

Using Avatar & Chatbot Technology to Teach Active Listening Skills



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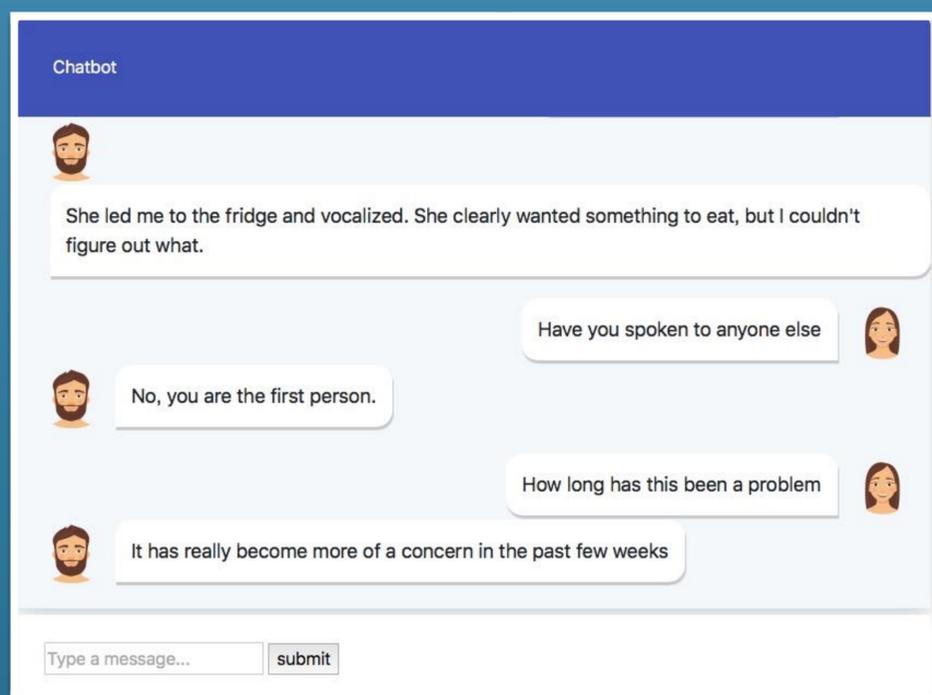
Introduction:

The PSU RERC on AAC believes that active listening is a critical skill to have when you work in a profession that requires effective communication with the customer in order to give a proper diagnosis, especially in a medical or therapy profession. By creating a training purpose chatbot, it would eliminate both the need for the student to schedule a time to practice and the funding for a professional to host the training. This will save time and money for both PSU RERC on AAC and students while effectively developing their active listening abilities.



User Interface

- 1.The user can interact with a bot that has been connected to a database .
- 2.Similar questions can be detected by the program and lead to the same answer.
- 3.Each dialog has different descriptions with different user profile.



Admin site

We used a library which is called chatterbot in python3 .It has a training part and we need to use their API to construct a chatbot for training purpose.

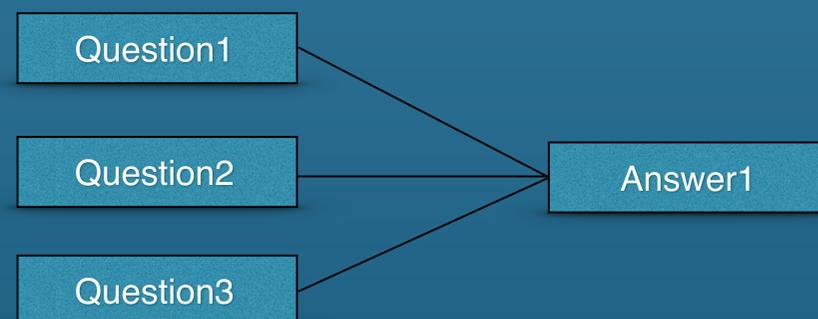


For the admin site, we display the conversation sentences (answers and questions) for the admin as a table. The admin can easily edit the conversation by press 'm' and 'd,' and enter the block ID. 'm' for modification and 'd' for deleting.

id = 3	text = who are you
id = 4	text = daddy
id = 7	text = Who are you
id = 8	text = chatterbot
id = 11	text = If I was there, what would I see?
id = 12	text = She led me to the fridge and vocalized. She clearly wanted something to eat, but I couldn't figure out what.
id = 13	text = What does this look like?
id = 14	text = She led me to the fridge and vocalized. She clearly wanted something to eat, but I couldn't figure out what.
id = 15	text = Can you describe an example for me?
id = 16	text = She led me to the fridge and vocalized. She clearly wanted something to eat, but I couldn't figure out what.
id = 17	text = Have you spoken to anyone else about him?
id = 18	text = No, you are the first person.
id = 19	text = Have you discussed this with anyone besides me?
id = 20	text = No, you are the first person.
id = 21	text = How long has this been a problem?
id = 22	text = It has really become more of a concern in the past few weeks
id = 23	text = When did this become a concern
id = 24	text = It has really become more of a concern in the past few weeks
id = 25	text = Has there even been a time when this was not a problem?
id = 26	text = It has really become more of a concern in the past few weeks
id = 27	text = What would you see as the ideal solution?
id = 28	text = I would like to see her be less frustrated

We use a logic adaptor to detect the similarity between the user input and the data we have in the database. The algorithm is going to detect the key word from the user input and do best match among the data in database. By setting up the threshold, we can decide how strict we want our chatbot to be. If the user input is way too wrong, the chatterbot is going to replay a default message as a warning.

(The chatterbot itself also has a learning mode. Since the chatterbot we have is supposed to be a training tool, we turn it off manually.)



As you may noticed in the table, multiple questions can lead to the same answer because there might be different ways of asking the same kind of question and they all have the same result which could be the right answer for the student who is using it as a training tool.

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