



# Leveraging Augmented & Virtual Reality

FOR MORE IMPACT AT MEETINGS AND TRADESHOWS

ON AUGMENTED & VIRTUAL REALITY



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## Leveraging Augmented & Virtual Reality for More Impact at Meetings and Tradeshows

**This white paper explores the significant value that companies can deliver to their trade show, meeting, and event visitors through the use of two immersive engagement platforms: augmented reality (AR) and virtual reality (VR).**

**Innovations in these formats are evolving so rapidly, however, that there's a chance that some of the technologies featured in this article will be obsolete by the time you read this. However, since marketers tend to be champions of change, we wouldn't want it any other way.**

### **Some things, though, won't change.**

No matter how advanced AR/VR technology becomes, the benefits it offers exhibitors and event leaders will remain constant. Similarly, there will always be a need to design virtual experiences intelligently, position them properly, and stage them effectively. In this article we'll explore these, and other, fundamental considerations for creating AR/VR experiences with impact. We'll also explore some real-world examples that illustrate how various companies are using multidimensional immersive experiences successfully at their tradeshows and events.

## The Big Picture

Virtual reality was once used exclusively as a training tool simulating job-critical situations for pilots and astronauts. The Disney Company evolved its use and introduced flight-simulation technology to consumers in its popular Body Tours and Star Tours attractions, which created the visual and physiological sensations of high-speed acceleration through the human body and deep space, respectively.

Today AR/VR is being used in a dazzling array of applications, from helping cure phobias to designing dream homes and to training neurosurgeons. Game developers worldwide have incorporated AR/VR into their games. Entertainment trends suggest that in the next five years, 3D movies will be seen as laughably antique when compared with emerging VR capabilities that will utterly transform the viewer experience. It comes as no surprise, then, that *Fortune* predicts that the VR market will grow into a \$4 billion business over the next ten years.

Before we look at the opportunities these technologies have opened for marketers, let's define what is meant by the often-confused terms *augmented reality* and *virtual reality*.

## Augmented Reality

Augmented reality is technology that combines the virtual and the real. Objects and animations, viewed on the screens of smart phones or tablets loaded with special apps, appear to be superimposed in 3D onto the actual physical space. By touching the screen or handheld controls, viewers can manipulate the object in many ways.

AR technology is already a staple of popular games targeted to children—for example, *Invizimals: The Resistance*, in which players must capture creatures running amok in whatever environment they hold the screen in front of, from the kitchen table to the backyard. A game for more sophisticated players, Google's *Ingress* for iOS, overlays visual elements onto real-world locations by using geolocation-based AR.

At tradeshows, AR can frequently be seen animating infographics. Attendees hold a tablet in front of special markers that trigger 3D animations. The people and objects on a print piece, for example, can suddenly come to life. When hotspots on the screen are touched, different aspects of the story and message are interactively revealed.

Attendees who looked at a video monitor were surprised and delighted to see a live video feed of themselves — with a virtual tiger sitting at their feet.

In one demonstration of AR, at a Baxter Pharmaceuticals exhibit, attendees held up sponsor-supplied iPads before a small paper marker. That simple action triggered the appearance of an animated clock tower, analogous to the featured product's life-extending potential. Depending on which window attendees touched, animated elements, along with musically underscored narration, told the product story.

A less-complex (but equally crowd-pleasing) use of AR was adapted by Bosch to promote its Pro Silence vacuum cleaner, whose mascot was a tiger. Although no tiger inhabited the booth, attendees who looked at a video monitor were surprised and delighted to see a live video feed of themselves—with a virtual tiger sitting at their feet. By positioning themselves just so, they could create the illusion that they were petting the tiger, which thumped its tail and nodded its head in appreciation.

The experience prompted not only a continuous flow of visitors but large volumes of selfies that generated significant targeted social media content for Bosch.

Oculus Rift combines real-time head tracking with a stereoscopic display enabling participants to see 360-degree views and synchronous action wherever they happen to turn their heads.

### **Virtual Reality**

Virtual reality, in contrast, is a deeply immersive experience. The participant has the perception of being fully integrated within the virtual environment. Content can depict either computer-generated scenarios or actual scenes and locations shot with a VR camera.

