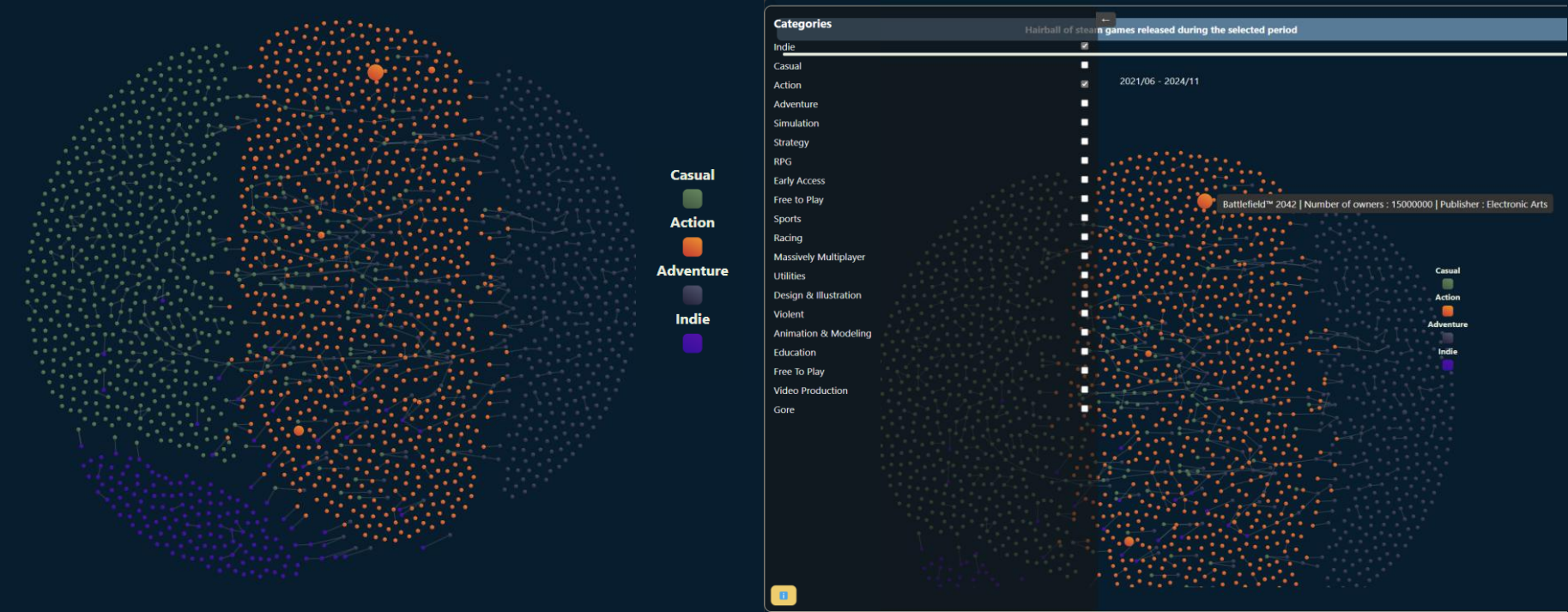


# Mapping Trends and Dynamics in the Video Game Industry: Insights Through Data and Visualizations

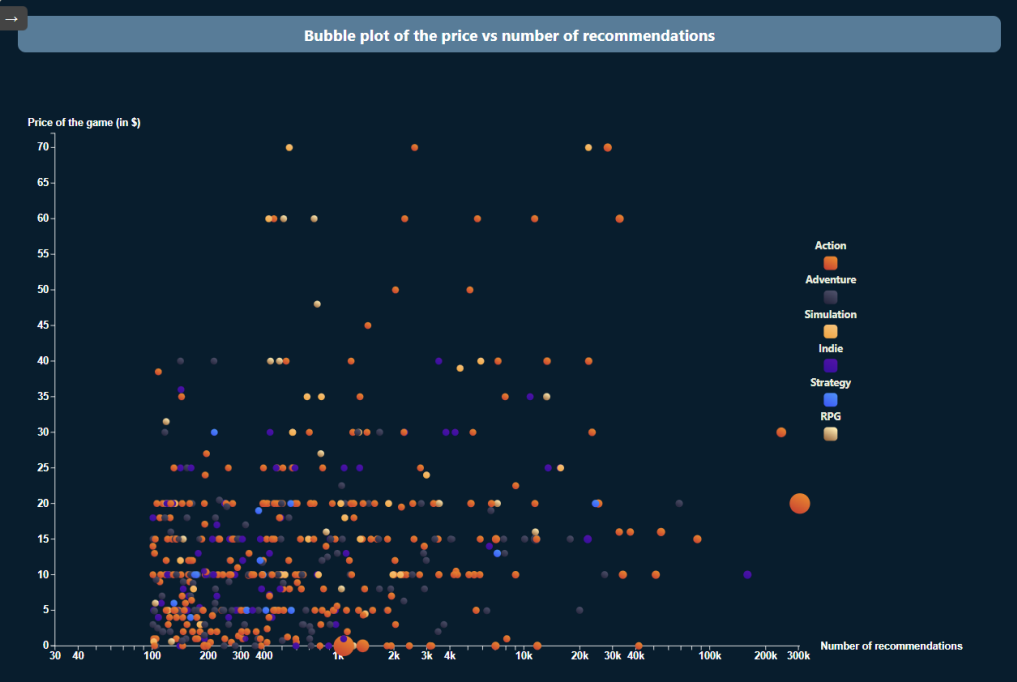
CS5346 - S2 AY2024/25

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## Studio-Genre Hairball

This interactive network graph offers an engaging way to explore Steam's game catalogue. Each **node** represents a game, and the **color** indicates its genre. Links are drawn between games developed by the **same studio**, helping to highlight clusters of productions.

