

Cassie the Therapy Robot

16-264 Project

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Cassie's Purpose

- Act as a journal keeper and therapy/companion robot for those who need one.
- Have meaningful interaction with its users by learning about them through the tone of their voice and their journal entries.
- Can call 9-1-1 for those who are determined to be a threat to themselves or others.



Cassie's Implementation

- Cassie will not respond directly to what the user said but will analyze the **context** of the what the user has said and will choose an appropriate phrase from a dictionary as a response.
 - We provide Cassie with a pre-defined dictionary of phrases for certain contexts because Cassie's goal is to calm the user, not discuss their problems

Having Cassie understand and respond directly to the user may be outside of what we can do in this course.



Cassie's Implementation (More Details)

- Using google voice recognition library and python finding library to talk to the user
- Sentiment analysis library in python to create phrases with positive connotations.
- Voice creation libraries to allow Cassie to mimic the users voice when reading back journal entries.



Risks

- Cassie says something that could potentially harm the user
 - We hope to address this by creating a dictionary of phrases that, even if used in the wrong context, will not inflict emotional pain
 - Additionally, performing sentiment analysis on the phrases Cassie intends to respond with should ensure only phrases with positive connotations are used.



Goals

- Allow Cassie to customize and learn from a specific user's journal entries to customize interactions
- Multi-user support
- Build a physical body for Cassie