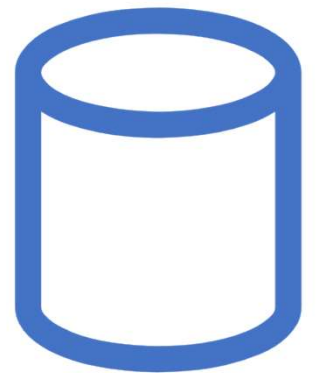


Exploring the history of cinematography in the age of technology

Faye Alangi

Dataset

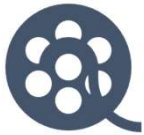
The MovieLens dataset(IMDB movie dataset) is used for this project. MovieLens is a research site run by GroupLens Research group at the University of Minnesota.



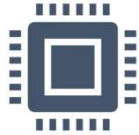
Motivation

In this project, we will explore the movies, ratings and tags dataset and look for interesting insights into the history of cinematography. Particularly, we are interested to see how the information era and technological advancement have affected the film industry.

Research Questions



How is the trend of film production over the years?



How did the film production industry change in the information/technology age?



What are the most popular movie genres over the years?



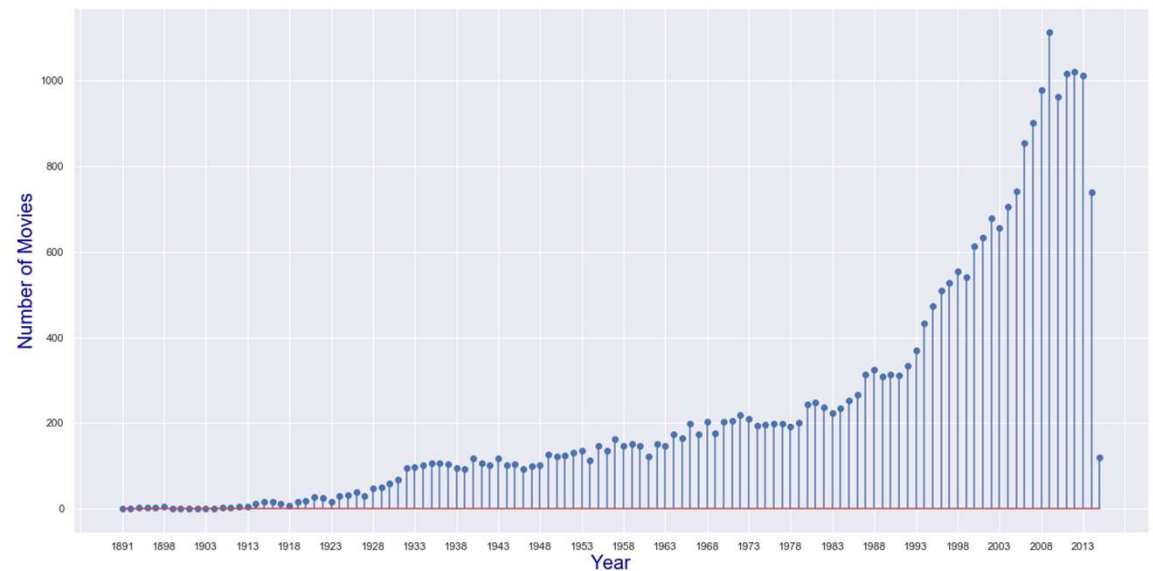
Do popular movies have higher ratings?

Findings : Movies Production Trend

In order to see how the film production industry has changed over the years, from movies data, we extract the number of movies made each year and using matplotlib, plot the number of movies per year and observe the trend. As we see, the movie production has been increasing over the years.

If we look closer, we notice that there was a boom in film industry when the age of internet began and almost doubled by 2010 and has continued to rise since then.

This is due to the fact that advancement in technology such as drones, dual camera VR, computer-aided graphic and internet such as cloud-based services have made producing, distributing and preserving of movies easier and more cost effective.