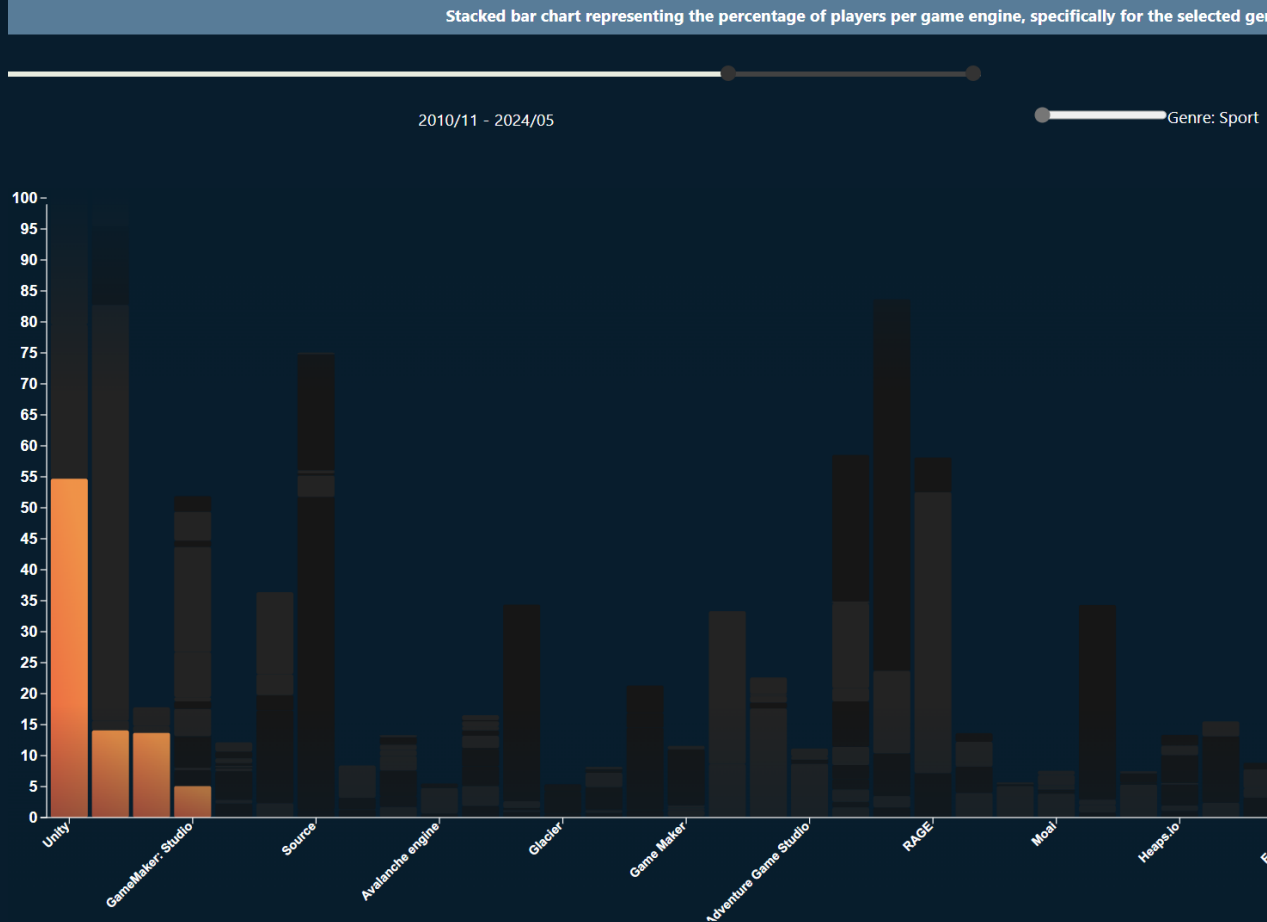


## Price Plot

This bubble plot highlights the distribution of games according to their price and the number of recommendations. We can observe that most games are priced below \$20, and only a few receive more than 3000 recommendations. The most played and recommended games were action games.

## Engine Popularity Stacked-Histogram

This stacked bar chart represents the percentage of players per game engine, specifically for the selected genre. The percentage is averaged over the selected time range. This visualization is a powerful tool for **Game developers**, who can assess which engine is most suitable for the type of game they want to build; and **engine developers**, who gain insights into how their tools are being used in relation to game genres.



