

Beyond the Books: A Guide to VR/XR for Academic Use

Power Your Research and Education with Immersive Technologies

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Introduction

Leading universities worldwide are adopting virtual and mixed reality technologies to educate and engage with their students and power their research. Read on to discover how research and education can be conducted across industries utilizing the unique key features of immersive technologies.

We at Varjo are eager to support academic institutions in their pursuit of developing meaningful immersive 3D solutions and adopt immersive technologies for research, education, and training. We strongly believe that students and researchers of today deserve to learn more about immersive technologies (VR, AR, and XR) hands on to be better equipped for tomorrow.

That is why we have designed this e-book for universities and other academic institutions in mind.

In this e-book, we will outline how you can harness the unique immersive features of VR&XR to conduct academic, clinical, and commercial research in a completely realistic virtual environment, visualize data in 3D, reduce cognitive load in education, or achieve better learning results with true-to-life visualizations of complex topics.

The Future of Learning and Research with Mixed Reality

Immersive technologies like virtual and mixed reality can improve research and learning in the academic sector in several ways.



Use immersive technology in academia to...

- Learn and collaborate in immersive environments that are completely fail-safe and true-to-life, to enable faster, more engaged learning.
- Visualize complex data in 3D to gain a more complete understanding of system dynamics.
- Better prepare students for job experiences at a lower cost by supplementing real-world training with immersive learning in the early stages.
- Measure student and participant performance objectively with integrated VR/XR based eye tracking.
- Create portable, scalable, and repeatable research setups and scenarios easily.

1. Understanding Mixed Reality

VR, AR, and XR all come with distinct benefits for academic purposes. The technologies are not equally suitable for every use case, and for those not deeply familiar with the technologies, making the right choice can be difficult. Should you choose VR, AR, or XR headsets for your project? Let's examine the key differences, benefits, and drawbacks of each technology in more detail.



Virtual Reality (VR)

Virtual reality means entirely replacing the reality you see around you with computer-generated 3D content. With head-mounted displays for VR, also known as virtual reality headsets, you're completely immersed in the virtual simulation and cut off from the real world.

This allows you to freely customize and create as many different experiences and scenarios as needed and, depending on the device, you can interact with virtual content and objects using your hands or your eyes.



A 2D screenshot of a VR experience that showcases a Volvo car in Venice, Italy.

Pros: Complete flexibility, true immersion, an endless number of virtual scenarios and experiences can be created. A relatively easy way to get started with immersive tech.

Cons: Isolated experience, detaching the user from real surroundings and colleagues, high-quality graphics require a high-end PC and tethered experience

Augmented Reality (AR)

Augmented Reality (AR) means that the user is experiencing actual reality while certain virtual elements are projected onto it. Most of today's AR devices use optical see-through-based glasses that create holographic images to float in front of your eyes in a narrow, augmented window. The images are hazy and ghostlike because optical see-through devices can only display light, not black or opaque content.

AR devices must also make significant compromises on the field of view, resolution, or both. On the other hand, AR goggles are often lightweight and portable. Some of them are also wireless, allowing users to wear and use them outside in the field.



With AR devices, virtual content can be experienced as holographic augmentations in a narrow field of view.

Pros: Portable, wireless, enables interacting with the reality around the user. Great for portraying straightforward content like information overlays.

Cons: Holographic, unrealistic augmentations, narrow field of view, no immersion and limited immersion and enterprise applications.

Mixed Reality (MR/XR)

Mixed reality (MR/XR) combines the best aspects of both VR and AR. In mixed reality, virtual objects appear as a natural part of the real world, occluding behind real objects. Real objects can also influence the shadows and lights of virtual contents. With XR, a user can see their hands and body and interact with colleagues and real-world objects.

XR is best accomplished with video pass-through technology, instead of optical see-through, which means using cameras to digitize the world in real-time. With video pass-through, virtual objects can be black or opaque and appear as solid as anything in the real world. Colors are perfectly rendered, appear just as they should, and you can also add, omit, and adjust colors, shadows, and light in the virtual world and the real world.



This image is an unmodified capture taken through the Varjo headset, showing truly photorealistic mixed reality with realistic shadows and lights.

