Empowering Frontline Workers with AI

First Platform for AI-based Connected Worker Solutions to Drive Efficiency and Safety

Today's industrial workforce is different as it's rapidly changing, diverse and dramatically less stable than it used to be. Therefore, companies today must cope with the new normal where workers are hard to find, hard to engage, and hard to keep. Augmentir as an AI-powered connected worker software helps companies to face that challenge and meet production goals by delivering effective on the job support, collaboration, skills management, and training for a more flexible industrial workforce. Russ Fadel, CEO and co-founder of Augmentir, explains the company's technology and provides an outlook on its further development.

Russ Fadel, Augmentir

PERSONAL PROFILE

Russ Fadel is a serial entrepreneur and the CEO and one of the three co-founders of Augmentir. Prior to founding Augmentir, Russ founded four successful companies in the industrial software sector, including the two most recent — ThingWorx, the leading Industrial IoT (IIoT) platform company (acquired by PTC), and Lighthammer, the pioneer in enterprise manufacturing intelligence software (acquired by SAP). Russ has been intimately involved in the last three software revolutions around humans and machines in manufacturing and service. Augmentir is a continuation of this theme.

CHEManager: Mr. Fadel, you are one of the pioneers of the Internet of Things (IoT). Five years ago, you founded a new software company that puts the worker at the center of digital transformation. How did that come about?

Russ Fadel: In fact, our founding team—in addition to myself, Phil Huber, VP of Development, and Lawrence Fan, Chief Data Scientist—have a rich history in introducing innovative software into the manufacturing sector. Phil co-founded Wonderware in 1987, an early pioneer in human-machine interface software for industrial automation. Wonderware is still widely used today, now owned by AVEVA. In 1997 I founded a company called Lighthammer, the first product that integrated shopfloor activities with the enterprise layer, which was acquired by SAP in 2005 and is still marketed under the name of SAP MII. Later in 2009, I established ThingWorx, and along with Phil and Lawrence, we built the first industrial IoT platform that was later acquired by PTC.

By founding Augmentir in what is now called the connected worker space in 2017, we are continuing this trend of being at the forefront of software technology revolutions. We believe that for way too long, workers have been the blind spot of digital transformation. With platforms like Augmentir, we are combining valuable digital tools with AI-based workforce intelligence to provide the missing link and integrate frontline workers into the value stream.

In the connected worker space, aren't there already numerous software providers? Why another platform—what makes Augmentir unique?

R. Fadel: In fact, we consider ourselves as frontrunner in the second wave of this software sector. We built Augmentir on a foundation with artificial intelligence (AI) and this is very important: Today's workforce is increasingly connected, and there is a wealth of operational data about how work is being done that can be valuable if its captured and understood. With AI, we can make sense of this data and use it to both improve processes in general but also the work performed on an individual level in providing personalized guidance and support. The first generation of connected worker software was put on the market with the idea of addressing the skills gap and the loss of tribal knowledge. While these challenges persist, companies today face even greater challenges.

Such as …

R. Fadel: The challenges around hiring and retaining workers. In the manufacturing sector, the tenure rate of frontline workers went down by 20% in a 4 years period between 2015–2019. Covid has accelerated this macro trend: Manufacturing has the highest increase in staff turnover in any industry. So, with a variable workforce—people resigning, changing jobs, or uncertainty on who is showing up each day—it is difficult, if not impossible to reach your quality, safety and productivity goals. Today's workforce is quite simply not as stable as the workforces of the past.

The existing onboarding and training process doesn't cope with this volatility. Just digitizing work doesn't solve these problems either. Therefore, we believe that the entire hire to retire process must be reimagined. We know this is not only a covid or post-covid scenario. With baby boomers retiring these developments existed already prior to the pandemic hence it is quite obvious that this is going to continue into the future.

Indeed, many companies are urgently looking for solutions. What does yours look like?

R. Fadel: We believe the solution is really a software-enabled, flexible workforce. Digital software tools that make both day-to-day frontline work as well as onboarding and offboarding staff more efficient so organizations become more flexible and resilient. To use AI to really provide real-time insights into each workers training, guidance and support requirements. With Augmentir we provide AI driven personalized instructions and performance support that intelligently and dynamically closes skills gaps at the moment of need allowing everyone to perform at their best, and to establish instant collaboration between people that have questions and instances providing immediate answers, be it a subject matter expert (SME) or an AI bot.

You talked earlier about using data to drive improvements. How do you go about it?

R. Fadel: Connected worker systems for digital guidance and assistance not only provide workers with mobile instructions and in-situ training, they also return a great deal of valuable input. This includes, for example, feedback on work steps that have been performed, hygiene measures that have been carried out, or documentation of conditions, errors, and much more. However, this wealth of data cannot be reliably interpreted with conventional business intelligence tools. Until now, highly specialized data scientists have been needed to convert it into actionable insights. Today, proven AI algorithms are taking over this task. They are capable of reliably recognizing patterns, identifying outliers, cleaning data and finding correlations. This use of AI is helping companies answer questions like: Where should you focus for process improvement? Who would benefit most from targeted training? How many hours of productivity opportunity do you have? What training materials or instruction content need improvement? This is why connected worker solutions that are built on an AI foundation support continuous improvement and lean initiatives in the workplace, and therefore serve as the foundation for future growth.

