

Predicting Sentiment of Animal Crossing: New Horizons Reviews

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Overview

- Use of language processing and machine learning models to predict sentiment of Animal Crossing: New Horizons reviews based on their content



Outline

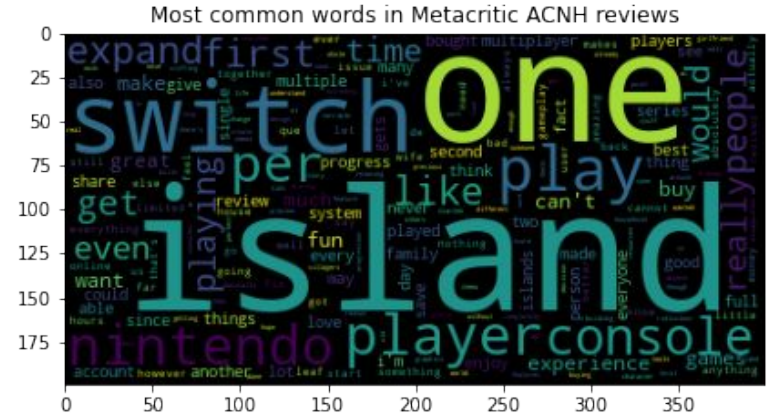
- Business Problem
 - Data
 - Modeling and Evaluation
 - Application
 - Next Steps
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Business Problem

- Animal Crossing: New Horizons is successful, but controversial
 - Mixed praise and criticism across internet, especially social media
- Need for system that can process user reviews
 - Keep track of what players liked/disliked most
- Generate ideas to improve in future
 - Updates to current game, improvements to next game
 - Marketing strategies

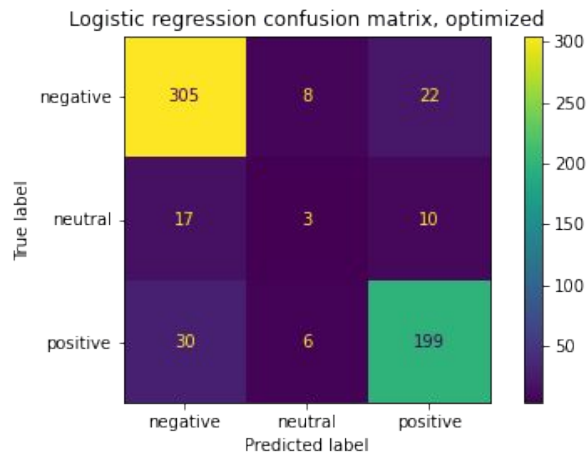
Data

- User reviews for Animal Crossing: New Horizons on Metacritic
- Most users mention island limitations per Switch console
- 0-10 grades where:
 - 8-10 = positive
 - 5-7 = neutral
 - 0-4 = negative
- More negative reviews than positive/neutral



Modeling and Evaluation

- Filtering common/redundant words before modeling
- Synthetic resampling to balance data
- Best model predicts true labels correctly with $\sim 82\%$ recall
- **$\sim 84\%$ recall** after optimizing model's parameters



Application

Animal Crossing: New Horizons Sentiment Rater

Animal Crossing: New Horizons Sentiment
Rater



Photo taken from [Nintendo Online Store](#)

Write your review here:

Submit

This app predicts the sentiment of a review for Animal Crossing: New Horizons without the need for a graded scale or any supplementary raters. Just raw, opinionated text.

Next Steps

- Updates to application
 - Database to keep reviews
 - Statistics made available for users
 - Expansion into database with other Switch games
 - Recommender system based on sentiment/genres
 - Multilingual support
- Apply app to social media posts (Twitter, YouTube)

Thank you!

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