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Twitter Customer Complaint
Sentiment Analysis

01 Objectives

02 Data

03 Methods

04 Results

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Why?

Top 5 Companies with complaints

Avg CS Response Time

Sentiment Analysis

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Tweet_id

Tweet unique Identifier

Author_id

Author unique Identifier

Inbound

If Tweet belongs to customer or Company
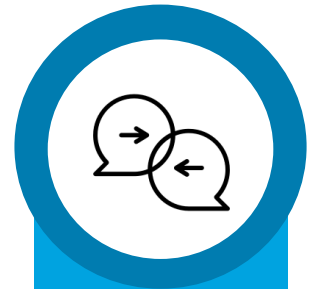
Created_at

Full Date and Time tweet was created

Tweet

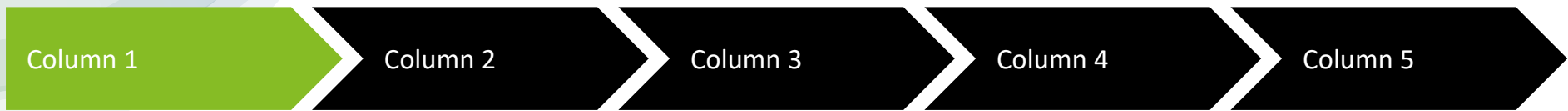Complaint from customer or response from either customer or company

Response_tweet_id

Helps find the id of the tweet that the company answers

In_Response_tweet_id

Helps find the id of the tweet that followed up after initial response

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	Column 1	Column 2	Column 3	Column 4	Column 5
Top Companies	Author_id	Inbound	Tweet (Complaint)	NA	NA
AVG Response Time	Author_id	Inbound	Created at	Response_tweet_id	NA
Sentiment Change	Tweet_id	Inbound	Tweet (Complaint)	Response_tweet_id	In_response_tweet_id

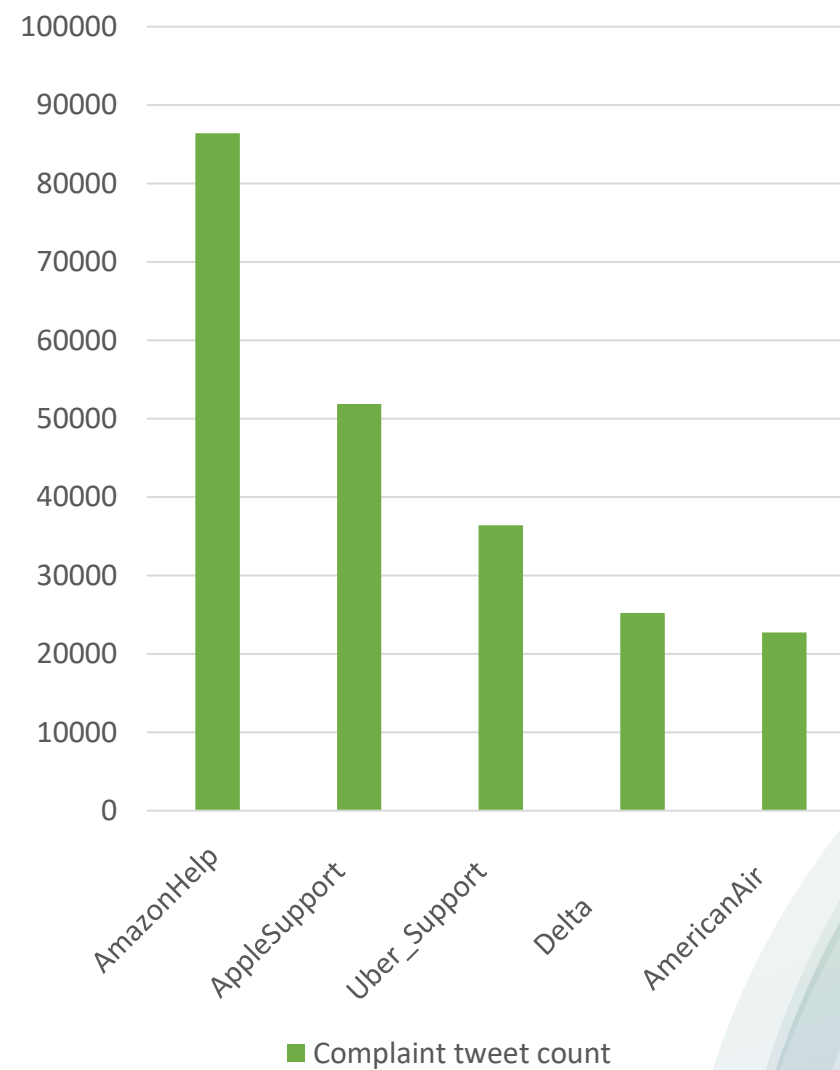**Deloitte.**
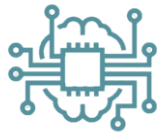
NLP (Natural Language Processing)

