Communication Training in VR

A Training application for the Dutch Railways

The NS (the largest passenger rail transport company in the Netherlands):
- Is highly interested in the use of a VR communication training for their personnel
- Is willing to cooperate in scientific research.
- Education and training of NS personnel is of great importance. This is often done by making use of role play.

The application:
- Employees are instructed to help a disabled passenger to get on the train.
- Practicing visual task like situating the gangway, and social tasks related to communication with passengers.
- Several use cases, quiet scenario and more complex scenario including stress factors.
- Feedback in the game: due to ignoring the passenger, she will get more nervous
- Feedback of performance at the end of each round included tips for improving

Conclusions:
- Participants generally very positive and about system.
- Participants were enthusiastic about ability to engage with virtual agents in ‘open’ conversation using free speech.
- This type of training offers promising possibilities for training of staff, in particular for new employees.
- Roleplay is often experienced as not safe, as participants encounter feeling of being assessed instead of a safe environment to practice.

AI Techniques:
To process the user’s input and generate appropriate output, the system makes use of a number of AI techniques, including:
- speech recognition,
- multi-modal social signal analysis
- dialog modelling

The players state afterwards:
- It was just real,
- I was there and it was lifelike
- Good instrument, better than roleplay
- Nice to get feedback at the end
- It is instructive, you’ll get feedback that matters
- I was able to talk about everything