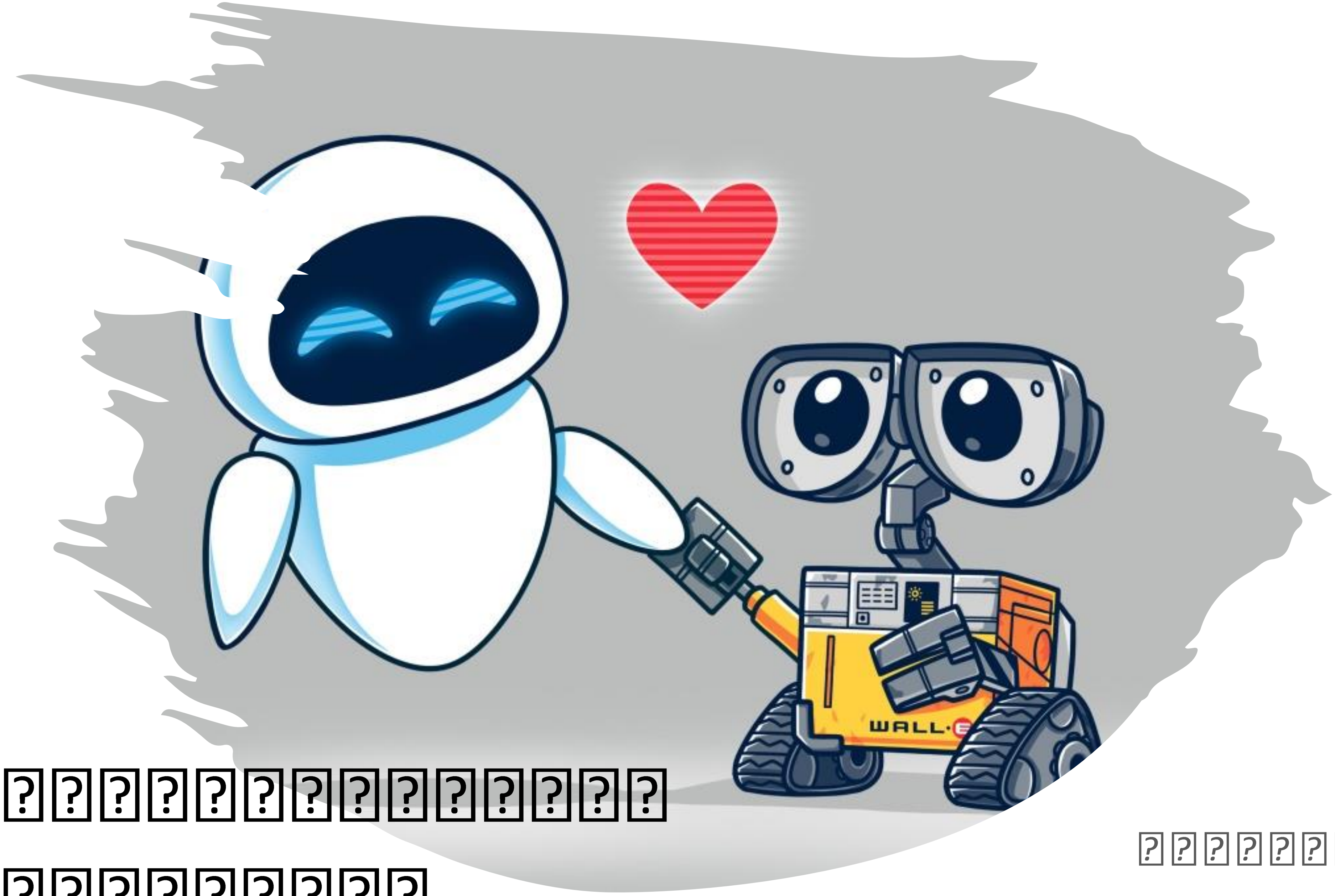
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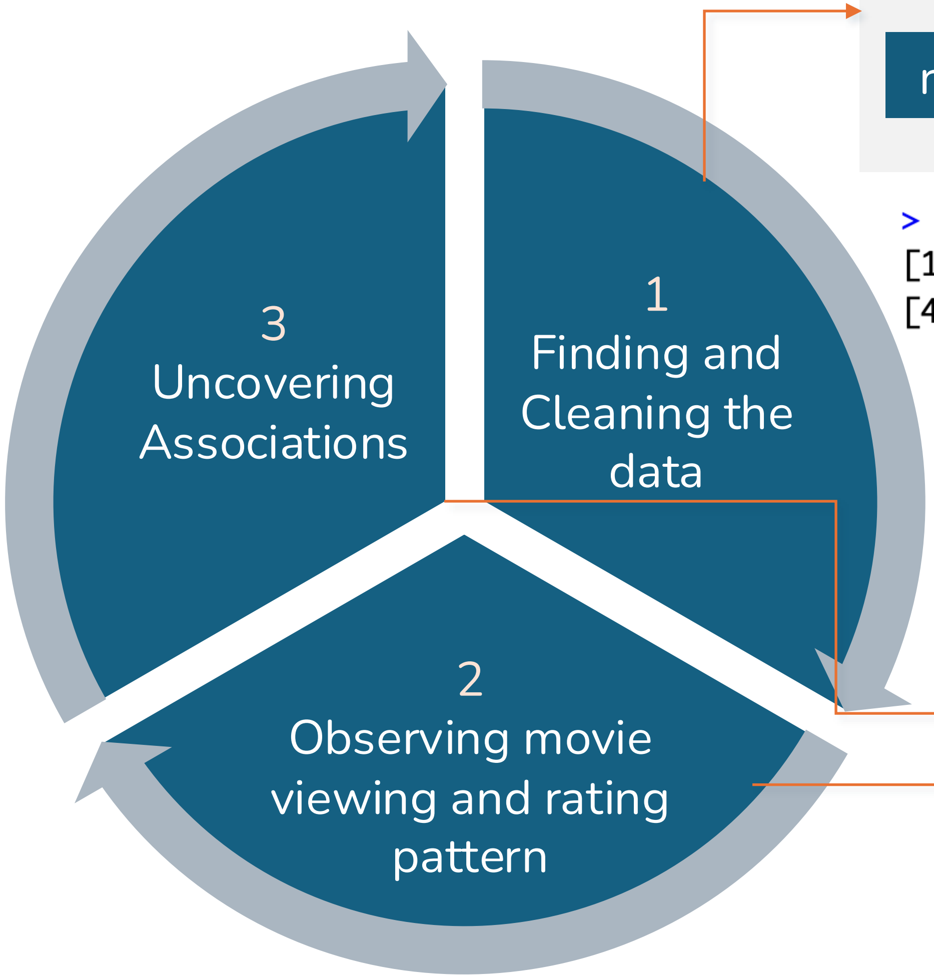
How it works


