

More ‘Things’ are connected to the Internet every day. People imagine if they can measure something, they can manage it. That used to be our tag-line. However with millions of sensors deployed, we found there wasn’t enough time, or people to manage anything. It’s pointless having the data if you don’t have the resources to analyze it; you can’t close the loop.

Business Intelligence tools are great at reporting information, but IoT data isn’t like sales, stock, or ledger entries; it’s fuzzy. We’re not just measuring volumes and activity over time, we’re seeing the effects of weather, age, installation, maintenance history, and chance. The mean time between failures is fuzzy, and fuzzy data is hard to analyze. You need experience of a system if you’re to categorize its state; thresholds, ceilings, and averages are useless.

Our AI started learning in 2006, and today with access to over 10 years of high resolution data, it knows more than we do. And, it continues to learn through reinforcement; the more it sees, the better it gets. We’d like to show you this in action.

Let’s look at a chain of restaurants from last year. Specifically, I want to look at a walk-in fridge. What you’re seeing is the AI analyzing the appliance over the period of time.

Here we have the refrigerator's consumption and temperature data, and below the probability the AI attaches to its condition. I’m showing both the data and analyses to demonstrate the reasons behind the conclusions. The AI is drawing upon 100’s of similar installations; it’s not just learning from this specific appliance.

See how the AI raises the possibility of a failure back in May, even though the refrigerator doesn’t fail until July.

Looking at the data it’s not obvious how the AI could see the impending failure, so let’s look more closely. Here the compressor is switching on and off according to temperature. We can examine adjacent days to see the pattern. If we now look at the failing period in May we see a change in behavior. The AI will have seen this before, and know it’s a prelude to failure.

Moving to later in May we see the fault getting worse, and by June the fault is solid. The coolant pump is running constantly and will prematurely fail. When it does, the business will be disrupted, stock will be lost, and the repair bill will be much larger than in May.

Our AI is able to learn from these scenarios, and so add value to your data. Tell it what you need to know, and it does the work. It’s that simple and powerful.

Learn more today at NoWatt.com