The Bridge Between Safety, Privacy, and Jobsite Efficiency

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Internet of Things technology, often referred to as IoT, has gained a lot of popularity over the last few years. And while IoT has been around for quite some time, its use in the construction industry is just starting to take shape.

Volpatt Construction, of western Pennsylvania, is constantly exploring how IoT can make jobsites safer and more efficient. Safety is a number one priority, and the team is always exploring new ways to drive home OSHA compliance while ensuring the safest workplace possible. As an industry, however, there is still a lot of work to do when it comes to using technology and data to prevent work-related injuries.

OSHA reports that 1 in 10 construction workers are injured every year, and there are roughly 150,000 construction-site injuries each year, according to the Bureau of Labor Statistics. While falls account for most of these accidents, contact with equipment is also a significant cause of injury for workers.

The Volpatt Construction team has recently partnered with two innovative companies — UrsaLeo and Connect Up Technologies — to help with safety and efficiency practices both on and off the jobsite.

UrsaLeo aids in the creation of photorealistic 3D models of projects that can be accessed from any desktop or handheld device. Meanwhile, certified wearables from Connect Up Technologies are integrated with on-site IoT sensors in order to collect data that monitors noise levels, air quality, geofence, locally defined hazardous areas, and slip, trip, and fall risks.

The platform allows for remote communication with site supervisors and automatically alerts them to potential safety hazards.

The Connect Up platform also provides the ability to forensically analyze jobsite incidents for reporting, training, and preventative safety purposes. This technology can be deployed on its own if 3D models are not needed on a jobsite.

We do our best to educate team members about the purpose of data collection and how it is being used. And while the use of this technology is well received by many, there are those who are concerned about privacy. In order to quell such fears and find the most innovative safety solutions on the market, the team has learned quite a bit. Here are a few keen insights to keep in mind as you consider harnessing technology to help improve workforce safety and efficiency.

CREATE A CULTURE OF DATA PRIVACY

Whether it's the microphone on an Alexa, search histories in Google, or the number of steps a smartwatch keeps track of every day, the devices people carry are constantly collecting data. While there are bad actors out there leveraging this information to their own advantage, specific data points can be used to keep workers safe and more efficient. When venturing into the world of IoT and wearable devices, companies should work with technology partners and HR teams to develop a data privacy policy that focuses on protecting their workforce. This policy should be shared with the entire team. Giving the team visibility into how data is being collected and why it's being used will promote a culture of data privacy across the entire organization.

These policies should also be shared outside of the organization. Engage local trade organizations and subcontractors to help support technology and data-driven safety efforts. Meet with your local unions to educate them on the importance of these measures and the benefits to their members. And publicly share the success of your programs. The more people know the easier it will be to enact change.

DEPLOY CUSTOMIZABLE APPLICATIONS

The available features across the many technologies like the ones we use are robust and give companies the power to collect, analyze, and act on data. Not every data point capable of capturing is necessary, so an organization should focus on finding solutions that can be customized to meet their needs and that allow them to anonymize data.

SET GOALS AND REWARD TEAM MEMBERS FOR PARTICIPATION

Prior to the start of any job, safety and efficiency goals are set and shared with the entire team. The data collected helps in monitoring success and adjusting activities when necessary. This data is also used to reward team members when specific goals are met and maintained. Showing appreciation in the form of something tangible is always a great way to drive support for new initiatives.

PRACTICE PATIENCE AND REMEMBER THAT CHANGE TAKES TIME

When Volpatt Construction began exploring technology to create a culture rooted in safety and efficiency, it was assumed that everyone would quickly jump on board. And while many were open to the change, others were rightfully concerned about their privacy and were not immediately prepared to participate. In response, company leaders practiced patience and continually shared their successes. Participating team members were also asked to share their thoughts and positive experiences with their co-workers. As people see the long-term benefits and notice their peers embracing the technology, change will start to happen.

Sadly, the construction industry leads in workplace injuries and has been slow to adopt technology that can help mitigate that risk. The industry has the tools right at its fingertips, however, to help reverse this trend and create a culture of safety and efficiency on every jobsite.

About the Author

Raymond Volpatt is President of Volpatt Construction, a family-operated company that was established in 1991. As Western Pennsylvania's leading general contracting firm, Volpatt plays an integral role in building the region into a top global desitnation for healthcare, research, and education.

About the Article

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