

Robots will make foreign workers “a thing of the past”; Cornell professor predicts technology will soon replace workers in agriculture

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With the prototypes already in place and performing perfectly, robots will be replacing workers in agriculture and other industries, a lot sooner than we think.

So says Louis Hyman, Professor of Workplace Studies at Cornell University, speaking here at the AgTech Nexus Conference.

The emotional debate in America and elsewhere about immigrant labour, whether it be in agriculture or other sectors, will be displaced by, "technology, which will make migrant labour a thing of the past," predicted Hyman.

In recent years, researchers have moved away from making an overall, smart robot to focusing on developing one that will perform "narrow artificial intelligence," he said.

The process now involves helping the machine, with a particular trait, train itself, rather than just specifically designing the robot, as they were attempting to do, said Hyman.

He used the example of the University of California Davis development of a robot "just to fold towels." That task takes a lot of time for humans, requiring them to get the edges and then fold it a couple of times into the exact way required, he said.

When Hyman put on the special goggles to look through the eyes of the robot and put his arms through its arms, he was able to instantly fold the towel, although he's hardly ever done it and was always clumsy at it. "That changed everything for me," he said.

"It's not an adult folding towels, it's an example of machines learning," said Hyman.

The Tesla car, which went on the market in 2016, beat out the decade-old Google car, which never got road-worthy because "Tesla equipped all of its cars with sensors and saw how people drive," he said. "It's the business of machine learning, getting someone else to get your data."

Robots with "soft hands" have been developed and can be fully trained to pick apples, or gently handle old people and babies, said Hyman.

These robots themselves will be easily and cheaply manufactured and "easily replaced, whether picking onions, cleaning your apartment or folding towels," said Hyman.

"They will work 24/7; no unions or any personal problems," he said. "Plus you can operate them from anywhere in the world."

"This is inevitable, so what are we going to do with all these people?" asked Hyman? "All our political debate over immigrants will cease."

While countries like China will cheaply churn out these "digital migrants" (robots) to do a multitude of jobs that lower paid workers now do in agriculture, and the service sector, "whoever controls the training data will always control the artificial intelligence," said Hyman.

"Who controls the data is the 21st century monopoly in agriculture," he said.

"This compares with 19th century agriculture economics," (the drastic changes in agriculture).

"Will it make us richer, or a global ruling class?" asked Hyman. From the 1870s to the 1930s there were tremendous upheavals in agriculture, with protests and conflicts, as those changes occurred, he noted.

"I hope we find a way to avoid that conflict, but we better find the answer soon," said Hyman.

The question is what to do in the short and medium term with the people that are displaced, said Hyman.

"There are choices to be made, because they still will be humans," he said.

How fast this technology unveils "will turn on governance," predicted Hyman. "Who owns the data, who gets to own the results?" he asked.

"This is going to be a political debate," such as when the farmers fought over who owned the railroads decades ago, he said.

"This is a huge crisis about to occur, not only for agriculture labour, but for all labour in the world," said Hyman.