

Data Science Project Proposal

Team: Fomba Kassoh and Souleymane Doumbia

Title: Analyzing Audiobook Trends and Customer Sentiments on Audible.com

Introduction and Motivation

The objective of this project is to analyze audiobook trends and customer sentiments by scraping data from Audible.com. In the rapidly growing audiobook market, understanding customer preferences and feedback is vital for publishers and authors to improve their offerings. This project aims to uncover patterns in audiobook popularity and customer satisfaction, utilizing data science methodologies.

Data Sources

Primary data, including audiobook details (title, author, genre, length, etc.) and customer reviews, will be collected through web scraping.

Data Science Workflow

The project will follow the OSEMI framework:

- **Obtain:** Web scraping to collect audiobook details and customer reviews from Audible.com.
- **Scrub:** Clean and preprocess the data, focusing on text normalization and handling various data formats.
- **Explore:** Conduct exploratory data analysis to understand trends, patterns, and anomalies in the data.
- **Model:** Use statistical and machine learning models to analyze customer sentiments and audiobook trends.
- **Interpret:** Present the findings in a structured format, highlighting key insights and trends.

Data Transformation Operation

- Transformation of review timestamps from string format to datetime.
- Normalization and tokenization of customer review text for sentiment analysis.
- Statistical Analysis and Graphics
- Sentiment analysis of customer reviews to gauge overall satisfaction and trends.
- Analysis of audiobook features (genre, length, author) and their correlation with popularity and ratings.

Visualizations: Distribution of ratings, sentiment scores, and genre popularity.

Unique Feature

- Implementation of advanced web scraping techniques to efficiently extract and handle dynamically loaded content from Audible.com.
- Use of NLP for in-depth sentiment analysis.

Conclusion

This project will provide in-depth insights into audiobook trends and customer sentiments on Audible.com, which can be instrumental for authors, publishers, and marketers in the audiobook industry. The combination of web scraping, sentiment analysis, and data visualization will offer a comprehensive understanding of the current audiobook market dynamics.