

Digital reality technologies are among the highest value online learning activities that have made deep market inroads in recent years, through more affordable hardware and more mature authoring tools. Leading firms across industries have grown increasingly interested in exploring ways to use these technologies to provide highly realistic, hands-on practice to their employees. In many cases, such digital reality activities can replace very expensive hands-on learning activities that once required learners to assemble in one place, along with necessary equipment and experts to perform the activities. In the past, such training typically necessitated live sessions in specially designed venues—for instance, full-size model houses in which insurance claims adjusters can practice damage inspections, or decommissioned generators with which engineers can simulate an outage.

Digital reality simulations can help learners master a wide variety of skillsets that in the past they could only hone on the job. The promise of digital reality (e.g. XR) technology—to reduce the cost of training delivery by enabling highly realistic practice without physical equipment or mass travel—was, until very recently, a question of strategic priorities. In the wake of the pandemic, with new business models of remote and hybrid working, it is now a matter of necessity.





### Potential boost to GDP by 2030:

The use of VR and AR in training boosts engagement and knowledge retention and enables organizations to enforce consistent, measurable standards at scale. The technology also provides a way to train employees where it is not always practical - or safe - to do so in the real world. For example, to simulate emergency situations or asset maintenance in dangerous environments.



A PwC Study found that the use of Virtual Reality for training resulted in learners being:

<b>3.75</b> x more emotionally connected to content than classroom learners	275% more confident to apply skills learned after training
<b>4x</b> faster to train than in the classroom	<b>4x</b> more focused than their e-learning peers
<b>52%</b> more cost-effective to train than classroom training at scale	

Source:

PwC Seeing is Believing report

# Use of Modern, Digital Learning Technologies

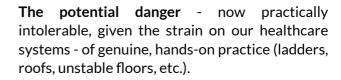
Across industries, enterprise learning organizations must move quickly to address several key challenges:



**Dependence on physical locations** - which are virtually inaccessible to remote learners.



The size and cost of key training equipment - some of which cannot be maintained without large in-person staffs.



The impracticality of accurately simulating a full range of procedures and scenarios.

The difficulty of creating realistic, consistently coached practice opportunities for soft skills.

The answer to these challenges lies in the use of modern digital learning technologies such as virtual reality, augmented reality, mixed reality, games, and real-time 3D simulations. These technologies make it possible for learners to have a highly realistic practice experience anywhere, at any time, by interacting with digital models of properties, automobiles, accidents, and even customers. This allows learners to acquire and hone critical job skills in a safe environment without having to travel to specialized venues.





NIIT is a world leader in digital-reality-based immersive learning. Our experts can help you create a comprehensive plan to upgrade your learning portfolio with virtual digital reality. This engagement includes the following activities:



Perform comprehensive learning portfolio analysis to identify learning activities that would benefit from immersive, digital, hands-on practice activities, including skills with a physical component & those with an important social component requiring face-to-face communication with other people.



Taxonomize digital reality-based activities needed to support these practice activities, including real-time 3D simulation, virtual reality, augmented reality, and competitive online games.



Prioritize candidates for conversion.



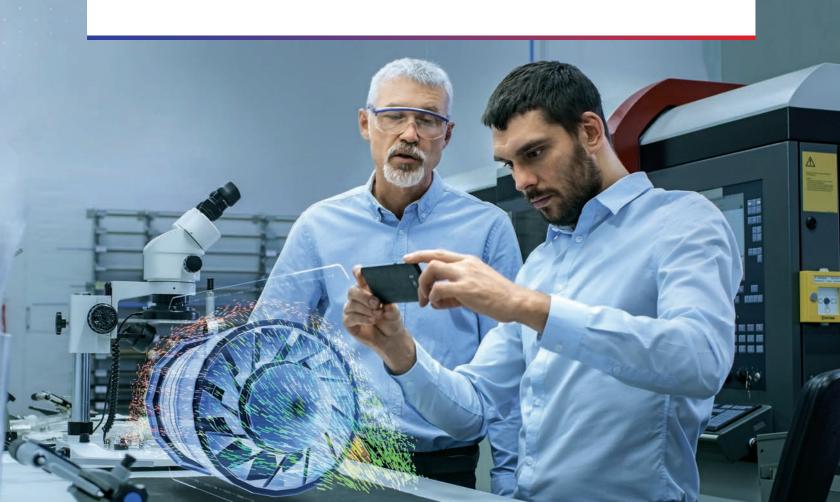
Identify readiness activities required, e.g., tool acquisition, infrastructure, upgrades, upskilling, hiring, vendor procurement, delivery equipment procurement, and so on.



Identify investments required and create a business case.



Create a schedule for conversion.



The digital reality roadmap project is a 4-week engagement, split into two two-week sprints, with workshops focused on collecting new information and brainstorming potential solutions.

