TWITTER SENTIMENT ANALYSIS

APPLE & GOOGLE PRODUCTS

OBJECTIVE

Build a sentiment analysis model to automatically classify tweets as positive, negative, or neutral.

STAKEHOLDERS

Product Team

Understand user feedback

Marketing and Brand managers

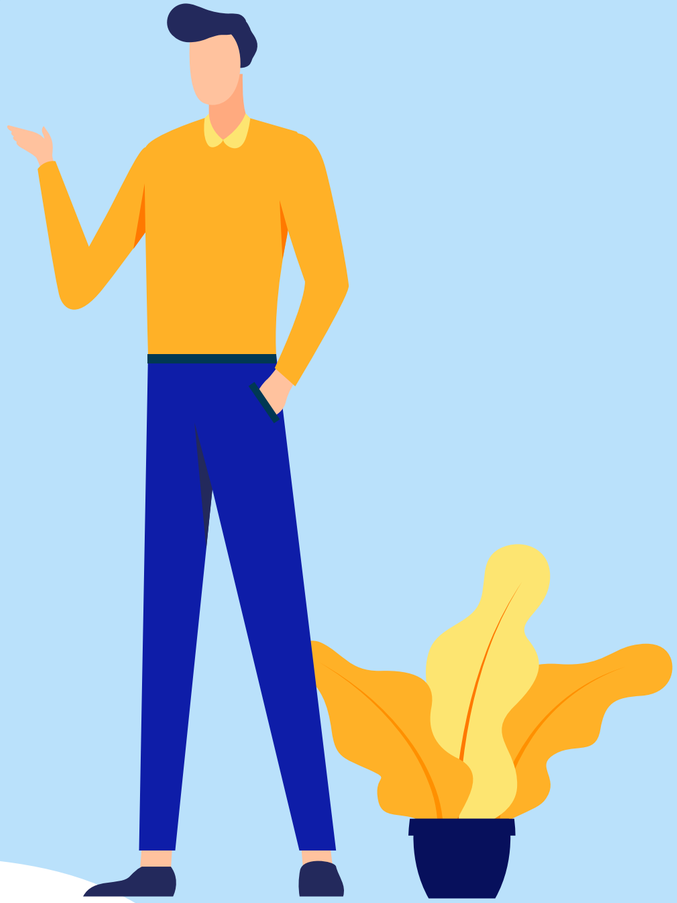
Tracking brand perception

Data Scientist

Monitor sentiment trends

Binary Classification

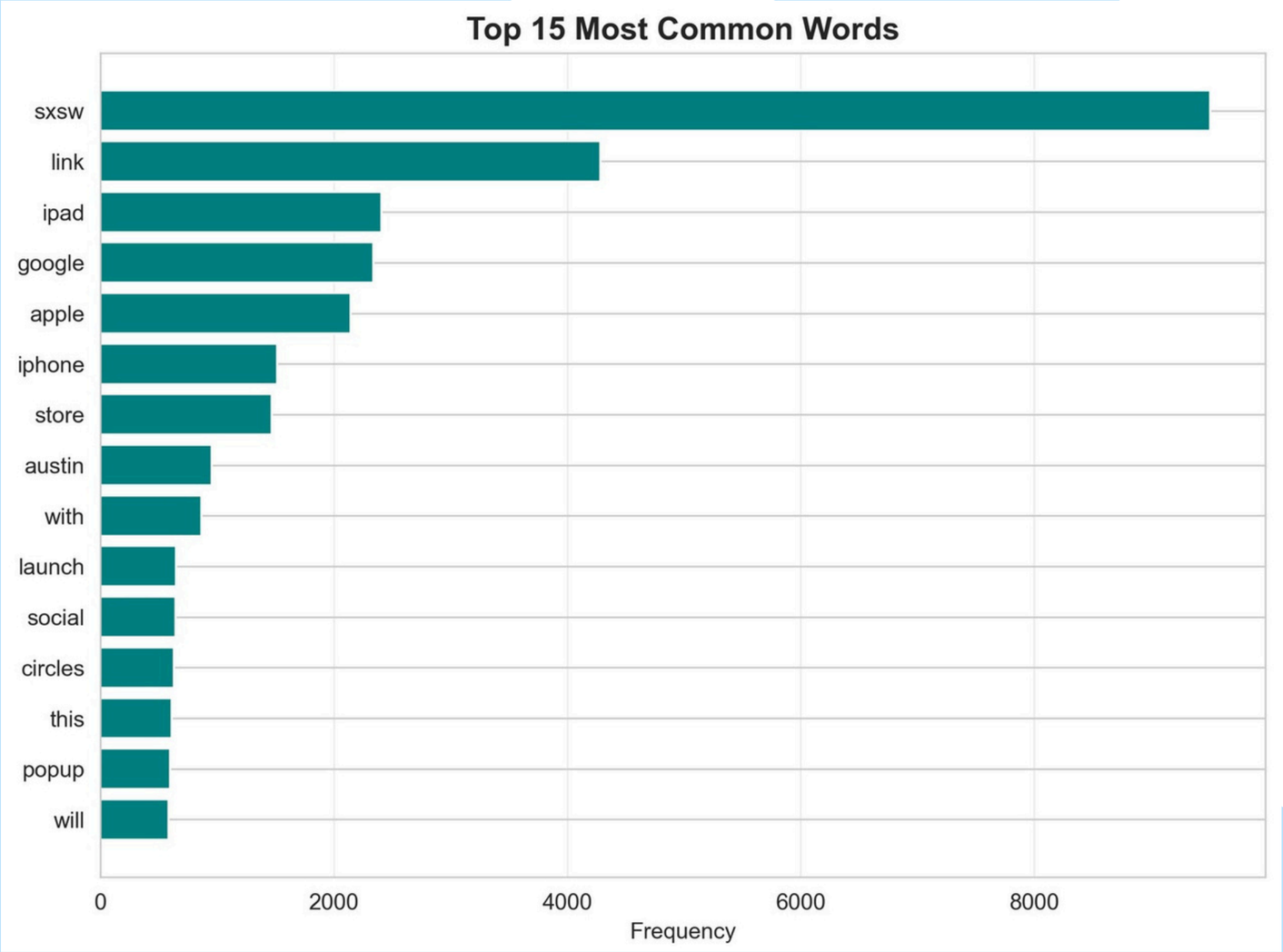
B E S T MODEL: SVM with 89.1% Accuracy



