Study on Role of Augmented Reality for Frontline Workers

TeamViewer | **Trend Candy**

Current Challenges for Frontline Workers Drive Role of Augmented Reality in Equipment Manufacturing, Automotive Manufacturing and Retail Industries

Patricia Nagle
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For the past few years, America's workforce has experienced intense disruption from a multitude of challenges, such as the pandemic, digital transformation and what is being called "The Great Resignation." This disruption has rippled throughout industries, forcing organizations to embed processes to adapt and causing workers to change jobs at much greater rates. While employees in all kinds of jobs are those hitting the exits, many of them are frontline workers.

No matter the role, onboarding a new employee requires supervised training before undertaking productive work. This training often falls to the veterans in an organization and ends up taking away valuable time from their own responsibilities. By finding ways to shorten the duration of initial training — e.g., showing new hires the tasks, tools, procedures, and policies that come with employment — a new hire can become a productive employee more quickly and the veteran employee can resume their normal work sooner. A growing number of employers are looking to advanced technologies, including wearables and augmented reality (AR), to achieve

this goal, and TeamViewer commissioned a survey to find out more about the challenges they are facing, and the benefits early adopters are realizing.

What is Augmented Reality?

Unlike virtual reality, which creates its own cyber environment, augmented reality solves real-world problems by overlaying visual, auditory, or other sensory information onto a real-world environment to enhance the user's experience. AR technologies combine the digital world with real elements. What makes it special is the fact that it offers the possibility of reflecting digital components in the real world.

Augmented Reality technologies, which give frontline workers access to data via handheld devices or other wearables, provide a practical foundation for a host of immersive experiences. Augmented reality provides the ability to overlay virtual objects in a real world setting while mixed reality takes this a step further, anchoring virtual objects to the real world, providing a sophisticated foundation for numerous use cases.

To this end, computer vision, depth tracking and mapping play a key role within this process. All data can be collected and displayed in real time via cameras, for example, and processed directly. This makes it possible to display digital content whenever the user needs it.

Market experts have long speculated that wearable devices could be a breakthrough for augmented reality. The survey commissioned by TeamViewer supports that prediction, demonstrating that AR is already a reality today, solving big challenges organizations face in supporting, onboarding, training, and retaining frontline workers.

AR has an active role in today's Industrial Metaverse

The Industrial Metaverse is a digital enhancement of the real world, which creates digital twins of information and data in a virtually enhanced, digital and physical reality known for offering immersive experiences to users. The foundation of the "industrial metaverse" is built on augmented reality (AR), mixed reality (MR) and artificial intelligence (AI) as these technologies create a convergence between the physical and the digital world.

By creating a truly digitalized, connected, and empowered industrial workforce with Frontline, we are enabling the industrial metaverse today. These are displayed to frontline workers using augmented reality and mixed reality (MR) smart glasses and other wearable devices in the immediate field of view via small screens placed directly in front of the eye. This creates a new ecology of deep integration between new information, new tech, and the real economy. Software, running on wearables, guides workers with step-by-step instructions through their daily routine, leaving their hands free to perform required tasks. As a result, workers will quickly understand how to complete each task without having to depend on an experienced employee to supervise them for any significant length of time. I hope you find the insights from the survey on the trends and emerging best practices in using AR to benefit frontline workers informative.

Patricia E Nagle

The Survey – Perceptions and Adoption by Onboarding and Training Leaders

According to 300 US onboarding and training leaders across a range of industries, including equipment manufacturing, automotive manufacturing and retail, organizations are looking to increase the productivity of new and existing workers with smarter onboarding and training technologies. TeamViewer commissioned a survey through an independent market research firm, Trend Candy, to uncover these insights from HR professionals, C-level executives and technology leaders across the US. TeamViewer wanted to find out from these industry leaders what challenges frontline workers face today and what technologies they are using or plan to use to solve them.

Many Organizations Face Onboarding Challenges in Tight Labor Market

67% of onboarding leaders say the current labor market has made onboarding more difficult, with most reporting that it's harder to keep an employee than it is to recruit one.

Hiring Managers Face Obstacles to Onboarding Frontline Talent

71% say their organization would benefit from onboarding employees more quickly, but **only 25%** are sure they can do that.

Current AR Adopters Seeing Big ROI in Training Quality

Of the 35% of respondents that are using augmented reality (AR) technology (like simulations on glasses) for onboarding, **86% of them** say this technology has improved the quality of their training.

Hiring Managers Face Obstacles to Onboarding Frontline Talent

More than half (53%) of onboarding leaders said that frontline workers are harder to train than professional/managerial workers for a variety of reasons, including that they are often face-to-face with customers, have less experience, and frequently have to act instantly and with more precision across a wider range of responsibilities.

Organizations have already begun adapting to compensate for these challenges. For example, over the last 12 months, onboarding leaders reported that the onboarding process has evolved to include more videos, interactive quizzes, and inspirational messages from company leaders. These tools have helped to adjust onboarding periods and ease onboarding expectations.

Benefits AR Adopters are Achieving Today

Companies Adopting AR are becoming More Competitive

The study reveals clear training outcomes for organizations using AR technology. Respondents have improved training results by 50%, decreased worker error by 49%, and increased customer satisfaction by 56%.

In fact, 67% percent of onboarding leaders who train with AR said that this approach is becoming a key competitive advantage, and companies that train with the technology are twice as likely to say they have an effective onboarding process.

AR is Helping Organizations Achieve Onboarding Goals

Companies that train with AR are 2.5x more likely to consistently hit their onboarding goals, with the primary benefits being observed in compliance, progress tracking, error reduction, employee experience, and employee memory retention.

Given the array of benefits AR and Mixed Reality brings to onboarding frontline workers, other leaders are beginning to take notice. 62% of organizations plan to increase spending on technology that supports frontline workers in 2023.

Onboarding Leaders Project Huge Productivity Gains from AR Technology in 2023

80% of onboarding leaders expect frontline employee productivity to increase in 2023 due to new technology. The top gains that onboarding leaders expect to see due to the use of new technology for frontline workers next year include higher employee retention, faster training, fewer errors, and the ability to take on more new hires.

"Augmented Reality technology has emerged as a multi-purpose tool for improving training and onboarding, while also increasing productivity and reducing worker error," said Patricia Nagle, President, TeamViewer Americas. "AR helps unlock the full potential of the industrial metaverse for frontline workers by displaying real-time data from backend systems, interactive and immersive training workflows, and providing hands-free step-by-step instructions as they train for and perform their jobs. During a tight labor market, optimizing your onboarding, training, and workflows has never been more crucial."

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