Wraparound headsets are integral to VR. As a result, there are no peripheral distractions to interrupt the user experience and take the participant out of the virtual world. Microsoft, Sony, Samsung, and Facebook-owned Oculus are the current leaders in headset technology. Oculus Rift combines real-time head tracking with a stereoscopic display enabling participants to see 360-degree views and synchronous action wherever they happen to turn their heads. Sounds, too, can enhance VR. Positional surround sound design can replicate what the person would hear from any direction in the virtual scenario.

Like AR, VR is well represented in the game industry. When users enter the world of *Mirror's Edge VR*, for example, they scale buildings, jump between skyscrapers, and accomplish other daredevil feats—with a “you are there” quality that is not for the faint of heart.

At the conclusion of the virtual holiday, participants removed their goggles and were greeted by the flight attendant who appeared in the movie they had just been part of.

At a Lufthansa exhibit, visitors were invited to become passengers on a virtual vacation. Seated in a pod and outfitted with VR headsets, they “found” themselves in a movie depicting a Lufthansa flight complete with passengers and flight attendants. A wand enabled them to “handle” objects in the environment, such as lifting and drinking a virtual glass of orange juice. The setting then changed to a beach in San Francisco, with the experience enhanced by the soothing sounds of seagulls and crashing waves.

At the conclusion of the virtual holiday, participants removed their goggles and were greeted by the flight attendant who appeared in the movie they had just been part of. The smiling young man handed them a postcard of their “trip” and invited them to write to a friend or family member about their virtual getaway. Lufthansa sent their visitors’ handwritten postcards to recipients in 30 countries worldwide.

### **The Business Reality: Multiple Benefits**

Both AR and VR offer a “wow” factor that audiences love and have come to expect. Fortunately, the love affair is two-way; marketers also recognize the many benefits this technology offers, including:

Product lines that once required costly exhibit space and drayage can be neatly contained within an app.

**Efficiency.** AR/VR enables businesses to expose concepts, products, and systems to their prospects that would otherwise not be physically possible in a tradeshow booth or conference space. A manufacturer, for example, can *virtually* take prospects inside complex machinery and enable them to investigate key features up close. A distribution center can lead visitors through a *virtual* tour of its multifaceted system with far greater impact than a video or series of graphics would allow. Product lines that once required costly exhibit space and drayage can be neatly contained within an app.

**Comprehension & Retention.** Studies have shown that human beings learn most effectively through a mixture of three learning modes: visual, aural (spoken words and text), and kinesthetic (physical movement). Immersive and semi-immersive activities can deepen learning by simultaneously engaging all three of these modes. With more neurons firing, the brain retains more of the experience and the information embedded within it. Translation: prospects are getting messages in ways that are potentially more likely to stick.

**Visibility.** AR and VR platforms are very hot today. They attract attention from the aisle, with great potential for increasing booth traffic. For passersby, or for those in line, watching people in VR headsets respond with grins, giggles, or open-mouthed awe at their private virtual world can be a show in itself. When games are part of the virtual experience, leader boards tracking player progress can act as beacons amplifying the excitement. When possible, the actual virtual experience can be displayed on a monitor to attract passersby—not enough to give away any surprises but just enough to heighten interest.

Virtual environment is only steps away from demo stations or private meeting areas where the discovery process and relationships can further develop.

**Buzz.** At tradeshows and meetings alike, noteworthy experiences generate a great deal of word of mouth. The more people talk, tweet, photograph, and post on social media about it, the greater the exposure for the company. AR/VR can also increase dwell time in the booth, which provides more opportunities for staff to interact with, and build relationships with, prospects.

**Likeability.** AR/VR makes companies look good. The public perceives these cutting-edge technologies—and by extension their sponsors—as creative, visionary, or just downright “cool” ... but only if the experiences prove relevant (more on that later).

**Sociability.** Anticipation about augmented and virtual experiences provides instant icebreakers between staff and prospects, or between attendees at conferences, making approaching and being approached easier and more enjoyable.

**Transition.** Qualified prospects who learn about the brand or products through the AR/VR activity are primed for more-targeted discussions with booth reps. A virtual environment is only steps away from demo stations or private meeting areas where the discovery process and relationships can further develop.

