

Twitter Mood Box Tasks

Prototype Plan (Evolutionary):

Our prototype will be used as an evolutionary step towards our final project. Here is what we plan to do:

1. Using an Arduino Wifi Shield to successfully configure it to connect to the internet.
2. Successfully configure the Arduino to make API calls.
3. Using the Arduino to control the RGB lights, creating colours to represent mood prompts.
4. Work on parsing through Tweets and extracting a count of a specific word.

To do later: Extract word count on specific emotional words, and calculate the respective colour. Work on efficiency and optimizing later as well.

Notes:

1. We do not have our Arduino or Wifi Shield with us. Will be picked up on Monday.
2. Hence, points 1/2/3 cannot be done (unless we work on it between Monday to Wednesday night (Thursday morning) which might not be ideal with 135 assignment, etc.
3. We should work heavily on the Twitter parsing and extracting a mood from that.
4. Look into IBM Watson API to help with our information parsing
(<https://www.ibm.com/watson/developer/>)
(<https://www.ibm.com/watson/services/natural-language-understanding/>)

To-Do:

1. Parsing through tweets to get the text --- **Ahmed**
 - a. <https://developer.twitter.com/en/docs>
 - b. <https://developer.twitter.com/>
 - c. Input: none
 - d. Output: the tweets in an array (*2D array*)
2. Using that text, use IBM Watson to analyze text --- **Brett**
 - a. <https://developer.ibm.com/recipes/tutorials/connect-an-arduino-uno-device-to-the-ibm-internet-of-things-foundation/>
 - b. <https://developer.ibm.com/recipes/tutorials/using-watson-iot-for-arduino-wearables/>
 - c. <https://gyazo.com/02b74c23ebd44ed7707abac3552484f1>
 - d. Input: tweets array
 - e. Outputs: array with most used emotion words
3. Using that analyzed text (array with popular words, +times/tweets), create a mood representation with that
 - a. Input: array with emotion words
 - b. Output: singular word describing overall mood

4. Work on the interaction between the arduino and the created API's (how to do 1,2,3 on the Arduino with WiFi shield) --- **Joseph**
5. Use that mood to display colour on RGB display box