

COM-480 Milestone 2 - DatArt

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1 Project Goal

Our project aims to offer a multidimensional perspective on how board games, and the communities that play them, are evolving across the globe. We combine interactive data visualization with storytelling to explore not just what people play, but how and why that's changing across time and place.

2 Outline

2.1 The Global Favorites

Which games stood out as global favorites in 2019, 2022, and 2025?

Our first visualization is a display of global favorites. This feature allows users to pick a specific year (2019, 2022, or 2025) to see the top-rated board games from that period. The games are presented in a card format that mimics the look and feel of real board game cards, reinforcing the overall theme. Each card includes the game's cover image, title, average rating, complexity score, recommended player count, release year, and main categories.

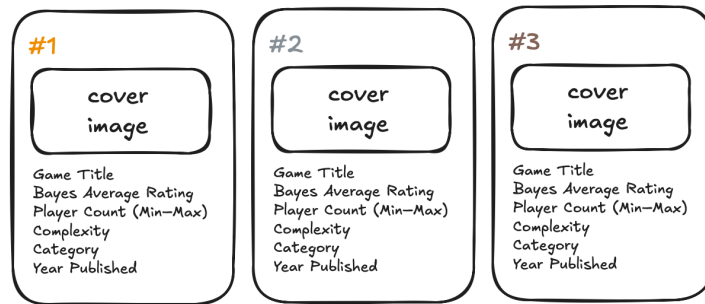


Figure 1: Global Favorites

- Tools needed: HTML/CSS, JS, Python
- Lectures needed: Data, JavaScript

2.2 Temporal Trends

How did core game design features evolve between 2019 and 2025?

After setting the stage with the global favorites, the next section explores how board game design and player behavior have changed between 2019 and 2025. In this section, users can explore trends in average complexity, player count, solo playability, minimum age, and more.

2.2.1 Category Popularity

This feature uses an animated bar chart to show the most popular board game categories for each year. As time moves forward, users can watch how different categories rise or fall in popularity.

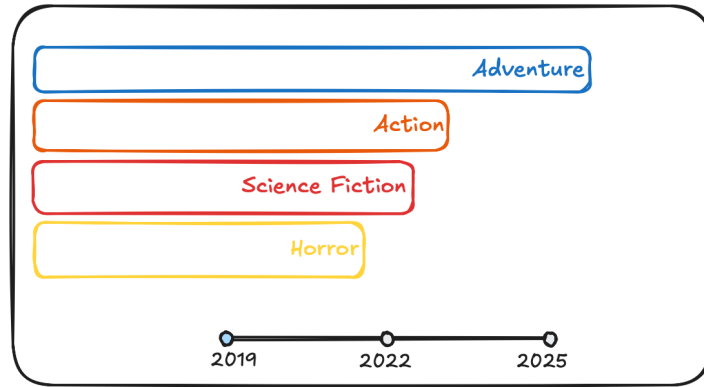


Figure 2: Category Popularity Race

2.2.2 Board Game Properties

Alongside category trends, users can explore how core aspects of game design have evolved. This feature displays a set of individual line charts, each focusing on a specific property (e.g. average complexity, solo play percentage, recommended player count, minimum age) tracked across 2019, 2022, and 2025. Users can toggle between these properties to view each trend separately, allowing for a clearer understanding of how each feature has changed over time.

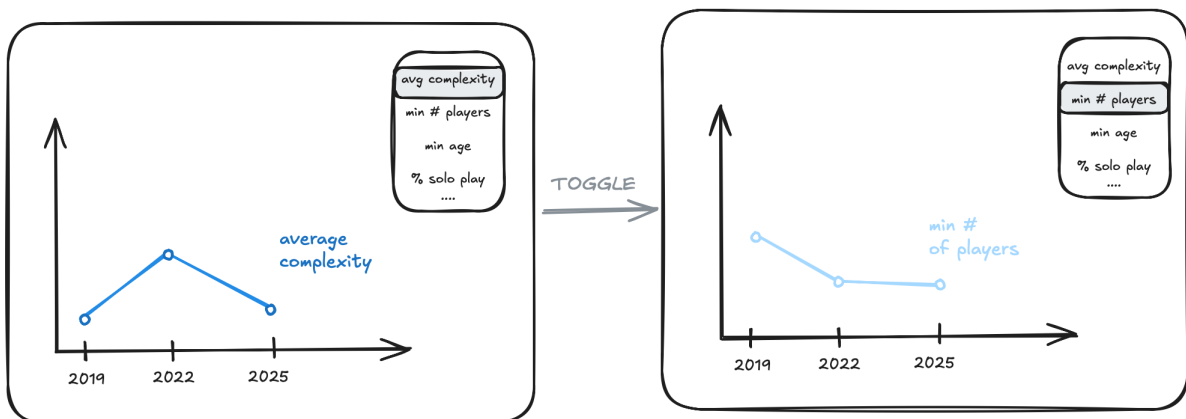


Figure 3: Evolution of board game properties

- Tools needed: D3.js
- Lectures needed: D3.js, JavaScript

2.3 A World Tour of Board Games

How do board game preferences differ across countries and regions?