Week-1				Week-2					Week-3					Week-4					
Day-1	Day-2	Day-3	Day-4	Day-5	Day-6	Day-7	Day-8	Day-9	Day-10	Day-11	Day-12	Day-13	Day-14	Day-15	Day-16	Day-17	Day-18	Day-19	Day-20
K/O Workshop			views Findings Workshop					Create Recommendations					Revisions						

Through the Digital Reality Roadmap Engagement, we help our clients promote the evolution of their learning development practices in four key dimensions:



# Organizational Evolution

NIIT's expert consultants speak with leaders within your organization, both individually and in workshops, to understand your organization's current ability to support digital reality solutions, and to determine how to augment those capabilities to better support digital reality solutions. The questions we are trying to answer include:



- How should the project chartering process change to allow for chartering of digital reality solutions? For example, digital reality often requires more concrete specifications around environment and interaction, and generally requires more information about audience and deployment technology.
- How should you configure a steering committee to decide the direction of Digital Reality, and how can you best engage them?
- > What is the best way to budget for digital reality solutions?
- How can you adjust your evaluation strategy to best exploit the ability of digital reality to produce meaningful data?
- > How do you adjust your train-the-trainer strategy? Specifically, which skills will you need on your team, by when, and how will you get them?
- > What's the optimal build/buy strategy? That is, which products and libraries are available for purchase on the open market, and which will need to be created "from scratch?"
- How should your data policies change to enable digital reality solutions?
- How should your device policies change to enable digital reality solutions?



# **Technological Evolution**

The technological world of digital reality is ever-evolving. New headsets, augmented reality devices, mobile devices, software simulation engines and graphics cards are released weekly. To help our clients set themselves up for success, we take a long view of the technology landscape to create device strategy with predictable costs and planned periodic upgrades. Our technology recommendations include:



### **Classroom Equipment**

What is the ideal configuration of classroom hardware to enable digital reality solutions today, and how should it be updated over time?



### **Remote Facilitation**

What technologies – both hardware and software – are required to build remote facilitation capabilities?



# Learner Experience Platform

How do you enable learners and facilitators to find, launch, and track digital and mixed mode learning experiences?



# **Authoring and Configuration**

What tools need to be in place to allow your developers and trainers to author and/or configure new training scenarios?



# **AR/VR Equipment**

What's the best mix of virtual and augmented reality equipment to use in the classroom, and the best means for selecting new devices to support in the future?



# On-the-Go Learning

What personal devices should you support, and what tools do you need on hand to support them?



#### **Cloud Solutions**

How do you best leverage the power of the cloud to centralize training assets, simplify maintenance, and deliver high-end training solutions?



#### **Robust Libraries**

How do you create, catalog, and maintain reusable asset libraries for characters, environments, and equipment?

# **Learning Mode and Treatment Evolution**

One of the biggest advantages of emerging technologies is their ability to support learning modes that might have been impractical in the past. By carefully marrying learning modes to the instructional content, we can help you utilize digital technology to build a more relevant context and more effective learning. Some of the modes and treatments we look to incorporate include:



#### **3D Visualizations**

Complex, navigable 3D models with cutaway views that help engineers visualize the inner workings of the equipment.



#### **3D Simulations**

Complex, navigable, functional 3D models that supply learners with compelling missions, allow them to attempt the missions, and supply both dramatic consequences and expert coaching when they make mistakes.



#### Classroom

Live sessions that use digital materials to drive learn-by-doing experiences.



#### **Distributed Classroom**

Centralized facilitation allows students in other classrooms participate in the training event.



#### Virtual Instructor-Led

Centralized facilitation that targets a geographically dispersed audience, and often does not include students at a central classroom.



#### Self-Paced

Learning experiences that do not require facilitation.



#### Mobile

Learning experiences designed for "on-the-go" learners. Often includes "just in time" training interventions, and robust performance support.



#### **Mixed Mode**

Learning experience that leverage multiple modes, either to increase user access or to improve the effectiveness of training.



# 360-Degree Video Simulations

Learning experiences that leverage branching, interactive video deployed via VR headsets, mobile devices, and PC browsers.

# **Curriculum Evolution**

Digital Reality enables a previously unthinkable level of richness and depth in training. With this comes the need to rethink curricula in ways that not only maximize the amount and type of practice offered, but also exploit the data generated by digital reality to accelerate continuous improvement.

NIIT will work with your organization to create a Digital Reality Roadmap Curriculum Plan that outlines and identifies:



### A Transformation Strategy

for your training and development offerings through the implementation of digital reality-based learning solutions.



# High Priority Digital Reality - Based Learning Products

that address the top-rated priorities among those curricula and provides business cases and rough development timelines for each.



# **Learning Curricula**

that have the maximum potential to be transformed by the introduction of digital reality-based learning solutions.



### A Digital Learning Game Plan

including current and future technological infrastructure & staffing requirements needed to support the development and ongoing deployment of these products.



