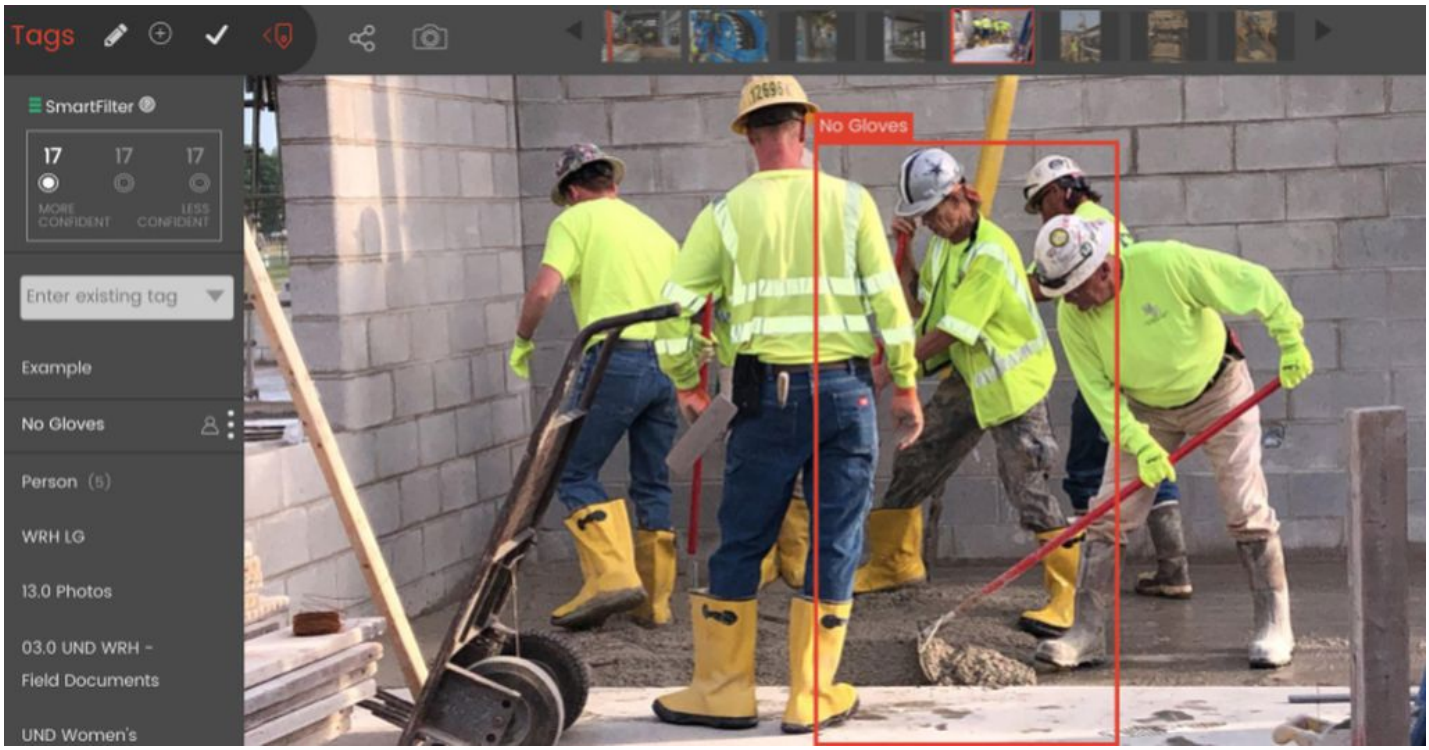
INNOVATION ECONOMY

# Their goal: making you feel safe again

## Tech companies are finding business opportunities in coronavirus monitoring

**By Scott Kirsner** Globe Correspondent, Updated June 2, 2020, 4:20 p.m.




Smartvid.io's artificial intelligence system can detect when construction workers are not wearing gloves or other protective gear. SMARTVID.IO

What will it take to feel safe from the coronavirus at a bustling workplace like a construction site? Or in a music venue or theme park?

Boston-area companies are rolling out new products this month aimed at monitoring things such as mask wearing and elevated body temperature as a way to supply that feeling of security. But at the moment, the goal is increasing your confidence that you're not mingling with a mob of unmasked, undiagnosed COVID-19 sufferers, as opposed to offering assurance that you're at zero risk of catching the disease.

