**UNIVERSITY OF CONNECTICUT**

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**VISUAL ANALYTICS WHITE PAPER**

**PROJECT: HORROR MOVIES TREND WORLDWIDE**

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For this project, our team started by gathering as many useful data sources as we could find to tell our story. In total, we used three data sources to represent our story: two broad-spectrum IMDb data sets and one country-specific data set with a focus on India. Each of these three data sets contains columns such as country, gross income, language, title, sub-genre, etc. Each of us modified the original data sources to suit our needs with tools like python and excel in addition to Tableau’s functionality.

We felt that the horror genre would provide us with interesting visualizations. By exploring the horror genre, we saw that there has been a significant increase in the number of movies produced over the years. A part of this significant growth can be attributed to the increasing popularity of streaming platforms like Netflix, Hulu, Shudder and Prime video give producers more options for distribution and let consumers access these movies or shows easily. As a result, we wanted to see how other countries have developed their horror cinema up to this point. After we conducted a broad analysis of horror movies, we decided to narrow it down and focus on three countries: the United States, India, and South Korea.

To start our presentation we decided to include research and visualizations on the horror genre and how Halloween has impacted the genre. We also researched the history of the horror genre to create a timeline. We did this to build a foundation for the country comparison and add context, as we presented more specific ideas and information.

Hollywood is the largest movie industry in the world, so it is no surprise that the United States produces a lot of horror movies every year especially on Halloween. Due to this fact, the United States holds many of the top spots for best horror films of all time. Looking at the United States numbers, we noticed that between 2010 and 2020, the number of horror movies has almost doubled, increasing from 520 to 954.

We looked at the various elements of horror movie scare devices. Horror movies in the United States take many forms and use a wide variety of scary elements ranging from skeletons to dolls, clowns to ghosts, etc. This allows for a lot of creativity in the industry because there are many options. When comparing the two IMDB datasets we discovered a disparity in budgets and we noticed that even though horror movies outperform other genres at the box office, the budget for horror movies is significantly lower than that of other genres.

In order to show the discrepancy in budget for the storyboard we created a visualization by first filtering for the United States. For columns we used both Genre and Measure names. After inspecting the visualization we saw out of the 4 genres that had box office income larger than the budget the difference in the horror genre was the largest.

For Indian movies, we used another dataset [1](https://docs.google.com/document/d/1Zw48hDI17FH0UPtYn-42LptmCr5biShpPTQLfPiSCI8/edit#bookmark=id.sxwj5d7ltmsd) which had data related to Indian movies. We binned the Year data into bins of 10 to get Year(bin) so that we can plot the number of movies released per decade to see the growth of Horror movies over the years. There was a marked increase starting from the 70s to 80s decade which was correlated via secondary research to the introduction of VHS tape or Video Cassette Recorders in India and proliferation of Television sets in middle class households. The downfall of Indian Horror genre movies in recent years is attributed to exposure of Hollywood Horror movies which have better production value. Also the lesser popularity of Genre is attributed to the community viewing experience and how the Horror Genre is not suitable for the same. To check which other Sub-Genres of Horror were popular in India, we created a Bubble chart for the same and found that Drama, Mystery, Thriller are popular followed by Comedy and Romance .Visualizing the rating of movie and director involved we found that “Ramsay Brothers” play a major role in bring Horror Genre to India, the Along with it we created a Bubble Chart for another popular director - Ram Gopal Varma and color-graded the same as per the Rating the movie had.

We binned the Duration column in 20 minute increments and only considered the movies with duration of 80 minutes and above as the majority of Indian Horror movies are longer than that. We did a Box Plot for the movies released from the 80s using the Year(bin) dimension against the Duration and the average Rating and got interesting insights on the same for the preference of longer duration movies in India.By going through several articles, we concluded that Indian movies, despite following common Horror tropes are resurging in the movie market with interesting content because of the availability of OTT platforms and exploration within the country’s own literature

South Korea has produced some films that are regarded as some of the scariest of all time. Additionally, as of late we have been seeing more and more Korean entertainment consumed in our international culture. So we felt that looking at South Korea would be an interesting way to see how the industry has become so prolific and look at the history behind the films. One of the challenges was the limited size of the data that represented South Korea. This is because in comparison to the other specified countries South Korea is the smallest of the three. To deal with this issue we decided to stick with the data we started with but look at ways we could make connections to what was happening globally and culturally to add that missing context.

One additional problem we faced when building visualizations for South Korea and India was the Gross\_Income and Budget columns of the IMDB movies.csv. The original file lists the domestic movies with budget and income in their native currency in order to show accurate visualizations we had used a roundabout solution of creating additional columns which the exchange rate for the Won or Rupee applied to the entire column and the using that column as variable after filtering for that country in Tableau. Ultimately we decided not to use these visualizations in the final storyboard and instead focus on worldwide gross income which had already been converted to USD.

A plot to note was the count of movies by decade. In order to show this visually for the audience we used the Year(bin) dimension in increments of 10 against the count of movies and filtered for the country this gave us interesting insights. This allowed us to see the growth and popularity of Horror movies over the years.

Overall this was a very challenging project in which we were able to present complex data interestingly and entertainingly. The majority of secondary research are opinion pieces of credible Film journalists. However we were able to integrate other interesting ideas like health effects and local folklore into the presentation to keep interest. We believe our biggest obstacle was actually the final assembly and formatting of the project.There lies a lot of scope for exploration and visualizations regarding Horror movies so limiting ourselves with information to be presented was a task.

## Bibliography

Indian Movie Dataset

<https://www.kaggle.com/adrianmcmahon/imdb-indian-movies-eda/data>

IMDb

​​<https://datasets.imdbws.com>

IMDb movies extensive dataset

<https://www.kaggle.com/stefanoleone992/imdb-extensive-dataset>