Pros: An immersive environment that matches the reality, suitable for any simulations that need to reflect real scenarios. Provides complete flexibility of the virtual world with the reliability of the real world, unlimited computing power.

Cons: Higher price, larger, heavier headsets compared to AR goggles, achieving professional-grade graphics requires a high-end PC with a tethered experience.

Varjo's Technology: A Deep Dive Into Innovation

Varjo XR-4 Series powers the most advanced XR and VR for research and education. Varjo's integrated eye-tracking allows users to gain deep, reliable, and immediate insight into what subjects see and experience. All Varjo headsets, including the XR-4 Series, come with built-in eye-tracking.

Furthermore, Varjo XR-4 Series headsets enable an incredibly natural experience, thanks to their industry-leading retinal resolution and a 120-degree horizontal and 105-degree vertical field of view. And with comfort factors such as active cooling and zero-gravity headband, you can host longer training sessions without having to worry about adverse reactions.



Unique features catered to high-fidelity immersive learning

- Industry-leading clarity with dual 4Kx4K displays, up to 51 pixels per degree resolution and 120×105-degree field of view to see objects in large scale
- Blend photorealistic virtual and real content seamlessly with dual 20 Mpx video pass-through cameras
- Capture even the smallest eye movement with Varjo's integrated eye tracking at 200 Hz