3
Uncovering Associations

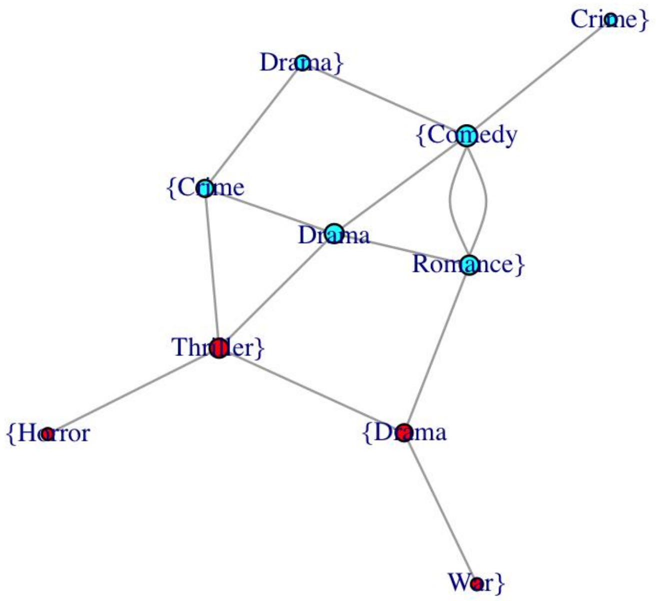
1
Finding and Cleaning the data

2
Observing movie viewing and rating pattern

movies.csv	movieId	title	genres

ratings.csv	userId	movieId	rating	timestamp

```
> head(genre_combinations)
