Build a Safer Jobsite with AI and Cameras

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Jobsites can be nearly seven times safer with health and safety best practices, according to a recent construction safety report from ABC (Associated Builders and Contractors). Welcome to Construction Safety Week—a week to pause and consider health and safety on the jobsite and the best practices and technologies that can enable a safer future for all.

On a recent episode of The Peggy Smedley Show, I talk about the ways we can create a safer jobsite, and at the top of the list is leveraging technology. AI (artificial intelligence), more specifically, opens the door to new opportunities.

Let's consider the example of jobsite monitoring technology from EarthCam. When Brian Cury, CEO and founder, EarthCam, started the company in 1996, it was all about making beautiful photos for timelapse videos. It has certainly evolved over the last few decades, proving to be an even greater jobsite tool.

Since that time, the company has worked with leaders in the construction industry to make better technology that produces better content. Cury says the information is leveraged to analyze every pixel in that data to deliver very valuable insights for safety.

"We have this birds-eye view that even folks on the jobsite won't necessarily have to be able to look at what is over there behind the jobsite trailer. Our cameras have these unique point of views," Cury says. "One of these things we patented, that is very unique about EarthCam, is we developed a technology for our pan tilt zoom cameras to zoom in and take hundreds and thousands of different individual photos in the close-up mode."

Roughly 20-30% of jobsites are using cameras now, and of those using cameras, 75% of project managers have reported an increase in safety and productivity around the use of camera technology. Camera technology can remind workers of safety procedures and alert managers, auditing the jobsite throughout the day. Control Center 9 boosts efficiency with new enhancements including schedule integration, jobsite health analytics, and more.

All about the AI

In the past 10 years, in particular, EarthCam has been developing a future with AI, which is helping solve a lot of the challenges the construction industry faces, such as safety.

"What we have been focused on in the last 10 years is building a really robust AI engine around our extremely high-quality images that we create," Cury says.

EarthCam's AI-powered solution provides comprehensive analytics across three key metrics: jobsite stress, readiness, and activity. These insights enable construction teams to make data-driven decisions that enhance safety, efficiency, and productivity.

Stress Analytics: EarthCam's AI detects safety risks such as improper PPE (personal protective equipment) use, hazardous weather, equipment proximity, and air quality. With realtime alerts, project managers can prioritize worker health and safety, improving jobsite resilience and ensuring compliance with regulations.

Activity Monitoring: AI maps and tracking tools monitor workforce activity and highlight inefficiencies. By identifying bottlenecks, teams can streamline operations and boost productivity.

Readiness Metrics: Users can also assess jobsite preparedness by tracking weather conditions, scheduling, and material availability, leading to better resource allocation and reduced delays.

"The camera is the easy part," Cury says. "It is not the cameras. It is the service. It is the software. It is the ability to take this camera and turn it into an AI-powered source of information."

Now that is truly the future of construction.