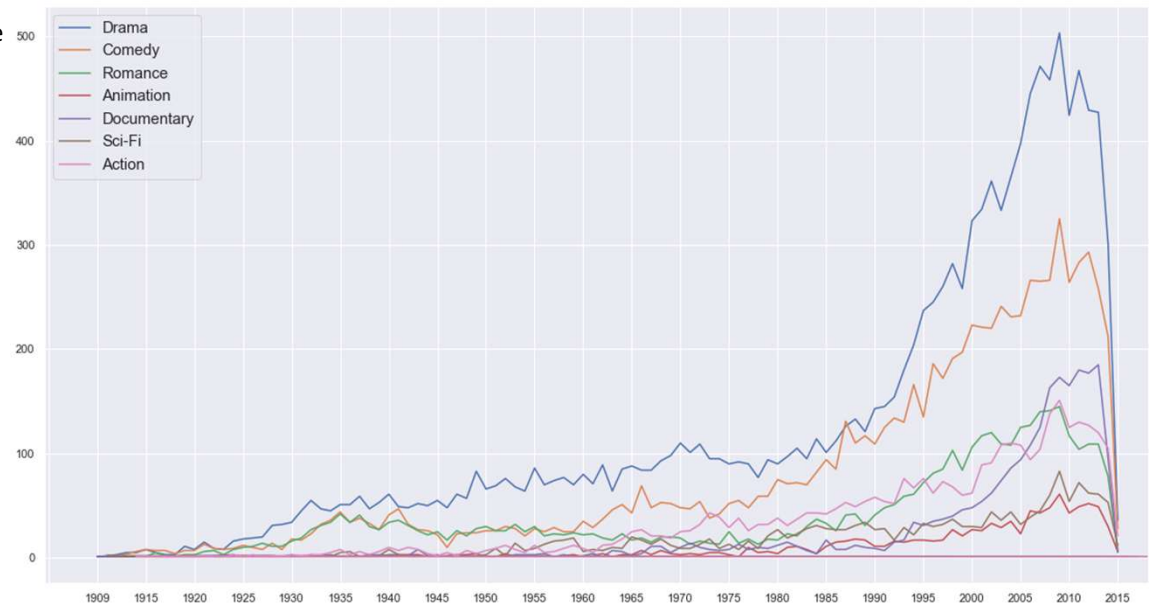


Findings : Popular Genres

To take a deeper look at the movies, we filter and categorize the movies based on the most popular genres. The three most popular genres are drama, comedy and romance. Since, drama overlaps with many other genres, the large gap between this graph and others is very much expected.

Also, there should be no surprise to see that comedy movies are produced higher than other genres (after drama) since humor and laughter are always in demand.

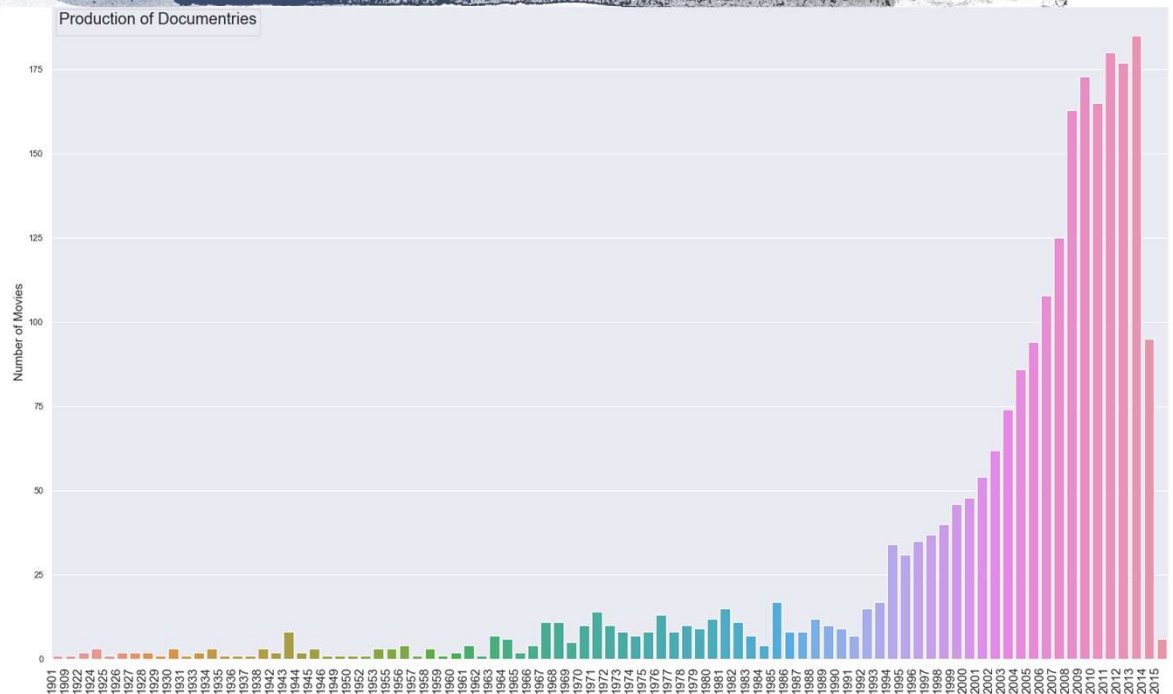
Although, the production of all genres have been rising as the years go by, there is an interesting observation of documentary movies production. To see this trend better, we will plot this genre separately.