[1] "{Comedy,Crime}"          "{Drama,War}"              "{Crime,Drama,Thriller}"
[4] "{Crime,Drama}"           "{Horror,Thriller}"        "{Horror}"
```



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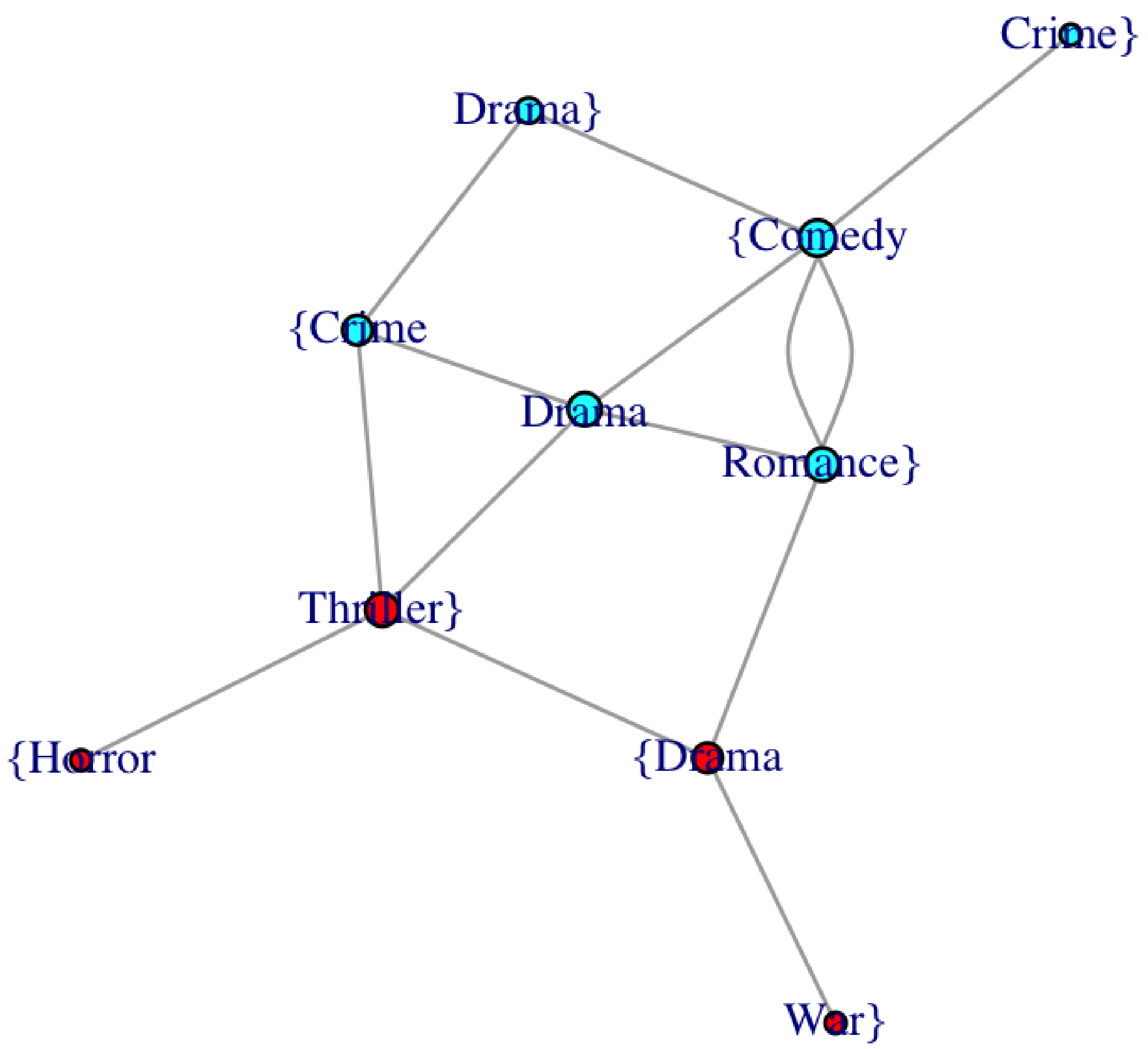
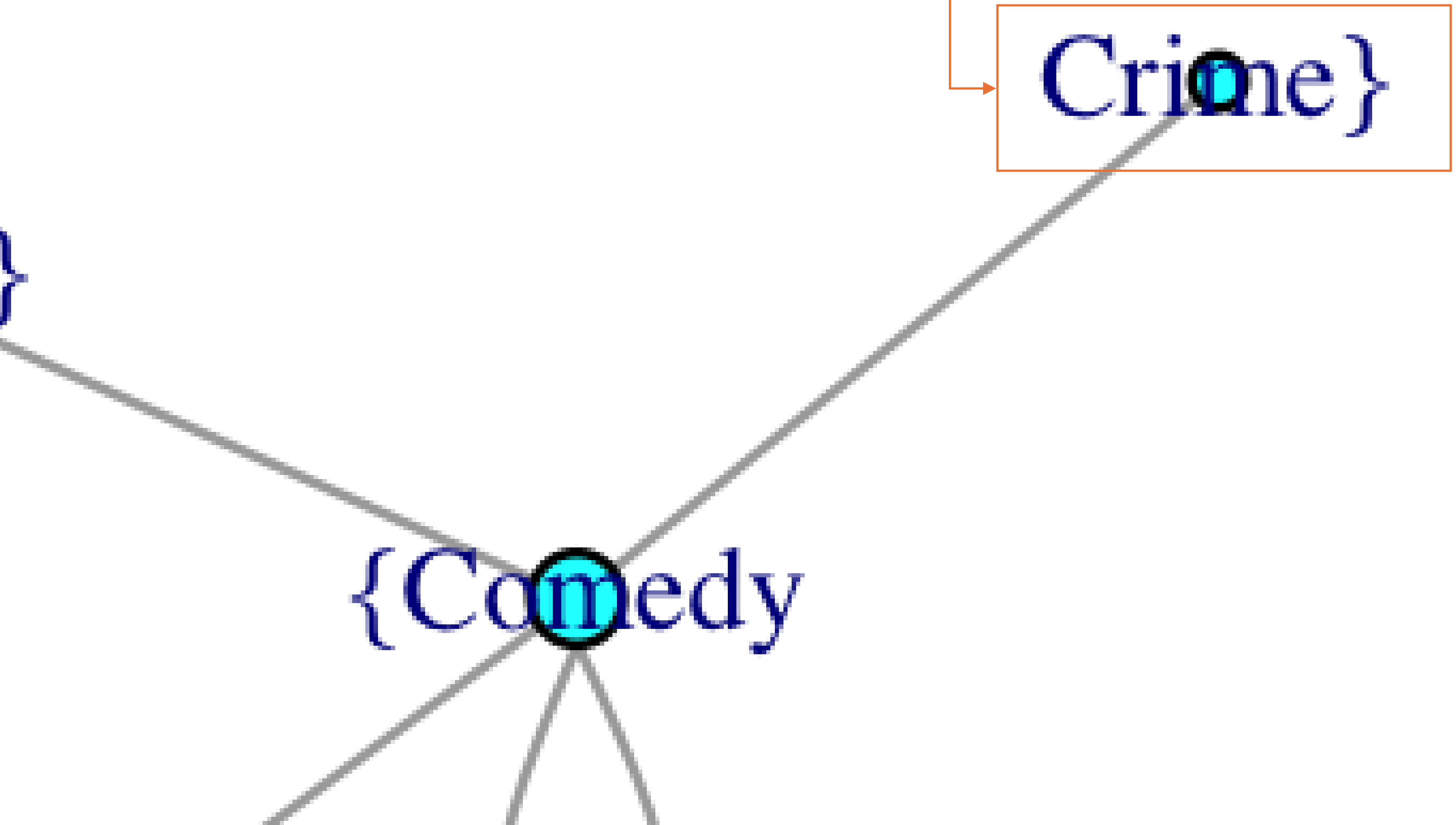

