Upskilling on the up

Automation not taking jobs from humans, study suggests

By BRANDON ANDEREGG *Jan. 29, 2019*

Waukesha County Technical College student Doug Roblee (front) is using a teach pendant to program the Fanuc Robot in WCTC's Automation Systems Technology program.

Submitted photo

WAUKESHA — The decade-long debate of whether automation is replacing humans in the job market has culminated in a study suggesting that robots may not in fact be taking over.

According to Manpower Group's report "Humans Wanted: Robots Need You," 87 percent of employers plan to increase or maintain their headcount as a result of automation for the third consecutive year — the study sampled 19,000 employers in 44 countries on the impact of automation on job growth in the next two years.

The same study suggests that even as global talent shortages approach a 12year high, new skills are appearing as fast as others disappear. In fact, more companies are planning to build their workforce talent with 84 percent planning to upskill employees by 2020 — an exponential increase from 21 percent in 2011.

Rhetoric in the manufacturing industry that suggests robots are eliminating jobs has distracted manufacturers from the real issue in the automation and manufacturing industry, said Jonas Prising, Manpower Group chairman & CEO.

"More and more robots are being added to the workforce, but humans are too," Prising said. "Tech is here to stay and it's our responsibility as leaders to become chief learning officers and work out how we integrate humans with machines."

When a robot takes over more repetitive and mundane tasks, employees rise to more challenging roles in robot operation and programming. Shown is Brad Lund, robot programming manager at Acieta.

Submitted photo

Robots equal more humans

In reality, robots are helping shift the type of work employees engage in on the job, said Steve Alexander, vice president of operations at Acieta, a local robotics integrator. For example, a single operator tends to one robot in charge of multiple tasks, which may have previously required an operator for each task.

"This frees up the operator to do highly skilled tasks like quality checks or setting up a part program," Alexander said.

He added that as companies purchase more robotics and upskill their employees, they also become more competitive, which allows companies to grow.

"The more that company grows, the more employees will be hired," Alexander said.

This pattern of adding robots and then adding more employees as production increases is a trend that can be found at several local manufacturing companies, including Waukesha- based Metal-Era, Inc.

Tony Mallinger, Metal-Era president and CEO, said his company implemented automation into the production process in 2008. In the last decade, the company has added four robots to their arsenal and as a result, shifted laborers to a different segment of the production process, he said.

"We went into this with the idea that we were never going to lose, cut a job or downsize," Mallinger said. "Our employees in the production side have only grown over the last 10 years."

Over the years, Waukesha County has become a hub for the automation industry as more companies make the transition.

"We have a very strong manufacturing economy in Waukesha County," said Suzanne Kelley, Waukesha County Business Alliance president and CEO. "There's a growing number of companies that are adopting automation and we're fortunate to have a number of companies in Waukesha County that are leaders in this area."

Regional Service Manager Todd Fickau works on a robot at Acieta.
Submitted photo

Automation education

The robot may be the center of the solution, but everything around that robot, including conveyors, sensors, grippers, safety circuit and programs, are all components that require the work of humans.

“An integrator takes on all of these tasks, which require a team of salespeople, mechanical engineers, electrical engineers, assemblers and programmers,” Alexander said.

As the manufacturing industry shifts, a wide-open job market has led to schools and universities shifting educational programs to meet the demands of industry employers. At Waukesha County Technical College, students are learning to program computers and to build and operate programs necessary to run automation, said Michael Shiels, WCTC dean of applied technologies.

“Even though things are being automated and robots are key to the future, there still needs to be technicians in the welding and machining industry to program and operate that high-tech equipment,” Shiels said.

Automation specifically in the manufacturing industry has grown so much in recent years that students are enrolling in automation programs at WCTC as early as high school, Shiels added.

“We want to get high school students engaged in these opportunities as soon as we can to give a jump start on the great career opportunities that are ahead of them in the automation field," Shiels said.

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