Findings : Documentary Movies Production

Similar to other genres, documentary movies production has been riding over time. Looking at year 2005, a sharp increase has occurred.

This is the year Youtube came out. Facebook and Twitter became available to users throughout the world by 2006. The first iphone was introduced in 2007. Internet, social media and advanced mobile phones have had a truly revolutionary effect on documentary making as they have enabled individuals to tell their stories and share them. There is no doubt that their influence is a contributing factor in doubling the production of documentaries between 2005 and 2014.



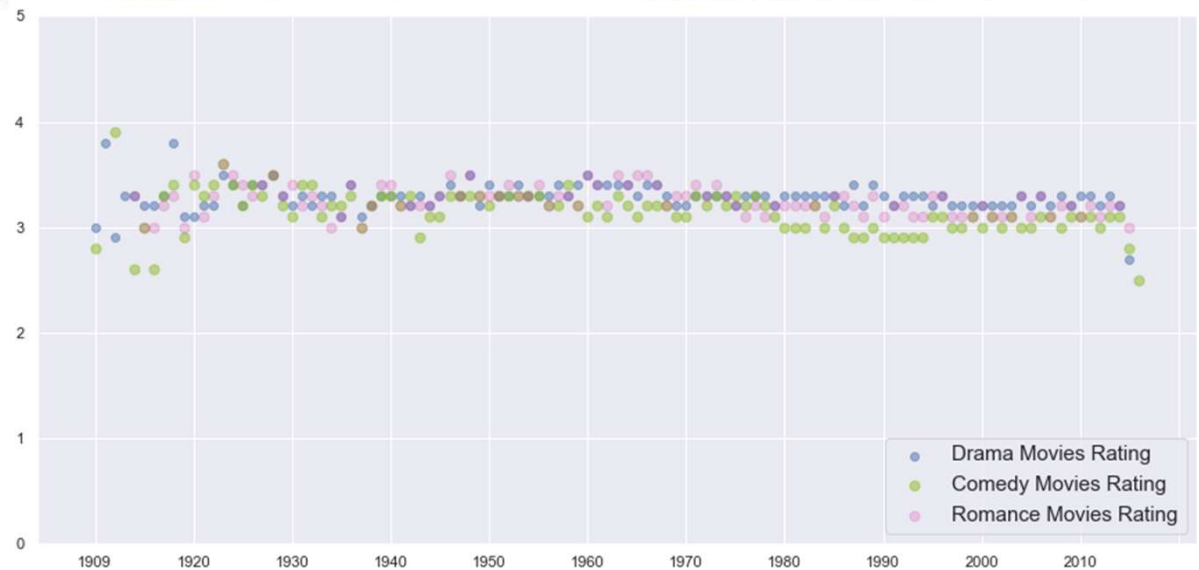
Findings : Correlation between increase of movies production and rating of the movies

One might wonder whether the technology and internet have improved the rating of the movies over the years.

Plotting the three most popular genres' ratings, using ratings dataset, indicates of no such correlation as ratings have not changed that much over time.

Drones provide mind-blowing sceneries, computer programs help with light design and sound effects, 4k and 3D effect create visually engaging movies. However, the rating of the movie also heavily depends on the performance of actors/actresses and the screenplay.

So, we might be able to conclude that there is not a correlation between increase in movies production and increase in rating of the movies.