Crime}
Drama}
{Comedy
{Crime
Drama
Romance}
Thriller}
{Horror
{Drama
War}

Each Node represents a genre



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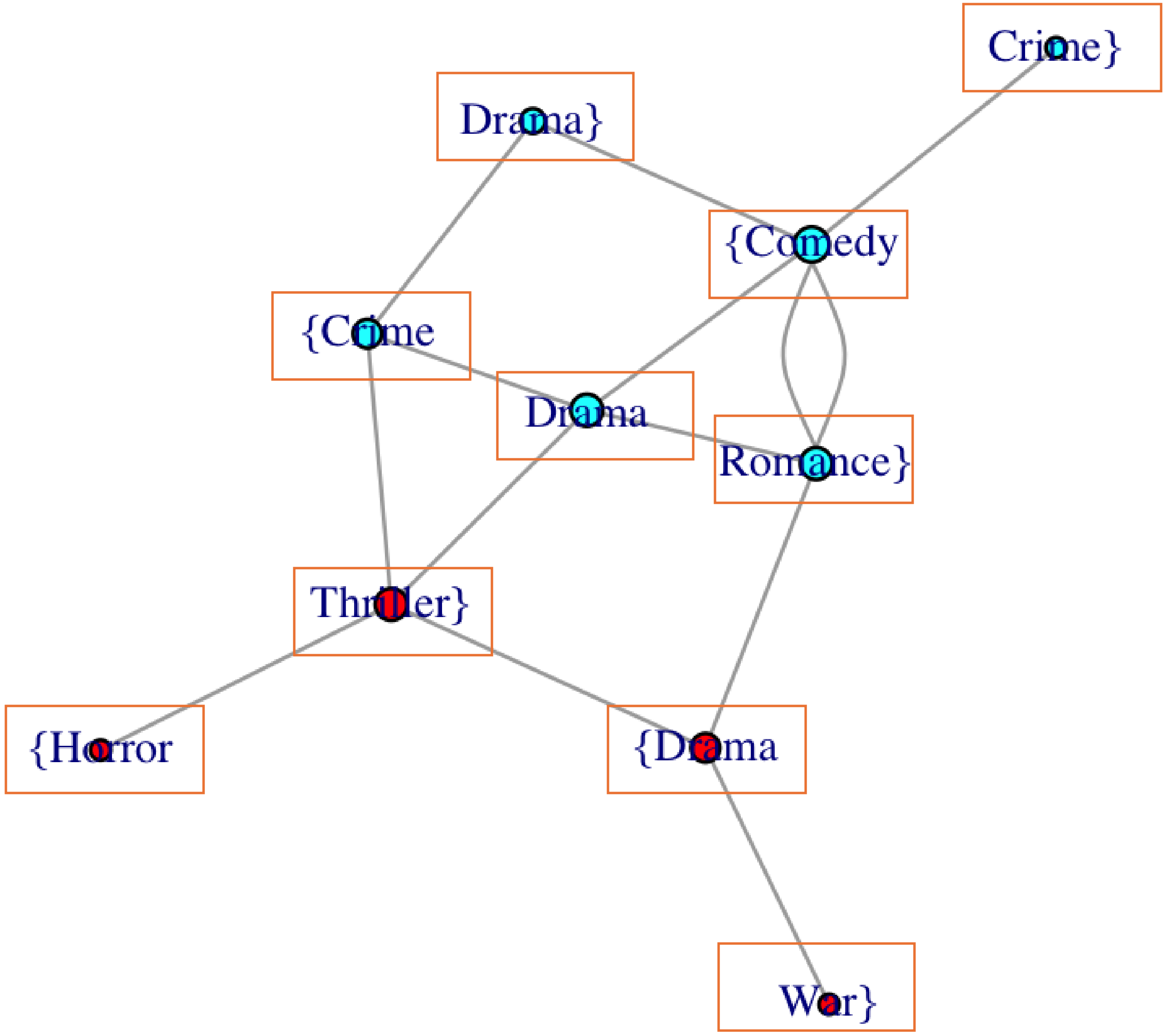
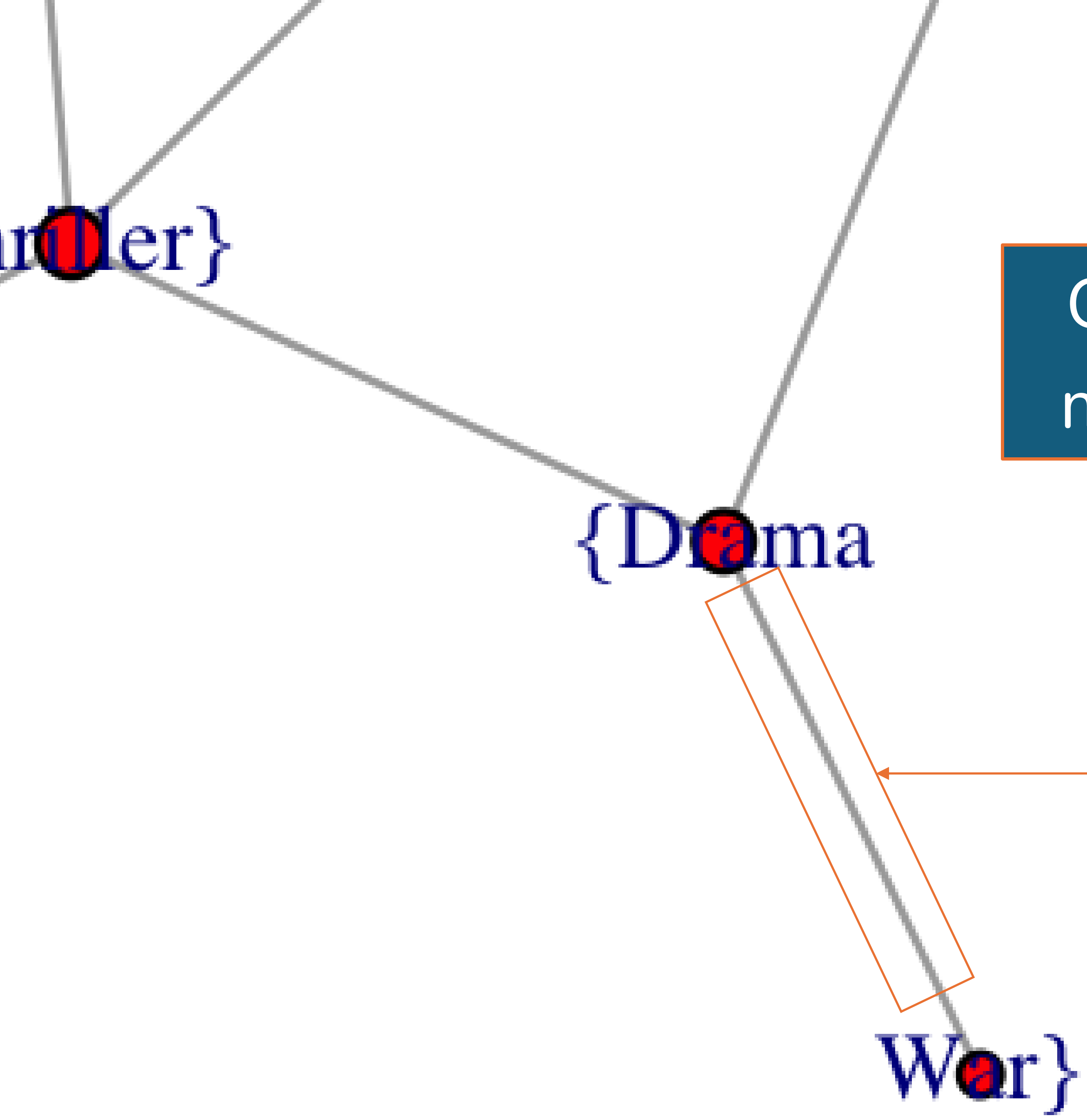
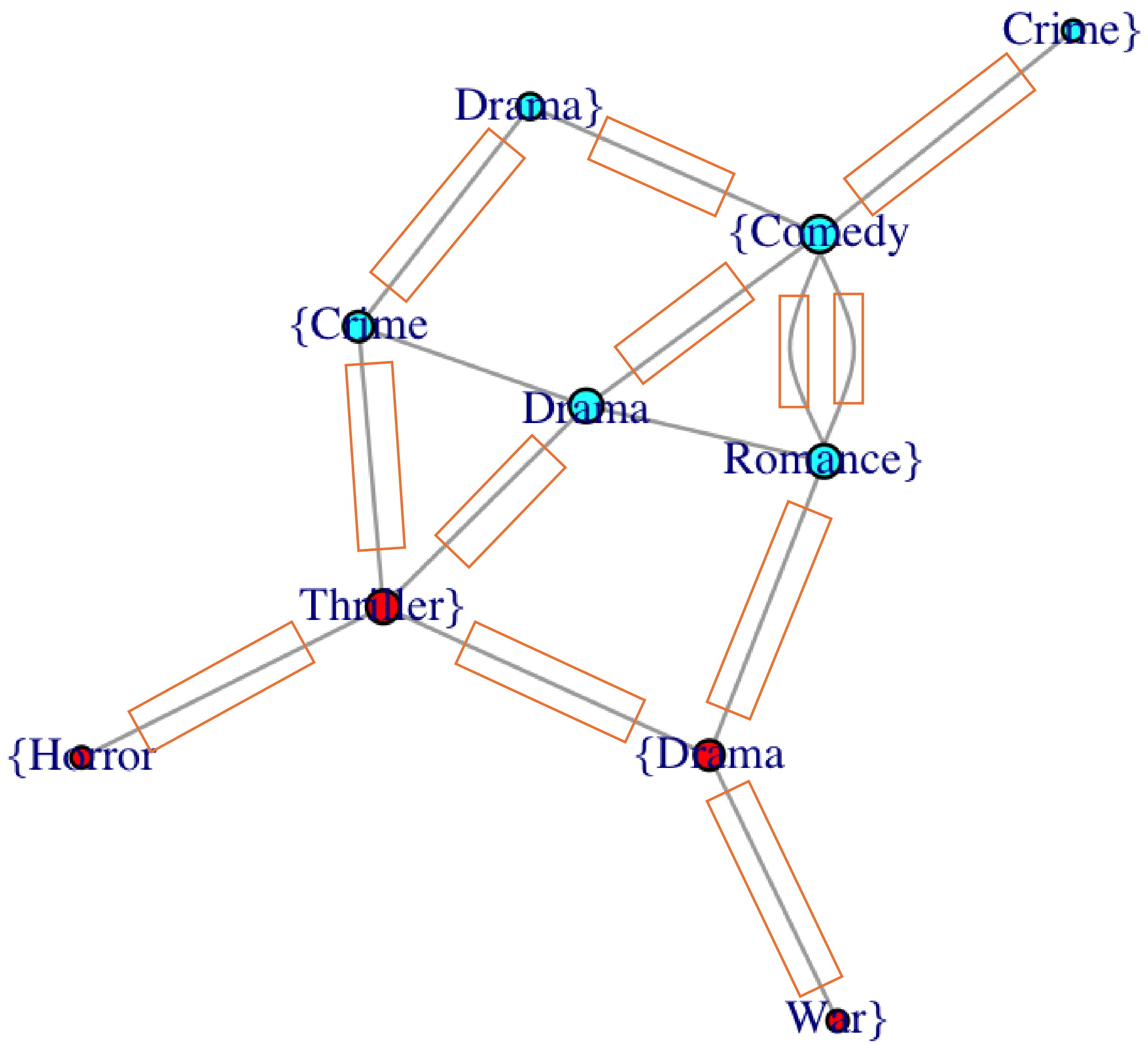
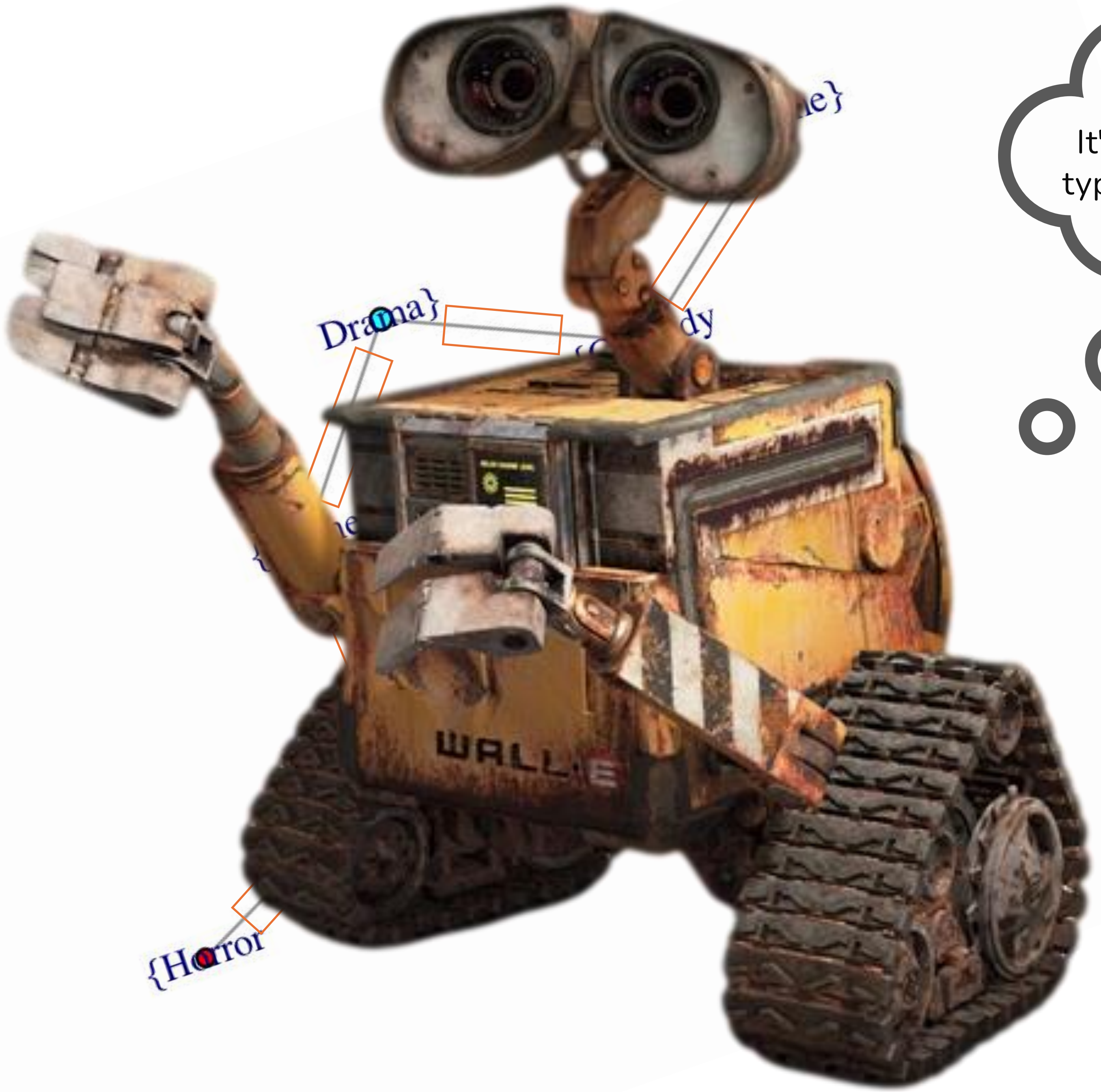

