Augmented Reality 101: Overview for business leaders

Today, as the benefits of augmented reality (AR) become obvious, businesses across the globe are quickly implementing AR into their operations.

By 2030, AR will be responsible for a $1.1 trillion boost to the worldwide GDP[1]. It's anticipated that the U.S. will benefit the most, with an additional $380 billion added to its economy. In fact, researchers predict that almost $12 billion will be spent on AR technology in the U.S. in 2024[2].

To avoid being left behind, enterprises should be on top of AR's many practical applications. That's why it's important to understand what it is and how it can benefit your business.

AR is not VR

While virtual reality (VR) is perhaps more widely understood than AR, the latter is proving more functional for enterprise needs.

Since VR fully immerses users in a digital world, its use in business is often specific to tasks completed in isolation, such as 3D design. This inability to interact with the real world is a major limitation that makes VR inappropriate for most work environments.

AR, however, offers more flexibility, as visual data easily integrates into the real world. With AR, for example, you can simply look at a machine and relevant information appears in your field of view. But with VR, the same machine would need to be rendered and animated as a digital asset.
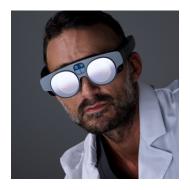
Enterprise use is growing fast

Researchers identify corporate training and industrial maintenance as commercial AR applications that will see the largest investments by 2024, with each expected to attract $4.1 billion[3].

Commercial manufacturing: Engineers can visualize equipment problems, share each other's views to identify the source of a fault, and fix it through combined effort. Issues can even be spotted early by displaying productivity data and maintenance records as soon as engineers look at a machine. In short, AR enables quicker resolutions, ensures productivity, and improves efficiency.

Product design: Remote teams can share, view, and discuss 3D digital models, as if everyone is holding the same prototype in their hands. This saves on travel time and expenses, and it enables the right people to collaborate effectively regardless of location.

Internal communication: AR meetings allow for more immersive data sharing than 2D video calls, improving operations management. Unlike the isolation inherent in VR, AR combines the best of both worlds with no travel costs but with the interaction and social aspects of an in-person meeting.

Remote training: AR can upskill staff faster and more cost effectively. It's especially good for technical training, as everyone can interact with simulated equipment rather than each participant needing a physical machine.

AR is shaping the future of business

By connecting the physical and the digital worlds seamlessly, AR is set to be the glue that holds Industry 4.0 together. Understanding this new landscape is key, but for enterprises that have yet to implement AR, the time is fast approaching when catching up to more advanced rivals will be a long, painful process.

For information about Magic Leap 2, the most immersive AR platform for enterprise, visit **magicleap.com**.

Visit **magicleap.com/news** for the latest discussions about Magic Leap and augmented reality.

1. https://www.pwc.com/gx/en/industries/technology/publications/economic-impact-of-vr-ar.html
2. https://artillry.co/artillry-intelligence/enterprise-ar-best-practices-case-studies-volume-one/
3. https://www.idc.com/getdoc.jsp?containerId=prUS47012020