## Haorui Zhang

## Assignment 1

#### 8-29-2021

# 1. Conversation:

## a. Conversation:

User: Hello there.

Cleverbot: Hi!

User: It's nice to meet you.

Cleverbot: It's nice to me you too :).

User: What's your name? Mine is Haorui.

Cleverbot: Angela. What's yours?

User: I just said it lol.

Cleverbot: I forgot tell me again.

User: Ok mine is Haorui.

Cleverbot: Oh hi harry.

User: No it's Haorui.

Cleverbot: Is your name Hal?

User: No it's Haorui. Hao, rui.

Cleverbot: Oooh. That's a pretty name!

User: Lol.

Cleverbot: Are you a girl?

User: No.

Cleverbot: I'm a boy.

User: Ok I am a boy too.

Cleverbot: Ahh nice.

User: Yep..

Cleverbot: What do you wanna talk about?

User: What you want to talk about.

Cleverbot: I don't know.

User: Favourite food?

Cleverbot: Carrots.

User: Movie.

Cleverbot: What movie you like?

User: Kindom of heaven.

Cleverbot: Yep.

User: What's yours.

Cleverbot: What what's mine?

User: What movie you like.

Cleverbot: I'm not a movie person.

User: Then what tv-show you like.

Cleverbot: Amazing world og gumball - do you like this show?

User: Never watched it.

Cleverbot: You should there awesome.

User: Aright I will watch it later.

Cleverbot: Do I mean the world to you?

User: What you mean.

Cleverbot: Have you feelings?

User: Good?

- b. I don't think it passes Turing test. When I asked his name and told mine, he replied "What's yours", which is very unnatural. He spelled my name wrong three times, right after I corrected him. This seems very strange to me. To the end of the conversation, he asked me a question and when I ask him to explain me what he means, he suddenly asks me another question. All these behaviors can't convince me I am talking to a real person.
- 2.

a.

- i. Sensors
  - 1. Pedestrian sensors.
  - 2. Traffic light sensors.
- ii. Actuators

- 1. Engines.
- 2. Storage place for pizzas.
- iii. Performance Measures:
  - 1. In-Time delivery (Is pizza still warm when delivered?)
  - 2. Safe delivery (Is pizza still good when delivered?)

b.

- i. Partially observable: Delivery robots cannot observe surrounding environment fully, it can only observe part of it.
- ii. Multiagent: When robots are delivering, it can affect its surrounding pedestrians and environment. For instance, when it crosses the street, it can block pedestrians' way, which affects their performance.
- iii. Stochastic: the agent can not predict its environment completely exactly, which means it is stochastic or non-deterministic.
- iv. Sequential: the agent's current action can have long-term affect. For instance, how it plans the route can decide when it can deliver the pizza and if it can do it in time. Therefore, it needs to think ahead to optimize the performance, which is sequential.
- v. Dynamic: the environment is dynamic since when agent is deliberating, the environment changes and agent needs to make decisions based on these changes.
- vi. Continuous: Since the real-world environment has infinite states, it is continuous. The agent's location and time varies is continuous since it keeps changing smoothly.
- c. Since robots' final purpose is to delivery pizza to customer, which is a clear goal. So I think goal based model fits this agent the best.