

Feature



VIRTUAL REALITY (VR) E-LEARNING AT VRTS.

# THE FUTURE IS NOW: VIRTUAL REALITY TRAINING SOLUTIONS

BY BROOK THALGOTT PHOTOS BY SHANE LUHNING

**R**egina's Virtual Reality Training Solutions may have humble beginnings, but it's on course to revolutionize the way industry trains staff in every field from mining to construction, health care to energy. Virtual reality is here, and it's ready to take Saskatchewan by storm.

## The Beginning

Melcher Studios, an interactive development agency, has been building solutions for more than a decade. "We started out as a website design company," says Dwayne Melcher, CEO. "As the years passed, we expanded our services to include more services as technology changed." As the company grew, it began to branch out from websites into web applications, video production, animation and game development. However, it was its move into e-learning that set Melcher Studios onto a new path.

"We started building e-learning modules for organizations across North America, and then here in Saskatchewan," says Jack Hilkewich, Vice-President, Interactive. "Over the years, we've developed e-learning content and modules for many different industries." Melcher Studios created modules for organizations needing to train staff in every field including health care, retail, telecommunications and financial services. However, it was their work for the mining, construction and energy sectors that revealed an opportunity.

DWAYNE MELCHER, CEO, MELCHER STUDIOS

"We realized that there was a need for e-learning in workplace safety," says Melcher. "We started to think about how we could use current technology in this space, so that our customers could get better learning outcomes for their students." The Melcher Studios team began exploring how to use new technology in virtual reality (VR) and augmented reality (AR) to make e-learning that more effective. After some research, the Melcher team created a virtual reality fall arrest training experience, complete with VR goggles, VR digital content and a real-world platform for the student to stand on.

"We took the platform and our VR fall arrest experience to the Industrial Safety Seminar in Saskatoon in February 2018," says Hilkewich. "We demonstrated the experience to safety professionals from across the province." The idea behind it was simple—create a way for a user to experience a 'real-world' workplace incident without the danger, so the user can learn how to solve or avoid an issue in a hands-on way.

At the seminar, the fall arrest experience allowed attendees to don a pair of virtual reality goggles and go through the motions of safely climbing a ladder while standing on a custom-built platform. At a certain point, the platform moves, sending the user stumbling to correct themselves. The response was overwhelming. "We had attendees lined up to try it out, and they marveled at how well it could teach someone," says Melcher. "We left the show with many interested leads, and a potential partner."

Chris Pass is the President of Armour Safety Consulting and Training, also based in Regina. "I was blown away by what I saw," says Pass. "This technology will totally change how we train people in safety." Armour Safety and Melcher Studios sat down to figure out how they could work together to bring this VR technology into the world. By September 2018, the two companies formed Virtual Reality Training Solutions (VRTS), and a new venture was born.

#### Now

Virtual Reality Training Solutions is in the market, offering a number of VR modules, ready for industry safety professionals to train staff. Besides fall arrest training, companies will be able to purchase fire safety in late November



WOLD AND MELCHER TRY VR E-LEARNING.

with ground disturbance and confined spaces in full production, releasing late 2018. "Not only is VR training like this 'cool', for lack of a better word," says Melcher. "But, it's also incredibly effective. Students who learn something in the VR space are far more likely to remember what they learned and retain it long-term. And that is great for occupational health and safety." Pass agrees. "VR training gives students all the tools and experiences they need to learn their job, without the 'danger'. Students can experience something like a serious fall, learn what to do to prevent it, and walk away with the knowledge they need to avoid anything like it in the future. Plus, modules can be deployed to remote sites which is perfect for companies that are far from traditional training centres, or that have employees in many locations."

VRTS not only offers developed modules usable across industries, they can also create something from scratch. Melcher Studios has already built VR training solutions for the nursing program at Saskatchewan Polytechnic, and for cadet training at the RCMP Depot in Regina. "The opportunities in VR learning are endless," says Hilkewich. "We can build modules for everything from fire safety to fall arrest, driver safety to health care procedures and much more." Best of all, as the technology advances, costs for equipment like VR goggles comes down. "Right now, we can create in-depth modules with Oculus, HTC Vive or Playstation VR. Or, we can build something simple with a pair of cardboard goggles and a smartphone," says Melcher. "The technology is speeding along so fast that we can work with just about any budget." The company is also researching wearable technology as a way to immerse the user even further into the VR experience. Gloves and suits with built-in trackers can eliminate the traditional controllers needed in order for the user to interact with virtual objects. "Wearables are the next step in VR, and we're learning how we can use it for an even better e-learning experience." says Hilkewich.

#### The Future

The VRTS team is also committed to quality from the time a customer first makes contact. "Everything we build is vetted with the knowledge and experience of Armour Safety," says Pass. "We ensure every module is compliant with current



MELCHER AND HILKEWICH DEMONSTRATE VR E-LEARNING.

legislation and safety practices in the field.” VRTS will also work with customers to ensure they are getting the solution they need for their organization. “No two companies are the same,” says Melcher. “We sit down with every customer to make sure they are getting their training needs addressed in a way that works for them, their staff and their budget.” VRTS will also provide end-to-end customer support, so that when the modules are deployed, they are usable from day one. Rigorous training for users and after-sale support are part of the VRTS experience. “No one wants to invest in technology that ends up sidelined because staff can’t use it,” says Hilkewich.

Virtual reality is a brave new world, but one that offers so much potential for industries of all kinds. The future is bright for VRTS, and they are ready to share with Saskatchewan and the rest of the country. “We’re on the cusp of something truly amazing,” says Melcher. “And we can’t wait to show every customer what we can do for them.” 

*Find out more about Virtual Reality Training Solutions (VRTS) and what they can offer your organization at [vrts.ca](http://vrts.ca).*