

Motivation

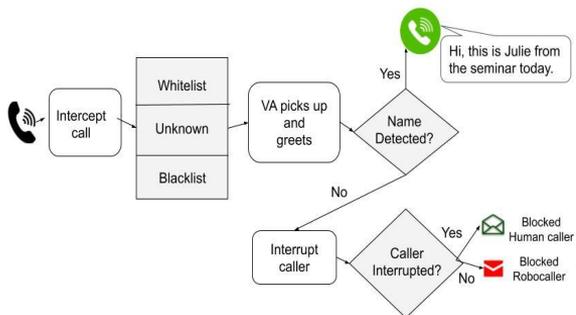
- Robocalls are a serious problem.
- February 2020 saw 4.8B robocalls in USA.
- Blacklists (TrueCaller etc.) are about 55% effective.



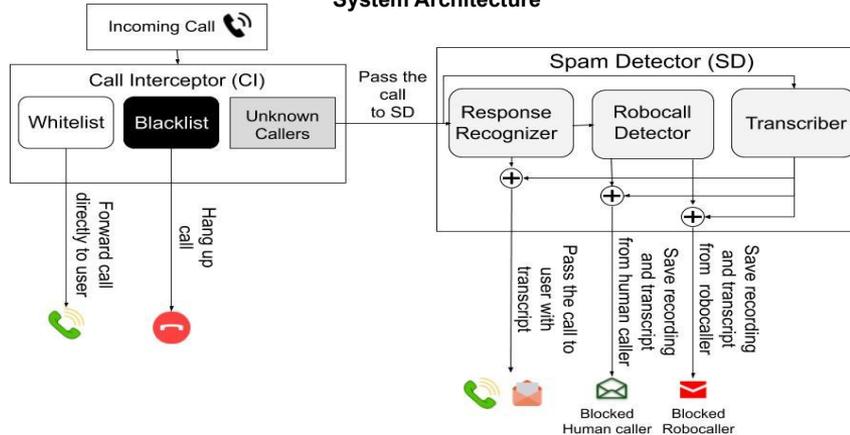
Research Goal



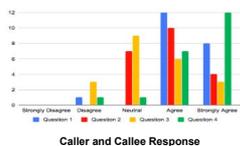
VA Workflow



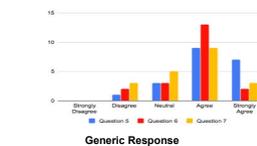
System Architecture



User Study Results



- Q1 : It was easy to interact with the VA.
- Q2 : The delay you experienced before the other person responded to the call is acceptable.
- Q3 : The transcript was able to provide sufficient information to infer the topic of the incoming calls.
- Q4 : The transcript was able to provide sufficient information about the content of the blocked calls.



- Q5 : I found the app beneficial to me as it provides prior knowledge about the incoming calls.
- Q6 : I think I would like to use an app equipped with a VA frequently.
- Q7 : I felt comfortable with the Virtual Assistant intervening in the phone calls.

Highlights

- Developed an Android app which hosts the VA.
- Can block all current robocalls and label 97.8% of the robocalls correctly.
- Most users believe that the VA is beneficial to them.

What next?

- Currently working on an augmented VA that blocks targeted and more sophisticated robocalls.
- Asks a variety of questions which are easy and natural for human callers but difficult for robocallers.