**Continuity.** Some AR/VR experiences, especially those with educational objectives, can be designed for use beyond the meeting or tradeshow, becoming effective sales or learning tools in the field or online.

Many companies prefer to provide their guests with preloaded smart devices for the duration of the presentation rather than ask them to install apps on their personal devices.

### Augmented Reality in Meetings

Unlike virtual reality, which requires a sensory retreat from the tradeshow or meeting space, augmented reality is incorporated directly into the environment. Like Google Glass, text or images are transparently layered upon the physical space. To see the magic, a viewer needs only a smart device loaded with the appropriate apps.

Many companies prefer to provide their guests with preloaded smart devices for the duration of the presentation rather than ask them to install apps on their personal devices.

But at conferences, where presentations may happen in a ballroom with hundreds of people, providing preloaded devices for each attendee is not an affordable or practical option. How, then, can an entire room have the benefits of an AR experience? This was the challenge Microsoft faced for the 2015 Xbox Conference when it needed to introduce a new version of the Lego-like building game *Minecraft* built specifically for Microsoft HoloLens.

The Microsoft HoloLens is a dedicated augmented reality headset providing a 360-degree AR view. The device spatially “maps” the world around the user, creating holograms that can be manipulated in countless ways. But, like all AR, the visuals can be seen only by the person(s) in possession of the interface, which in this case was the HoloLens headset.

Customers can also change, by a touch of the screen, any aspect of the design elements. The guesswork is thus removed from the buying process, shortening the sales cycle.



For the live demo, Microsoft found an effective way to give the audience an experience of the HoloLens-Minecraft combination. When the audience watched the onstage demo, they saw only the headset-wearing demonstrator moving his hands mysteriously over an empty table, lost in his private augmented world. But through the use of a special camera, every 3D design detail being created in the demonstrator's Minecraft universe simultaneously appeared on the monitors. The typically private boundaries of AR had been shattered, and the audience was thrilled.

### **Augmented Reality Makes Buying an Experience**

AR is enabling people to see possibilities before the possibilities have manifested. Hardware giant Lowe's Innovation Labs have created a game-changing exhibit called the Holoroom, an empty 30x30 space for augmented reality. Customers planning to renovate their homes first meet with a rep. Using a tablet, they map out the dimensions of the rooms to be renovated along with the desired layout of furniture and appliances.

When the customer looks at the tablet in the Holoroom, their design elements appear to populate the space in nearly-tangible 3D. Customers can also change, by a touch of the screen, any aspect of the design elements, including product styles, textures, colors, sizes, and shapes. The guesswork is thus removed from the buying process, shortening the sales cycle. Just as important, customers have fun as they connect in an enjoyable gamelike way with the brand.

A good VR concept enables the participant to make a meaningful connection with the brand or service

### **Virtual Reality: Going Beyond "Gee Whiz"**

In a VR experience there are no distractions. Participants cannot see the person standing next to them, booth signage, or the vendors next door. The headset restricts their attention to a single point of focus, the artificially created VR world. Their immersion is total. In order to make the experience rewarding for them, a number of critical decisions must be made long before you "get 'em in the goggles," including:

**Purpose.** Some companies get so caught up in the "isn't it cool!" aspect of VR that they forget to consider whether the experience they're offering is a logical fit with their brand or featured products. The fact that a product or service *can* be turned into an augmented or virtual experience doesn't mean it's the right platform. The medium must match the message, as in the Lufthansa example.

Be clear about your business objectives. What specifically do you hope to accomplish with VR? Expand brand awareness? Introduce new products? Entertain your audience? Or perhaps a combination of all of these?

**Relevance.** A good VR concept enables the participant to make a meaningful connection with the brand or service, such as a more-positive impression or a greater understanding about what’s in it for them.

**Tone.** The immersive sights and sounds of VR can induce almost trancelike states. What do you want your audience to feel in their “trance”? Awe? Amusement? Excitement? A sense of impenetrable calm? Will these emotions support your business objectives?

**Simplicity.** The operation of handheld joysticks or game pads should be either intuitively obvious or teachable within a matter of seconds; explanations lasting any longer than that risk intimidating would-be participants and creating lengthy wait times and lines. This is especially important when the activity is game-oriented. A game should be simple even if the task is challenging.