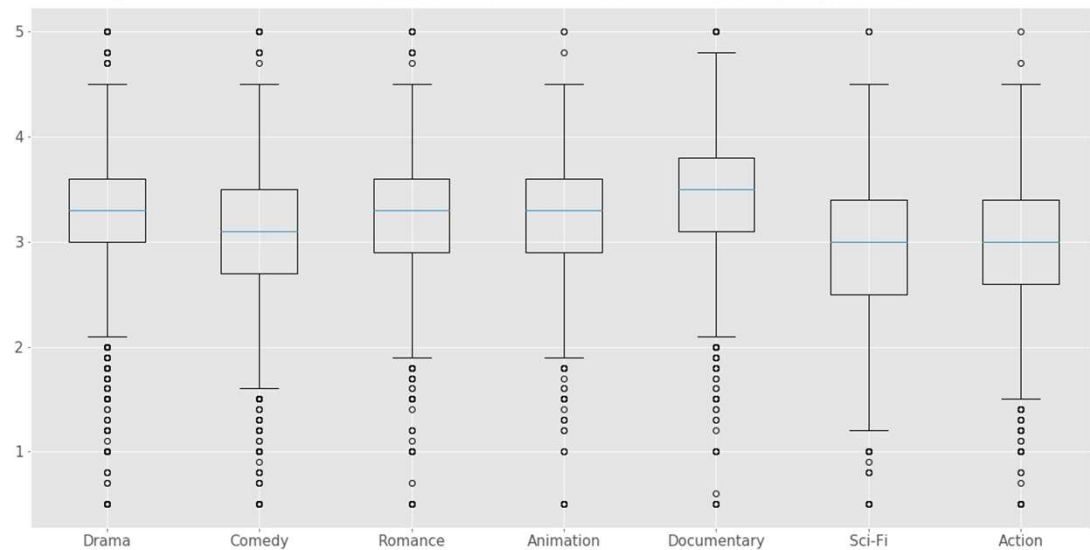
Findings : Ratings of most popular movies

A question that might come to mind is that if popular movies have higher ratings?

Looking at average rating and maximum and minimum rating for each genre in the graph here, we see that popularity does not necessarily means higher rating for the genre.

Also, it seems that documentary movies have slightly higher average rating than other genres.

Sci-Fi movies average rating is below other genres. Does it mean that science fiction movies are the least popular genres? Or they are terrible? Not really. Science fiction movies tend to get reviewed harshly. Sometimes they are misunderstood, or the storyline is too complex for general audience. The data shows this genre has the largest spread between maximum and minimum values which might be affecting the average rating adversely.

