

## Robot does standup for London audience (w/ Video)

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Credit: robothespian

(Phys.org) —Robots as military gear haulers? Got it. Assembly line handlers? Got it. Waiters for the elderly? Check. Stand-up comics? Huh? A new role for robots may be trending, with the recent performance at the Barbican Center in London of RoboThespian. This machine actually got some laughs. The robot's looks are not at all clownish. Though described as a humanoid robot, the machine comic



looks quite mechanical, with its square eyes at least passing the uncanny valley hurdle. Nonetheless, the robot told jokes that were well received. The performance was the idea of Pat Healey, professor of human interaction and head of the school's Cognitive Science Group, and Kleomenis Katevas, doctoral candidate, both at Queen Mary University of London. They planned the performance of RoboThespian, which is a robot designed by Engineered Arts of Cornwall in the UK.

This life-sized robot is purposed for <u>human interaction</u> as an interactive, customizable robot that can be programmed to communicate or entertain. The robot is made available for purchase, lease or rental. Features include speech synthesis in more than 20 languages, person tracking, a browser-based <u>programming interface</u>, all electric design and optional RFID tags to identify users by name.

Healey and Katevas put the robot on stage in London for a scientific reason, as an experiment in audience interaction with a robot engaged in comedy. The two researchers aim to find out more about making a robot socially engaging.

As audience members watched the robot tell jokes, cameras tracked <u>facial expressions</u>, gaze and head movements. The human reactions to the robot's performance were compared to responses to two human comedians that had performed before the robot went on stage. The human competitors were Andrew O'Neill and Tiernan Douieb.

As a standup comedian performing "live," however, RoboThespian had a built in limitation, and that was it had no way of making up a reply on the fly. Doing so would be useful when a comedian has a so-so night and hecklers deliver their own one-liners, like Who Let You Out, or worse.

The robot's jokes were written by Tiernan Douieb, who also performed before his mechanical colleague; the robot told preprogrammed jokes.



On the other hand, the researchers used computer vision and audio processing software to detect the response of all audience members, which is an edge. Katevas, who programmed the robot for the standup performance, said the robot could leverage this information to decide who to look at and which gestures to use.

"I once dated a MacBook," RoboThespian told the audience. "It didn't work because she was all 'i, i, i'."

The RoboThespian's standup routine would not be the first attempt by researchers to explore how robot and human interactions, through humor, might pan out. Heather Knight, a social robotics researcher at Carnegie Mellon, introduced Data several years ago as a two feet tall comedian at a 2010 Ted Talk and Data has been an interesting <u>robot</u> ever since. Data drew both laughter and applause at the talk:

"Right, so, doctor says to his patient, I have bad news and worse news. The bad news is that you only have 24 hours to live."

"That's terrible," said the patient. "How can the news possibly be worse?"

"I've been trying to contact you since yesterday."

Like the University researchers putting RoboThespian on stage as an interaction experiment, Knight has seen Data more as a marker to assess a time where companion robots and humans can comfortably and happily function together.

TED: Heather Knight: Silicon-based comedy

**More information:** <a href="www.eecs.qmul.ac.uk/people/view/3007">www.robothespian.co.uk/</a>



www.qmul.ac.uk/media/news/items/se/111813.html www.ted.com/talks/heather knig ... on based comedy.html

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