



INDUSTRY 4.0 AND CONTAGIOUS CHANGE

By John Randall

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John Randall shares his thoughts and experiences implementing IoT and transformative change in manufacturing.

They say the only thing constant is change. But in today's digital, AI, Industry 4.0-era changes are coming at a rapid pace not seen before. The consumer and finance industries (among others) were early adopters of the digital transformation revolution, while others, like the manufacturing and agricultural sectors, are just now really embracing the boundless possibilities that come with increased connectivity.

In fact, research shows the digital transformation revolution is gaining real traction in manufacturing. According to Grand View Research, an estimated 10 percent of manufacturers have begun adopting elements of IoT as of 2020, and the firm's expectation is that number will increase to 50 percent by 2025. Clearly, digital transformation is here. Ready or not.

My organization in the medium industrial manufacturing sector has been knee-deep in a digital transformation of our operations and the rapid changes we are asking of our organization are both exciting and immense. Like many companies, the end of the COVID-19 pandemic laid bare vulnerabilities in our supply chain and process under the pressure of record demand. Instead of throwing our hands up, we took the opportunity to completely rethink how we do business to be more efficient and better serve our customers. We implemented Lean processes and embedded digital operations technology where the impact was greatest. The efforts were a needed injection of technology and a reinstitution of manufacturing best practices to modernize every part of our operations.

We aren't done yet, but we are well on our way. There have been challenges, victories, and setbacks as with any major structural and cultural shift. What I've found navigating this transformation process, however, is one, early and ongoing, relentless engagement and communication are key to enacting this level of change; two, the magnitude of change and its impact is far greater than I expected; and three, change is contagious.

The Earlier the Better

Transformative change in a manufacturing environment – Industry 4.0 level or not – cannot be done properly in a vacuum. We knew when we started this process, we would need our employees to buy in and commit to the transition early if it was to work. So, we started engaging with them at the very beginning with our Kaizen events and involved every employee in the given workstream. I firmly believe you never know where the next big idea will come from. Many of my colleagues have worked in our operations for years if not decades and they know these processes inside and out; that's a lot of brain power and expertise we wanted to be sure to capture. This deep and early engagement was instrumental in helping us to fully unravel our

current system, study it and figure out how to put it back together better and stronger. By including everyone from the workstream in each Kaizen, we had more visibility on how technology could help our process – and could more accurately understand what we needed that technology to do.

What's more, our employees became stakeholders in the process from the start and remained involved as we progressed. I remember two colleagues – one from senior management and one operational staff member - who did voice their concerns with me at the start of the transformation with reservations about the need for so much change. With regular communication on what to expect and repeatedly outlining the why's and how's (including specifically how they each could contribute), these detractors were included in the process and began to understand the case for change. Every meeting, every email, and every conversation I had included a reminder of what we were doing and why it was important so everyone from every level of our organization stayed informed and focused on our goal. Those early detractors saw the benefits of change (almost) right away and became enthusiastic change champions, helping to drive further change and rallying others to engage.

Bigger and Better

And no wonder our employees are engaged; let's face it, this stuff is exciting. The opportunities connectivity brings to our business is shaping everything from inventory and process management to predictive information. Internally, we are now able to link operational processes with assembly all the way through testing and analysis. We have simplified, standardized, and automated our processes giving our employees more data and better real-time visibility.

Looking deeply at our customers' needs, we are leveraging IoT technology in the machines we build to include remote monitoring solutions with maintenance alerts and more. Our older generation

customers are getting more comfortable with the boundless benefits that come with IoT connectivity. Our younger customers, who have grown up with technology, are expecting it.

The sky really is the limit with what is now possible for our company and the manufacturing industry as a whole. Once we started really examining our operations, we saw more and more opportunities for leveraging IoT technology to make our company more efficient, more responsive to customer needs and generally easier to do business with. The reach and impact of this transformation has become far bigger (and continues to grow) than any of us expected when we first began our journey.

Contagious Change

Did we have pushback while trying to implement these big step changes? As I mentioned earlier - yes, but, with a few exceptions, not for the reasons we expected. At the beginning, employees saw the changes as added work at a time when the business was already fighting to keep up with demand – not because they weren't on board. Once we could recalibrate and clear the path for our teams to integrate the transformation work with their daily duties, that resistance faded. In its place was a contagion. With each transformation project, our employees started seeing the value - and the possibilities - connectivity brings and they wanted in. We saw a real shift in culture. Silos came down and cross-functional collaboration increased. Change had become infectious.

We still have a journey ahead of us as we embed Industry 4.0 principles into the remaining areas of our organization - and this journey doesn't have an endpoint. We will keep building on our progress through our Continuous Improvement efforts (and with future advancements still in development). We will keep communicating the 'why' and 'how' and keep listening to all our employee stakeholders and the ideas they bring. Ultimately, my biggest hope for our organization is that my colleagues continue to embrace change and be inspired by the possibilities connectivity brings. After all, change can be invigorating, transformative and most of all, contagious.