

Tech to protect children from school shooting? Medical school dropout's Manayunk startup is on it.

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Matias Klein is a medical school dropout who is still out to save lives. Orlando "Jahlil Beats" Tucker is a hip-hop producer and songwriter trying to help breathe new life into his beleaguered Delaware County hometown of Chester.

Both are hoping a marriage gets them there.

That union is of two techie game-changers—artificial intelligence (machines making decisions) and the Internet of Things (machines talking to each other) - at the core of Kognition, a Manayunk start-up Klein cofounded two years ago to protect lives and businesses not with stethoscopes, MRIs and blood tests, but with AI, [facial-recognition software](#), and smart devices that are capable of many things, including locking doors (without human activation) if a shooter is detected in a school.

"I was always a computer geek," the 42-year-old

son and brother of doctors said of his veering away from a career in medicine to one as a tech entrepreneur.

Launched commercially in August 2017, Kognition, its creators and other IT experts say, is unique from other security-oriented [tech companies](#) because its smart-property system is hardware-agnostic, meaning it can communicate with different types of systems without requiring special hardware adaptations.

Tucker, who, with partners Ra-Tah Johnson and David "Doobie" Elliott, are a development company doing business as Tandem Real Estate Holdings LLC, said Kognition will be integral to their plans for making a pocket—at least for starters—of Chester's largely desolate downtown known as Overtown a safe zone.

"If you want to have thriving businesses and if you want the employees from the actual community to be safe, you have to have security, it's a no-brainer," Tucker said. "This is a poverty-stricken city and we understand that and we're just trying to change that one step at a time."

Their current projects—on Avenue of the States, just down from City Hall—include a sneaker store, a clothing boutique, a diner and apartments. A block over, they intend to demolish a triangle of boarded-up commercial properties and erect a state-of-the-art community "command center" equipped with multiple cameras powered by at least \$1 million in Kognition technology that will offer real-time threat alerts when, for instance, weapons or fighting are detected, or suspicious activity such as a break-in is about to happen. Completion is expected by summer.

Since signing with Jay Z's Roc Nation in

2011—Meek Mill is among the artists he produces—Tucker, born in Chester's Lamokin Village housing project in February 1988 and now a Chester County resident, has been trying to help fill the city's abandoned commercial properties and create jobs.

"It's changing lives—people that might not have any hope," he said in an interview in a back room of Sunny's Cambridge Diner he and his partners now own.

With its real-time focus, Kognition's AI-IoT system turns "information into knowledge and then ... into action," said Ashok Lulla, a retiree from Merck who now owns Marple Pharmacy and Mel's Drug World, both in Broomall, Delaware County. He is among the investors in Kognition and expects to soon connect his store cameras to its system to turn them into "a tool to track and monitor work flows, (and) engagement of patients so I have real data that is actionable and protect patients."

He criticized most security IT systems as retrospective, collecting data that is later analyzed.

"We're just used to a very static model where we focus on forensics after the events. That's not security," Lulla said. "It doesn't help you avoid mistakes today."

"Facial recognition with AI provides confirmation and confidence to our staff to discuss and personalize medical instructions," Lulla said, adding that such a system can "capture this communication for continuity to improve medication literacy."

In schools, said Klein, Kognition's president and CEO, the company's software can identify what appears to be a weapon being carried by someone walking the hallway and autonomously activate an alert and lock doors—in other words, "see, think, act on its own."

Last fall, Kognition entered into a partnership with Kidio, a Florida-based provider of technology systems for student safety. The first installations are expected in the first quarter of 2019.

In New York City, Kognition is "working with" Silverstein Properties, owner and operator of 2 World Trade Center, among other sites, Klein said, unable to provide additional details because the deal is "confidential and proprietary."

"The business is really at the beginning of a major inflection point of growth," Klein said during an interview at Kognition's offices on Umbria Street.

Having raised \$1.5 million in a seed round that closes this month, attracting funding from a dozen angel investors, Klein said the company of 10 employees and \$250,000 in 2018 revenue plans to seek an additional \$10 million this year from institutional investors.

He might have opted against a life in medicine, but that field informed his entrepreneurial early years.

Klein's first start-up, Ethidium Health Systems LLC of Huntingdon Valley, developed medical records management software and services and was purchased in 2008 by Blue Bell-based Portico Systems, a software solutions company, for an undisclosed amount. Portico, for whom Klein worked as senior vice president of technology, was acquired three years later for \$90 million by McKesson, a medical distribution and health care information technology company headquartered in San Francisco. Klein was vice president of product management there for five years until cofounding Kognition with serial entrepreneur Eric Smith, 55, of West Chester, in 2017.

Smith most recently was sector vice president of global analytics for PTC in Wayne, which in 2015 acquired an AI and machine-learning start-up there, ColdLight Solutions.

Klein's work in health-care systems led him to conclude that "the next big business" was the convergence of [artificial intelligence](#) and the Internet of things, he said. How that translated to the creation of Kognition and its security focus had to do with his other job—as a parent.

"I'm seeing all the stuff happening on the news, all the violence in our culture," said Klein, the father of two girls, ages 8 and 9. "I just started getting more

into this idea the world can be much safer than it is.
We just need to be smarter at what we do."

To help financially pressed schools, Kognition has established the Safer, Smarter World Foundation to provide advanced security for schools K-12 free of charge. Klein said 10 percent of Kognition's profits will go to the charity.

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