**Length.** The right length for a virtual experience depends on the desired content and booth traffic logistics. If a large volume of participants is expected (and desired), the activity should be relatively brief (say, 2 minutes) to accommodate high numbers, with the traffic flow planned accordingly. For shows with more-modest attendance, or in which the sponsor wishes to restrict the activity to only the most-qualified prospects, a 3 to 5-minute activity might fit the bill.

User-driven interactivity can increase onboarding time. For noninteractive content, no handheld devices are needed.

**The Look.** Do you want the setting and objects to look photo-real, like a movie, or stylized, like a video game? If participants encounter people in the virtual world, what will they look like? Give proper attention to the “casting” of your virtual characters, taking diversity and gender into account.

**Movement.** Though the eye perceives movement in VR, the inner ear does not move correspondingly. The result can be motion sickness, especially for “VR virgins.” There is evidence, however, to support the use of hand controls in the VR environment or the provision of a representative view of the user’s feet. These tactics help to spatially orient and ground users in the new reality, eliminating nausea. No matter how gentle the design of your VR, have a plan for treating guests who have an adverse physical reaction.

**Interactivity.** How interactive do you want the content to be? Does your scenario require the user to manipulate the virtual environment (e.g., making choices, pulling levers, flipping pages)? Keep in mind that user-driven interactivity involves the use of joysticks or game pads, which can increase onboarding time. For noninteractive content, such as following a highlighted pathway or merely observing the contents of the virtual world, no handheld devices are needed.

Oculus is currently at work on a magnet and sensor combination that will let VR users more naturally use their hands and fingers instead of using sticks or special gloves. Oculus-backed Finexus uses fingernail-sized magnets located on the user's fingertips to determine the exact location of their fingers in 3D space, in real time. Both technologies will provide a greater range of movement and control for the user.

**Safety.** Even though participants are fully aware that the experience is a virtual one, the sense of motion feels real. Avoid scenarios that could create a reaction of alarm, such as thrusting the person to the edge of a cliff or simulating other potential dangers. Surprises can enliven VR, but sudden extremes could cause people to react in ways that injure themselves, particularly if they are new to virtual formats.

AR/VR can drive engagement through immersive experiences that educate and entertain while enhancing the perception of the sponsor as creative, visionary, and customer-focused.

### Operational Guidelines

With most of a sponsor's attention focused on AR/VR design and promotion, it's important not to overlook the three basic operational aspects that contribute to the success of an activity:

- 1 Face to Face.** People attend shows not only to see the latest high-tech innovations but to meet people and build business relationships. Even the most self-guided experiences benefit both from professional brand ambassadors to welcome the visitor and set up the activity context and from sales rep involvement for follow-up conversations. If attendees are remembering only the incredible VR trip they took, and not the people who made it happen, it's a missed opportunity.
- 2 Accessible.** When AR/VR looks inviting, people want to dive right into it. Sponsors can inadvertently squelch that eagerness, however, if they make participants jump through too many administrative hoops before they begin. Minimize the preactivity qualifying process to avoid the perception of a joyless "pay to play" setup. Visitor data can be obtained through lead capture, a postvisit survey, and other tools.
- 3 Clean.** Hygiene matters. Headsets collect oils from skin and hair, so clean them with an antibacterial solution after each use. Do this in full view of the visitors—they'll appreciate the effort to make their experience sanitary.

## Conclusion

AR/VR can drive engagement through immersive experiences that educate and entertain while enhancing the perception of the sponsor as creative, visionary, and customer-focused. Yet exhibitors must never complacently assume that “if we build it, they will come.” Any booth or meeting activity must be integrated within a larger strategic effort.

Booth design must be as engaging as the virtual activity purports to be. The activity must be the right medium for the product or service and offer relevance for prospects, not act as a simple hi-tech lure. Preshow communications are essential to create advance buzz for the AR/VR, and onsite social media are key to keeping the buzz going. The staff must be trained to engage visitors and help them get the most out of their virtual—and nonvirtual—experience.

With all these pieces in place, you're ready to blow their minds.

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