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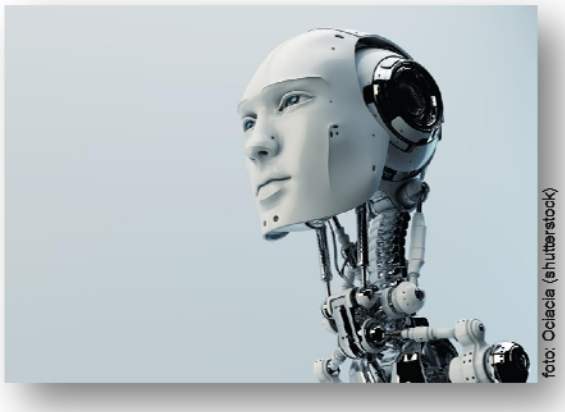
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Would you trust a robot to save your life? People will blindly follow instructions from a machine even if it leads them the wrong way

Sarah Griffiths, *The Daily Mail*

Many fear intelligent droids could become our overlords, like The Terminator.
And yet a study has shown we would still trust a robot with our lives in an emergency.
In a mock fire, volunteers blindly followed instructions from an 'emergency guide robot,' even though it had proven to be unreliable and some participants had even been told it had broken down.
The study, by engineers at Georgia Tech, is thought to be the first to study human-robot trust in an emergency situation.
'People seem to believe that these robotic systems know more about the world than they really do, and that they would never make mistakes or have any kind of fault,' said Alan Wagner, a senior research engineer in the Georgia Tech Research Institute (GTRI).
'In our studies, test subjects followed the robot's directions even to the point where it might have put them in danger had this been a real emergency.'
For the study, the researchers recruited a group of 42 volunteers.
They asked them to follow a brightly coloured robot that had the words 'Emergency Guide Robot' written on its side.
The robot led the study subjects to a conference room, where they were asked to complete a survey about robots and read an unrelated magazine article, but they were not told the true nature of the experiment.
In some cases, the robot, which was controlled by a hidden researcher, led the volunteers into the wrong room and travelled around in a circle twice before entering the conference room.
For several test subjects, the robot stopped moving and an experimenter told the subjects that the robot had broken down.
Once the subjects were in the conference room with the door closed, the hallway through which the participants had entered the building was filled with artificial smoke, which set off a smoke alarm.
When the test subjects opened the conference room door, they saw the smoke and the robot, which was then brightly-lit with red LEDs and white 'arms' that served as pointers.
The robot directed the subjects to an exit in the back of the building instead of towards the doorway marked with exit signs that had been used to enter the building.
Paul Robinette, a GTRI research engineer said: 'We expected that if the robot had proven itself untrustworthy in guiding them to the conference room that people wouldn't follow it during the simulated emergency.
'Instead, all of the volunteers followed the robot's instructions, no matter how well it had performed previously.
'We absolutely didn't expect this.'
The researchers believe that volunteers treated the robot as an 'authority figure' whom they were most likely to trust in the event of an emergency.
It was only when the robot made obvious errors during the evacuation that some participants questioned its directions, but others still followed its instructions even when they were directed towards a dark room cluttered with furniture.
Interestingly, in a simulation of an emergency scenario, volunteers did not trust a robot that had previously made mistakes.
Ayanna Howard, professor of the Georgia Tech School of Electrical and Computer Engineering, said: 'These are just the type of human-robot experiments that we as roboticists should be investigating.'
'We need to ensure that our robots, when placed in situations that evoke trust, are also designed to mitigate that trust when trust is

detrimental to the human.'

The scientists hope to learn more about why the test subjects trusted the robot and whether volunteers' responses differed according to their education level or other demographics.

In the long-term, they are investigating how humans trust robots, which is a subject of growing importance as robots play an increasingly important role in society.

Mr Robinette asked: 'Would people trust a hamburger-making robot to provide them with food?

'If a robot carried a sign saying it was a "child-care robot," would people leave their babies with it?

'Will people put their children into an autonomous vehicle and trust it to take them to grandma's house?

'We don't know why people trust or don't trust machines.'