

Leighton Wolffe

By Patricia Miller



The cannabis industry has plenty of data floating around, but how much is put to use? As with most big data, it's desperately underutilized. Lighting, irrigation, and HVAC systems could be transmitting information about crop health twenty-four hours a day, but those systems need a comprehensive platform to analyze what they're reporting. What does a 10 percent increase in humidity in Grow Room B have to do with the overall performance of a facility? In the eyes of a potential investor, it could mean a lot. That's why we spoke with Leighton Wolffe, president of GrowFit Analytics, a data science and environmental technology company that's changing the way cannabis companies look at their operations.

Cannabis & Tech Today: Your background is in data science. How did you become involved with the cannabis industry?

Leighton Wolffe: I am with a company that has been in business for 30 years. We have over 50 engineers and domain experts in a variety of technologies. Ten years ago, we adapted a data science platform in order to codify and document what different systems are doing in a time-series database. [The team] developed expertise in developing applications on top of this time-series database, in order to bring disparate pieces of information in from all kinds of different systems.

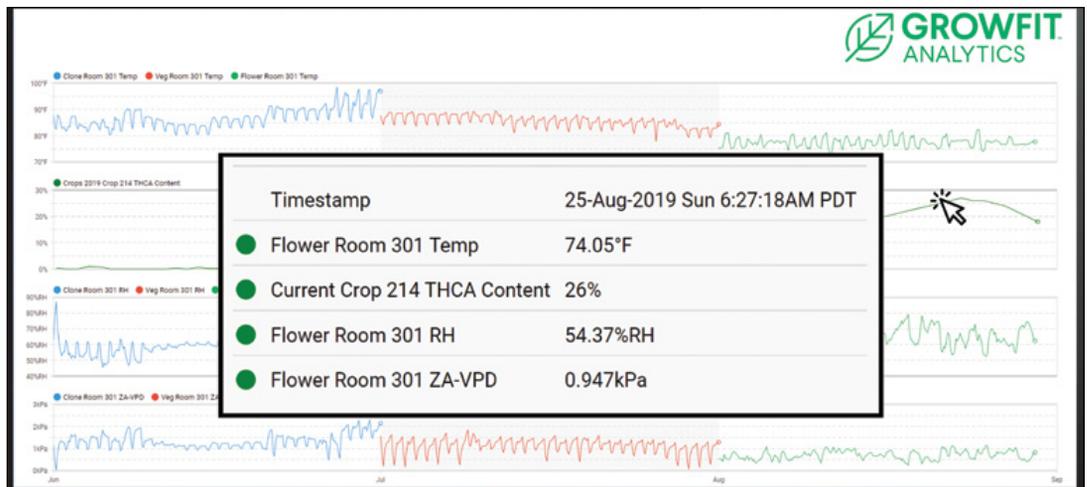
It allows data scientists to look at diverse data sets in ways they were never able to before in an approachable platform. With this platform, we're able to create applications and analysis for different market segments. We've installed our systems in more than 50 million square feet of facilities, focusing principally in healthcare, medical facilities, critical care, and mission critical facilities. We monitor all the environmental equipment and systems to ensure each are operating correctly.

C&T Today: How do you begin the analysis?

LW: We typically start by connecting to the different systems. We run the platform for two weeks and identify anomalies, which most facility managers have never seen before. In other words, our customers often only see this information as each stand-alone system reports it to them; it's not unified or working together. So in this context, we're able to bring all of these different data sets together. It's in a time-series format so facility owners can see who's doing what, when, and where. When that happens, it brings a lot of "aha" moments.

Now they can use the platform to work with their vendors and technology providers to say, "I want the systems to be working in these different ways." Not only for best practices, but also to meet the requirements for that facility.

We're able to connect to the subsystems in a grow facility... It's important to point out that



The GrowFit Analytics platform unifies data from a broad array of systems to provide a comprehensive overview of facility operations. These insights are valuable for investors as well as facility-owners, as the data can help identify problems, inefficiencies, or surpluses that may alter the company's bottom line.



GrowFit Analytics President Leighton Wolfe conversing with potential clients at CWCBE Expo in 2019. “We’re pioneering a proven technology into a new emerging market,” notes Wolfe of the company’s data analytics platform. By applying tried and tested technologies to the developing industry, Wolfe’s team is elevating standards for every step of the cannabis lifecycle.

many of these subsystems, such as HVAC, lighting, fertigation, irrigation, were never designed to talk to other systems.

C&T Today: How did you enable the systems to communicate with each other?

LW: The value you provide is based on our ability to connect to each individual subsystem and bring that diverse data into one software platform. Once into the Growfit database, we apply analytics and data visualizations that become meaningful to our users. That allows us to create a common platform to see what these subsystems are doing, and how this all affects the growing environment.

C&T Today: To obtain information, do you have to install hardware into each device?

LW: Not necessarily. There’s a variety of software protocols and we can connect to hundreds of those. We install a gateway if it needs to be a direct connection. We can pull data from the cloud if there’s a subsystem that communicates up to the cloud like that.

So we have a variety of mix and match scenarios that we can bring to play right away. I marvel at the fact that many of these systems were not designed to play nice. We also find that

many of these systems were not designed to provide meaningful information. They’ll provide some trending capabilities, but they don’t have the ability to look back at a moment’s notice and compare this to that, or create the kind of “what if” scenarios that would occur in someone’s mind.

So with our platform, they’re able to say, “I want to look at this data set and I want to synthesize with another data set. I want to see this time; I want to compare it to this other time.” And so it’s really easy to navigate and to see what’s going on at any historical point or in real time.

C&T Today: Though they may have access to data, it seems like it isn’t always clear how to use that data in the context of how the business is operating as a whole.

LW: We have several different ways to approach that. One is what we call Sparks. Basically, anytime a sensor detects something is out of range of where it’s expected, like temperature or humidity, we alert the customer that this is going on.

We also use Key Performance Indicators, keeping a steady track record of where you are based on how you want the systems to be

performing. And again, if it’s out of range, then a Spark occurs in an email or a text message based on that, automatically. We’re connecting to the systems that actually manage and provide the environment, so we know if something bad is going to happen before it happens. We also know before it affects the crop. Our business is to connect to these systems and optimize all of the equipment that we’re connected to through powerful analytics. Then by optimizing it, the customer is ensured that everything is working correctly.

We’re pioneering a proven technology into a new emerging market. So that’s point number one. Point number two is we’re addressing the lack of standards in the grow facilities and we are improving the standards in the grow facility according to best practices, and in accordance with what we anticipate FDA regulations will be.

We recognized that we have no competitors in the market who have the same caliber of platform, and the same sense of providing a service to the industry. Several new market entrants promote a monitoring solution, but are limited because they only measure environmental conditions. We go further. Our platform continuously monitors the equipment and systems serving the grow facility. We integrate data from sophisticated technologies that measure THC, CBD, pollen, mold, and nutrients in real time so the cultivator, facility operator, and owner have unparalleled access to information. ❖