

ROBOTS' PROMISES OF SAFETY AND PRODUCTIVITY ABOUND, BUT ISSUES LIKE IMPACT ON JOBS, ADDED COSTS, AND SPECIALIZED TRAINING HAVE KEPT MANY CONTRACTORS ON THE SIDELINES.

When it comes to construction technology, contractors adopt far slower than the rapid advances made.

Most of the robots working on jobsites today, include task-checking aids like drones, autonomous excavators, or exoskeletons that remove strain on humans lifting heavy objects or materials, Feng said.

But fully autonomous robots — what Feng jokingly calls “the Terminator stage” — are not close to becoming reality.

“There are a lot of things we (f t) include



drywall bot. Anderson said both solved industry-wide problems.

productivity to address a lot of the labor shortage issues, improve quality, all of that. And robotics is emerging as a way to achieve that," Anderson said.

Out Of A Job?

wait to see if they will replace human workers on jobsites, something that some labor activists say can lead to lower wages and fewer jobs.

A 2020 study from MIT and Boston University professors found that for every robot introduced per 1,000 workers in the U.S., wages decline by 0.42% and the employment-to-population ratio drops by 0.2%. The research claims that this has led to the loss of 400,000 jobs to date.

But, at least one union leader has prepared for robotic partners on jobsites.

"We embrace evolutions in the construction industry, we don't

just ready for it, we want to be hopefully part of it," said Jay

Bradshaw represents 38,000 tradespeople across 22 unions in Northern California.

"Since time immemorial, there's historical examples you could

technology in any industry," Bradshaw said. "And it never works out well for those organizations."

Bradshaw said that robotics training occurs in the union's Northern California Carpenters training programs, at places such as the Carpenters International Training Center in Las Vegas. The training continues with their apprentice and journey-level tradespeople, but Bradshaw acknowledged that it hasn't taken off quite yet.

However, some academics are dubious about whether the future of employment and robotics can even be predicted.

"I think the [labor] situation is complex, no one can say for sure," said Juan De la Fuente, a visiting assistant professor at Chester, Pennsylvania-based Widener University.

He pointed to countries such as Germany and Japan, whose economies feature robots and people working alongside each other on the job. The countries rank No. 3 and No. 4, respectively, on the list of the world's most automated countries, according to the International Federation of Robotics. The U.S. is No. 9 on the list.

Where Are We Now?

The age of robotic advancement draws closer, experts agree, but timelines for when contractors can expect to see mass adoption vary. Most experts believe robots will become commonplace sooner rather than later. Others, however, make more conservative estimates.

"I think [5-10 years] is very optimistic," said De la Fuente. "It's just not about creating the technology. It's about making everyone else feel okay with the technology being in the workplace."

De la Fuente said he expected the industry's current, slow movement on robotics would pick up soon, and predicted widespread adoption within the next 20 years.

For Bradshaw and his workers, being there and being a part of the robot-assisted future is the ultimate goal. He brought up the invention of the automobile, and how even if buggy makers got angry and wrote to Congress, that wouldn't change

