

## Augmented Reality/Virtual Reality (AR/VR)

From easy to access apps that turn tablets or phones into reality overlaid with computer-generated information or visuals, to fully digital experiences through googles or headsets, AR and VR are becoming more and more useful in the business environment. AR and VR are improving employee training – both the experience and time to competency; making inventory control a touch of the screen process; improving service calls or equipment repairs; personalize and target marketing; and much more. There are countless ways in which digital information overlaid on the real world could be practical and lucrative for a business. As your community’s business “pit crew” – could you share information and resources that might help businesses see where the use of AR or VR could help them? Use your BREI visits to recognize when a business might need some encouragement to think about AR/VR as part of their operations strategy! Read on for more AR/VR information and resources.

### Webinars to Share

#### Webinars:

- **Iowa Manufacturing 4.0 Consortium** webinar recording: [Augmented & Virtual Reality Webinar](#)
- [CIRAS Industry 4.0 Webinars on Demand](#)

#### Videos:

- [Augmented Reality Warehouse - Extended Warehouse Management](#)
- [The Top 4 Reasons to Use AR for Manufacturing](#)
- [VR Safety Training for Electric Power Industry](#)

### Cut & Paste Text for Your Next Newsletter

#### It's not just for video games!

Immersive technologies like AR and VR are transforming the way businesses design and produce products, manage inventory, train employees, and interact with customers. While often used interchangeably, there is a difference between AR and VR. Augmented Reality (AR) doesn't block out the real world or replace it with a completely digital one—it lets the real world show through, only with digital objects or information on top of it.. Virtual Reality (VR) on the other hand is entirely computer generated. VR requires a headset, while AR can be accessed with a smartphone, tablet or headset. Check out this [good article from TechRepublic](#) with ideas for using AR in your business!

### BREI Discussion Starters for Your Visits with Local Businesses

#### **BREI Follow Up:**

Share webinars and resources on your website. Here are some additional articles:

- [How to Train Employees Effectively with Virtual Reality](#) (Forbes)
- [5 Innovating Examples of AR for Marketing](#) (VR Vision)
- [Is Manufacturing Ready for XR Technologies?](#) (SME)

## AR/VR Referrals to Share

### Public sector service providers for your businesses:

- [Iowa Technology Institute](#) at the University of Iowa – [Virtual and Augmented Reality Business Unit](#) offers VR services to the public, including software development, device consulting, and system integration.
- [CIRAS](#) offers assessments, assistance with cost benefit analysis and integration planning, among other services.
- CIRAS [Digital Manufacturing Lab](#) powered by Alliant Energy offers hands-on technology testing, training, education, and more.
- Iowa State's [Virtual Reality Applications Center](#)

### Iowa Vendors & others:

- [Mechdyne Americas](#) AV/VR Headquarters, Marshalltown, IA
- [TeamViewer](#) Assist AR for remote service and training.
- [Vive Business](#) by HTC specializes in virtual reality applications for businesses.
- [VR Vision](#) specializes in job training and other HR objectives.
- [PTC](#) offers digital technologies for manufacturers.

*Disclaimer: This is not meant to be a comprehensive list of service providers*

## Keeping it all straight...



Researching AR and VR can be confusing! Here's a quick definition of each of the terms you will run across as you look further into these technologies:

- **Augmented reality (AR)** adds digital elements to a live view often by using the camera on a smartphone. Examples of augmented reality experiences include Snapchat lenses and the game Pokemon Go.
- **Virtual reality (VR)** implies a complete immersion experience that shuts out the physical world. Using VR devices such as HTC Vive, Oculus Rift or Google Cardboard, users can be transported into a number of real-world and imagined environments such as the middle of a squawking penguin colony or even the back of a dragon.
- In a **Mixed Reality (MR)** experience, which combines elements of both AR and VR, real-world and digital objects interact. Mixed reality technology is just now starting to take off with Microsoft's HoloLens one of the most notable early mixed reality apparatuses.
- **Extended Reality (XR)** is an umbrella term that covers all of the various technologies that enhance our senses, whether they're providing additional information about the actual world or creating totally unreal, simulated worlds for us to experience. It includes Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality (MR) technologies.



*Sourced from The Franklin Institute*



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