In ordinary times, Cambridge-based Smartvid.io sells software to construction companies that's designed to enhance safety on building projects. The software uses video and photos from onsite cameras, coupled with automated image analysis, to spot potential risks like standing water, workers without hard hats, or trenches that lack proper safety barriers. But now that construction sites in most states must ensure that workers also are wearing masks and maintaining at least six feet of distance, when possible, Smartvid.io has updated its software to spot those issues, as well.

Josh Kanner, the chief executive, says the goal isn't to call out individuals who aren't following the rules. "We haven't built facial-recognition capabilities," he says, "and we never will."

But he hopes the software can help construction companies gather baseline data about the percentage of workers on a site that are wearing masks or complying with social distancing recommendations — in part so they can incrementally dial back up the number of people on the site.

"Some construction companies are cutting their work in half — they have blue days and white days, for instance, where half the people are allowed on the site," Kanner says. "The more data they have, the more fine-tuned they can get," increasing the number of workers as local regulators allow.

Smartvid.io's software tries to detect whether someone is wearing a mask, but Kanner acknowledges it can be challenging to see if the mask is completely on, or covering just the mouth. It can also detect people standing in clusters, Kanner says, though he acknowledges "there are some work activities where it's really hard to be socially distant."

Since some of the new features were just released this month, Kanner says he doesn't yet have data on average mask wearing rates on construction sites, or how good the software is at differentiating a bearded worker from a masked one. But he hopes the data will help improve the rates of mask usage and social distancing.

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One of the company's customers is Shawmut Design and Construction. Since construction in Boston was allowed to resume on May 18, Shawmut has been using the social distancing data that Smartvid.io generates and is planning to start using the mask-wearing data soon, says Shaun Carvalho, vice president of safety.

That data, Carvalho says, "is not going to give you an alarm to say, 'So-and-so in the corner is not wearing their face covering or hard hat.' But what it will do is, after a day, a week, or a month, give you a report based on location, so you can see at a high level how you're performing with compliance to your rules. We want face coverings on everybody, because we believe it considerably reduces the spread of this virus."

Shawmut has also created some of its own software, Shawmut Vitals, for workers' smartphones. It asks a series of questions about the worker's health status before he or she enters a job site.

While Smartvid.io has focused most of its marketing energy on the construction industry, and the message of making job sites safer, Kanner is thinking there may be other locations that can use the software, like warehouses and factories, which suddenly also care about mask wearing and maintaining a buffer zone between workers.

Evolv Technologies sells an advanced gateway system that can identify people with guns, bombs, or knives trying to enter a venue like a school or stadium.

The coronavirus "has now weaponized people," says Peter George, chief executive of the Waltham company. "Body temperature is the new top-of-mind threat."

George says Evolv has been inundated with inquiries — especially from the theme park industry, which is eager to reopen parks. One new customer is Six Flags Entertainment Corp. Part of what the Evolv technology enables is a screening process that doesn't require security officers to handle purses or bags, since the technology can differentiate between a cellphone, keys, or a gun as visitors walk through a gateway.

This month, Evolv is beginning to offer temperature sensing as an add-on to its system, using an infrared camera made by Seek Thermal of California. “We tested the top three camera systems for accuracy — especially while people are moving, and while they may have glasses on,” George says. (He notes that Six Flags isn’t yet using the temperature scanning feature, which doesn’t work outdoors.)

Evolv says that without scanning for fevers, its gateway can screen 60 people per minute as they walk through, flagging those who may require additional screening. But the need for more spacing between people streaming into a facility, and the temperature scan, slows things down a bit — to about 40 people a minute, George says.

Interestingly, despite the strong demand for new types of screening products — George says that Evolv has been setting revenue records this quarter — both Evolv and Smartvid.io have cut jobs in recent months. Evolv eliminated about 12 percent of its workforce, and Smartvid.io laid off less than 10 percent.

What drove that? Kanner says it was about “overall economic uncertainty,” along with a desire to provide two months of free access to the company’s software to help construction companies reduce the risk of spreading COVID-19. George says that as many of Evolv’s existing customers shut down — and it was hard to tell when they’d reopen — “we needed to right-size the company for that reality.” The company’s remaining employees agreed to accept a pay cut.

The Sept. 11, 2001, terrorist attacks changed the way we’re screened before we board airplanes. The coronavirus seems likely to change how we enter workplaces and venues like stadiums and theme parks.

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