Crime}
Drama}
{Comedy
{Crime
Drama
Romance}
Thriller}
{Horror
{Drama
War}



Genre within same movies have Edges

[illegible]


Crime}
Drama}
{Comedy
{Crime
Drama
Romance}
Thriller}
{Horror
{Drama
War}



It's like all these movie types are holding hands. Eva...

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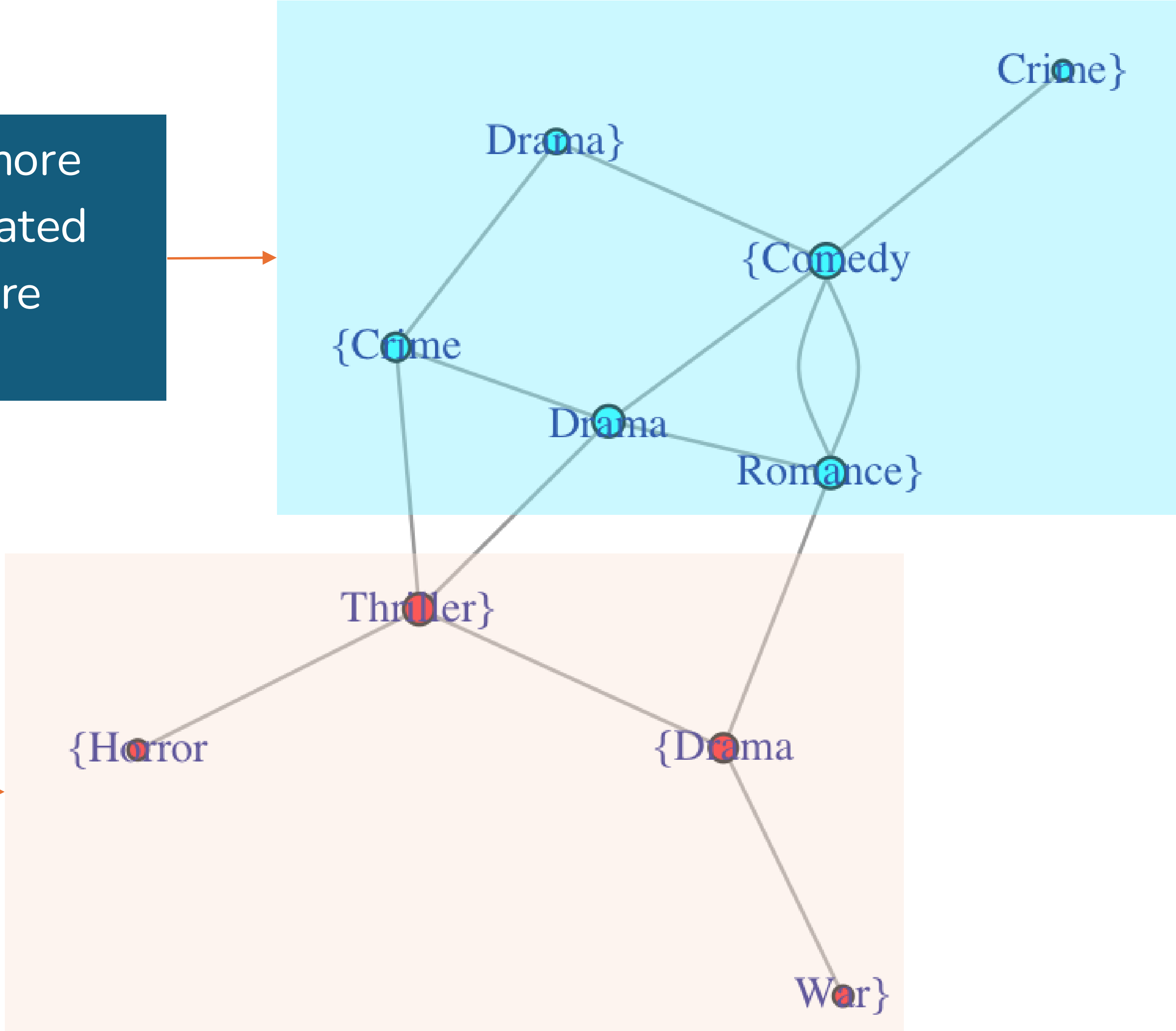
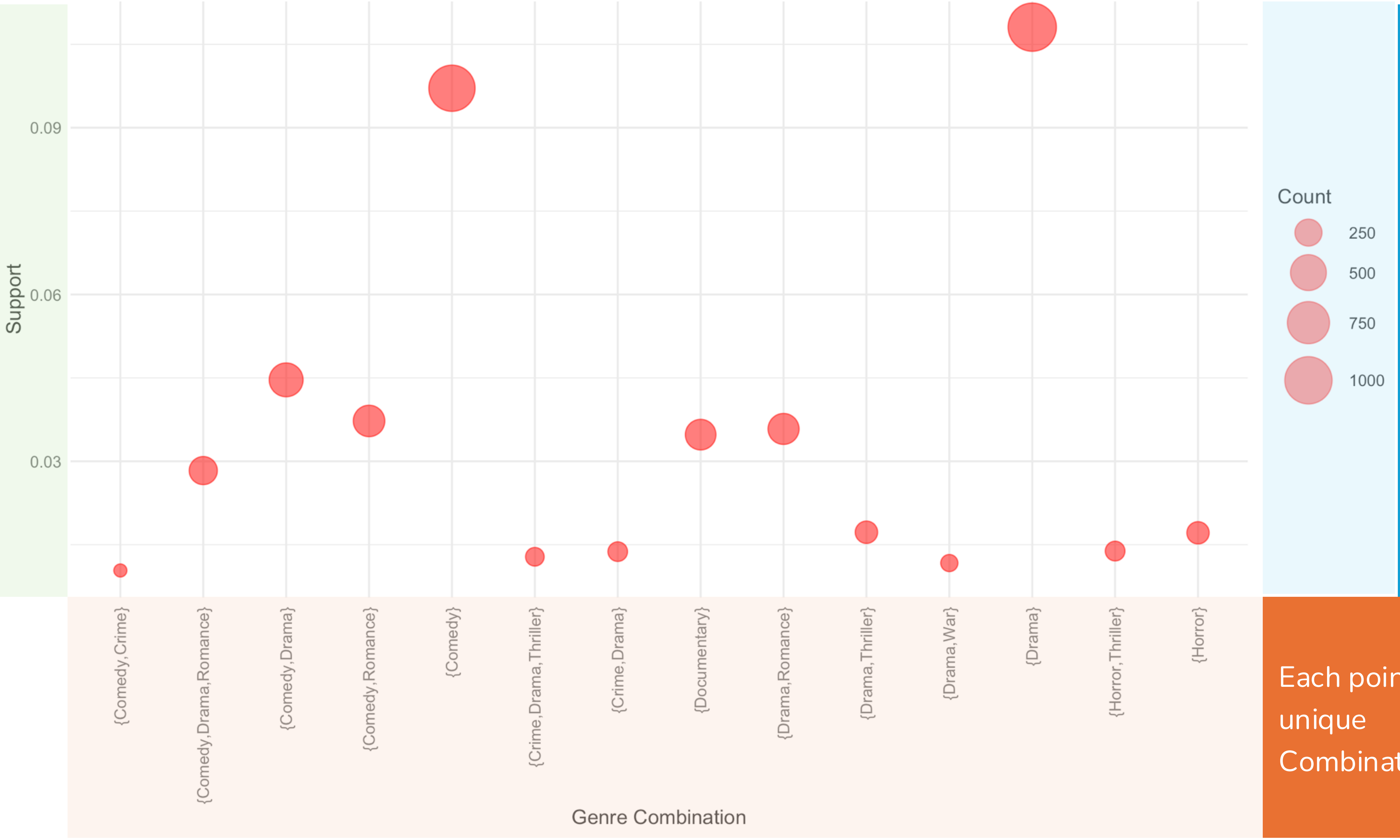
Genres that are more frequently associated with each other are colored similarly



In simple terms, like the popularity or frequency of each genre combination within the dataset



Size of the bubble represents the actual number of times the genre combinatio n

Each point represents unique Combination of genre

Genre: Comedy
Movie: Bean (1995)

