

How AR/VR Technology is Revolutionizing Employee Safety Training

Workplace safety training is as vital as workplace safety itself. Read top advantages of using AR and VR applications in employee safety training.

AUSTIN, TX, USA, September 16, 2019 /EINPresswire.com/ -- When it comes to conducting workplace [safety](#) training programs, are you looking for new ways to get your workers to become more motivated, engaged, and most importantly — proactive — when it comes to safety?

Do you find it challenging to lead new employee through your safety training onboarding process? And do you question whether they have really absorbed and mastered critical standard operating procedures (SOPs)?

You are not alone.

But there is an emerging new trend in safety training — one that leverages the rapid advances in consumer games technology.

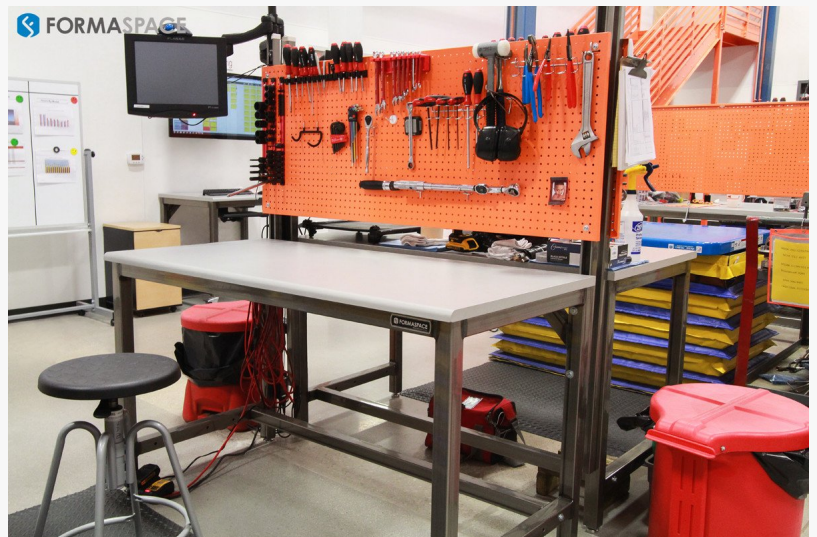
Savvy companies are discovering the value of using immersive game technologies — such as augmented reality (AR) and virtual reality ([VR](#)) — to build effective teaching tools that allow workers to learn first-hand about the real-world consequences of not following best safety practices.

As we'll see in the examples below, industrial AR and VR-based industrial safety training programs allow companies to put their workers in potentially dangerous simulated real-world environments — ones that would be too risky and/or expensive in real life* — while providing a sophisticated means to accurately assess whether employees taking part have taken the safety lessons to heart.

What's The Difference Between Augmented Reality (AR) And Virtual Reality (VR)?



VR training



This workbench built for Busch allows workers to keep their tools organized and accounted for.

First, a quick work on definitions. In classic AR applications, users hold up a phone or tablet screen with a live camera image upon which computer-generated image overlays are matched to the view. (Think of chasing Pokémon characters or adding cat ears and whiskers to a friend's face on Snapchat.)

Classic VR applications require users to wear goggles that replace our normal view of the world with a 360-degree synthetic environment, which users can explore and touch, allowing them to experience a game world, or in our case, realistic warehouses, refineries, construction job sites, etc.

If you took a quick safety inspection spot check tour through your facility today, would you find one of OSHA's top ten most commonly cited violations?

In our case, the top 3 violations in furniture manufacturing (NIACS code 337) are:

Respiratory Protection.
Woodworking machinery requirements.
Hazard Communication.

Hopefully, you wouldn't find any of these violations. But most managers agree, it's a major ongoing challenge to create an effective culture of safety among employees.

Regular monthly (or weekly) safety meetings can help to a degree, but so often become rote and stale.

In response, companies such as PIXO VR are building new interactive tools — based on popular video game technology — that could be part of the solution.

Another advantage of VR-based simulations is that they can bring together users from different site locations for safety training, making them a cost-effective solution for new employee onboarding at larger corporations, as no travel costs are involved.

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Stainless Steel Benchmarx

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Custom setup that allows operators at a company building wooden planter boxes to organize their raw materials so they can work safely and efficiently.

The accident statistics from the 2018 edition of Liberty Mutual's Workplace Safety Index are pretty sobering: businesses expend more than \$1 billion a week on serious, nonfatal workplace injuries.

According to Liberty Mutual, the top three accidental injury categories are:

Overexertion involving outside sources, e.g. injuries related to lifting, pushing, pulling, holding, carrying, or throwing: \$13.7 billion in losses annually.

The immersive environment teaches participants the importance of wearing appropriate personal protective equipment (PPE) on the job, including helmets and harnesses when working at tall heights, such as on construction sites.

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Custom bench with mounted tv

While preventing falls is a major concern in the construction industry, it's not the only one.

Workers need to be aware of all kinds of potential risks, from ingesting life-threatening silica dust during cutting operations to hearing loss due to excessive noise.

Construction errors are another major safety concern as well. The advanced research group SRI in California is developing prototypes that help building inspectors identify structural problems, such as structures that don't match engineering drawing, earlier in the process — before projects are awarded a certificate of occupancy.

Meanwhile, one of the construction industry's leading heavy equipment manufacturers, Caterpillar, has invested heavily in VR-based training programs to help keep workers safe, on road-building projects, for example.

VR-AR Safety Training For Chemical Processing Plants And Oil Refining Operations
VR and AR safety training has found a home at leading energy and chemical companies as well.

At the German-based BASF, the world's largest chemical company, employees use VR training to learn safety training basics — from preventing accidents in the office to proper firefighting methods in the factory.

Meanwhile, the oil and gas 'supermajor' Royal Dutch Shell uses interactive VR training programs that help employees prepare to handle simulated dangerous, high-stress emergency situations — such as gasoline tanker spills that are engulfed in flame.

Safety Trainers At Shell's Pernis Refinery Use VR Simulations To Prepare Their Employees With

Best Safety Practices To Help Prevent, Contain, And Control Unexpected Emergency Situations.

Preparing For An Active Shooter Situation At Work Using AR-VR Training Scenarios

In our final example, we address what may be one of the most pressing safety concerns for industrial facilities: preparing for and surviving an active shooter scenario.

Hopefully, you will never encounter such a situation in person, but the best advice may be to follow the time-tested Scout's motto: Be Prepared.

Read more ... https://formaspace.com/articles/industrial/ar-vr-workplace-safety-training/?utm_source=einpresswire&utm_medium=content&utm_campaign=article-091119

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