating based on Genre (6.614521)
 - **Thriller** has the 13th highest Rating based on Genre (6.593333)
 3. Making a sequel (*The Dark Knight Rises*) from his previous success (*The Dark Knight*)



Title	Genre	Director
<chr>	<chr>	<chr>
The Dark Knight	Action,Crime,Drama	Christopher Nolan
Inception	Action,Adventure,Sci-Fi	Christopher Nolan
Interstellar	Adventure,Drama,Sci-Fi	Christopher Nolan
The Prestige	Drama,Mystery,Sci-Fi	Christopher Nolan
The Dark Knight Rises	Action,Thriller	Christopher Nolan

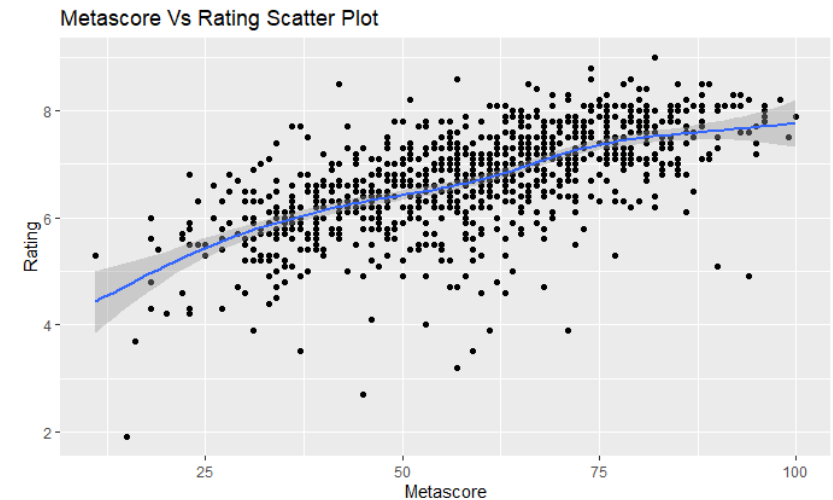
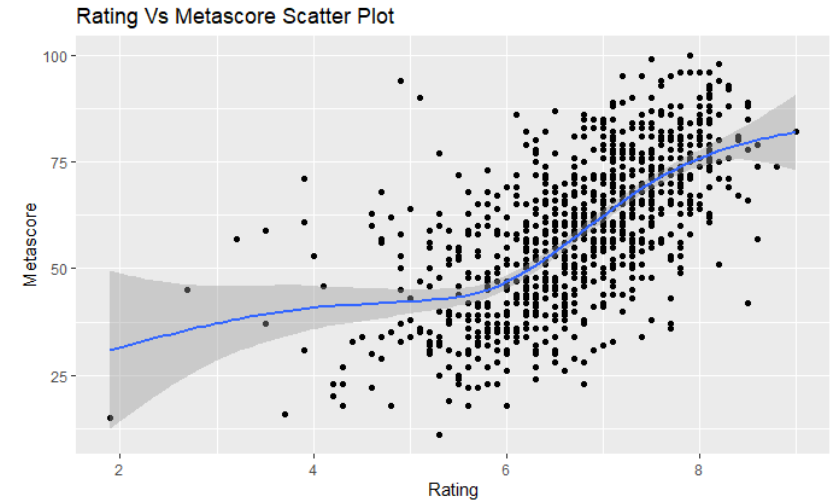
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Genre	Average_Rate_Genre
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Drama	6.953801
Mystery	6.886792
Crime	6.786667
Adventure	6.772201
SciFi	6.716667
Action	6.614521
Thriller	6.593333