User number: 51

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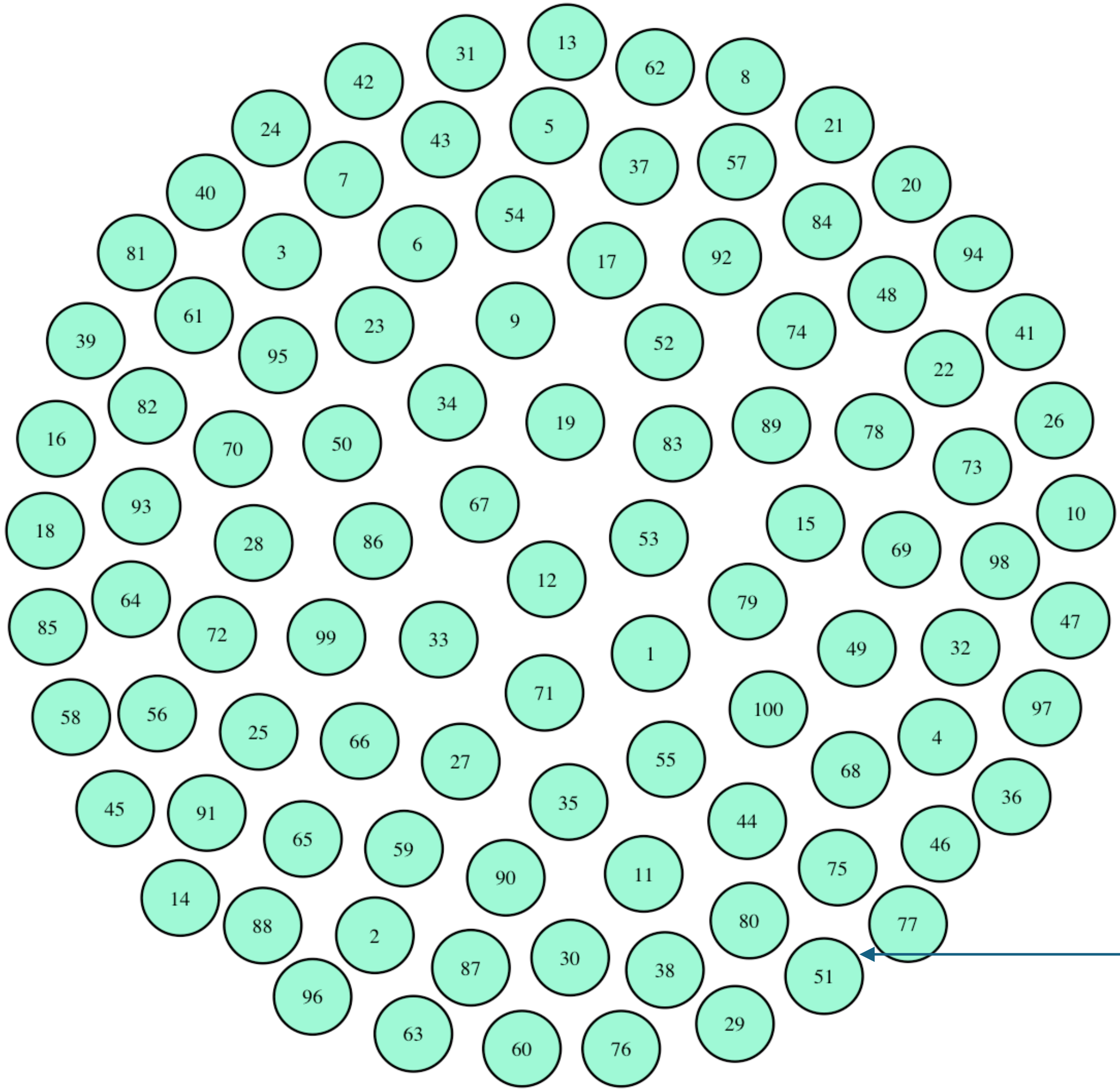
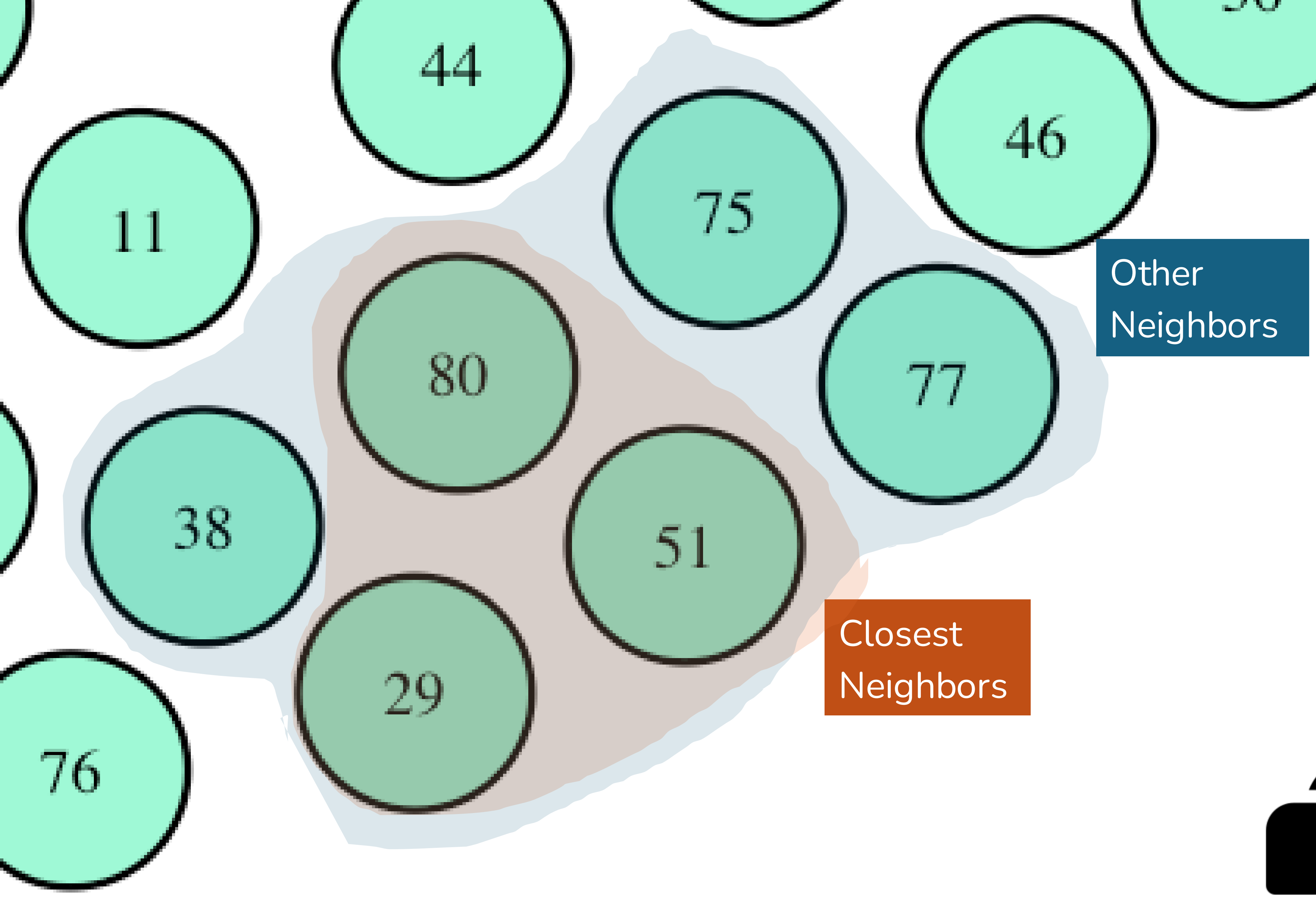


Nearest neighbours is like finding the closest friends who have a similar movie preference as you.

