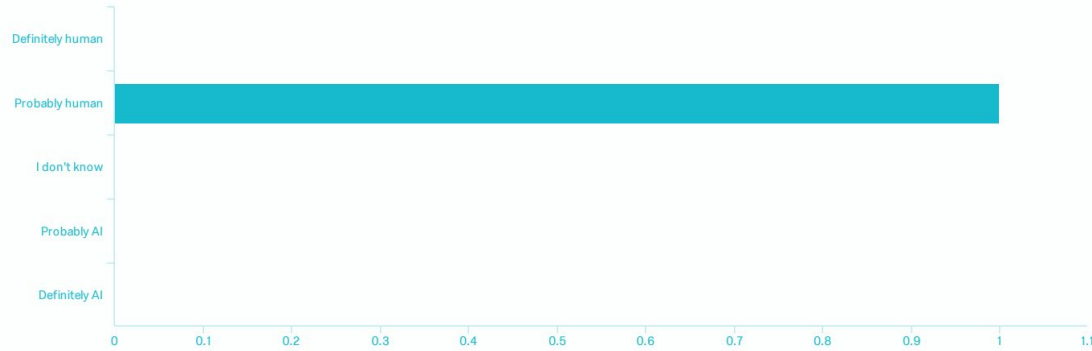




RESULTS

Q3 - Speaking with the mechanic felt like speaking with a...

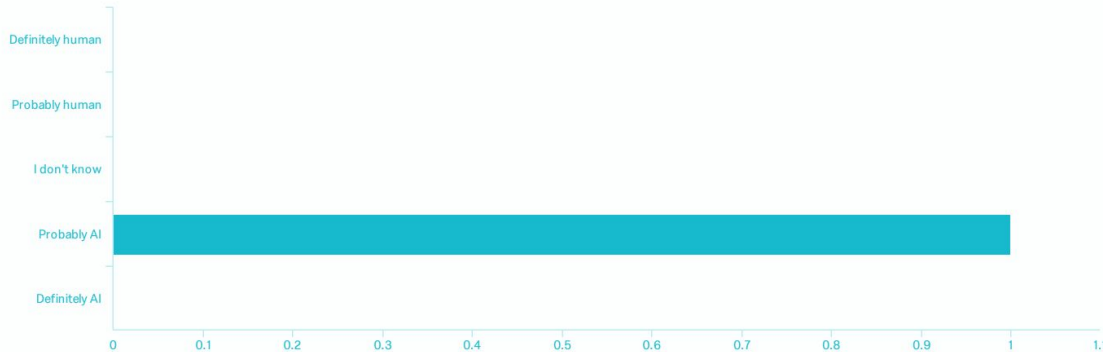


EXPERIMENTAL

MANIPULATION CHECK

(Condition = AI, user believed the mechanic was actually controlled by AI)

Q5 - I believe that my partner (the mechanic) was controlled by...





FOREIGN LANGUAGE ANXIETY SCALE

(ADAPTED FROM HORWITZ ET AL., 1986)

#	Field	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Total
1	I never felt quite sure of myself when I was speaking English with the mechanic.	0.00% 0	0.00% 0	100.00% 1	0.00% 0	0.00% 0	1
2	I didn't worry about making mistakes when speaking English with the mechanic.	100.00% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	1
3	It frightened me when I didn't understand what the mechanic was saying in English.	0.00% 0	0.00% 0	0.00% 0	100.00% 1	0.00% 0	1
4	I panicked when I had to speak English without preparation in this scenario.	0.00% 0	100.00% 1	0.00% 0	0.00% 0	0.00% 0	1
5	I worried about the consequences of failing to achieve the goals of this scenario.	0.00% 0	0.00% 0	0.00% 0	100.00% 1	0.00% 0	1
6	In this scenario, I got so nervous I forgot things I know.	0.00% 0	0.00% 0	0.00% 0	100.00% 1	0.00% 0	1
7	I felt confident when I was speaking English with the mechanic.	0.00% 0	0.00% 0	100.00% 1	0.00% 0	0.00% 0	1
8	I felt very self-conscious about speaking English in front of the mechanic.	0.00% 0	0.00% 0	0.00% 0	100.00% 1	0.00% 0	1
9	I got nervous and confused when I was speaking English with the mechanic.	0.00% 0	0.00% 0	0.00% 0	100.00% 1	0.00% 0	1
10	I got nervous when I didn't understand every word the mechanic said.	0.00% 0	100.00% 1	0.00% 0	0.00% 0	0.00% 0	1
11	I got nervous when the mechanic asked questions that I hadn't prepared in advance.	0.00% 0	0.00% 0	100.00% 1	0.00% 0	0.00% 0	1

USABILITY STUDY



Q10 - How did you feel about speaking English with the mechanic in this scenario?

A: The responses from the other person were very close to reality. It's great for learning English. It can motivate learners to achieve their potentials and reduce the fear and panic around getting their cars fixed later in real life.

But when responding to user's questions, the reaction time was relatively long. It gave me the impression that it's definitely not a human. Second, the responses were relatively monotonous, compared to human's. If there are more active interactions, such as chatting about more other information, it may make the mechanic's responses more close to human.

USABILITY STUDY



Q11 - How did you feel about making mistakes while speaking English in this scenario?

A: I feel great. First of all, **because I know it's software, so I was more relaxed during the practice** and attempted to explain myself and my intentions. Second, the scene and the character altogether feel close to real life. **It lessens the fear and panic for a future encounter of this situation in real life.** with repeated practices with the character, I can learn more about different possible responses from the mechanic, and learn to better understand others and express myself in real life.

USABILITY STUDY



A: very good. I'm interested in practicing for more scenarios.

Q12 - How did you feel about speaking English in a VR environment in this scenario?

INSIGHTS AND RESULTS

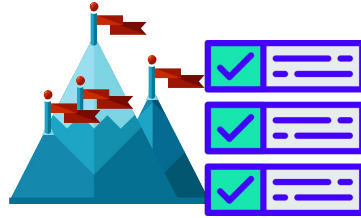
USABILITY STUDY



1. Our “AI” appears to be substantially better than current solutions on the market, especially at recognizing and understanding participants’ speech. We may want to add some artificial “misunderstandings” to maintain the illusion of a functional AI.
2. One user spent about 10 minutes preparing before the VR scenario, writing down things she wanted to say; the other user did not prepare at all. This is likely an individual difference—most previous participants spent time preparing.



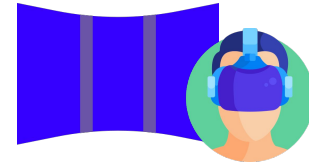
NEXT EXPERIMENT [RE]DESIGN FOCUS



Ability for user to mark goals as completed



Language support tools within the scenario



Splash screen before starting the scenario

REMAINING QUESTIONS, CONCERNS, WORRIES

- Recruiting participants (small sample size makes it difficult to generalize)
- Hawthorne effect (presence of experimenters may affect participants' actions, feelings, etc.)
- User's language proficiency may affect results

