

Welcome to a new reality

At a glance

Augmented reality (AR) essentially bridges the digital and physical worlds. The popular Pokémon Go smartphone-based app is one of the most prominent examples of AR, which uses tech-generated, detailed visual and/or audio experiences to enhance a person's real-life surroundings. Smartglasses and hands-free tablets enable workers to use a variety of AR tools that can help them complete tasks more efficiently and safely.

24%

of executives say they will make significant investments in AR over the next three years*

*PwC's 2017 Global Digital IQ Survey

Benefits

- ✓ Real-time delivery of relevant, helpful information to workers regardless of time or location
- ✓ Greater flexibility
- ✓ Increased operational mobility
- ✓ Improved efficiency



Top challenges

- ⚠ Inconsistent capabilities among various AR platforms and operating systems
- ⚠ Lack of data and hardware standards
- ⚠ Limited optics, 3-D capabilities, device interaction, and AR content authoring
- ⚠ Social, privacy, and intellectual property implications
- ⚠ Issues with introducing new hardware to organizations, securing data, and repairing and maintaining devices
- ⚠ Employees' inadequate AR technology skills

Example applications



Entertainment

Location-based AR games will continue to proliferate and grow in popularity. A year after the success of Pokémon Go, similar games are being launched at a rapid pace, including Skyrocket's Recoil, which allows players to simulate combat in outdoor parks with the help of their smartphones.



Consumer and transportation

IKEA offers an AR app that overlays a product from its catalog directly onto a real-time image of a room the customer is viewing on a mobile device.

Perfect Corp. lets potential L'Oreal customers try hundreds of different makeover looks by using the Makeup Cam app on their smartphones as a "magic mirror."

IFS, an enterprise-focused software company, offers immersive simulations to share the expertise of senior aircraft maintenance technicians, who can share simulations of specific repair jobs with other workers in real time.



Mining

By outfitting field technicians with AR-enabled smartglasses, equipment manufacturer experts can avoid traveling to distant sites and can remotely guide field workers in diagnosing problems and repairing equipment.



Manufacturing

Workers can more efficiently assemble products by using AR-enabled instructions rather than printed or online documents. For example, Scope AR's instruction-generating system, WorkLink, enables workers at industrial companies to create animated 3-D overlay imagery that produces enhanced instruction manuals—a significant improvement over the limitations of one-dimensional paper instructions.



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