#DATA_SCIENCE

@GENERAL_ASSEMBLY

Final project by Samuel Delesque

[foreword] Baily Bot Structure

v1 (current)

Input Text

↓

Question match

↓

Response

v2

Input Text

↓

Question match

↓

Response

↓

Follow up

↓

Sentiment

what is the temperature?

what is the forecast?

It is raining today.

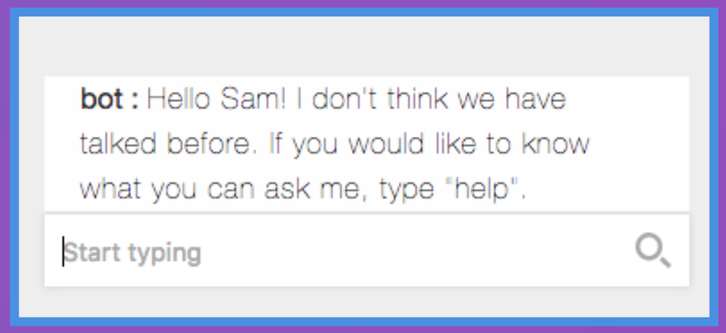
Great thanks
or
That’s not what I asked

sentiment is positively or negatively correlated with prediction.

1. Bot Services

BUILDING A SENTIMENT ANALYSIS FEEDBACK TOOL FOR BAILY (bot)

- better matching models (using fuzzywuzzy currently)
- context extractor for time, loc, names, subject... (covariables?)
- model predicting possible user follow-up after a response
- sentiment analysis to estimate weather a response was satisfactory



Data:
- conversation history from Baily

Objective: Combining a prediction of possible user follow up text with sentiment analysis, to determine if response was well received.

Hypothesis: Positively correlated sentiments between follow-up prediction and actual follow up text should result in higher perceived value in bot responses and can help build the response model over time.

2. Time predictor

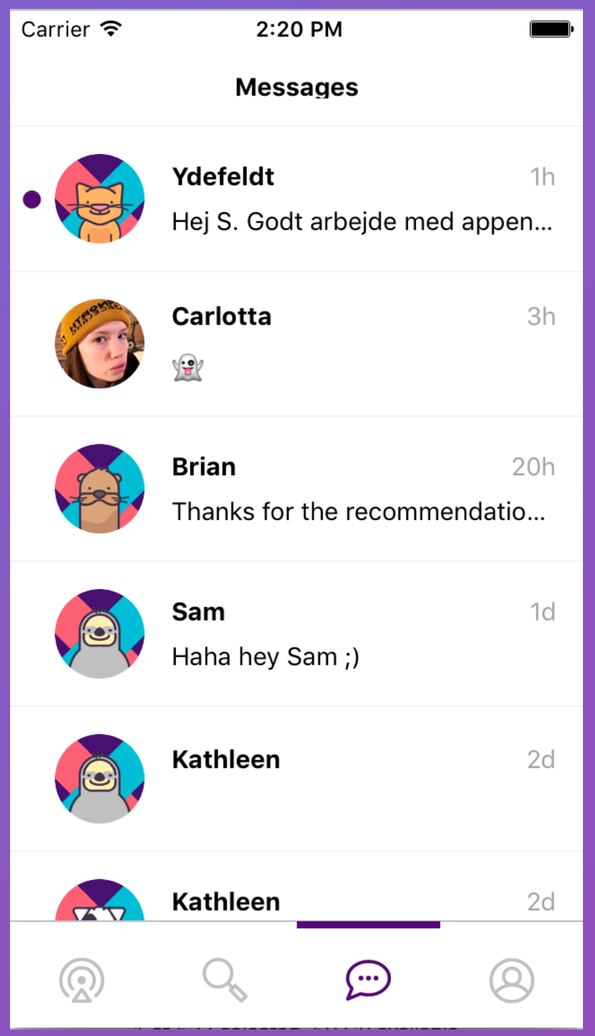
USING LOKELY DATA TO PREDICT OPTIMUM OUTREACH TIME

Data:

- Lokely user's active, login and signup times
- time messages are being sent and read
- time recommendations are posted

All localized for the users timezone.

Hypothesis: Sending notifications at night, but not long after the action occured will result in higher user engagement.



3. Matching Users

USING FACEBOOK LIKES AND CONNECTIONS TO MATCH USERS

Data:

- Facebook likes

- Facebook connections

- Common Interests

- Same types of Recommendations / saved Places

Hypothesis: People with mutual connections and/or mutual likes will engage more easily with each other.