

# MSc Project 2021

Title: Estimating personality in communication  
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weekX

This indicates when it was done

X-X

This corresponds to the mindmap number

# 1. Summary of actions agreed during last meeting

1-1. I shared a short paragraph summarising my idea.

1-2. Decided on input and output data (I have to find out specific data set.)

1-3. Research Steps (1 ~ 6)

# Research Title and Abstract

Title: Estimation of personality/sentiment in communication

Abstract:

1. I obtain (1) text data (content of conversation) and (2) hand gesture (or face) from videos of people talking.
2. Using the data in (1), perform (3) sentiment extraction (e.g., Positive, Negative, Neutral).
3. Using the data from (2) and (3), evaluate and analysis the both sentiment in communication.

# What I want

- (1) My main goal:  
To improve the communication between virtual agents in some way.
  
- (2) My objective for this project:  
**This project will focus on the relationship between hand gesture/face and personality in communication.** (This is my research question)



# Research Steps

1. capture a dataset that contains people talking and the text of what they say.

2. using the conversation text, do sentiment analysis (A)

6. evaluate and analyse the results.



3. from the videos, extract people and body pose (B)

4. from the head, extract facial feature points (C)

5. Then train a model to predict (A) from (B)+(C)



# Research Steps

1. capture a dataset that contains people talking and the text of what they say.
2. using the conversation text, do sentiment analysis (A)
3. from the videos extract people and body pose (B)
4. from the head, extract facial feature points (C)
5. Then train a model to predict (A) from (B)+(C)
6. evaluate and analyse the results.

## 2. Summary of work done & results this week

2-1. Created a time plan

Time Plan		Oct				Nov				Dec	My Progress		
Step	Task	4	11	18	25	1	8	15	22	29	6	Status	Question (Yes/No)
		week1	week2	week3	week4	week5	week6	week7	week8	week9	week10		
1	capture a dataset that contains people talking and the text of what they say.	1					buffer				buffer	Running	
	1-1. Find a dataset to use	1-1										Running	Yes
2	using the conversation text, do sentiment analysis (A)	2										Running	
	2-1. Find a model to use	2-1										Running	Yes
	2-2. Using the model and its data set, perform sentiment analysis		2-2									-	
3	from the videos, extract people and body pose (B)	3										Running	
	3-1. Find a model to use	3-1										Running	
	3-2. Using the model and its data set, extract body pose		3-2									-	
4	from the head, extract facial feature points (C)	4										Running	
	4-1. Find a model to use	4-1										Running	
	4-2. Using the model and its data set, extract facial points		4-2									-	
5	Then train a model to predict (A) from (B)+(C)			5								-	
	5-1. Predict (A) from (B) + (C)			5-1								-	
6	evaluate and analyse the results.				6							-	
	6-1. Decide a evaluation metrics				6-1							-	2-1
	6-2. evaluate and analyse the results					6-2						-	
7	Write a paper							7				-	3-1



Time Plan		Oct				Nov					Dec	My Progress	
Step	Task	4	11	18	25	1	8	15	22	29	6	Status	week1 Question (Yes/No)
		week1	week2	week3	week4	week5	week6	week7	week8	week9	week10		
1	capture a dataset that contains people talking and the text of what they say.	1					buffer				buffer	Running	
	1-1. Find a dataset to use	1-1										Running	Yes
2	using the conversation text, do sentiment analysis (A)	2										Running	
	2-1. Find a model to use	2-1										Running	Yes
	2-2. Using the model and its data set, perform sentiment analysis		2-2									-	
3	from the videos, extract people and body pose (B)	3										Running	
	3-1. Find a model to use	3-1										Running	
	3-2. Using the model and its data set, extract body pose		3-2									-	
4	from the head, extract facial feature points (C)	4										Running	
	4-1. Find a model to use	4-1										Running	
	4-2. Using the model and its data set, extract facial points		4-2									-	
5	Then train a model to predict (A) from (B)+(C)			5								-	
	5-1. Predict (A) from (B) + (C)			5-1								-	
6	evaluate and analyse the results.				6							-	
	6-1. Decide a evaluation metrics				6-1							-	2-1
	6-2. evaluate and analyse the results					6-2						-	
7	Write a paper							7				-	3-1

### 3. Questions to be discussed during the meeting (1/2)

How to find dataset?

3-2

I am looking for a dataset of TV shows etc but cannot find one.

What is the appropriate data set for this study?

How can I find a data set?

If you have any advice, please let me know.

### 3. Questions to be discussed during the meeting (2/2)

I'm looking for the following model, but haven't found it.

- A. A model for sentiment analysis from conversational text
- B. A model for extracting body posture from video
- C. A model for extracting facial expressions from video

3-3

3-4

3-5

How can I find above models?

If you have any advice, please let me know.

## 4. Proposed objectives for next week

4-1. I will look for datasets and models to use in this project(from research paper and internet) (step1-1, 2-1, 3-1, 4-1)

4-2. I will perform sentiment extraction using the text of the conversation (step2. 2-2)

## 5. Articles read this week

5-1. Estimating User's Engagement from Eye-gaze Behaviors in Human-Agent Conversations (No.1)

<https://dl.acm.org/doi/10.1145/1719970.1719990>

VIBE: Video Inference for Human Body Pose and Shape Estimation [CVPR-2020]

<https://github.com/mkocabas/VIBE>

Emotion Classification in Short Messages

<https://github.com/lukasgarbas/nlp-text-emotion>

end