TESLA MODEL 3 REVIEW

1 INTRODUCTION

Tesla has significantly impacted the automotive industry by popularizing electric vehicles and advocating for sustainable energy solutions

Significance of study

1. Sentiment Analysis
2. Social Network Analysis
3. Semantic Network

2 METHODOLOGY

Data Extraction — from 'Tesla Model 3' YouTube Comments

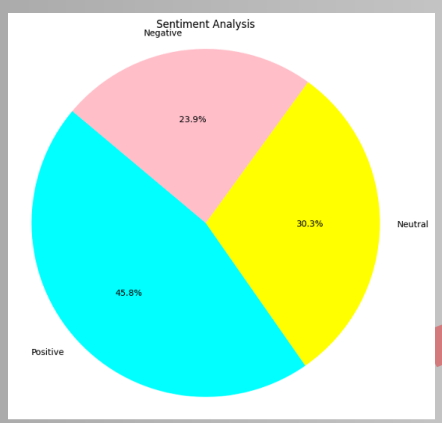
Raw data → Self-Loop Creation for Blank "To" Entries

Data Preparation

- **Sentiment Analysis**: Remove duplicates → Handling Missing Values → Text Pre-processing
- **Social Network Analysis**:
  - Merging Duplicate Edges → Managing Self-loops
  - Edge Filtering and Customization → Grouping using Clauset-Newman-Moore (CNM) → Lay out each in box → Calculate Graph Metrics → Directed Network → Degree Centrality sort descending → Label Key Influencer
- **Semantic Network**: Calculate Word and Word Pair Metrics → Edge Filtering and Customization → Grouping using Clauset-Newman-Moore (CNM) → Lay out each in box

3 RESULT

Sentiment Analysis



Positive Sentiment : 45.8%

- *highlights user satisfaction*

"love," "good," "great," "fun,"

Neutral Sentiment: 30.3%

- *balanced view: features & practical aspect*

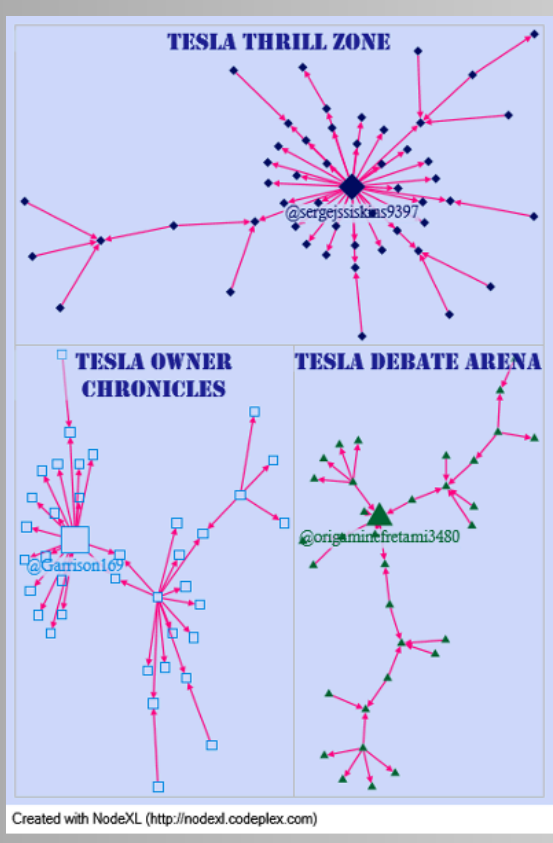
"model," "screen," "button"

Negative Sentiment: 23.9%

- *concerns and dissatisfaction among users*

"boring," "hate," "stupid," "ugly"

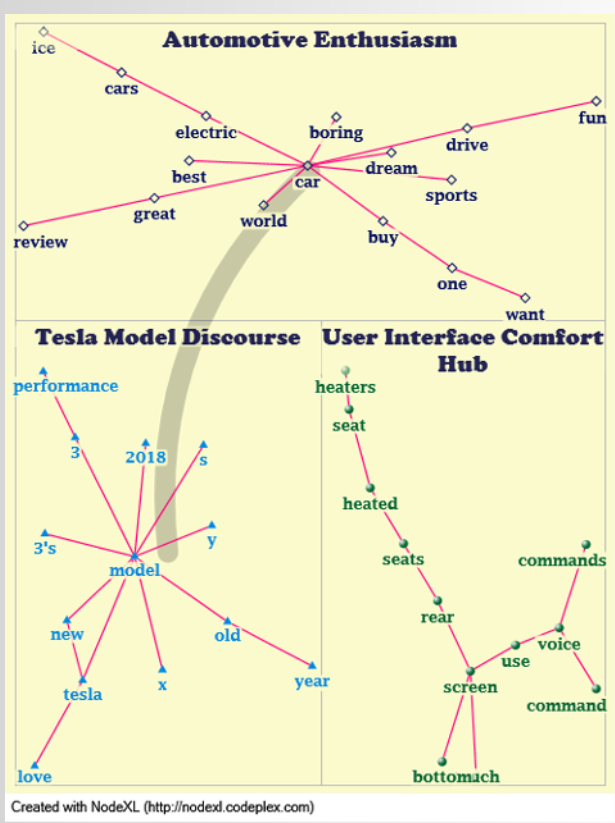
Social Network



Analyzing the social network graph entails scrutinizing its structure and the interactions it depicts.

Cluster 1: Tesla Thrill Zone
Cluster 2: Tesla Owner Chronicles
Cluster 3: Tesla Debate Arena

Semantic Network



Semantic Network generated using NodeXL reveals intriguing insights into the textual data.

Cluster 1: Automotive Enthusiasm
Cluster 2: Tesla Model Discourse
Cluster 3: User Interface and Comfort Hub

4 CONCLUSION

3 important findings

1. Most comments are positive, praising the Model 3's technology, performance, and affordability.
2. Social network analysis identified key influencers and distinct user clusters help Tesla leverage influential voices.
3. Semantic analysis provided insights into the prevalent themes.

Challenges faced

1. Volatile Trends Changing Rapidly
2. Data Volume Constraints
3. Ensuring Data Quality
4. Sentiment Analysis Complexity
5. Processing Delays