



AI, AUTOMATION AND THE ROLE OF HUMANS

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WHAT IS AI?

From the FLY AI report:

- Software systems developed by humans
- Mimic human intelligence
- Particularly good at analysing large datasets
- It can reduce human workload or increase human capabilities

AI is the most advanced form of automation

THE TWO PARADOXES OF AUTOMATION

Automation is supposed to eliminate the human error, BUT

- Automation is designed and trained by humans
- In non-nominal situations the system relies on human backup

AUTOMATION DOESN'T MAKE MISTAKES (?)

NATIONAL

Robot Punctures Can Of Bear Repellent At Amazon Warehouse, Sickening Workers

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TECH / AMAZON



Internal documents show automated Amazon warehouses have higher injury rates

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PM

THIS WASN'T EVEN AMAZON'S FIRST BEAR REPELLENT ACCIDENT

HOME / CULTURE
**YouTube AI Mis
'Black' And 'W'**

20 February 2021, 6:11 am EST By Joen Coronel Tech



It... detected... punishment. In... the video-streaming...

**YouTube AI Could h
Perceived The Chess Chat**



AI camera mistakes lines
head for ball and follows
match

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AI camera mistakes linesman's bald head for ball and follows it through match

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YouTube AI Misinterprets Chess Chat Involving 'Black' And 'White' Pieces, Flags for Racism

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It might be unbelievable at first that a YouTube algorithm has detected a chess discussion as 'racist' and flagged it for punishment. In the case of the chess YouTuber, he was blocked by the video-streaming company for the alleged, sensitive issue.

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Another Arrest, and Jail Time, Due to a Bad Facial Recognition Match

A New Jersey man was accused of shoplifting and trying to hit an officer with a car. He is the third known Black man to be wrongfully arrested based on face recognition.

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December 6, 2018 · 4:59 PM ET



LAUREL WAMSLEY

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Another Arrest, and Jail Time for Facial Recognition

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LOUISE MATSAKIS BUSINESS 12.06.18 07:36 PM

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AUTOMATION IS NEVER RESPONSIBLE (!)

Tesla driver dies in first fatal crash while using autopilot mode

The autopilot sensors on the Model S failed to distinguish a white tractor-trailer crossing the highway against a bright sky

Political science Science

Tesla crash report blames human error - this is a missed opportunity

Jack Stilgoe



By Matt McFarland, CNN Business

Updated 1509 GMT (2309 HKT) September 18, 2020

Uber self-driving car operator charged in pedestrian death

Self-driving Uber kills Arizona woman in first fatal crash involving pedestrian

Tempe police said car was in autonomous mode at the time of the crash and that the vehicle hit a woman who later died at a hospital

DE-SKILLING THE HUMAN BACKUP

- AFR447 (June 2009)

Current training practices do not fill the gap left by the non-existence of manual flying at high altitude, or the lack of experience on conventional aeroplanes. Furthermore, they limit the pilots' abilities to acquire or maintain basic airmanship skills.

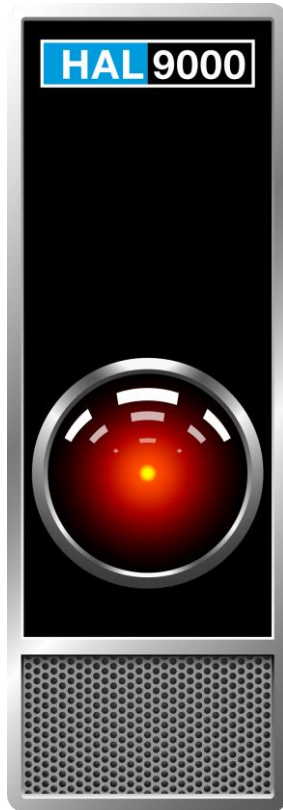
- AAR214 (July 2013)

More manual flight for Asiana pilots. Asiana's automation policy emphasized the full use of all automation and did not encourage manual flight during line operations. If the PF had been provided with more opportunity to manually fly the 777 during training, he would most likely have better used pitch trim, recognized that the airspeed was decaying, and taken the appropriate corrective action of adding power. Federal Aviation Administration (FAA) guidance and a recent US regulatory change support the need for pilots to regularly perform manual flight so that their airplane handling skills do not degrade.

HIERARCHICAL MODEL VS TEAM MODEL

Machine control

Human in the back



Joint Human Machine Cognitive System

Human-Machine Partnership





THANKS FOR YOUR ATTENTION!