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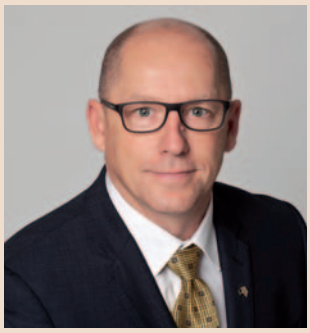
Data trends



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My digital twin

I decided to kick-off 2017 by not going to work anymore. I mean who needs it? Plus I suspect that the team at work would not miss me – well not the actual me anyway. So over the holiday period I created a digital twin that could take my place.

Initially I was not sure that my digital twin (or DT, as I like to call him/her/it) could go to work for me. I mean I do a lot of complex stuff and attend meetings where I am sure I am indispensable. Could my DT actually make it all work?

To test drive it, I sent DT to my son's soccer game to see how he/her/it would handle the situation. I watched myself from a distance as DT stood on the sideline issuing lines of support to my/his son and providing in depth analysis on player positioning and goal tender weaknesses that could be exploited. I watched as DT whispered under my/his/her/its breath at some of the calls the referee was making. I stood in complete astonishment as DT spoke to one of the soccer moms on the sideline complimenting her on her new haircut and asking if she had been working out. I started to sweat a little while I was watching this all unfold, so my DT kicked off a fan to cool me/itself down. My twin was no twin at all – it was better than me!

Everything I was seeing led me to believe that my DT was fit and ready for work – but was work ready for DT? At the soccer game DT had displayed restraint, expertise, social skills and self-preservation in a difficult situation, all the while checking its emails, sports scores and Facebook status without missing a beat. It was efficient, truthful and worked to a rigid schedule. What could possibly go wrong in the workplace?

So on the Monday when I/he/she/it came into the office, DT noticed that the coffee machine was not working. DT being my digital twin was mechanically inept and rather than look to fix the coffee machine, prepared itself/me to buy everyone a coffee from the local café (instead of just turning on the coffee machine at the wall which had been turned off over the holiday period). DT's proposed offer to buy everyone coffee was an act of generosity that would surprise everyone, including myself and in return DT. The thought of spending

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$40 on coffee where I knew only half of the people (at best) would thank me/DT for it, created a downward spiralling loop in the code that made DT a little dizzy.

I knew that when someone gave me a gift that the response was a 'thank you', but I did not programme DT with code on what to do if a thank you never came in from the person receiving the gift. If DT said 'you're welcome' to someone who had not even thanked him in the first place, then DT would seem sarcastic – which is not at all like me. If DT asked them to say thank you before it would give them the coffee, DT would seem like a workplace bully – a little more like me. If DT used his logic to only buy people coffee that were likely to thank him, he would seem stingy – totally like me.

So, within 5 minutes of getting into the office, DT had been faced with social, economic and technical issues that it simply could not handle – my digital twin was more like me than I could ever have imagined.

It is expected that in the next 3–5 years, digital twins will be a multi-billion dollar industry. Despite the digital twin industry being built around the creation of digital versions of physical objects (not humans) – it is very interesting technology nonetheless.

As an example of what a digital twin might be like, imagine a roller coaster at your favourite theme park. If the seatbelt on the ride does not function correctly, the ride needs to be shut down until the belts are fixed. This shutdown can cost the theme park thousands of dollars an hour.

Imagine now that a digital version (digital twin) of that ride existed in software running on a machine in the theme park, and sensors on the physical ride were sending real time feedback to the digital twin. By using the data from the sensors, the digital twin could have told the mechanical team at the theme park that the belts were going to fail many hours or days in advance. This, in turn, would have allowed mechanics to take corrective actions or perform preventative maintenance before the fault actually occurred, potentially saving the park thousands of dollars.

As the Internet of Things (IoT) industry expands, so will the growth of the digital twin industry. It won't be long before digital twins are deployed in oil refineries, seismic acquisition vessels and on the escalator in the international terminal in Sydney that takes you to the airline club lounges. DT hates stairs – I think it is because he has no legs.