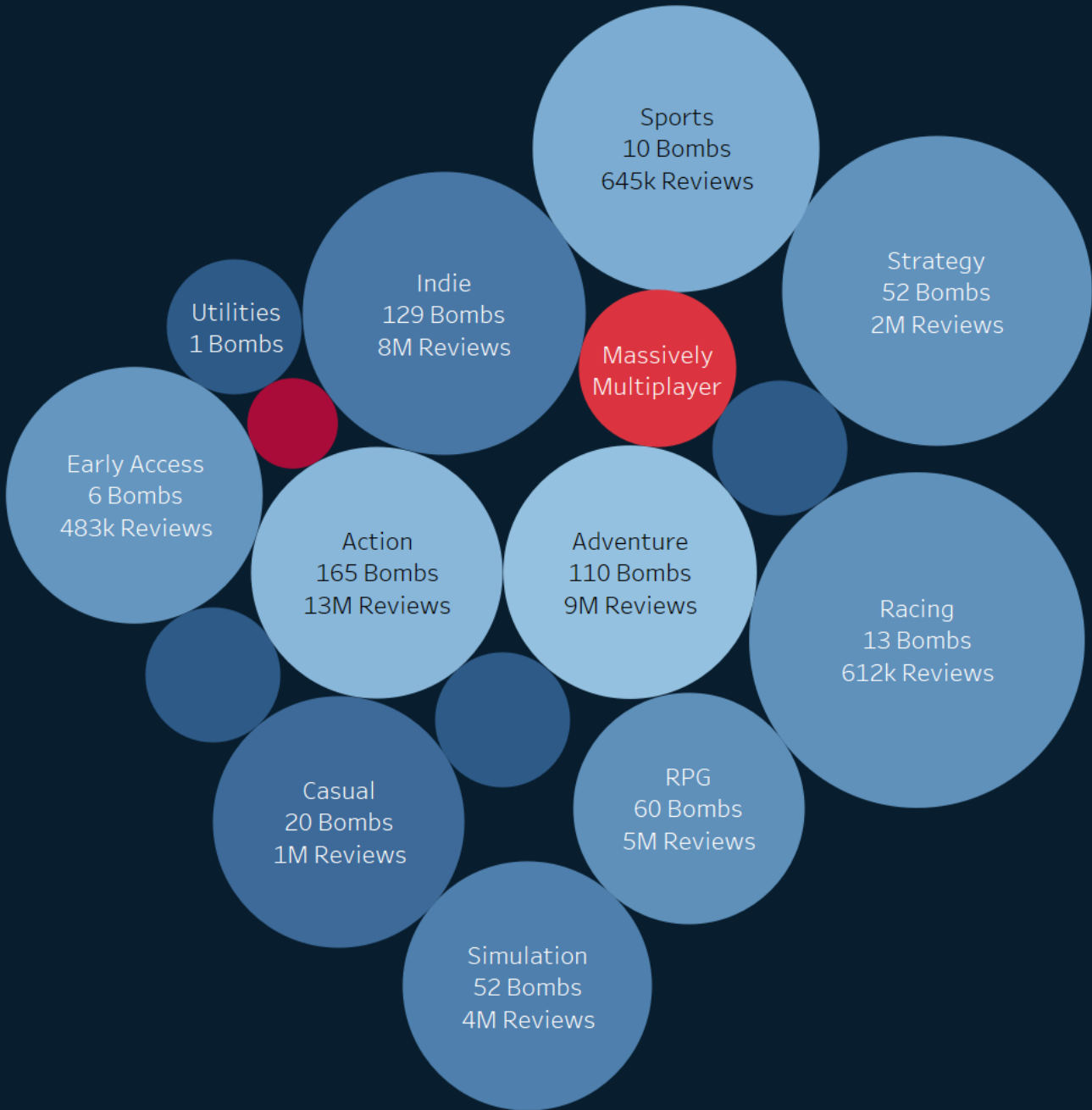
## Review Sentiment and Review Bombing

### Review Bombs

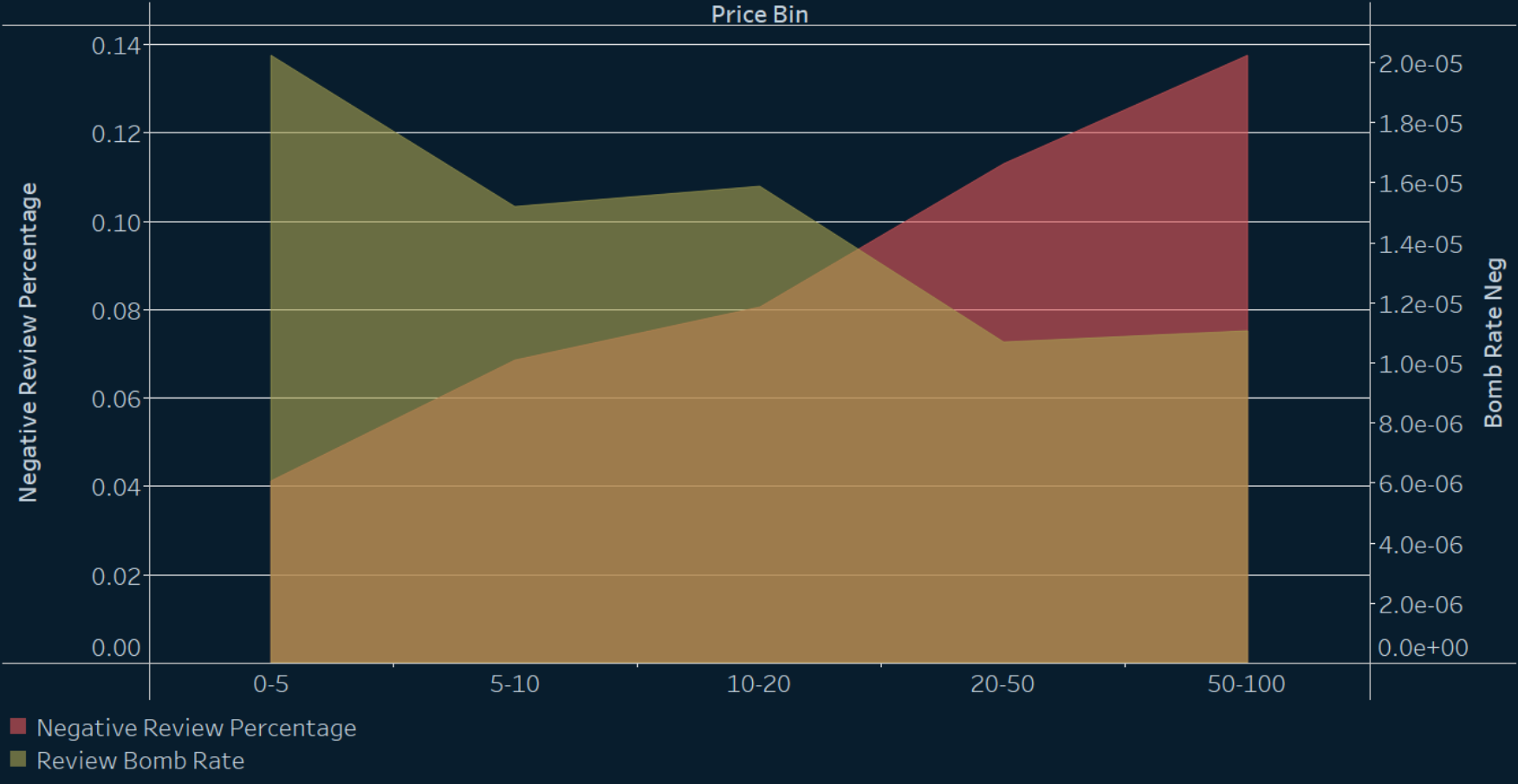
A "review bomb" is counted when a week of reviews for a given game are disproportionately negative compared to prior weeks, calculated via change in z-score over rolling average

