An Augmented Reality System Allows Experts to Share Knowledge Across the Enterprise

The Situation: The logistics and transportation workforce is aging. The median worker age ranges from 45 to almost 50 with a greater percentage of employees older than 65 than under 25. Experts are retiring and this creates a skill gap.

The Client: A top 20 by revenue LTL American carrier based in the Southeast with greater than 20 service centers.

The Case: The manager of fleet operations is responsible for more than 20 service centers. He flies from his home base in Florida to each of the service centers to onboard new employees, train them on newly authored procedures and troubleshoot baffling maintenance issues. He manages relationships with maintenance associations, vendors, OEMS and dealers to ensure they use the most effective methods to keep trucks on the road. The methods are stored online, in thick binders or long videos accessible through an internal web portal. The last thing he wants is for his employees to be hunched over thick binders and the online system is hard to navigate and takes his technicians off the shop floor.

The Reality: His workforce has a high turnover rate. Many are retiring and he is losing employees to the competition. Traditional training is no longer sufficient to address the skills gap this has created. He has started to rely on expert technicians using Facetime to perform remote support for other locations. This is unsustainable as it is these same experts that he fears losing to retirement. While Facetime, Skype or texting pictures can help in a pinch, only one employee benefits at a time and he needs a way for as many employees to benefit from that discussion as possible.

The Solution: DI is creating AUGMENTOR™ powered by AiR™ Enterprise. Experts author how they troubleshoot problems. They can take a problem directly from a driver such as "the truck is pulling right", list the probable causes and how they determine the most likely culprit. They can share how and what they observe, inspect and test. They can link to the appropriate repair guides and share it with every other technician in any maintenance shop. It is like having a digital mentor for the most difficult part of the job – troubleshooting problems you haven't seen before. Take the case of "the truck is pulling right". An experienced technician may be able to immediately troubleshoot the problem by visually inspecting wear on the tires and efficiently choose the right solution. A new employee might make assumptions that lead to a labor intensive alignment, or do an unnecessary deeper dive into the issue, maybe even executing a less efficient procedure that doesn't solve the root cause. With AUGMENTOR™, the employee can see exactly how an expert would have performed.

What makes AUGMENTOR™ different? Unlike tradition mobile or heads up solutions, AUGMENTOR™ uses the Microsoft HoloLens which keeps the employee's hands free when consuming the content. Compared to other heads up displays, the HoloLens uses cameras to map the real world and DI uses Hololens' anchor system. So any content can be placed exactly where an employee would need it and AUGMENTOR™ remembers where the content should be next time you turn it on. Want to share pictures of irregular tire wear? You can place those above the tires themselves. 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. Asset utilization will increase. 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.

Do you have a remote and distributed workforce?

What is your plan for addressing the ever increasing skills gap?

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