- Out-of-the-box functionality for professional use with inside-out tracking and Varjo Controllers with premium ergonomics
- Collaborate with ease with integrated speakers providing DTS 3D spatial audio and dual noise-cancelling microphones

How Virtual and Mixed Reality are Changing the Academic Landscape

When teaching complex, technically demanding subjects, realism matters. Being able to see and interact with objects or work in environments that look and feel true-to-life directly impacts how engaged students are and what their learning outcomes will be.

With immersive technology, you'll be able to teach technical subjects such as engineering and design, visualize complex topics such as human anatomy, practice core skills such as surgery or operating dangerous machinery, simulate critical scenarios such as emergency response, or conduct student research or studies in a scalable and repeatable way.

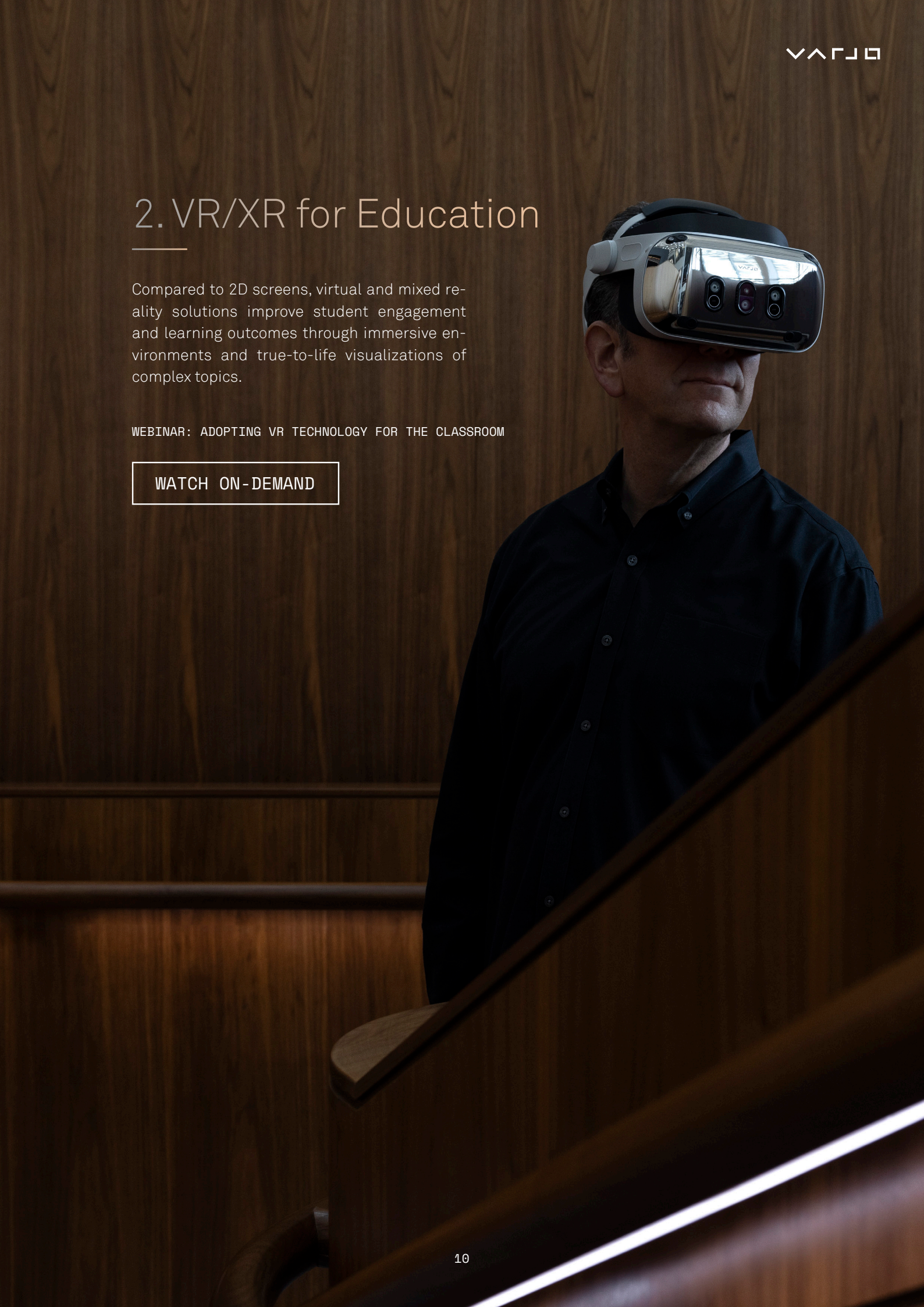
In research, VR/XR can provide meaningful behavioral insights with a level of accuracy you would expect from real-world studies, but without the considerable research costs. The possibility to combine the visual content shown in the headset with biosensor data allows researchers to recreate life-like environments and study human reactions, usability, and behavior like never before. With the headset's eye-tracking, researchers can measure physiological responses like stress or capture emotional responses, interest, and interaction – diving deeper into understanding human behavior and consciousness.

