AUGMENTOR

Augmented Reality application to transfer knowledge from expert to new hire

An AR System Allows Experts to Share Troubleshooting Methods Across the Manufacturing Footprint

The Situation: Manufacturing uptime is of utmost importance to generate revenue and reduce waste. Experts are retiring and this creates a skill gap as the pool of candidates that can help engineering onboard new production equipment is shrinking.

The Client: A Fortune 100 US manufacturer of family consumer products with many manufacturing plants throughout the US and globally. If you bought it at a grocery store or box store, you have probably bought from them.

The Case: The director of engineering has conceived a new production machine. This new machine will replace the existing production process at 10 plants worldwide. Today, to produce one widget it takes 12 operators and 6 different machines. Tomorrow, this new production line will take less than 5 operators to manage the entire process. Each of the 10 plants will receive the same new production line. They will assemble the production line in the first plant and when they reach an uptime threshold, assemble in the next plant and cascade from there. Engineers travel from plant to plant giving PowerPoint presentations on the new line, sharing what employees can expect and begin to provide some training. This travel is a huge expense for a smallish budget to contain but he fears a significant battle meeting uptime goals if they don't get out in front of the assembly at each plant.

The Reality: He is relying on the operators of the old production line to operate this new one. They have been around forever, and turnover hasn't been a problem. But there are many impending retirements and he fears what happens when they leave. At least one expert operator at each plant is scheduled to leave in the next 2 years and there are rumors of buyouts coming. Plus, how does his team share what they learn at plant 1 with plant 2 and 3? PowerPoints are boring of course and seem ineffectual. They have investigated using FaceTime or remote collaboration software but are finding that if employee at Plant 2 collaborates with a Plant 1, production drops at both plants.

The Solution: DI is creating AUGMENTOR. Experts author how they troubleshoot problems. As the production line in plant 1 inevitably breaks down, the experts can author how they troubleshoot, identify the most likely culprit(s) and solve the problem. When they publish this to the cloud, the operators in plant 2 and every other plant can access it. Now, all machines have their own personality, but AUGMENTOR not only provides the troubleshooting and repair start point, but operators at subsequent plants can edit any procedure specific to the nature of their own production line.

What makes AUGMENTOR different? AUGMENTOR is the first purpose built augmented reality troubleshooting application. It uses the Microsoft HoloLens which unlike mobile applications, keeps the employee's hands free when consuming the content. Compared to other heads up displays, the HoloLens maps the real world so any content can be placed exactly where an employee would need it and every time you turn on AUGMENTOR, it shows up in the exact same spot. And unlike an actual expert, AUGMENTOR is always available.

The Impact: Sharing expert knowledge rapidly across the enterprise promises to reduce mean time to repair and increase the time between repairs. This will result in increased uptime. Even though it is intended for operational use, AUGMENTOR can improve training programs, reduce time to onboard a new hire make the company a much more attractive employer.

What is your plan for addressing the ever increasing skills gap? How do you share knowledge among distributed employees?

Are you open to innovative methods to empower your experts to share their knowledge with other employees?

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