

Exploring Children's Literature

Computational Analysis of Cultural Data

Group 6

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Introduction

Project Focus:

Exploring Children's Literature as a cultural object.

Research Question: How do sentiment and themes in children's literature reflect cultural values and societal changes?

Dataset Overview:

Source: Project Gutenberg, ICDL

Content: Metadata, textual content, sentiment, and fact vs. opinion scores

Dataset Demonstration

Key Data Fields:

- Title: Name of the book.
- Author: Creator of the text.
- Sentiment Score: Emotion scale (-1 to +1).
- Fact vs. Opinion Score: Narrative style (0 factual, up to 1 opinion-based).

- Creation Process:
- Collected .txt files from Project Gutenberg and ICDL.
 - Cleaned data with Python (punctuation removal, normalization).
 - Transformed raw data into structured .csv.
- Challenges:
- Ensuring consistent metadata.
 - Transitioning from text to structured format.

Book Title	Author	Data Publis	Contributed by	Archive	Genre	Historical/Ci	Sentiment	Polarity	Subjectivity
A dog's tale	Mark Twain	1904	Google Books	ICDL	Fiction	Historical	Positive	0.1430814751	0.5068312145
A plea for old Cap Collier	Irvin S. Cobb	n.d.	Boston Public Library	ICDL	Humor	Historical	Positive	0.05580279016	0.4810682359
A princess of Mars	Edgar Rice Burroughs	1917	Google Books	ICDL	Sci-Fi	Historical	Positive	0.07876795365	0.4934934004
Alice in Wonderland	Lewis Carroll	1916	University of Marylan	Internet Archive Children's Library	Fantasy Fiction	Historical	Positive	0.03982720089	0.4963797839
Jack and the Giants	Unknown	n.d.	Unknown	Internet Archive Children's Library	Fairy Tale	Historical	Positive	0.07673029883	0.5098846574

Experimentation Results

Insights Gained:

Positive Sentiment: Most books show uplifting tones, consistent with children's literature goals.

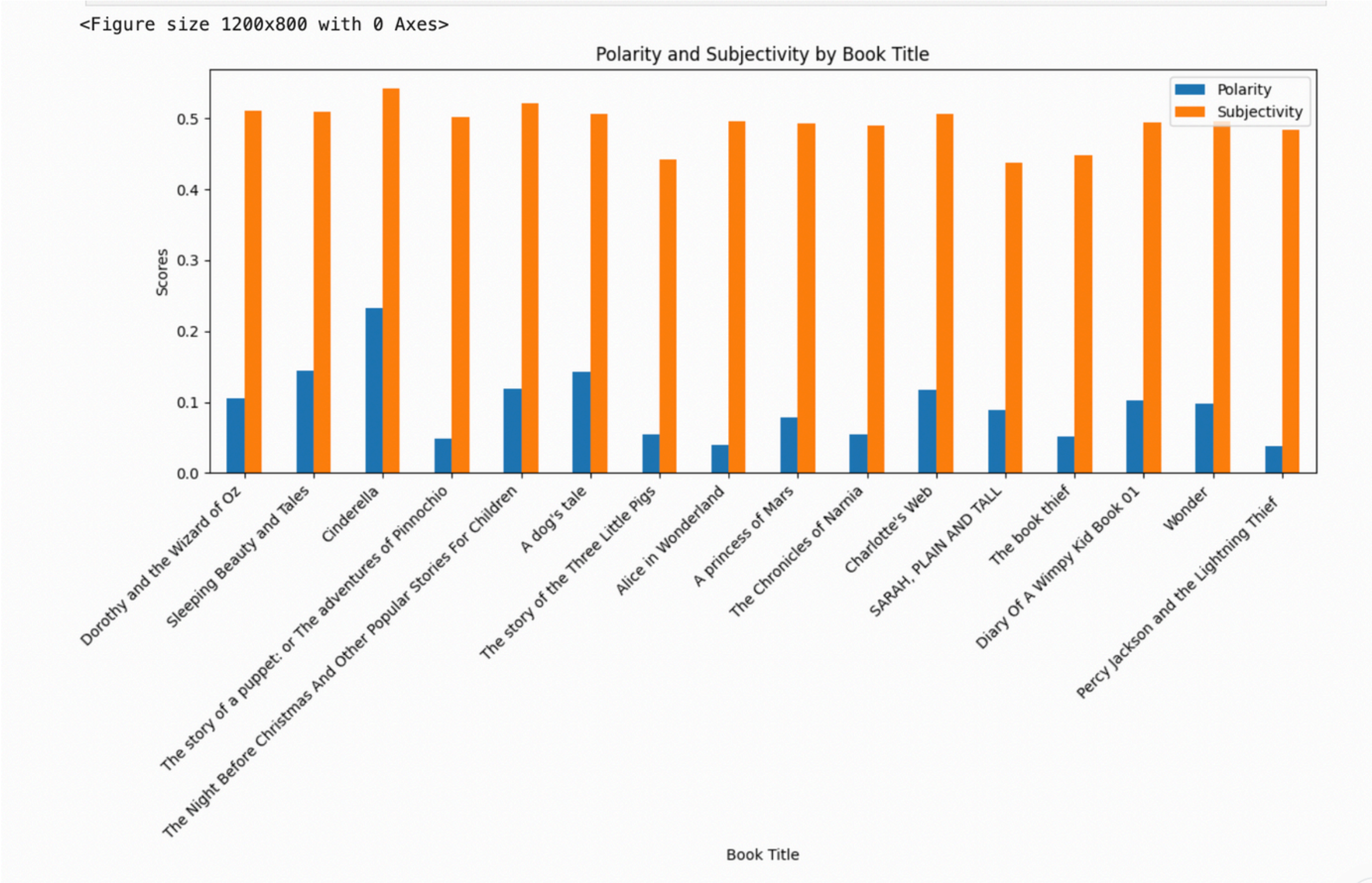
Moderate Subjectivity: Balance of emotional storytelling and factual content.