2. VR/XR for Education

Compared to 2D screens, virtual and mixed reality solutions improve student engagement and learning outcomes through immersive environments and true-to-life visualizations of complex topics.

WEBINAR: ADOPTING VR TECHNOLOGY FOR THE CLASSROOM

WATCH ON-DEMAND





Revolutionizing Classroom Learning

Key benefits to adopting VR/XR for education

- Understanding key concepts in seconds versus minutes
- Key structural details can be clearly visualized and understood
- Increased learner engagement improves retention
- Unlimited repetitions with photorealistic immersive study material
- Scalable learning that can be deployed anytime, anywhere
- Student perception of complexity is reduced

Interactive and Immersive Learning Environments

Early research shows that using high-resolution VR/XR for anatomy education has multiple benefits for learning. One of the most quantifiable advantages is the decreased time to understanding.

Using virtual or mixed reality not only helps students learn faster, but they also become more engaged with the content. Furthermore, immersive tools have a clear advantage for developing a deep understanding of the study material.

Using mixed reality to teach complex topics has even more benefits than full VR. With video pass-through mixed reality, learners can interact with life-sized materials and get a 3D understanding of the study subject – all while seeing the real world and their peers around them.

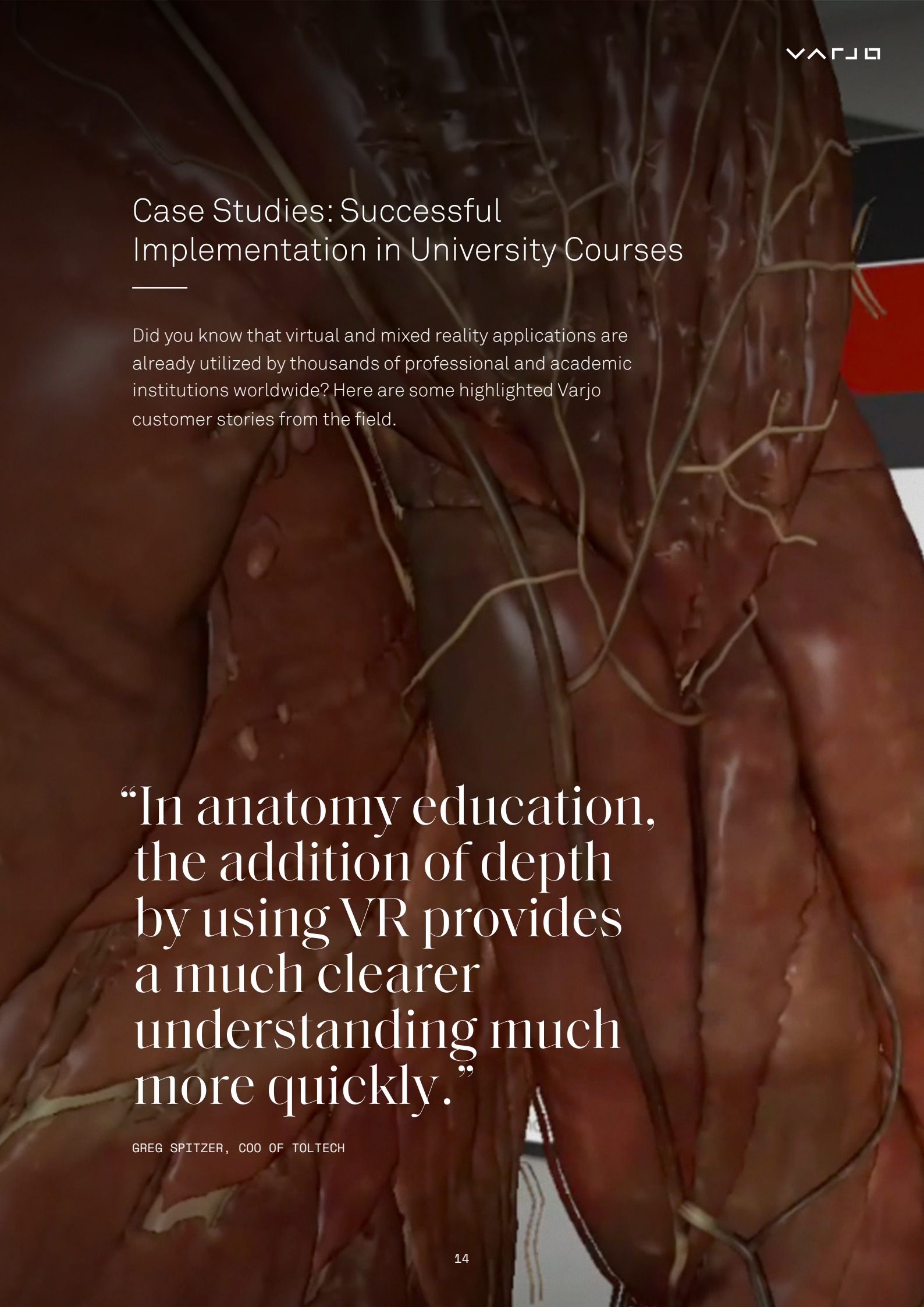
Moreover, the flexibility and scalability of VR and XR technologies mean that customized learning experiences can be crafted to suit the needs of each individual learner, accommodating different learning styles and paces.

Enhancing Remote Education: Bridging the Physical Distance

With virtual and mixed reality learning environments, students and academic professionals can train and collaborate in a shared immersive reality, improving ways of working, communication and readiness for any study scenario. These immersive learning environments offer a digital bridge that can connect students and educators across the globe, transcending the physical barriers that once limited the scope and effectiveness of distance learning.

With mixed reality, students can virtually stand shoulder to shoulder with their peers and instructors, working collaboratively on projects, conduct-ing experiments, or exploring historical sites and scientific phenomena as if they were physically present.

The seamless integration of virtual scenarios into the learning process means that transitioning from a lecture on the architectural marvels of ancient Rome to a hands-on engineering workshop can happen in the blink of an eye, without anyone having to leave the room.



Case Studies: Successful Implementation in University Courses

Did you know that virtual and mixed reality applications are already utilized by thousands of professional and academic institutions worldwide? Here are some highlighted Varjo customer stories from the field.

"In anatomy education, the addition of depth by using VR provides a much clearer understanding much more quickly."