Here each number represents a person, and the neighbors tend to the have a similar genre preference.



Other Neighbors

Closest Neighbors

New friends of 51-> 29 and 80

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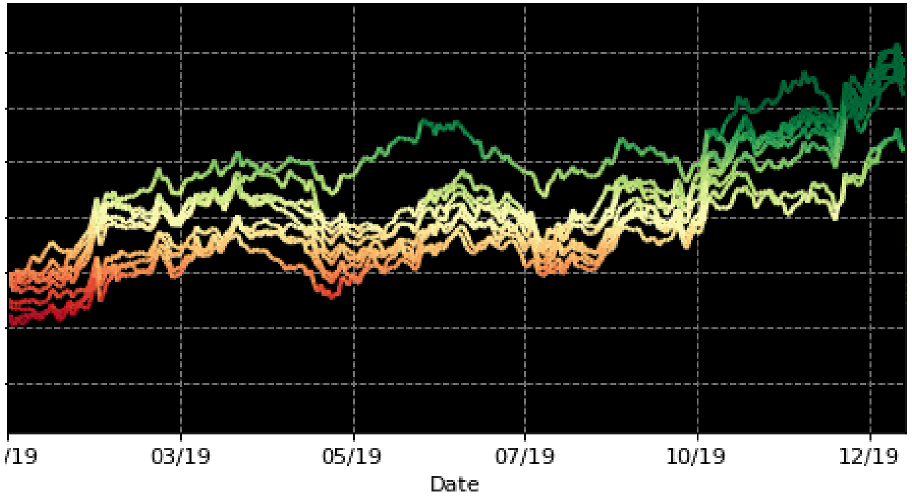
- **Time Series Analysis:** Analyze ratings over time to see how preferences change, which could lead to dynamic recommendations that evolve with trends.

- **Meta Data:** Incorporate movie metadata (e.g., director, cast, description) and use text mining and natural language processing to recommend movies similar to those a user likes.

- **FP-Growth Algorithm:** We could use the FP-growth algorithm, which is generally faster than Apriori and does not generate candidate sets explicitly, thus improving the efficiency of the model.



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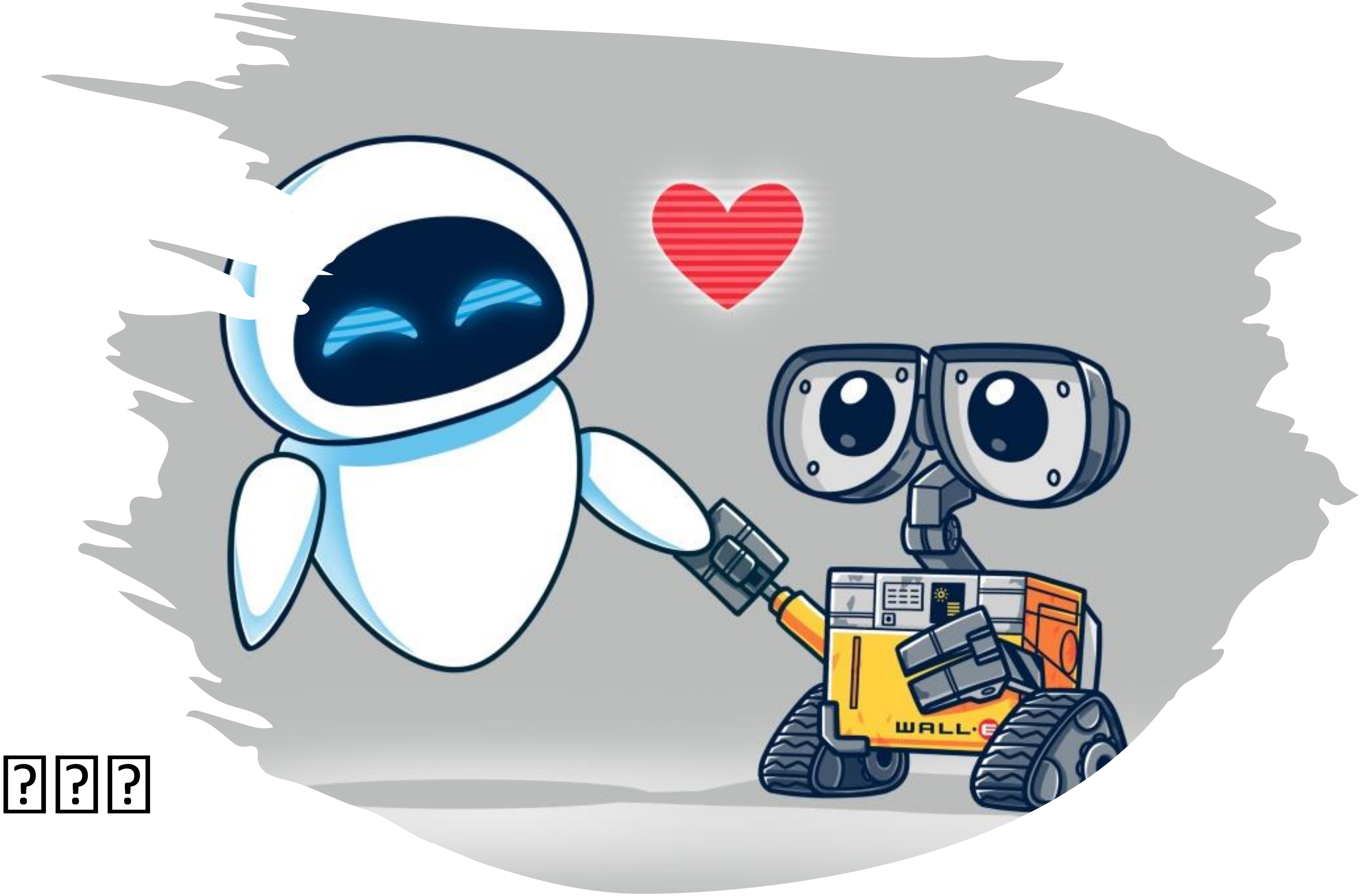

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