## FELNICE

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### PROBLEM

Improving quality of customer support on text by using text analyzers to identify customer emotions in real-time.



# THE STEPS FOR DEVELOPING THE SOLUTION

#### 1. Identifying client satisfaction

We want to analyze client messages using Natural Language Processing techniques and provide a score as an output:

Client: Hi, I'm having an issue with my phone.

Agent: Okay, what seems to be the problem?

Client: Well, my phone keeps freezing up and I can't use any of the apps.

Agent: Did you try restarting it?

Client: Yes, I did, but it didn't fix the problem.

Agent: Okay, well maybe you should try a factory reset.

Client: I don't want to do that. I have important data on my phone and I don't want to lose it.

Agent: Well, that's the only solution I can offer you. If you don't want to try it, there's nothing else I can do.

Client: Can't you just send someone to fix it for me?

Agent: No, I'm sorry. We don't offer that service.

Client: This is ridiculous. I paid a lot of money for this phone and it's not working properly.

Agent: I understand your frustration, but there's nothing else I can do. Is there anything else you need help with?

Client: No, I guess not. Thanks for nothing.



fear: 0.08695652173913043 anger: 0.13043478260869565

anticip: 0.0

trust: 0.08695652173913043 surprise: 0.13043478260869565 positive: 0.13043478260869565 negative: 0.17391304347826086 sadness: 0.08695652173913043

disgust: 0.08695652173913043

joy: 0.043478260869565216

anticipation: 0.043478260869565216

#### 2. Analyze results

• Based on the score, if the client has negative feelings, we will use AI to analyze the agent's part of the conversation.

fear: 0.08695652173913043
anger: 0.13043478260869565

anticip: 0.0

trust: 0.08695652173913043
surprise: 0.13043478260869565
positive: 0.13043478260869565
negative: 0.17391304347826086
sadness: 0.08695652173913043
disgust: 0.08695652173913043

joy: 0.043478260869565216 anticipation: 0.043478260869565216





#### 3. Report

 The AI will create a report on what was lacking in the interaction:.

These sentences are an example of bad customer support for the following reasons:

- 1. Lack of empathy: The agent is not showing empathy towards the customer's frustration and is simply repeating the same solutions without addressing the underlying issue.
- 2. Limited solutions: The agent is only suggesting two solutions, restarting the phone and doing a factory reset, and not exploring other potential solutions.
- 3. Negative tone: The agent's tone is negative and dismissive, which can further frustrate the customer.

## 4. Choosing a NLP and building and training the model

We chose ChatGPT to help with the generation of the report (which can always be manually checked if necessary)