This section gives users a geographic perspective on board game preferences around the world.

2.3.1 Interactive Map

This visualization is an interactive world map, where users can hover over a country to explore game-related statistics specific to that country, including top rated games, number of ratings, and others.

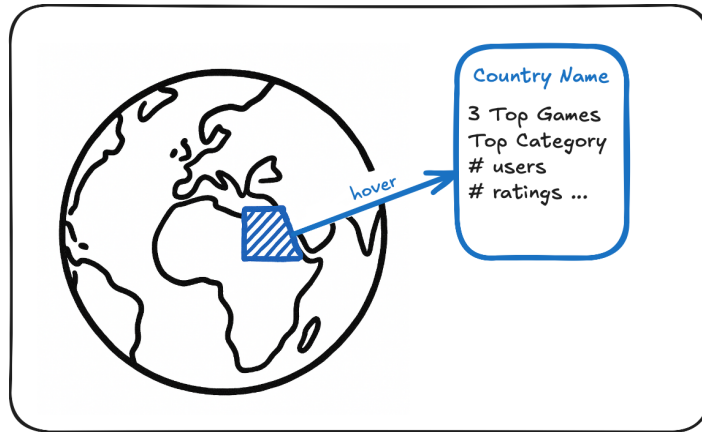


Figure 4: Interactive world map

2.3.2 Complexity by Country

To give users a sense of how gameplay preferences vary by region, this feature shows a choropleth map displaying the average complexity of board games rated in each country. Users can hover over each country to view its exact average.

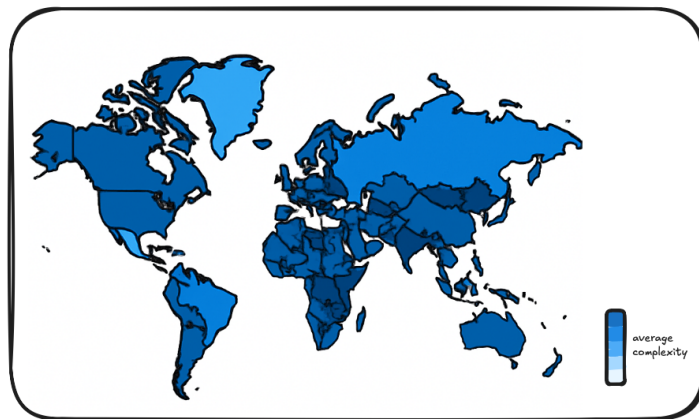


Figure 5: Choropleth map indicating average complexity

- Tools needed: D3.js, MapBox GL
- Lectures needed: Maps, D3.js

2.4 Successful Games

What characteristics do top-rated board games tend to share?

This final section investigates the features that are most strongly associated with highly rated games. It includes a lollipop chart that visualizes the correlation between several board game attributes (such as complexity, minimum playtime, minimum number of players, trading activity) and the Bayes average rating. This helps users understand which features are most predictive of a game's overall success.

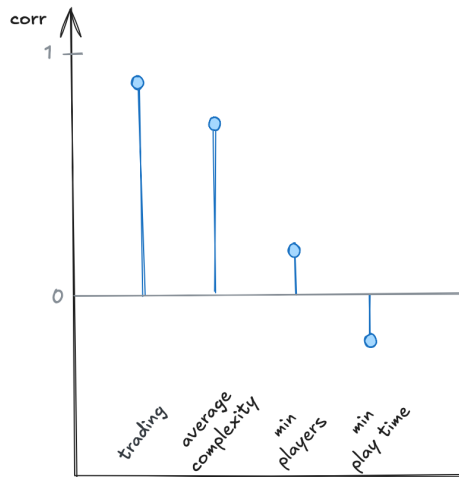


Figure 6: Correlation between board game features and Bayes average rating

- Tools needed: Python, D3.js
- Lectures needed: D3.js

3 Additional Ideas

If time permits, we plan to extend the website and visualizations with the following features:

- **Game Comparison Tool:** Allow users to select two games and compare their properties side by side.
- **Flippable Cards:** Make the cards more interactive by making them flippable - the front side would display the game's cover image while the back would have its details.
- **Search Bar for Country Data:** Add a search function to the World Tour section, allowing users to quickly jump to a specific country and explore its board game statistics.