ANALYSIS AND STUDY OF EVOLUTION OF GAMING INDUSTRY

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Motivation:

At the age of 10, when we were introduced to various games like Super Mario, Grand Theft Auto, Road Rash, Need For Speed, etc, it changed us. They literally pushed us to complete our homework quickly just so that we can play games for more time. Since then, we have seen a lot of transformation in the gaming industry, right from a typical remote-controlled television game to simulation games, and right from connecting a lot of cables to enable a game to be playing a game with a tap on the phone, we have come a long way. With the advancements in technology, there is a lot of change in trends in the gaming industry. We have seen some games coming into the market and becoming viral. Having witnessed all these trends and advancements since childhood, we are interested in analyzing the gaming market.

Related Work:

Games are something where our common passion lies and now that we don't get time to play, so we thought we can at least talk about it. Being analytics students, we want to leverage our skills to uncover insights about games and their evolution.

Data:

For this project, we will be using the following datasets from Kaggle.

Video Games Sales data:

Link: https://www.kaggle.com/gregorut/videogamesales#vgsales.csv

Columns:

1. Rank (Desc: Sales rank)
2. Name (Desc: Name of game)
3. Platform (Desc: Release platform for the game)
4. Year (Desc: Year of release (Since 1980 to 2016))
5. Genre (Desc: Game genre)
6. Publisher (Desc: Company which released the game)
7. NA_Sales (Desc: North American sales (En million d'exemplaires))
8. EU_Sales (Desc: European sales)
9. JP_Sales(Desc: Japan sales)
10. Other_Sales (Desc: Sales in other countries)
11. Global_Sales (Desc: Sales around the worlds)

Rows: 16,500

IOS APPS DataSet:

Link**:** https://www.kaggle.com/ramamet4/app-store-apple-data-set-10k-apps

Columns**:**

1. id
2. track_name
3. size_bytes
4. currency

5. price
6. rating_count_tot
7. rating_count_ver
8. user_rating
9. user_rating_ver
10. version
11. cont_rating
12. prime_genre
13. sup_devices.num
14. ipadSc_urls.num
15. lang.num
16. vpp_lic

Rows: 7200

Google Play Store data:

Link**:** https://www.kaggle.com/lava18/google-play-store-apps

Columns:

1. App (Desc: Application name)
2. Category (Desc: Category the app belongs to)
3. Rating (Desc: Overall user rating of the app (as when scraped))
4. Reviews (Desc: Number of user reviews for the app (as when scraped))
5. Size (Desc: Size of the app (as when scraped))
6. Installs (Desc: Number of user downloads/installs for the app (as when scraped))
7. Type (Desc: Paid or Free)
8. Price (Desc: Price of the app (as when scraped))
9. Content Rating (Desc: Age group the app is targeted at - Children / Mature 21+ / Adult)
10. Genres (Desc: An app can belong to multiple genres (apart from its main category). For eg, a musical family game will belong to Music, Game, Family genres.)
11. Last Updated (Desc: Date when the app was last updated on Play Store (as when scraped))
12. Current Ver (Desc: Current version of the app available on Play Store (as when scraped))
13. Android Ver (Desc: Min required Android version (as when scraped))

Rows: 10,000

All the datasets are in the form of tables. The datasets are clean, but we will need to do some basic filtering and joins for our analysis. Yes, some basic visualizations have been performed on the above datasets, but we have not come across any analysis where all these datasets have been leveraged together.

Questions:

Using the above datasets, we would like to answer the following questions

1. How did the evolution of the mobile game industry impact the video game industry?

Workflow - We would like to analyze the sales of video games and mobile games across time. This will help us understand if the introduction of mobile games impacted the sales in video games or not.

2. Do all countries have similar taste in games or every country prefers a genre of game?
   Workflow- We will analyze the distribution of sales across genres and countries to answer whether the taste varies across countries or not.
3. Does a costlier game more liked by the users?
   Workflow - We would like to analyze the distribution of the average user rating across different prices.
4. How much time on an average did it take the game to become popular?
   Workflow: We are planning to analyze this for the top 10 mobile games. Taking the release year and the year when the game had the greatest number of downloads, we want to calculate the average on how much time did it take for the game to become popular.

Possible findings and Implications:

We expect that with the introduction of mobile games, there will be a decrease in the sales of video games. We believe that the choice of genre of games depends on the countries and we are excited to know which country prefer what genre. We are expecting a positive correlation between the cost of a game and the rating of the game. For the last question, we are expecting that a game takes time to become famous and anticipating that the average would be at least 6 months to 1 year.