Machine Learning Canvas

Product:	Authors:	Date:	Version:
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Background

Organizations need quick, automatic sentiment insights to replace manual analysis of large social data

Value proposition

-A sentiment model predicting tweet polarity(0=neg, 4 = pos) to monitor trends, market moves, and event impact

Objectives

-Preprocess 1.6M tweets

-Build and optimize classifier

- Aggregate trends

-Develop dashboard

Solution

-Use NLP

-Clean historical data

-EDA

Feasibility

-Data : Sentiment140 (1.6M tweets) - Adequate computing -> Google cloud

-Risk : dataset age ; update if needed

Data

-Sentiment140 (1.6M tweets) -Option for real time data

-Pre-labeled sentiments

Metrics

Accuracy,precision,F1,recall

Trend correlation, User feedback

Evaluation

Offline: train/validate/test splits

Online: Controlled deployment & feedback

Modeling

Start simple then do fineTuning and compute metrics and iterate with feedback

Inference

At first batch analysis and may do later real time

Feedback

-Collecting rating/comments

-Monitor performance

-A/B test models

Project

-Team: Guenfoudi Ihabe, Florea Robert

-Deliverables: Model, Dashboard, report

-Timeline :

Week 1,2 : Preprocess

Week 3,4 : Baseline

Week 5,7 : Refinement

Week 8-10 : Evaluation