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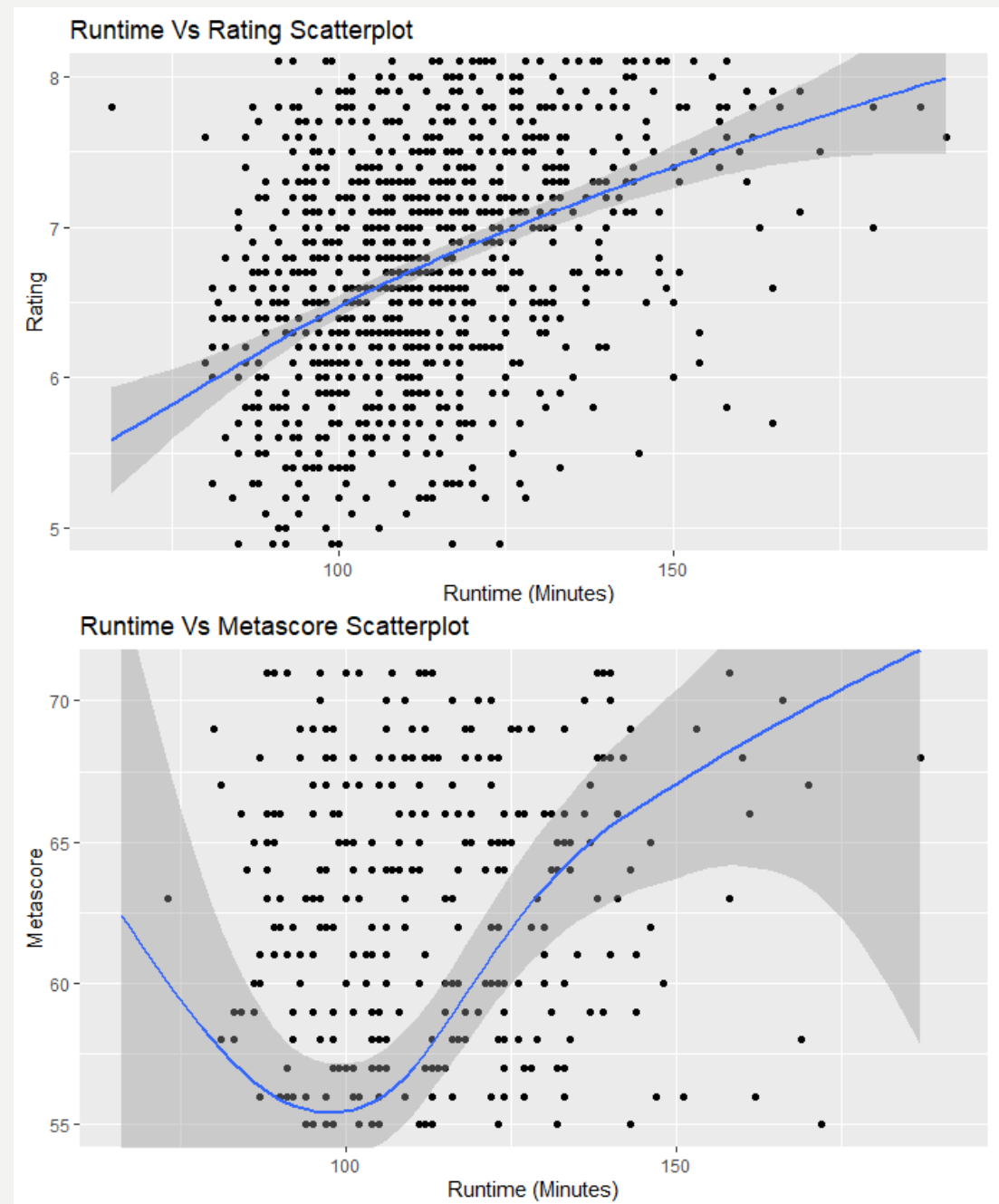
RATING VS METASCORE

- The top 20 rated movies in the table, **RateVsMeta**, showed that 5 movies have very conflicting Ratings and Metascores:
 - **The Intouchables** (Rating = 8.6; Metascore = 57)
 - **The Prestige** (Rating = 8.5; Metascore = 66)
 - **Taare Zameen Par** (Rating = 8.5; Metascore = 42)
 - **3 Idiots** (Rating = 8.4, Metascore = 67)
 - **Inglourious Basterds** (Rating = 8.3, Metascore = 69)
- However, the top 20 movies with the highest Metascores in the table, **MetaVsRate**, had only one movie
 - **Megan Is Missing** (Rating = 94; Metascore = 4.9)
- The **Highest Ratings** are **more likely** to have **conflicting Metascores**, since the points fall farther away from the regression line in the Rating coordinates of the scatter plot, **Rating Vs Metascore Scatter Plot**.
- The **Highest Metascores** are **less likely** to have **conflicting Ratings**, since the points fall closer towards the regression line in the Metascore coordinates of the scatter plot, **Metascore Vs Rating Scatter Plot**.



