Jumping Over Barriers to an Effective Intelligent Automation

Many of today's enterprises are struggling to deploy intelligent automation technologies such as AI, machine learning, and robotic process automation. Yet, they know it is crucial that they get these technologies right to improve business efficiencies, improve customer experiences, and drive
new revenue.

In many cases the number one barrier to effective enterprise deployment of advanced technologies is the quality of the data at hand. The effectiveness of AI, machine learning and deeper analytics requires access to large volumes of data and more importantly clean and contextual data.

Most enterprises can provide volumes of data. But, one major difficulty in providing "clean" data is that most enterprises are not monolithic beasts.

Manufacturing entities are almost always comprised of multiple plants of multiple ages and multiple business orientations. The data itself may have issues but the variety of the data and associated schema can be overwhelming. This is certainly so from the view at the corporate IT level.

Applying a singular approach or toolkit to this data jungle can be impractical. So what are the most important steps enterprises can take to overcome these barriers?

It may seem counter intuitive but the solution to poor quality data is not to common-ize the data or associated structures. The first step is to admit that the diversity of the data as it exists today may be exactly right. Minimally it reflects the state of the enterprise, for data evolves empirically to support the diversity of the enterprise. Not all analysis may be pertinent to all aspects of the business.

The technology approach should be focused on a select set of outcomes with a flexible approach to source data. A corporate initiative to use technology to evaluate and improve product labor content is a worthy endeavor but may not make sense for divisions where labor content is already low.

Many such IT initiatives get bogged down with attempts at inclusiveness rather than succeed by focusing on manageable targets.

Yes, that suggests that truly big data is a myth. Imagine one massive data lake that includes all data (which includes content) from inside the virtual four walls as well as pertinent data from the value chain (suppliers, customers, partners and researchers), and even data from relevant third parties (e.g., financial, geospatial, risk – the list is potentially endless). This data lake, and perhaps data ocean is a more appropriate term,

might actually serve exactly nobody. Keeping such a data ocean clean and relevant would be

What to do? Give up on intelligent automation because of unmanageable data?

Absolutely not. As with all technological endeavors, getting the scale right, framed by an approachable context and valuable outcome, is tantamount. What if a handheld device didn't fit in your hand? What if it wasn't connected? What if the data wasn't synchronized and pretty clean? We would be toting around expensive and clumsy calculators.

Actually, the Smartphone offers a reasonable metaphor that translates into how to think about adopting, implementing and deriving value from intelligent automation: Some data, and usually a pretty limited set of data, is app specific. That data should be relatively easy to identify, cleanse and share with applicable intelligent automation technologies – or to take data from intelligent automation. Then there is data used cross app, like contacts and location. The trick is to ensure the individual apps adjust to the cross-app data, and not the other way around. Again, that cross-app data can be managed quite well. The result? A smartphone that is quite useful and dependable.

Don't think too big and don't think too small about intelligent automation. In fact, it is just another app, or perhaps an applied app. Define clear context and hoped for outcomes – that should go a long way to defining and over time refining the necessary data. Realize that some of these technologies, like machine learning, do not always need perfect data – artifacts are actually useful in some scenarios.

Most of all, however, remember that intelligent automation is a learning journey, not an answer. You and your company will never arrive at the end of the intelligent automation line, but you must get onboard, nonetheless. Data is data, it is not the enemy. Understand its strengths and weaknesses, and how it fits, doesn't fit and can be made to fit with intelligent automation – as inputs and outputs. Dive in and over time it will become nearly second nature, but only "nearly" because just about the time you have the hang of intelligent automation, there will be newer technologies to tackle.

Oh, but don't forget security and privacy.