GREG SPITZER, COO OF TOLTECH

Transforming Anatomy Education: Case Toltech

Touch of Life Technologies (Toltech) has been improving healthcare through education technology since 1998. Founded by research, clinical and teaching faculty, the Toltech team has been creating pioneering virtual teaching and training tools from real anatomical datasets long before the advent of VR and AR technologies.

Today, the Toltech team provides virtual anatomy education and creates training environments that allow medical students and professionals to explore real human anatomy using immersive 3D visuals. Compared to learning from textbooks or 2D and 3D anatomical illustrations and models, using real anatomical imaging in 3D has significant benefits for learning.

VR, AR and XR Help Tampere University Revolutionize Medical Imaging

Varjo is partnering with Tampere University as it leads an ambitious research consortium that explores ways to present medical imaging data with new three-dimensional methods. The project leverages virtual reality, multi-sensory presentation, 3D printing, and haptic feedback to provide new ways to interact with large data masses.

Digital imaging is an essential part of modern medicine. Magnetic resonance imaging, computed tomography, cone beam computed tomography, and ultrasound imaging provide information for diagnosis and treatment planning. Immersive technologies bring completely new possibilities to the field, enabling more realistic 3D modelling and visualization of medical images inside virtual environments. Ultimately, this helps accomplish more effective procedures and treatments.

RUAS Introduces a Course in VR, AR and MR

Rotterdam University of Applied Sciences (RUAS) is pioneering the adoption of immersive technologies in academia with its new course “Reality Innovations: VR / AR / MR”. The course is one of the first in the world dedicated solely to providing hands-on experience and people-focused innovation in virtual reality, augmented reality, and mixed reality.

In response to the growing need for immersive content creation and talent, RUAS is placing immersive technologies at the forefront of education with their new course. Collaborating with industry experts, students will engage in a learning journey that includes research, experimentation, theory classes, guest lectures, workshops, and projects, all centered on the practical application and exploration of AR, VR, and MR technologies. The aim is to give students a comprehensive understanding of various immersive technologies while emphasizing human-centric thinking.

2. VR/XR for Research

Immersive research can be an extremely powerful tool for generating new insights into human behavior.

Benefits of VR and XR for research

- Deeper insights about human behavior
- Efficiency compared to real world studies or larger sample size with the same cost
- Remove the need to build physical assets or props and iterate faster by switching to digital assets
- Mix real and digital objects in a natural way and allow research subjects to interact with both
- Built-in eye-tracking allowing researchers to collect exact data on eye movements

Advancing Scientific Research with Immersive Technology

Virtual, augmented, and mixed reality technology allow researchers to create true-to-life environments with the same conditions as in a real-life study setup. Subjects can put on a headset and experience virtual environments, objects, and interactions similarly as they would in real life. With immersive technology, there is no need to build physical assets or props to study reactions. Since the virtual content is computer-generated, making changes to the environment is easy, enabling endless variants especially useful in marketing, usability, and behavioral studies.

Virtual and mixed reality devices with integrated eye-tracking allow researchers and businesses to better understand human behavior and consciousness. A VR/XR eye tracker combines both features of remote and mobile eye tracker setups. The eye tracker is integrated into a headset and allows respondents to move freely without the risk of losing calibration. With industrial-strength eye-tracking available and built into all Varjo headsets, the data quality is reliable, improving the success rate of measurements resulting in more reliable studies and saving costs.

Furthermore, the eye-tracking data from the immersive experiences can be easily connected with other biometric data. This includes tracking and monitoring facial electromyographic activity (fEMG), facial expressions, electrocardiogram (ECG), galvanic skin response (GSR), and respiration, among others. The data can be used for measuring stress, capturing emotional responses, interest, and interaction within simulated environments.

In addition, virtual reality allows respondents to completely immerse themselves in an environment, isolating themselves from the surrounding reality. This means that studies can be performed in various locations without environmental change causing a bias. As the whole VR/XR research setup is portable, there is also great flexibility for deployments with the potential to save time and money. At best, the headset and related equipment can fit into a cabin-sized bag.

Examples of Immersive Research

Varjo headsets are used in numerous research projects by universities, higher education institutions, and other education providers around the world. Here are some examples of recent research conducted using Varjo headsets across different disciplines.



"Varjo is the only company providing the unique, high-end features and specs we need to prototype innovative future immersive experiences."

