TAREK OUERTANI

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Patrick NICOLET

Staying in IoT but more in the manufacturing space, Tarek is a German entrepreneur who will present what his company is developing and what he believes will have an impact on our lives going forward.

Tarek OUERTANI

We heard a little about IoT from a consumer perspective, and I want to share some insights from our work life. We are a young company from Munich in the manufacturing and logistics industry, and we believe that, despite automation, the human worker will still be crucial for the future of the industry. We just have to equip them with the right technological tools, just like industrial IoT. Regarding what we do, we basically had a look at the industry, how it is shaped and what drives innovation in the industrial sector, and we saw that there are two different stakeholders. We have, on the one hand, decision makers, process owners, plant owners and warehouse owners who are very interested in optimising their processes. They have to deliver a certain parcel at a certain time to a certain customer. We have, on the other hand, people who operate, who create value by assembling a car, by packing packages and delivering them, and both ends have one big problem in this transforming world – efficiency. It is about, on the one hand, trying to make things faster in order to save money, or on the other to create better process quality without losing time.

We had a closer look at manufacturing in the automotive sector and saw that all operators have one thing in common – they all wear gloves, and this is where ProGlove comes in, because we made those gloves smart. We made those gloves into an industrial IoT feature. There is a module on top with a small computer, a camera, a tracking device, motion sensors, optical, acoustic and haptic feedback options, and even a textile trigger at the side of your index finger. When you push this trigger, you can actually see that the engine has been released, so IKEA, BMW and all types of grocery stores use it to identify objects and to make sure they assemble the right part at the right time.

Therefore, by pressing the button you can actually see feedback on the back of your hand, and you can sense it as well. It is good for three things. It is increasing speed, because I do not have to use a separate tool anymore. It improves quality, because the worker knows at exactly the time he identifies the object whether it was right or wrong. It gives us more insight, more traceability, on how the processes are designed and how the workforce behaves in a real-world environment, inside a warehouse or manufacturing site.

This video will just give you a perspective on the speed and on what drives those people. They actually have to assemble a car every 53 seconds, and they have to make sure that they use the right parts and assemble them in the right order in exactly that time. That means every second they can save is crucial to them, and if you can do it in a more ergonomic way, it is good for the worker.

We heard Airbus mention those needs at the Conference – if, in a multinational supply chain or value chain, truck drivers are controlled at the border and lose two minutes, it is real money that Airbus is losing. We cannot save these two minutes, but we can provide a few seconds to improve their processes.

Regarding regulation, there are also issues with this new technology. We have a technology attached to the worker, and the unions, of course, ask what we are doing with this data and about privacy issues. What about the privacy of a worker? I want to give you an example of an enquiry at an earlier stage of our company, where a big US manufacturer asked us what could be tracked with our glove. They imagined their workforce just like a football team, with the players on the field, and when they did not perform, they wanted to exchange them. This is a boundary that we do not want to address. We think that we can address problems in the industry while giving anonymised data to the process owner, but it is up to regulation to define how much traceability the company owners can use to optimise their processes.

Regarding what I saw over the last few days, it is important to understand that the pace of technological change is high, and we need to keep up with this pace in terms of regulation. I would like to hand over to the regulation part and see how technology can also improve regulation itself.

Patrick NICOLET

Thank you for making a link to one of the elements that Mathilde introduced at the beginning. You showed us the type of policies that would be affected here, and this clearly includes labour policy. People will not only wear gloves but also helmets and earphones through which they will be given instructions by machines as to what is the next action to be done. What, at the end of the day, is the relationship between the human and the machine, considering that the warehouse space is free of humans? You cannot do this on a manufacturing chain, so this is the evolution, and that comes back to the augmentation that technology can bring, but the question is under what conditions.