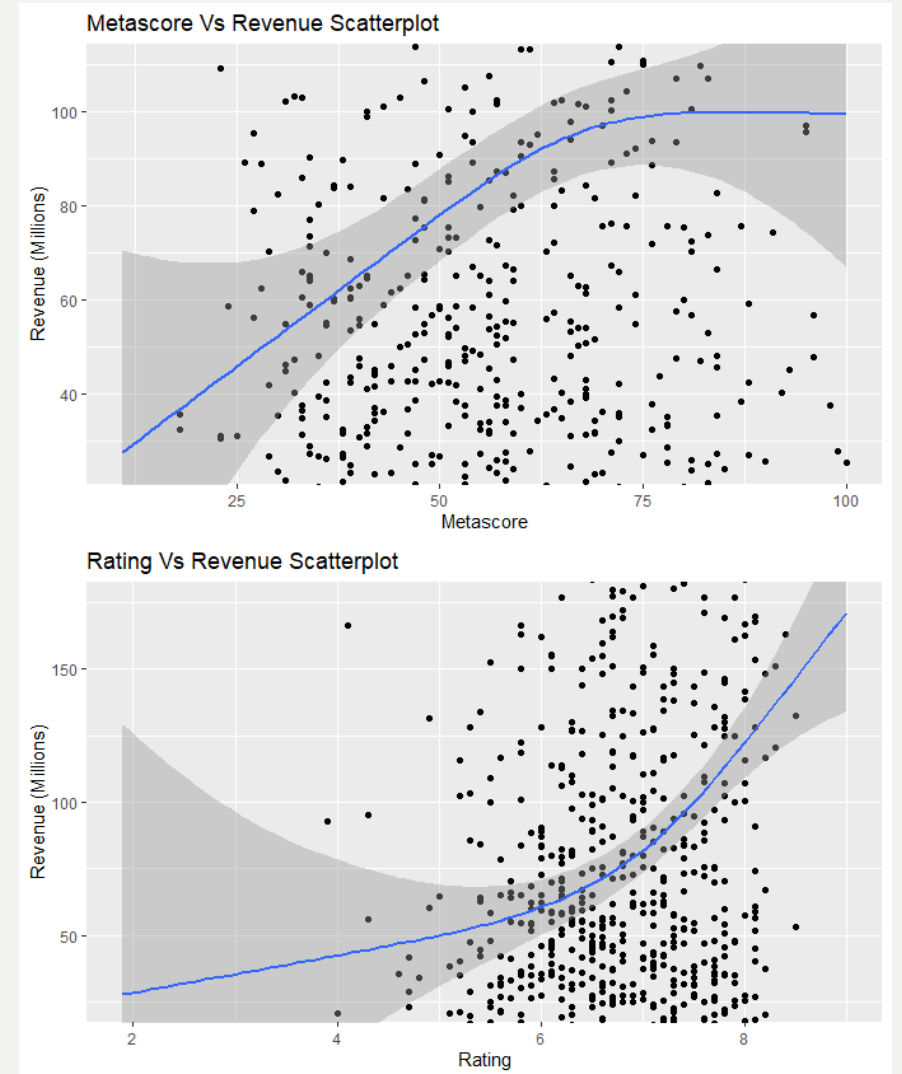
RUNTIME'S EFFECT ON RATING AND METAScore

- Based on the 2 scatter plots, the *regression line* for the scatter plot, **Runtime Vs Rating Scatterplot**, is more linear than the *regression line* of the other scatter plot, **Runtime Vs Metascore Scatterplot**.
- A movie's **Ratings** increases steadily as a movie's **Runtime** increases.
- **Metascores** increase as a movie's **Runtime** increases...
 - **However**, movies with a **Runtime** of around **100 minutes** are more prone to score poorly than any other Runtime duration and the **best Runtime** duration is **more than 150 minutes**



RATING'S AND METASCORE'S EFFECT ON REVENUE

- In the scatter plots, **Rating Vs Revenue Scatterplot**, **Revenue** exponentially grows as its **Ratings** increases
- However, in the scatter plot **Metascore Vs Revenue Scatterplot**, **Revenue** has a logistic growth as **Metascore** increases.
 - **Revenue** reaches a *Revenue plateau* of around **\$100 million** with a *Metascore range* **from 70 to 100**.



CONCLUSION

- **Directors** can earn **Top Ratings** if they pick the **Best Actors** and the **Most Popular Genres**.
 - **Not to mention, Directors** can ride on previous success by making **high-quality sequels**.
- **Ratings and Metascores** can greatly conflict with each other.
 - The **Highest Ratings** are more prone to conflict with its **Metascores**, but the **Highest Metascores** is less likely to conflict with its **Ratings**.
- The **Runtime** can affect the **Rating and Metascore** of the movie.
 - **Ratings** steadily increases as the **Runtime** increases, while **Metascores** highly prefer a **Runtime of 150 minutes** over a **Runtime of 100 minutes**.
- During the *first week of a movie's premiere*, **Ratings and Metascores** are distributed and can greatly affect the **box office success** and **Revenue** of a movie.
 - **Ratings** cause an **exponential growth** for a movie's **Revenue**, while **Metascores** can cause a **logistic growth** for a movie's **Revenue**.
- A movie's **Rating, Director, Actors, Genre, Metascore, Runtime, and Revenue** play a direct role for a **movie's success** and can increase **positive feedback**.
 - **However, some of these factors** can create biasness that deter the **integrity of the Rating and Metascore**.