

AUGMENTED REALITY AND VIRTUAL REALITY ENTER THE WORKPLACE

Trending Topics summarizes news, information and perspective on matters affecting businesses and business leaders today. This insight is being provided to keep you up to date on the latest developments and trends influencing these topics. These views do not necessarily represent the views and opinions of PNC. For additional research on these topics, please consult the sources cited in this article.

Augmented reality (AR) and virtual reality (VR) are immersive technologies that enable users to access and interactively use computer-generated information and data. Video gaming was one of the first industries to use these technologies, but now AR and VR are entering the workplace to help employees perform their jobs more effectively.

The market for AR and VR applications is growing rapidly and expected to reach \$215 billion by 2021.¹ People are intrigued by the technologies, and the video gaming experiences of younger employees and managers are easing their adoption in the workplace.

AR technology superimposes data, video, holograms and other information over a worker's view to assist with completing tasks. VR takes the experience further and immerses a user in an artificially created environment.² Used separately or in combination, these tools can effectively raise the skill level of workers and improve output.³

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Some examples of immersive technologies in the workplace include:⁴

- Some companies are using VR in recruiting to showcase their attractive office environments and highlight company benefits and perks. With today's record low unemployment rate, employers need all the help they can get to attract qualified employees.
- Recruiters are using VR to allow job candidates to experience a virtual workday at the company and gain a taste of company culture. Candidates can interact with potential coworkers, experience meetings, and see how teams interact.
- VR technology is being used to test job applicants' skills before hiring them. Automaker Jaguar is using a game-like VR tool to gauge the skills of applicants. It places candidates in a virtual garage with iconic vehicles to explore and then engages them in a code-breaking game to test software and engineering skills.
- Auto manufacturers are using AR and VR to improve product designs in their early stages, yielding significant cost savings. Audi and other luxury auto manufacturers are using VR to give consumers a realistic experience of driving one of their luxury cars before buying it.⁵
- Smartglasses and smart helmets enable factory workers to access AR tools for instantaneous technical training and guidance. This guidance-on-demand approach complements factory workers' job-specific knowledge and experience.



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- Maintenance workers are using smartglasses and smart helmets to access 3D models of equipment to complete required inspections. Using these interfaces, workers can virtually check actual mechanical conditions against maintenance targets in a controlled environment.
- Field workers have access to advanced technical expertise using tools similar to Skype. The on-site technician can confer with senior technical experts and show them the problem machinery or issue. Working together using AR tools, the virtual team can try different approaches to quickly resolve problems.
- Quality assurance inspectors are taking photographs of specific parts and assemblies in the manufacturing process and using AR overlays to compare them against manufacturers’ quality standards and highlight discrepancies.

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To discuss these topics in more detail, please contact your PNC Relationship Manager.

- 1 “6 VR and AR Statistics: Shaping the Future of Augmented Reality with Data,” NewGenApps blog, Jan. 1, 2018. Available at: <https://www.newgenapps.com/blog/6-vr-and-ar-statistics-shaping-the-future-of-augmented-reality-with-data>
- 2 “Augmented And Virtual Reality Fuel The Future Workplace,” by Maribel Lopez, *Forbes* blog, Nov. 11, 2016. Available at: <https://www.forbes.com/sites/maribellopez/2016/11/11/augmented-and-virtual-reality-fuel-the-future-workplace/#1c1fcded185d>
- 3 “What Can Augmented Reality Do For Manufacturing?” by Ian Wright, *Engineering.com* blog, May 11, 2017. Available at: <https://www.engineering.com/AdvancedManufacturing/ArticleID/14904/What-Can-Augmented-Reality-Do-for-Manufacturing.aspx>
- 4 “3 Ways to Use VR for Recruitment in 2018,” by Tony Delmercado, *Recruitment* blog, Dec. 22, 2017. Available at: <https://www.recruiter.com/i/3-ways-to-use-vr-for-recruitment-in-2018/> and “What Can Augmented Reality Do For Manufacturing?” by Ian Wright, *Engineering.com* blog, May 11, 2017. Available at: <https://www.engineering.com/AdvancedManufacturing/ArticleID/14904/What-Can-Augmented-Reality-Do-for-Manufacturing.aspx>
- 5 “Transform Business Outcomes With Immersive Technology,” by Amy Forni, *Gartner* blog, May 5, 2017. Available at: <https://www.gartner.com/smarterwithgartner/transform-business-outcomes-with-immersive-technology/> and “Augmented And Virtual Reality Fuel The Future Workplace,” by Maribel Lopez, *Forbes* blog, Nov. 11, 2016. Available at: <https://www.forbes.com/sites/maribellopez/2016/11/11/augmented-and-virtual-reality-fuel-the-future-workplace/#1c1fcded185d>
- 6 “Gartner Top 10 Strategic Technology Trends for 2018,” by Kasey Panetta, *Gartner* blog, Oct. 3, 2017. Available at: <https://www.gartner.com/smarterwithgartner/gartner-top-10-strategic-technology-trends-for-2018/>
- 7 “Transform Business Outcomes With Immersive Technology,” by Amy Forni, *Gartner* blog, May 5, 2017. Available at: <https://www.gartner.com/smarterwithgartner/transform-business-outcomes-with-immersive-technology/>

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