Multi-Class model

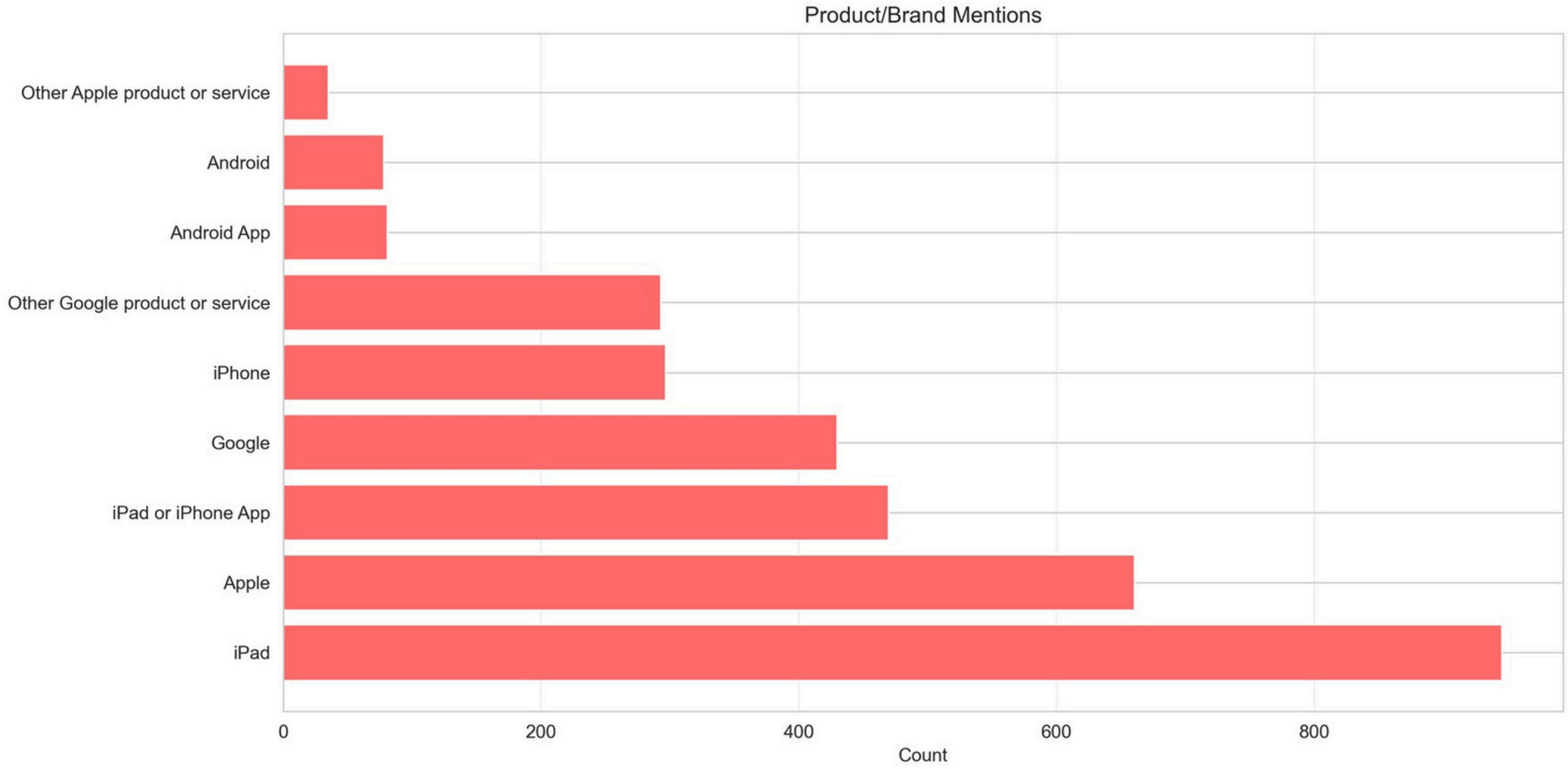
Best Model :
Tuned SVM with
69.1% accuracy.

INSIGHTS



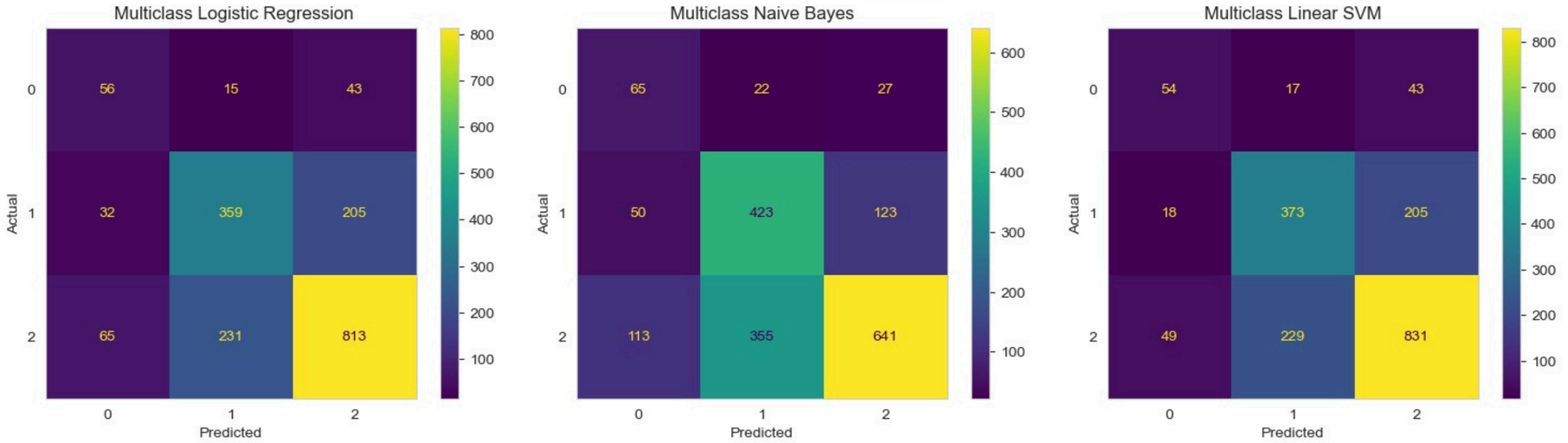
Because key words are great for catching your audience’s attention