DOUGLAS BOWMAN, PROFESSOR, VIRGINIA TECH

machineMD Diagnoses Brain Disorders with a VR-Based Eye Tracking Solution

Swiss medical device company machineMD is developing an innovative diagnostic device for the early diagnosis of brain disorders, called Neos. Neos will be integrated with the Varjo headset and enable a complete, standardized, and instrument-based neuro-ophthalmologic examination using its built-in and industry-leading VR-based eye tracking solution.

This marks the first time that the medical community is leveraging a VR headset to measure eye tests to aid the diagnosis of brain disorders. The key component behind Neos is Varjo's integrated eye tracking technology which is optimized to track and study eye movements in human-eye resolution. Varjo's proprietary eye tracking technology is video-based, leveraging two built-in, high-speed cameras and infrared illumination to capture images of a user's eyes at 200 Hertz while measuring information such as pupil position, pupil dilation, interpupillary distance (IPD), focus or fixations, eye-motion patterns and more.



Case iMotions: Biosensor Data for Behavioral Insights

The iMotions software is used for human behavior studies using biosensor data and virtual environments. The software is used by both academic and commercial researchers working in fields such as psychology, medical research, usability, tech, engineering, and marketing. The platform allows the collection of synchronized data from multiple biosensors, including the sophisticated eye-tracking built into Varjo headsets. Eye-tracking data can be seamlessly synchronized with signals from various biosensors, such as EDA (electrodermal activity).

The use of multimodal biosensor data in the iMotions platform can provide insights into the user's emotional and physiological states as they experience the virtual environment. This can be used for measuring physiological responses to the stress of pilots or drivers, investigating biomarkers related to phobias, and capturing emotional responses, interest, and interaction within simulated environments.

> "Immersive virtual environments can dramatically broaden the reach of the scientific study of behavior."
>
> SCOTT GREENWALD, PRESIDENT AND CEO OF COVR SOLUTIONS

Anhalt University of Applied Sciences: Is VR Software Ready for Medical Teaching?

A study by Angela Odame and Johannes Tümler from 2022 looks at the effectiveness of VR software for teaching medical knowledge compared to traditional learning methods and the degree of satisfaction associated with using VR. In this case, they tried teaching the anatomy of the human heart, one of the most complex concepts in anatomical education.

The researchers conducted a randomized control study with 40 participants that were split into two groups of 20, one being the control group receiving conventional teaching and the other being the group where VR software was used with a Varjo headset.

While both teaching methods were found to be effective, the VR group scored around 5% higher in a quiz that was run after the teaching had been completed (although the sample size was not large enough to tell if the result is statistically significant).

However, the biggest difference came from student engagement. The VR group found the experience significantly more engaging, enjoyable, and useful. None of the participants had used VR to learn anatomy before, although a few of them had some previous experience of VR in general. Almost everyone rated it to be highly beneficial for teaching subjects like these.

3. Training and Simulations

VR and XR are gaining foothold as simulation tools for different industries and tasks, including aerospace, medical, heavy industry, and education. Immersive training and simulation put people in the right frame of mind the moment they enter the VR/XR environment, at best replicating the exact feeling and conditions of real life while offering a fail-safe training setup.

Benefits of VR and XR for Simulated Training

- Reduce the cost of training by up to 99%+ with low-cost, immersive learning environments to replace or supplement traditional training solutions
- Increase training velocity and enable more trainees to become proficient in less time by using XR and VR training tactics
- Optimize user engagement with a solution where trainees want to engage in and repeat exercises
- Increase the value of existing part-task simulators with full field of view, immersive visuals using mixed reality technology
- Train effectively for the most dangerous scenarios in a completely safe immersive environment

Realistic Simulations for Various Academic Disciplines

Physical simulators have been used for training different kinds of pilots and vehicle operators for decades. They offer great visuals and an immersive training experience, which enables trainees to effectively hone their skills. However, traditional simulators are expensive, their portability is nonexistent, and have limited scalability as a solution.

Simulators using virtual and mixed reality headsets are rapidly changing this, offering the same kind of immersive training experience with added portability, a lower price tag, and better scalability.

Mixed reality allows educators to combine virtual and physical objects and conduct training by applying the flexibility of the virtual world to the reliability and context of the real world.