Will help the model understand each tweet and recognize certain patterns

Machine Learning

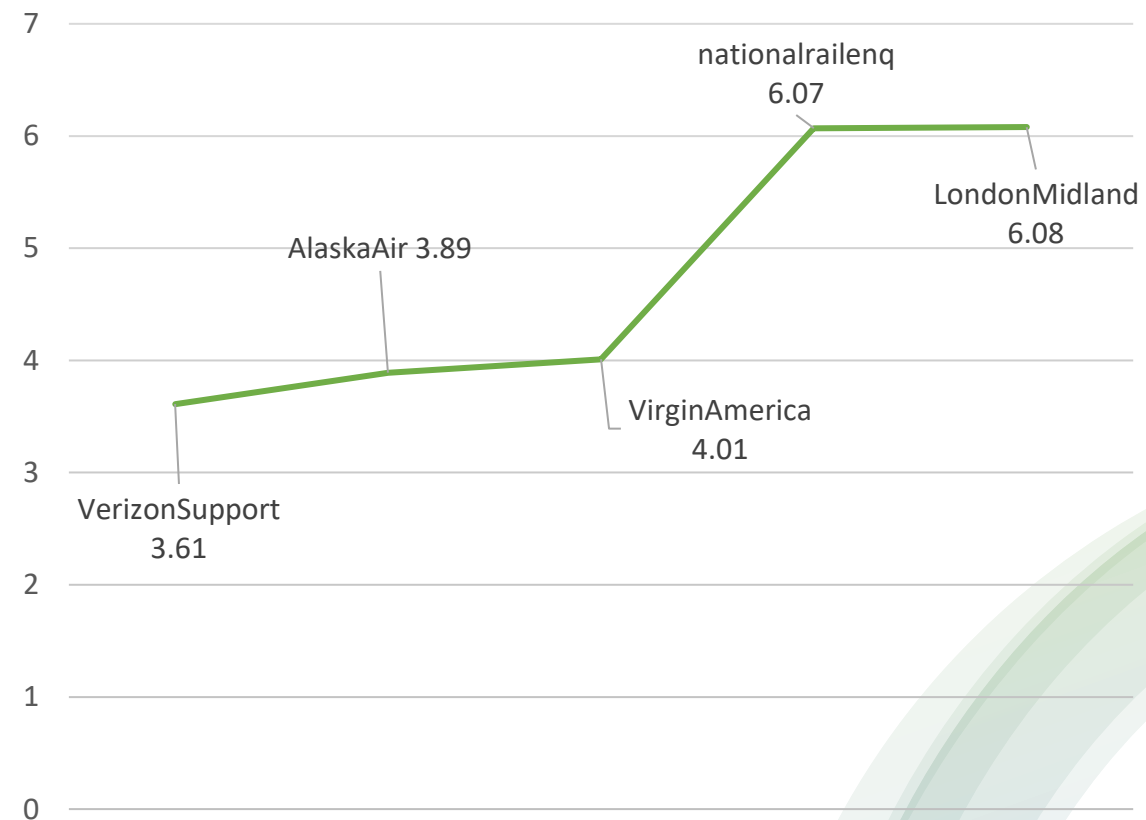Machine learning will help us treat our information with algorithms in order to minimize flaws

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Top 5 companies with complaints

Complaint tweet count

Avg CS response time

nationalrailenq
6.07

LondonMidland
6.08

AlaskaAir 3.89

VirginAmerica
4.01

VerizonSupport
3.61

7
6
5
4
3
2
1
0

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Sentiment Analysis

1 positive

0 neutral

-1 negative

```
VerizonSupport

Initial Tweet Sentiment -0.0625
Change in Sentiment after interacting with company 0.1079
Company Tweet sentiment 0.2208

AlaskaAir

Initial Tweet Sentiment 0.2349
Change in Sentiment after interacting with company 0.0115
Company Tweet sentiment 0.414

VirginAmerica

Initial Tweet Sentiment 0.0991
Change in Sentiment after interacting with company -0.0397
Company Tweet sentiment 0.2955

nationalrailenq

Initial Tweet Sentiment -0.0539
Change in Sentiment after interacting with company 0.1855
Company Tweet sentiment 0.0663

LondonMidland

Initial Tweet Sentiment -0.0478
Change in Sentiment after interacting with company 0.1103
Company Tweet sentiment 0.0022
```

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What comes next…

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Questions?

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