My original capstone brief focused on this idea of a “virtual therapist”. I had intended to use facial tracking and input-output algorithms to create a program that would simulate the experience of visiting an actual therapist. However, I realize that my original project was a little too broad and farfetched, so I’ve narrow down my focus to a smaller scale. I intend to make something like a robo-therapist, but instead it will be catered to those with anxiety issues. The world of psychotherapy has many facets. If I choose to have my program focus on issues revolving around stress, than my user interaction would not be so complex. I also recognize that the students in our school all suffer from high levels of stress at some point, so my program could be beneficial to the community.

There is also a physical component to my project, in the form of an animatronic stuffed animal. I plan to put a speaker in the mouth of the animatron, and use text to speak functions so that my output method goes solely through the animatronic. It will essentially be as if, the animatronic is speaking to the user. The user’s input is still via computer though; the stuffed animal only serves as a visual component. So, that if the user is feeling sad, the stuffed animal may make a hugging motion, or warm itself. As for as implementing the user interaction the user only has a certain options to say. Here is an example of the interaction I am expecting.:

Program: Hi, How are you Today

If answer == “good” || “great” || etc.

* ProgramResponse(A) = “ That’s good to hear! What Did You Do Today?”
  + If answer == “sleep” ||”nothing” || “eat”

Program Response(B) = “Well Go Do Some Work, Silly”

Return back to home screen

* + Else

Program Response(C) = “Sounds Great!”

Return back to home screen

If answer == “not bad” || “okay” || “fine”

* ProgramResponse(A2): “How is school going?”
  + If answer = “Great” “Good”
    - ProgramResponse(A)
  + If answer = “Fine” ||“Horrible” || “Bad”
    - ProgramResponse(D) = “Oh no, Is it classes?
    - If answer == “yes”
      * ProgramResponse(You get the idea)
    - If answer == “no”
      * ProgramResponse(E) = “do you miss your family?”

Else

* ProgramResponse(A2)

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Essentially, I am making a program that is more specific in it’s user interaction. It will not accept open-ended answers. Rather, user will have a character limit, so that they cannot over explain. I know that the RiTa.Js library has a dictionary lexicon, as well as a faction that recognizes synonyms. So essentially, if my user inputs a word that is a synonym to one of the words I’ve set as one of my variables, then it will trigger the accommodating output function. My animatron, will only make a a series of movements, such as, “arms forward (hug), smile, frown, nod.” It will only serve as an component to the program, and will assist in my research observations.

For my research component, I would like to focus on human interaction with animatronics. More specially, Do people respond more positively to something an inamonation object or one that is technologically animated. Some of my research relies on the results of my program, but it also involves exploring into fields of artificial intelligence research and psychology. I am familiar with this phenonmenon called the “uncanny valley”, which describe the uneasy feeling that humans get when there are presented with something that is human like. I choose to present my animatronic in the form of a stuffed animal, because it is typically thought of an object of comfort, so people may feel comfortable confiding in it. However, making the stuffed animal, a machine, essentially, will add an additional element to it’s user interaction, and will change the way people interact with it, one the realize the stuffed animal had the ability to animate itself.