A practical example of this is being able to drive a car or conduct pilot training in a physical simulator, with real controllers, while the user sees a virtually created environment outside of the simulator windows. When the user is wearing a headset that tracks eye gaze, measuring physiological responses of pilots or drivers becomes possible.

With advanced mixed reality solutions, trainees will be able to simulate complex tasks such as engineering and design or human anatomy, practice core skills such as surgery or operating dangerous machinery, simulate critical scenarios such as emergency response, and train in a scalable and repeatable way that improves student engagement and learning outcomes.

Safety and Efficiency in High-Risk Training

Immersive technology can help trainees prepare and train for the most challenging real-life scenarios. Advanced organizations are already experimenting with these technologies to gain a competitive advantage and establish an understanding of the potential of the technology for various applications.

The safety benefits of VR and XR compared to traditional training methods are significant, particularly in fields that involve high-risk training scenarios, such as medical surgery, chemical engineering, or aeronautics. Students can engage in complex, hands-on tasks within a controlled, virtual environment that mimics real-life conditions without the associated risks and without the cost of building physical simulators. This not only safeguards learners from physical harm but also reduces the financial and ethical implications of training accidents. Moreover, it allows for repeated practice sessions without the wear and tear on expensive equipment or the need for specialized facilities.

Mixed reality also offers the flexibility to simulate environments or scenarios that would be otherwise inaccessible or too costly, such as surgical training, pilot training, nuclear power plant operator training, steel operations training, or maritime training.

"The key for effective training is ensuring that the experience is as realistic as possible."

JOSH THOMPSON, PROGRAM MANAGER, MXT

“High resolution visuals are crucial in our simulations, and with Varjo, the level of definition is beyond comparison.”

BENJAMIN KRYNSKI, FOUNDER AND DIRECTOR
OF FUTURE PROJECTS AT REAL RESPONSE

Enhancing Skills with Hands-on Mixed Reality Experiences: Case Real Response

Australian simulation training provider Real Response is leveraging Varjo's mixed reality to solve aeromedical teams' greatest training challenge: access to live airframes.

Their BlueRoom™ simulation platform, developed with the support of the Australian Defence Innovation Hub and powered by Varjo headsets, enables students to train for complex medical scenarios in a realistic mixed reality environment. The platform features a mission control system that allows the instructor to change the scenario in real-time, creating infinite possibilities. This gives the instructor full control over the training environment, allowing them to facilitate and adjust all aspects of the simulation, such as manipulating the patient's blood pressure based on the student's actions. Varjo headsets allow trainees to interact with real-world objects and develop their fine motor skills effectively.



AIT: Is Mixed Reality Trauma Simulation the Next Level of Medical Skills Training?

This study by the Austrian Institute of Technology (AIT aimed to explore the potential of mixed reality for medical skills training, particularly for first responders in trauma situations. The study proposed a novel approach that combined a physical manikin with a virtual avatar, allowing trainees to interact with both real and virtual elements by using a Varjo mixed reality headset.

The study used both quantitative and qualitative data for evaluation. Twelve participants were recruited from different first responder organizations to complete the MR training scenario and a post-test questionnaire. The research team measured the participants' levels of presence, stress, and technology acceptance, as well as their feedback on the MR system and the training scenario.

The results showed that the participants experienced high levels of physical- and self-presence, increased stress levels, and high technology acceptance during the simulation. The MR approach was well received by the participants, and they particularly appreciated the haptic and multi-sensory feedback and the realism and complexity of the training scenario. The study concluded that MR could be seen as a viable technological solution to create immersive skill training, perceived by end-users as a useful tool and addition to existing training solutions.



2. Setting Up Your Virtual and Mixed Reality Lab

Establishing a virtual and mixed reality lab can be a tangible and exciting step towards advancing immersive learning and exploration in your organization. A well-equipped VR lab not only enhances academic programs but also prepares students for the technological demands of the future, familiarizing them with the latest innovations.

Checklist and Requirements

Could VR, AR, or XR produce real value to your existing ways of working? Are you prepared to invest in new hardware and software? Do you have a budget for implementing new technologies into your workflow? If the answer to these questions is yes, your organization can benefit from building a dedicated VR/XR lab.