BUSINESS IDEA

The Future Workforce, Powered by AI

Augmentir believes that today's industrial frontline workforce, with a global footprint of over 350 million workers, has been underserved by technology. The company's aim is to change that by a revolutionary software focused on increasing the productivity and quality of processes involving frontline workers.

Augmentir's platform is a suite of AI-powered connected worker tools that helps companies optimize their most important asset—their operational workforce—in three steps.

1. Digitizing Work: Augmentir delivers immediate value through digitization of your operation. This includes:

- Digital work instructions, which help guide workers with accurate information that is augmented with rich media and AR/MR experiences.
- Industrial collaboration tools, which enable companies to support their workers wherever they are, while growing their knowledge base through an integrated performance support system.
- Digitized training & skills management with built-in reporting, allowing you to accurately track and manage your team.

2. Optimizing Work: Augmentir extends simple digitization by using AI to optimize performance support and training for your workforce.

- Empower workers perform complex tasks with higher levels of productivity due to dynamic inline assistance based on recency, skill level, and actual job performance.
- Using its AI-based True Performance indicator, Augmentir helps identify reskilling/retaining needs for each worker to optimize the workforce development.

3. Continually Improve: Deliver continuous improvement across your workforce and work processes. Augmentir's AI helps to drive improvement opportunities: AI uncovers previously hidden improvement opportunities and supports workforce development initiatives.

All in all, the Augmentir platform helps frontline workers to perform at their best regardless of their training, experience, recency, and ability. Based on a modern enterprise SaaS software approach and due to scalable pricing Augmentir enables companies of all sizes to get started in minutes and quickly realize ROI.

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Augmentir

ELEVATOR PITCH

Connecting the Disconnected

Augmentir was founded in 2017 and is the world's only provider of AI-based connected worker software. Its software suite of AI-powered connected worker tools helps industrial companies deliver effective skills management, training, collaboration, and on the job support for today's more dynamic, more flexible industrial workforce.

Companies in manufacturing, service, energy, and construction leverage Augmentir's AI in conjunction with the platform's digital workflow and remote collaboration capabilities to optimize their frontline operations and deliver significant growth and continuous improvement in the areas of performance support, training, and workforce development.

Milestones

2017
- Augmentir is founded

2018
- Launch of successful Beta Program for its product, with over a dozen industrial companies participating

2019
- Augmentir exits in stealth mode and launches the industry's first AI-powered connected worker platform

- Company expands its customer base in more industrial markets, including automotive, consumer goods manufacturing, mining, and industrial equipment

2021
- Augmentir raises $7.5 million in Series A funding
- Augmentir selected to join the Webex Ecosystem as Cisco's Connected Worker Partner

2022
- Augmentir announces 350% revenue growth and 230% increase in its customer base during 2021
- Expansion of international team including German speaking countries

Roadmap

2022+
- Augmentir plans to continue to expand globally, offering its solution to a range of industrial companies, continuing to add new integrations and out-of-the-box connectors into the business systems that customers use the most.
- The platform will evolve further with advanced AI functionality to support more valuable data-driven insights and workflow learning capabilities, as well as new features for GxP regulations.

Fig. 1: Personalized guidance enables workers to deliver outstanding on-the-job performance.
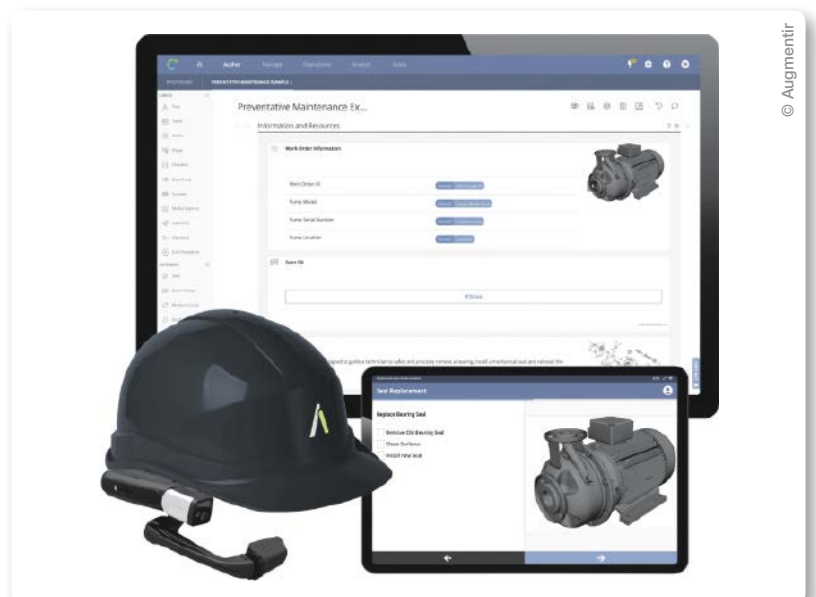

Fig. 2: Mobile Apps provide instructions and support where needed, on any device.