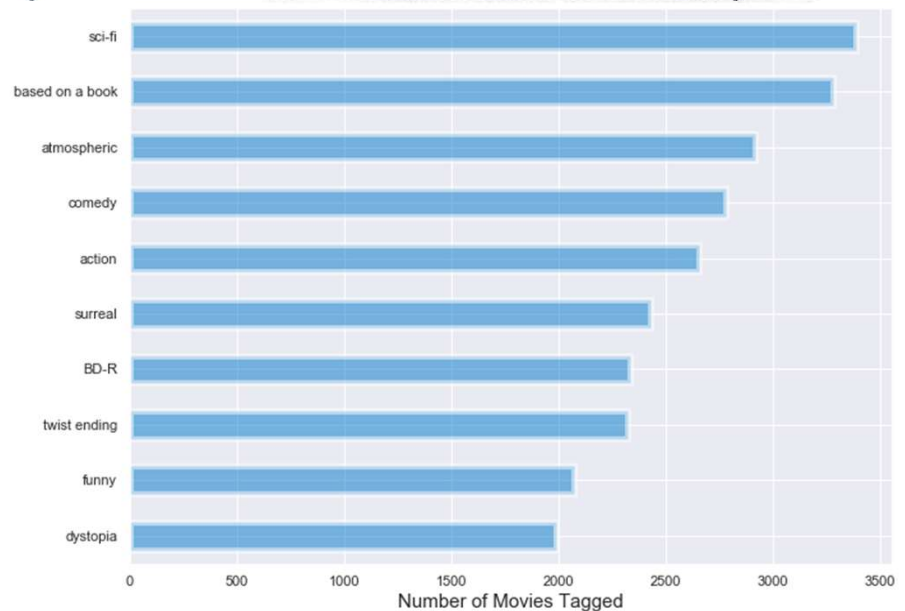


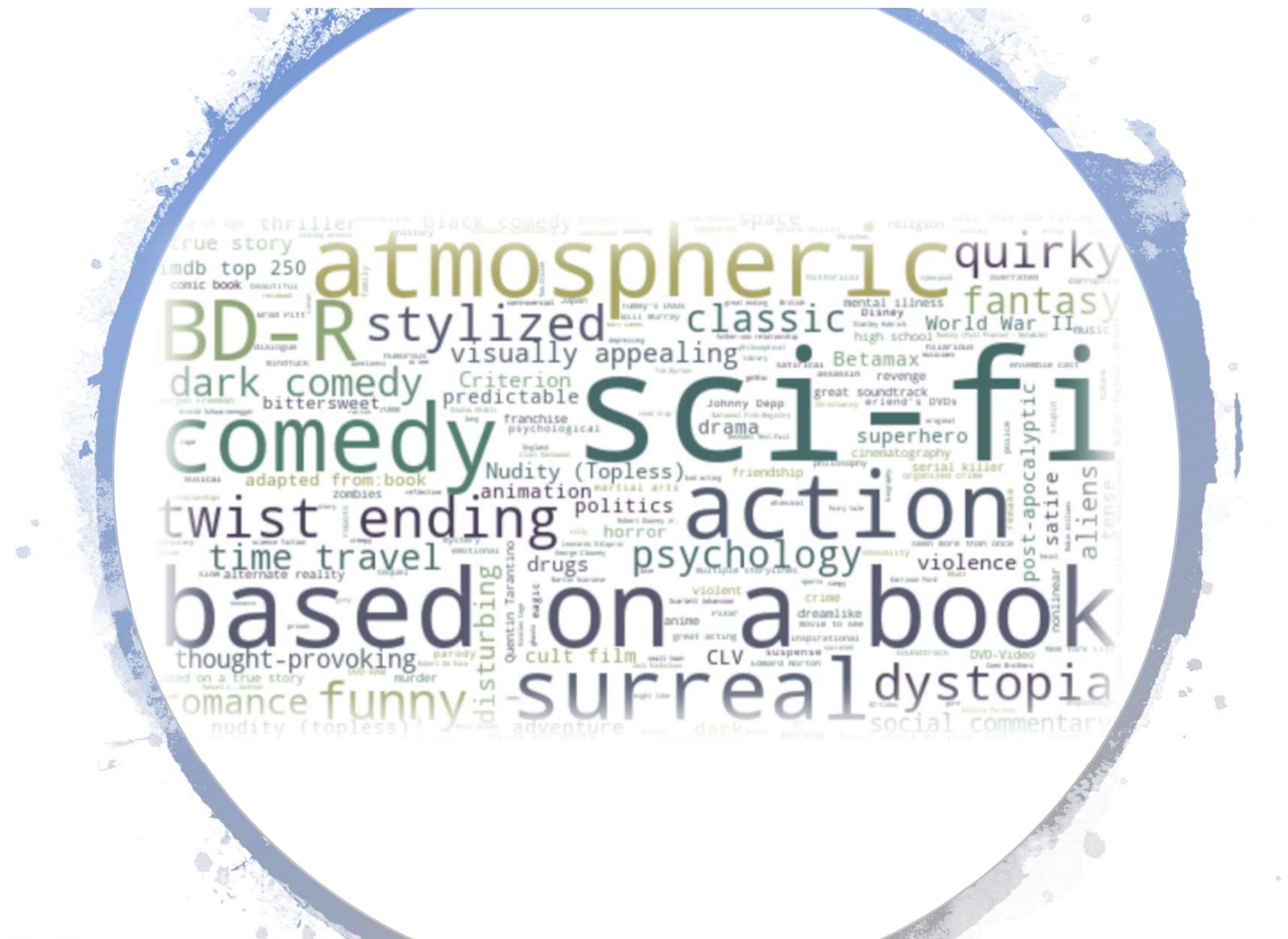
Findings: The most popular tags by users

Delving into the tags dataset, we observe that the three most popular tags are Sci-Fi, based on a book and atmospheric.

It is worth mentioning that the genre which has been reshaped the most with new technologies is probably science fiction.

Computer-generated imagery and digital film-making has made it possible to bring ideas to life on cinema screen which otherwise would have only been possible to imagine.





Acknowledgements

I would like to express my gratitude to Google that has given me access to the vast ocean of knowledge and information to develop my questions and hypothesis. Also, my special thanks to my partner who patiently listened to my presentation and gave me feedback.

References

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