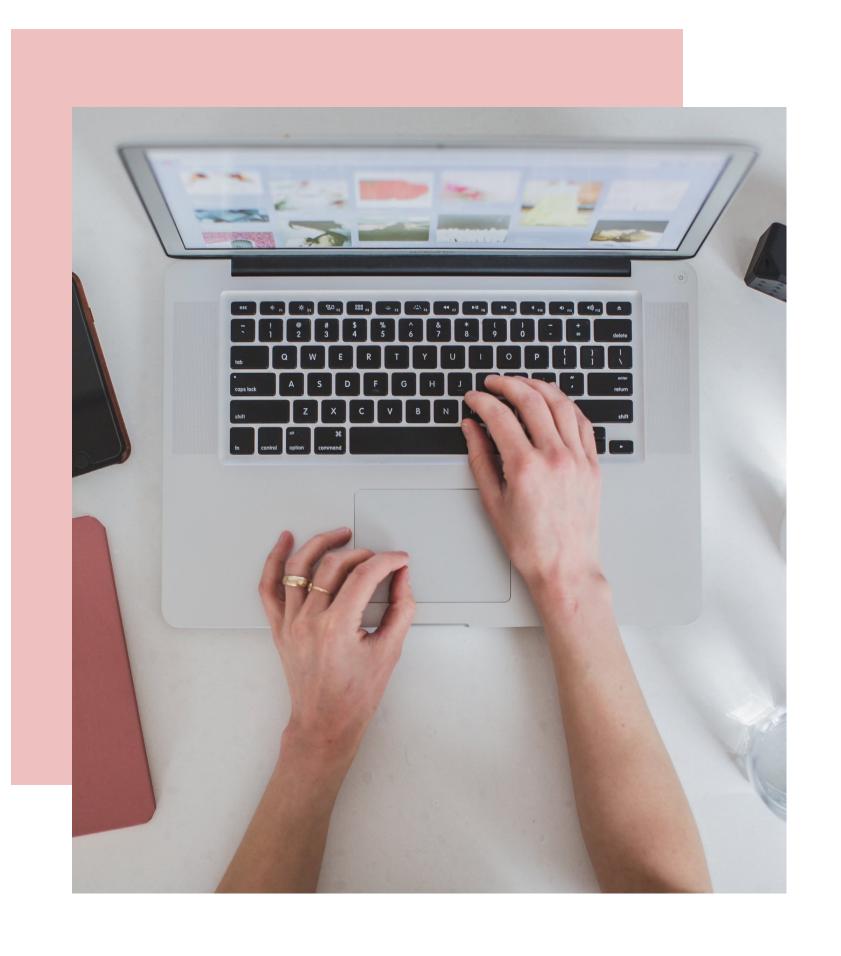# *Sentiment Analysis on Social Media*

By Aisha Baitemirova - Othman

Agenda

Business Problem

Modeling

Results

Recommendations

Future Work

Business Problem

problem:

Combat Negative Content on Social Media

solution:

By sending positive inspirational ads/posts

Modeling

Decision Tree

Accuracy score: 55.8 percent

Logistic Regression

Accuracy score: 53.6 percent

Random Forest

Accuracy score: 53.5 percent

Neural Networks

Accuracy score: 52.7 percent

Steps taken to improve the results

- New Labels

    KMeans Clustering (2,3,4)

    Hierarchical Clustering (2,3,4)

- Tuning Hyperparameters

    GridSearch

    TfidfVectorizer, min max adjustment

- Only Longer Observations

FINAL RESULTS

The highest score achieved
Decision Tree Classifier
Accuracy score: 66 percent
Recall score: 96 percent

Why these results?

Possible Reason 1

Poor labels

Possible Reason 2

Some noise left

Possible Reason 3

Wrong Vectorization

The product is not ready yet

More work needs to be done before deployment

Future Work

- OTHER NEURAL NETWORKS MODELS

- WORD EMBEDDING

- OTHER DATASETS

- DETECTION OF DEPRESSION/ANGER/SARCASM

Thank you!

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