Mastering the Metaverse: Virtual Reality in Your Classroom

Kendall Murphy and Kurt Tholking
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“Virtual reality is the first step in a grand adventure into the landscape of the imagination.”

Frank Biocca  
Chair, Department of Informatics, Ying Wu College of Computing at New Jersey Institute of Technology

“VR at its best shouldn’t replace real life, just modify it, giving us access to so much just out of reach physically. If you can dream it, VR can make it.”

Matthew Schnipper  
Senior Directors, Global Operations  
VICE Media
For the Classroom

Immersive Environment
Experiential Learning
Student Collaboration
Knowledge Retention
Active Participation

For the Boy

Global Awareness
Social Connection
Curiosity
Empathy
Imagination
“Mrs. Murphy, I went all the way to the top of Mount Zion last period in Humanities!”

“Can I take the 360 camera on my vacation and use it to make my own VR and show the class?”

“I saw Earth from the International Space Station today!”

“This was the best class ever!”
What is the Metaverse?

- A network of 3D virtual worlds focused on social connection
- Interconnected digital spaces
- Virtual platform bringing together all aspects of human experience: social interaction, currency, trade, economy, and property ownership

Digital experience that is an alternative to or a replica of the real world
Application Use in the Classroom

Computer Science
History
Language Arts
Science
Life Skills
Physical Education
Educational Application Options

Science
- Mission:ISS
- Space Explorers

Humanities
- Wander
- National Geo: Explore
- Anne Frank VR

Math
- Prisms

Computer Science
- Multiverse
- Tested VR

Art
- Paint VR

Physical Education
- Beat Saber
- Golf+

Mental Health
- Guided Meditation VR

Foreign Languages
- Immerse

All Subjects
- YouTube VR

Relevant applications available for every subject
Create your own playlists and push out to headsets instantly
Creating Content Using 360 Camera

- Students are given the opportunity to create their own digital content
- Student to student: Allows for an extended global understanding
- Faculty to student: faculty are able to document their travels in an effort to share curricularly-relevant material

A tool to create your own unique VR content
Implementation and Training

- Naming Devices and Controllers
- Home base for transporting devices
- Creating Meta Accounts and download basic applications
- Provide Training for Faculty
- Create a system for teachers to reserve devices
- Allow teachers the ability to search for VR Apps that may benefit their curriculum
- Optional: Assign iPads for casting and link to each headset

While this takes time and training, the result is very impactful.
Instructions for Use

- Adjusting straps and eyes
- On/Off switch
- Find right and left handset
- Set up Stationary guardian/boundary
- Default Home Environment
- Navigating the Dock and Applications

Remember to be patient with yourself!
Look around for boundary

Slowly look around to help your headset find the boundary you had created for this space.

If you don't have a boundary for this space, or if it can't be located, you can create a new one.

Create new boundary
Confirm Floor Level

Look down at the virtual grid. If it appears to be at floor level, select Confirm.

If not, select Reset. Move the grid down by gently touching the floor with your controller before confirming.
Define Play Area

Point your controller at the floor, then press and hold the trigger to draw along the boundary of your cleared play area.

We recommend a play area size of 6.5ft x 6.5ft or greater for roomscale experiences.

Switch to stationary boundary
Confirm Stationary Boundary

Look around to check that this boundary is clear of obstructions, including anything you could hit with your arms outstretched.

This stationary Guardian is for sitting or standing experiences only. When your headset gets close to the edge of your play area, Passthrough will fade in and you’ll see a real-time view of your physical environment.

Confirm

Switch to roomscale boundary
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