INSIGHT



iPad had the most tweets, showing high public interest and sentiment. Apple, iPad/iPhone apps, and Google followed, while other Apple products and Google services had fewer mentions.

MULTI-CLASS MODEL PERFORMANCE

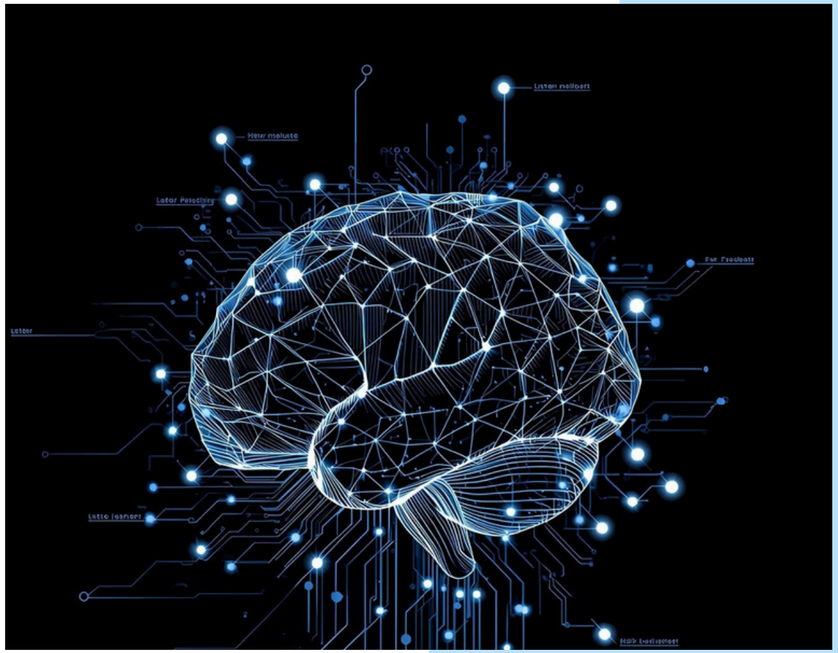


SVM performed best (69.1% accuracy).

Logistic Regression followed (67.5%), ahead of Naive Bayes (62%).

SVM & Logistic Regression had more false positives, while Naive Bayes had more false negatives.

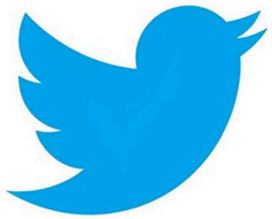
SUMMARY OF MODELLING RESULTS



BINARY : NAIVE BAYES ACHIEVED THE HIGHEST ACCURACY (85.3%)
TUNED LINEARSVC :85% TRAINING AND 69% TESTING ACCURACY, EFFECTIVELY BALANCING BIAS AND VARIANCE.

THANKS

Do you have any questions?



GROUP 2 PRESENTATION

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