Badly-rated genres get bombed less

Size denotes proportion of weeks flagged as a Review Bomb week

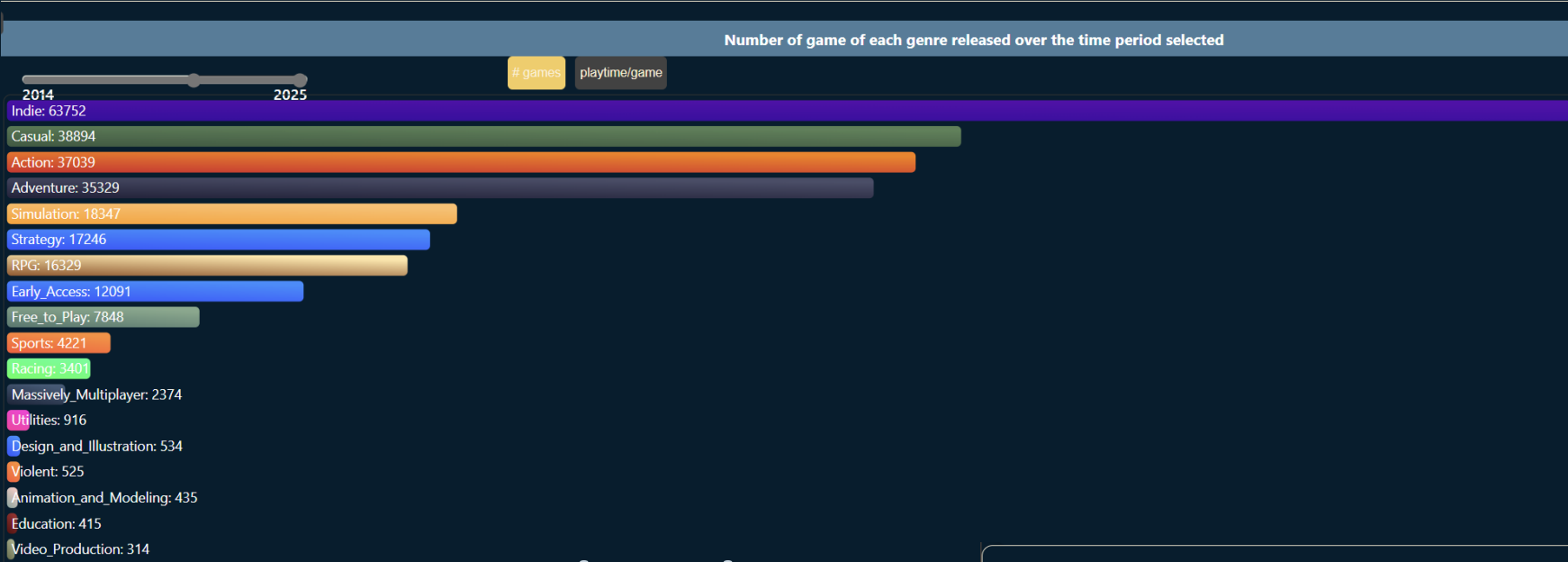


### Sentiments vs Bomb Rates across Price Range



## Popularity Trends

This first set of visualizations comes from an application we developed to explore key trends in the video game industry, including the evolution of genres, studio contributions, pricing fluctuations, and the rise of Indie games. Indie games, driven by accessible tools like Unity and Unreal Engine, have gained prominence, reshaping the market. The visualizations highlight genre trends, market dynamics, and user engagement, offering insights for gamers and developers alike.