Example Visualization (Planned):

Bar charts for sentiment distribution over time, and visualizations to explore other correlations.

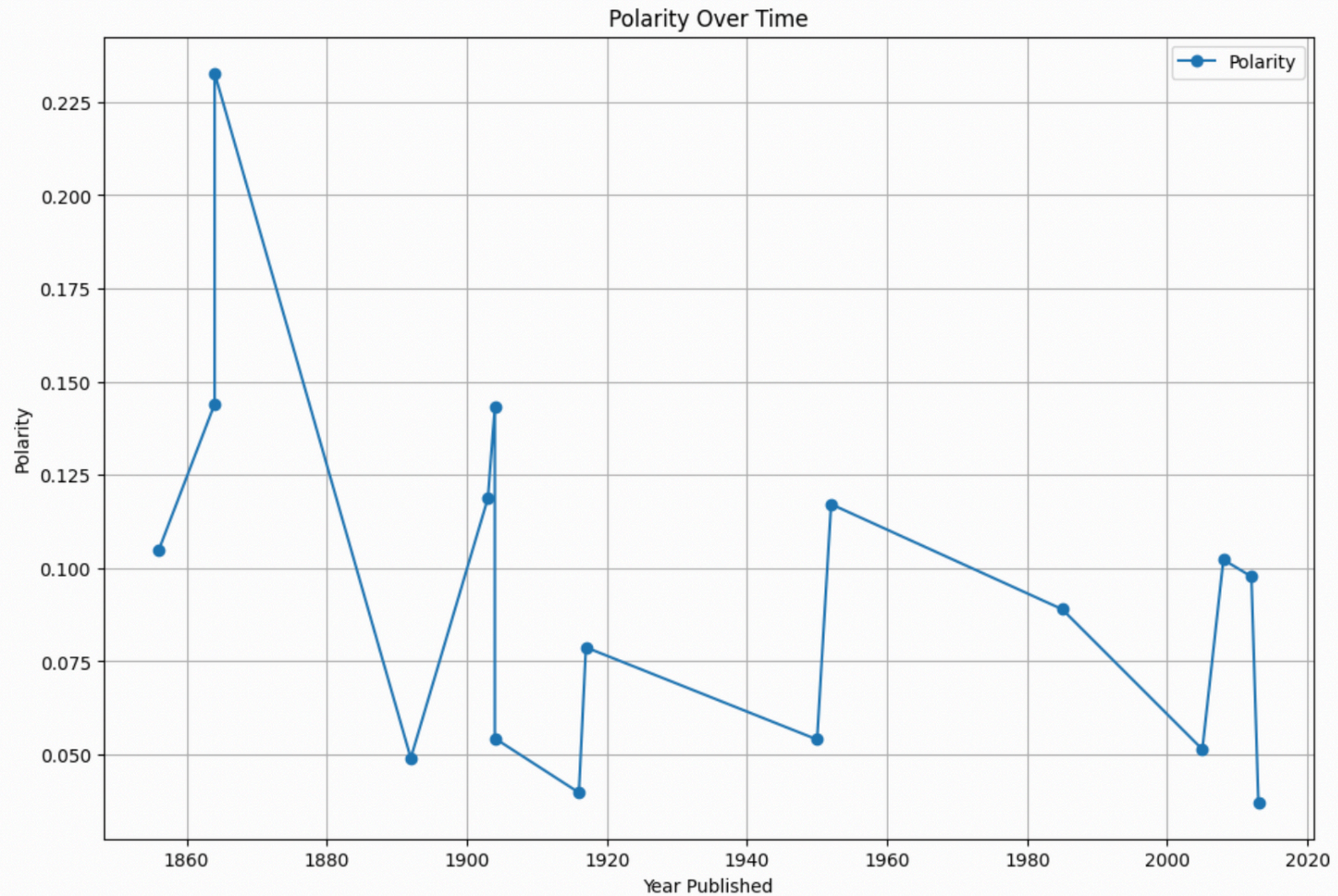


Experimentation Results



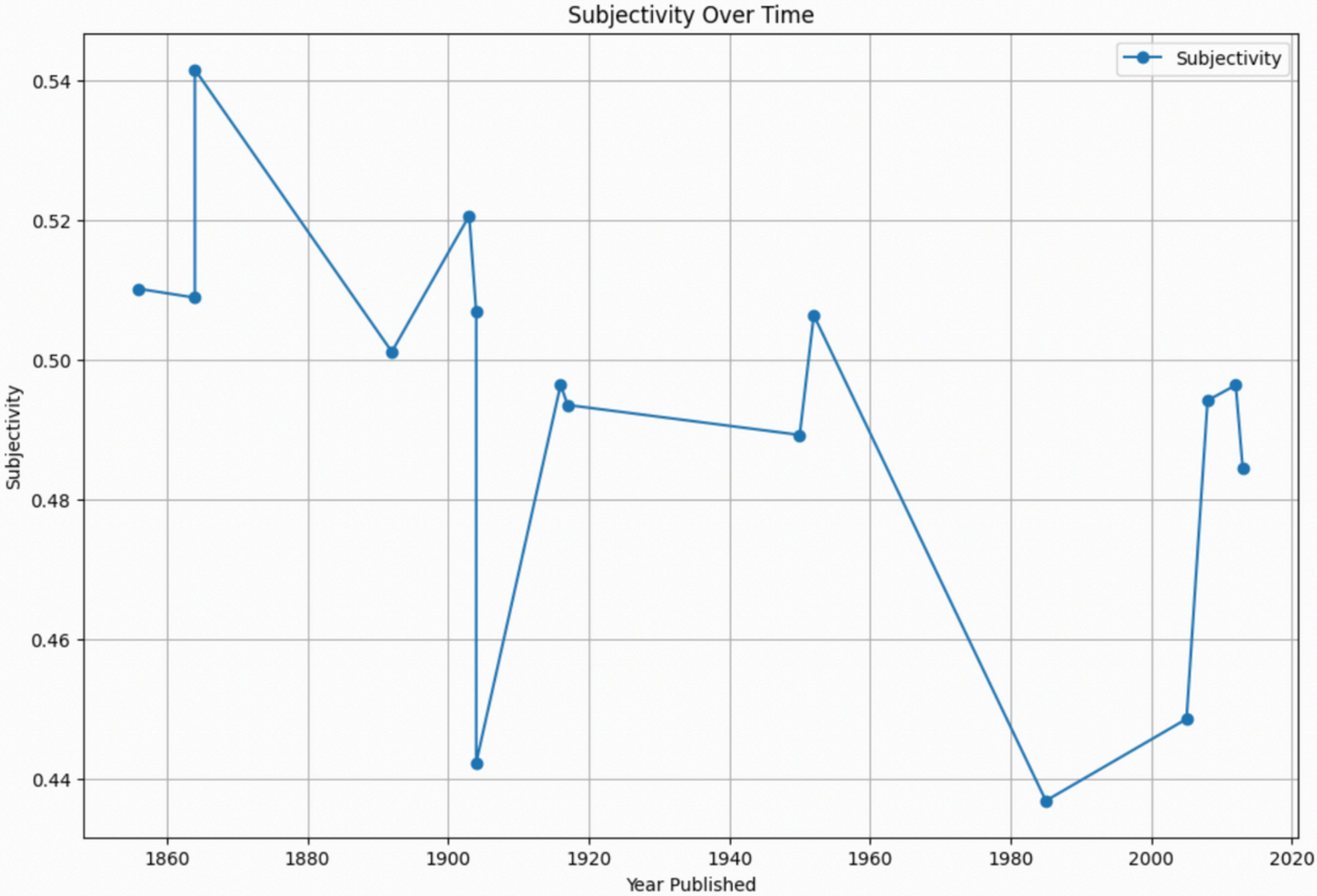
Experimentation Results

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Experimentation Results

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Reflection

Lessons Learned:

- Importance of careful data preparation.
- Collaboration facilitated task division and problem-solving.
- Challenges:
 - Metadata inconsistencies.
 - Time constraints for dataset refinement.
- Solutions:
 - Clear delegation of roles.
 - Regular team communication.

Future Directions

- Expand Dataset: Include more genres and time periods.
- Refine Methods: Apply advanced sentiment analysis tools and incorporate additional computational techniques.
- Visualization: Develop charts and other visuals to effectively communicate trends.



Thank You for Listening!

