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The Pandemic's Effect on Film

The SARS-COV-2 (COVID-19) pandemic has caused many extreme effects on our society. Some businesses have suffered severely from a lack of customers while others thrive from people's inability to leave the comfort of their home. One such industry, that has had its change from the pandemic discussed a lot in media, is the film industry. Are more people watching movies because they are stuck inside, or is their incapability to go to a theater caused them to pick up other hobbies? Also is there now a change in demand due to the type of film? In order to answer some of these questions, we went through movie data and created charts that show the pandemic's effect on different aspects of film.

The first data table we created (Fig 1.1), we can see three different sections represented

Release Date to Popularity/Votes

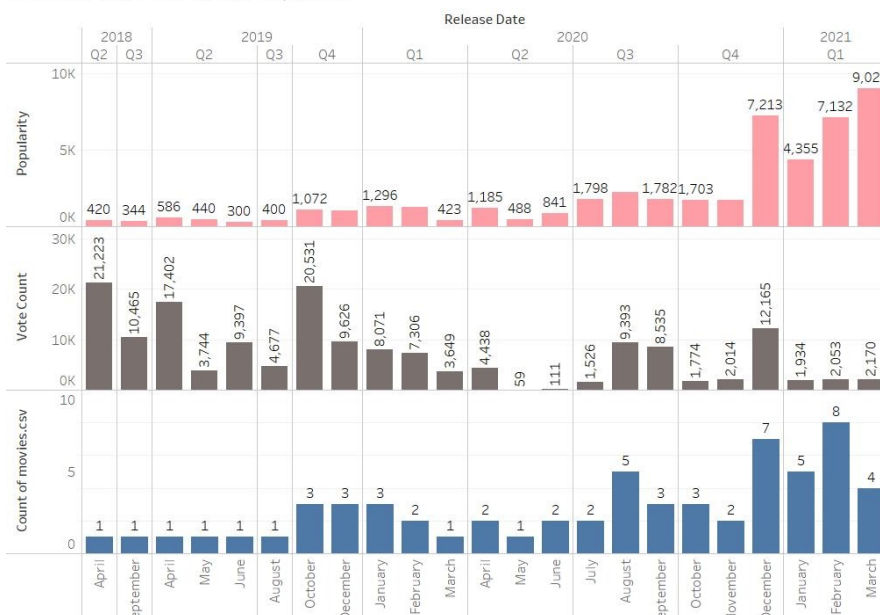


Fig 1.1

Sum of Popularity, sum of Vote Count and count of movies.csv for each Release Date Month broken down by Release Date Year and Release Date Quarter. The data is filtered on Release Date, which ranges from 6/10/2014 to 3/23/2021.

on the table, divided among the year, quarter, and month of the release of a film. The top row represents the total popularity between all of the films for that month, the one in the middle shows the total number of votes the films received, and the final row shows

the total number of films represented in the data.

Through that lens, we can see the fluctuation of data for the films over the years, and just how much the 2020 COVID-19 pandemic affected the film industry. While the data may be a bit skewed, each month before 2020 only having roughly one to three films accounted for in the data, the popularity and votes show a decline. This is seen with how films in 2019 had large spikes in popularity, particularly in April and October of that year, despite the data only accounting for one to two films during those periods. That fluctuation in popularity shows that people were still interested in going to the theater before the pandemic started.

Moving ahead in the data to around March 2020, when the lockdown began to hit, the number of films being released and seen plummeted hard. This was due to factors such as theaters being shut down and film studios not wanting to release films that would lose out on revenue. These actions are reflected in how popularity and releases are low at the beginning of quarantine. Due to factors such as streaming services and films began to release again around the end of 2020, we can see an increase in films towards the end of 2020.

Although we see an increase at the end of 2020 and beginning of 2021, there are still negative effects for votes, despite the release of films being higher than the larger months of 2019. We can see that there are lower vote counts overall in late 2020 and early 2021. Even with the lower number of vote counts, the popularity of these films had a higher total overall. This may be due to the data totaling popularity when the data is extracted from the website, such that the number of mentions and searches for these recent films are higher, while the actual engagement of voting for data is lower.

Moving onto a different set of data, we analyzed how many actors were in certain genres from 2019-2021, which is recorded in Fig 1.2. The left side of the table has the number of actors

Actors to Genres

Year	Genre	Actors
2019	Action	48
	Adventure	30
	Fantasy	5
	Drama	18
	Thriller	24
	Comedy	11
	Science Fiction	30
	Crime	11
	Action	132
	Adventure	66
2020	Fantasy	78
	Drama	54
	Thriller	48
	Comedy	36
	Science Fiction	42
	Crime	30
	Family	36
	Animation	30
	Horror	36
	Mystery	18
2021	Romance	11
	History	11
	Music	4
	Western	4
	Action	42
	Adventure	42
	Fantasy	30
	Drama	30
	Thriller	30
	Comedy	48
2021	Science Fiction	18
	Crime	24
	Family	30
	Animation	24
	Horror	18
	Mystery	5
	Romance	5
	Music	5
	TV Movie	5

Fig 1.2

same error in our data that we had previously, which was that there are less movies in the 2019 dataset than in the 2020 dataset. Looking past the small number of actors, we can still see that “Action” is the genre with the most actors. This remains the same in 2020, but changes in 2021 with “Comedy” containing more actors.

This swap in genre from 2019/2020 to 2021 can be due to either not having enough data for the year, because we are not even half way done with 2021, or a higher demand for “Comedy” films. Looking at the former, it is possible that we do not have enough movies from the year to determine which genre has the most actors for the year. Although this is possible, if we look at “Action” for 2019 and 2020, we can see that this genre has almost double the number of actors compared to the second highest genre for their years. Going back to 2021, the “Action” genre is not far behind “Comedy”, but it’s also tied with “Adventure”, 2019’s second highest genre and 2020’s third highest. Hence, we can see that there is probably another factor causing

this change in genre and that factor could be a higher demand for “Comedy” films. This would make sense given that 2020 was an extremely hard and taxing year for everyone, so a changing demand in genre could be due to people wanting to watch more comedic films in their spare time. The only way to determine which genre has the most demand for actors in 2021 would be to wait until more movies released in the year.

These data tables showed two things, that the film industry started off rough at the beginning of the pandemic but is now thriving and that the demand for actors in genres could be changing due to the pandemic. With these data tables, we can answer our previous questions, how is the film industry doing compared to previous years and is the demand for certain types of films changing. The beginning of the pandemic caused a small number of films being released, which lead people to believe that industry was dying, but now many films are being released. With the option to either stream movies in your home or watch them in the theater, newly released films are easier than ever to access. Also, although we do not have much data for 2021 at the moment, there is a shift in demand for more actors in “Comedy” genres now which might reflect people wanting to see more comedic films after the pandemic. Therefore, the pandemic has not had a negative effect on the film industry like we were led to believe at the beginning of quarantine.