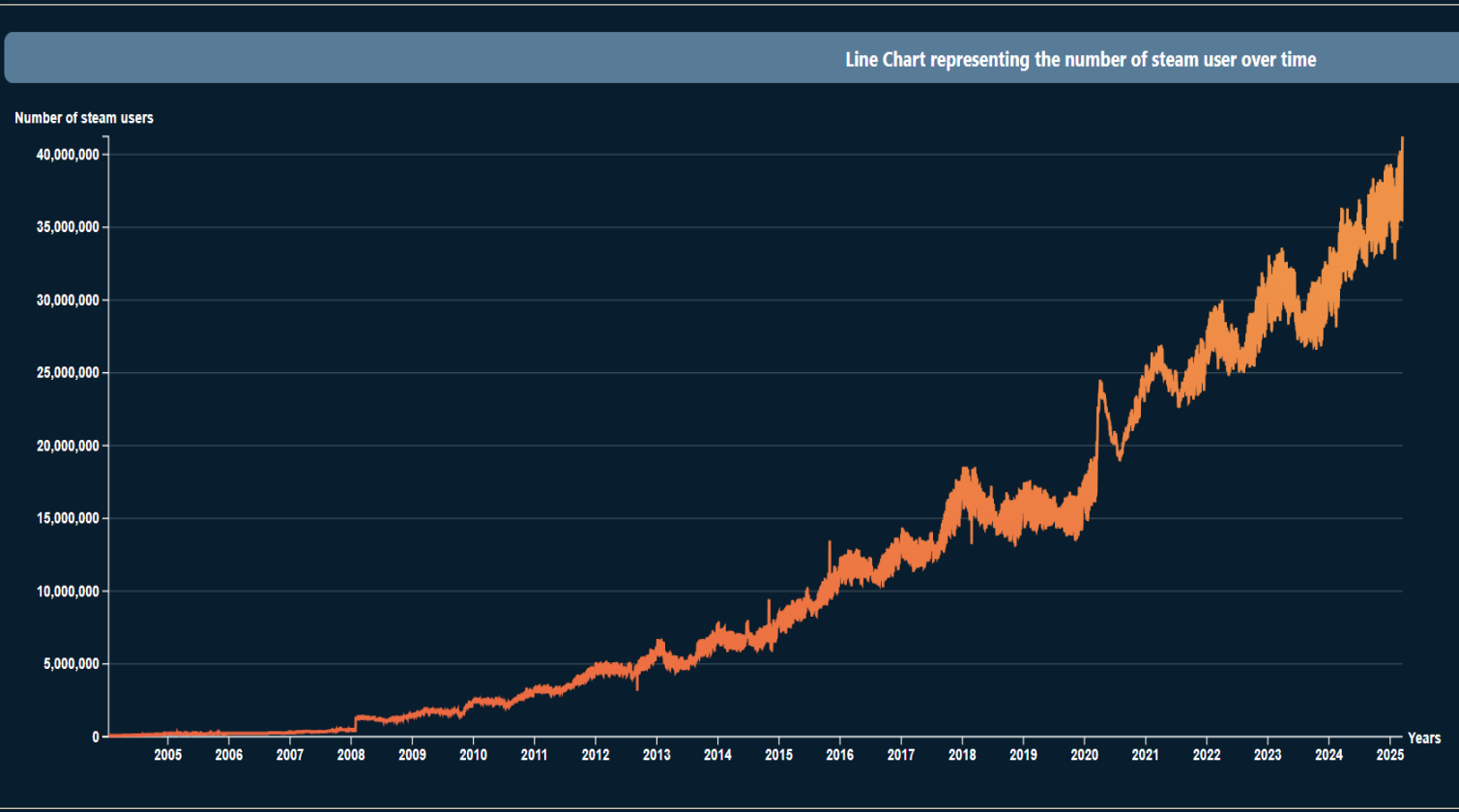
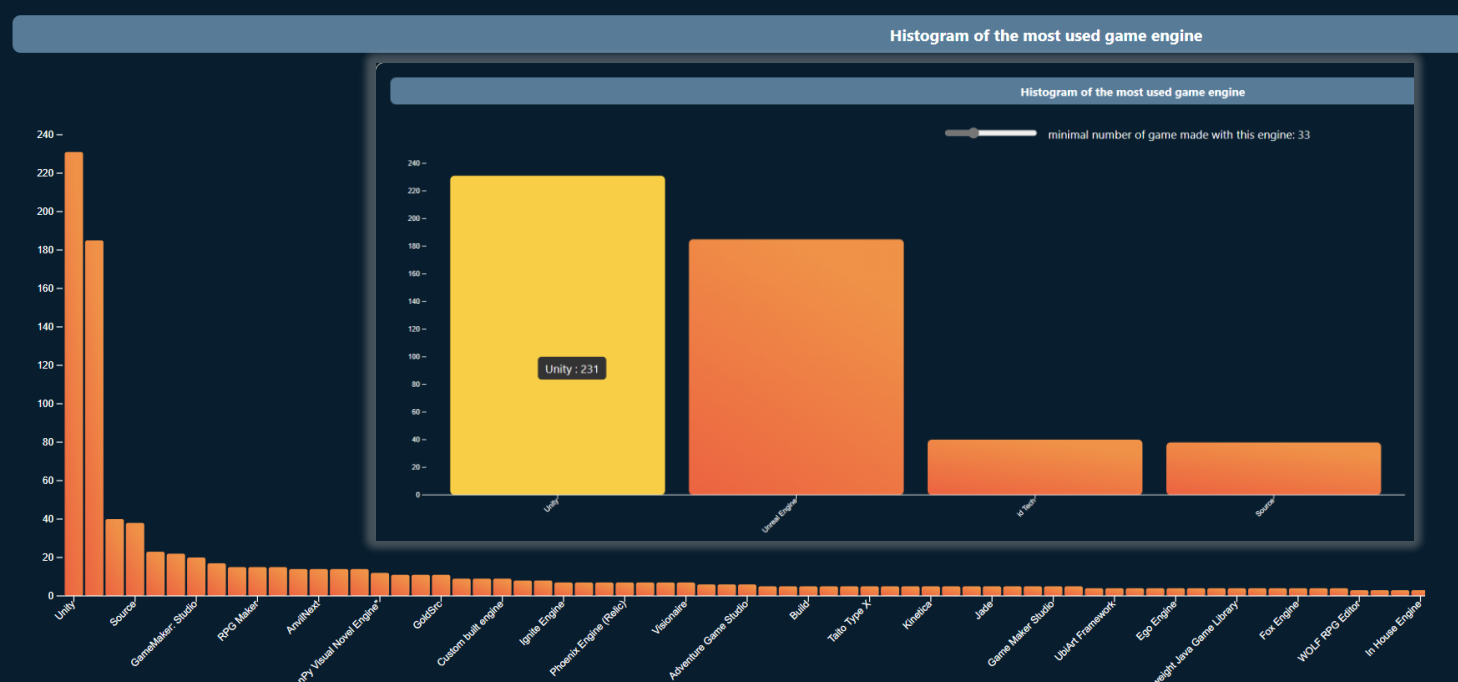
## Genre Release Bar Chart

This chart shows the number of games released per genre during the selected period, highlighting the dominance of indie games in recent years. The rise of free and accessible tools like Unity and Unreal Engine has empowered individuals to create and publish their own games, driving this trend.

## Engine Histogram

This histogram represents either the **number of games** or the **percentage of games** developed with each game engine.

This visualization allows developers to identify **popular engines** for their game development.



## Players count over time

This line chart highlights the constant increase in the popularity of Steam as a game marketplace. Thanks to **SteamDB**, user data is easily retrievable — unlike for other platforms like Epic Games, Origin, or Instant Gaming.

## Factors influencing Negative Reviews



Review Bombs per year is rapidly Increasing