Below, we delve into the essential checklist and requirements for setting up such a lab, followed by best practices for its integration into academic programs. We outline the development of an VR/XR program into three stages with varying requirements and realistic outcomes.



1. Taking the First Step Into Immersive Tech

- Provide spaces where students can access VR/XR, such as a learning lab or library.
- Not incorporated into a specific curriculum.
- Mainly used for educational exploration, experimentation and entertainment.

Requirements:

- Acquisition and maintenance of hardware (headsets, accompanying peripherals such as PCs, controllers, tracking systems). Invest in devices and peripherals that offer high-resolution immersive experiences that match your anticipated use cases. Make sure the devices you consider meet your requirements in terms of visual quality and performance, that they support your critical software, suit single or multi-user setups and offer control schemes that fit those users' requirements and experience level. Ensure the hardware supports a wide range of applications and can be updated as technology advances.
- Room with enough open space to safely move around and interact in the virtual environment.
- Dedicated lab manager.

Outcomes:

- Students gain valuable hands-on experience with immersive technology.
- Learning and experimentation is self-guided, limiting the scale of quantifiable impact.

2. Leveling up: Adding Value to Your Curriculum with VR/XR

- Implement VR/XR education and training as part of your curriculum.
- Use existing software and platforms that provide pre-made learning programs for students, e.g. Toltech, Tenstar, or Luxsonic.

Requirements:

- Hardware (headsets, PCs, controllers, beacons)
- Licenses for learning platform or software
- Training on platform for teacher

Outcomes:

- Students gain hands-on experience for real-world scenarios.
- Learning is quantifiable – metrics can include module completion, concept understanding and retention, rate of learning, and others.

3. Custom Simulations for Research, Education and Training

- Design a custom simulation for specific research, education and training applications
- Great for in-depth training, research and feasibility testing, and full-scale simulations
- Typically specifically funded projects or initiatives tied to research

Requirements:

- Hardware (headsets, PCs, controllers, tracking beacons)
- Licenses for development software such as Unity or Unreal Engine
- Developer(s) to design/build the custom simulation
- Program manager to ensure alignment of curriculum and training goals

Outcomes:

- Students gain hands-on, real-world experience in a fail-safe environment
- Learning is quantifiable; metrics are custom, based on goals of simulation
- Program manager has full control over all aspects of simulation

Best Practices for Deeper Integration into Academic Programs

By following these best practices, you can integrate VR/XR technologies in a way that not only enriches academic programs but also positions students and faculty at the forefront of technological innovation and application.



- **Curricular Alignment:** Integrate VR/XR experiences directly into the curriculum to enhance learning objectives. Use immersive technologies to offer practical applications of theoretical concepts, making learning more engaging and effective.
- **Faculty Engagement:** Encourage faculty to explore and experiment with immersive technologies in their teaching and research. Provide workshops and resources to facilitate their creativity and innovation.
- **Collaborative Projects:** Foster interdisciplinary projects that leverage immersive technologies, allowing students from different departments to collaborate on complex problems and solutions.
- **Industry Partnerships:** Establish connections with industry partners to access cutting-edge technology, internships, and real-world projects. This can enhance the lab's offerings and provide students with valuable professional experiences.
- **Research Opportunities:** Utilize the VR/XR lab as a research tool for exploring new teaching methodologies, technology impacts, and discipline-specific inquiries. Encourage students to undertake research projects using VR/XR technologies.
- **Exhibit and Share:** Showcase the work and projects developed within the VR/XR lab to the broader academic community and the public. This can inspire others and demonstrate the value of immersive technologies in education and research.
- **Ethics and Privacy:** Ensure the immersive hardware and software implemented align with your institution's privacy policies, ethical guidelines, and security requirements.

Ready to take the leap?

Leading universities worldwide are already charting new paths in research, training and education with the power of virtual reality and mixed reality. Varjo is a trusted partner for hundreds of academic institutions in preparing students for the future with immersive technology.

Whether you're far along in your immersive journey or just getting started, Varjo's world-class team ensures you get the most out of your technology and use them successfully to supercharge your XR journey.

We offer special pricing of Varjo products and services for academic customers. If you'd like to learn more, please get in touch with our expert team.

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"Varjo is the only company providing the unique, high-end features to prototype innovative future immersive experiences."

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