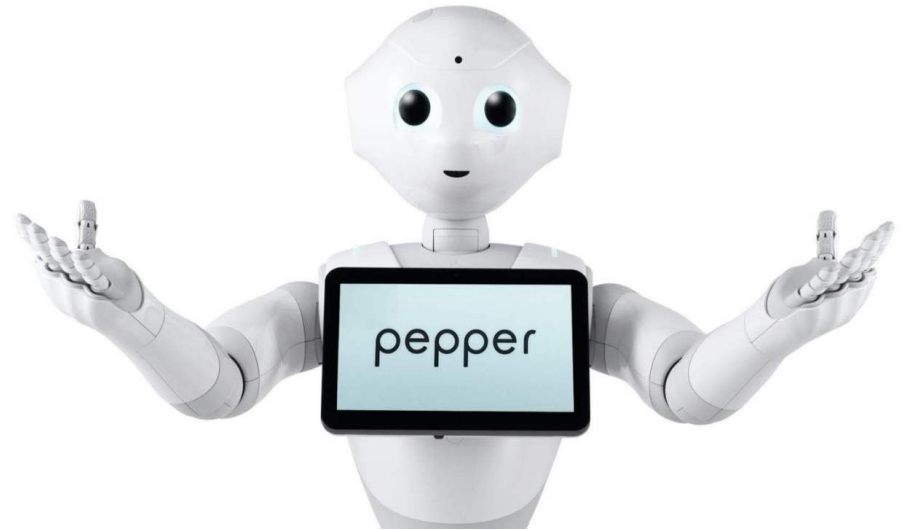


# Japanese Greetings with Pepper Robot

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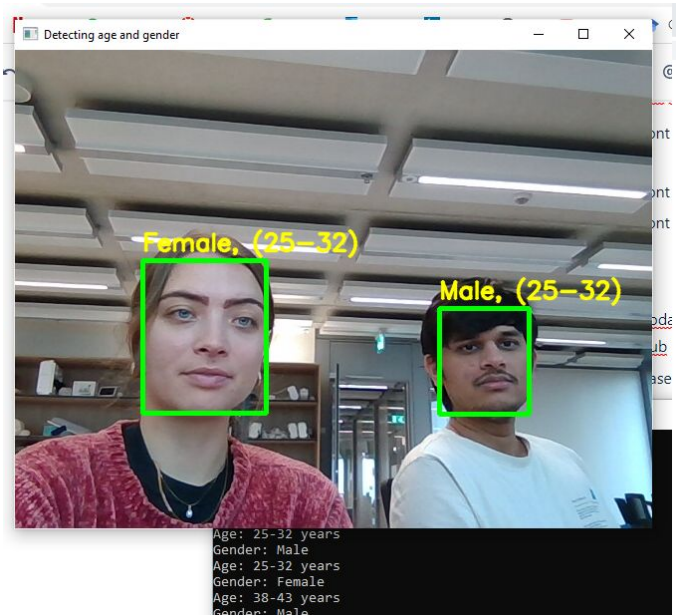


# Idea

- Japanese bows
- Three bows, hard-coded into Choreographe
- 1-to-1 mapping of age → bow
- Pepper will detect age & possibly attire and (un)known faces
- Learning part: how long should Pepper bow?
  - Pepper will start with a random duration 0-10 sec of the bow
  - Participant will give Pepper vocal feedback (shorter/longer)
  - Pepper will link the detected age (and possibly attire and known/unknown face) to how long the bow should be
  - Next time Pepper will detect someone with the same features (age/attire/(un)known face), Pepper will bow with the amount of seconds it has learned
- Priority: age > suit
- If we have time left → try to memorize faces

# What did we do in Week 2?

- Access to video feed of Pepper
- Age & gender detection working on Pepper via OpenCV → pretty accurate
- Get object detection working on Pepper via MediaPipe → not accurate at all
- Scrapped the idea of using 3D Objectron due to above issues
- Create dataset for suit recognition
- Start looking into Reinforcement Learning
- Get speech recognition working on laptop



# What to do next?

- Perform actions (bow 1-3) based on the detected age
- Get speech recognition to work on Pepper
- Train & test model to recognize suits → doesn't work very well with static images
- Understand various algorithm for RL

# Obstacles + dilemma's up to now

- Object recognition is not very accurate → is it worth it to try this out on the webcam/Pepper?
- Merging of various completed and in-progress modules to work together.
- It seems as though glasses causes errors in the age detection.
- We need to very carefully instruct participants about the correct distance to Pepper.