

Visit the Moon with Me! Virtual Reality in the Classroom

I just took a walk around the Moon. I looked around and saw the Sun, my spaceship, a satellite, and my home - planet Earth. I climbed a hill and turned around to gaze at a huge crater. What an adventure to have right here in the Teaching and Learning Center in the span of five minutes using Virtual Reality (VR)! I think next I will check out the Great Pyramids - or maybe Perfect Beach VR, which sounds pretty nice!

There are several different types of technology that can help us inspire and innovate teaching and learning. Virtual reality is total immersion in a virtual environment. Augmented reality adds a virtual element into the actual environment - think NCWCritters and Pokemon GO! Even further, 360 degree video environments can really be useful as well to take students on a field trip without ever leaving class!

Google Cardboard & Bubbli

The TLC at NC Wesleyan College now has ten VR Cardboard viewers which can be checked out for classroom use, and they are happy to help faculty who would like to implement VR in the classroom!

Student created virtual reality videos can be created with simple apps on their mobile devices. Google Cardboard Camera and Bubbli for iOS are examples of apps that will take a 360 degree photograph. Students could visit historical sites and then share with the class. They could also participate in cultural events. These apps record still images that can be shared to really lend a fantastic point of view! The experiences are unlimited!

Expeditions

Google Expeditions has the ability to take students to fantastic and unreachable places using mobile devices. The instructor plays the role of tour guide. Students can participate in VR environments such as Wonders of the World, The Great Barrier Reef, The Kennedy Space Center, the central nervous system, and many more! Instructors have the ability to pause the expedition at any time and can view where the students are within the application. These adventures have been created by Google developers with their professional (and expensive) VR cameras, but the greatest part is that the software is completely free. Cardboard viewers are optional in that students can view the expeditions in a 2D environment as well. Another great feature is that the tour guide device can function as the local server so the student devices do not require internet connectivity (requires LAN setup). This means that the Expeditions can happen anywhere, even where internet access is not available!

YouTube

YouTube has a channel dedicated to VR called 360 Videos, as well as many channels devoted to the enhanced student experience. YouTube is already widely used in education, so it's a really short step to integrate the 360 degree concept with YouTube.

NCWC Virtual Events

One observation from the NCWC Halloween Virtual Reality Open Haunted House and the March Madness Event highlighted the social element of VR. Students were excited to help each other out with the technology and wanted to share their experiences with each other. It can also get a bit loud, so it's best to be prepared for that. This social effect can really enhance team-building and camaraderie in your classes.

Virtual reality is an exciting realm of education that is in its beginnings, and I think that is really something to get excited about. Where will you take your class?

Information Resources

- **Cardboard:** <https://vr.google.com/cardboard/>
- **Expeditions:** <https://www.google.com/edu/expeditions/#about>
- **NCWC Newsletters:** <http://ncwc.edu/academics/tlc/tlc-newsletter-archives/>
- **NCWCritters:**
https://docs.google.com/document/d/1Q1h8IMcRVpj1VwXBWhhJ6TNmPH1_1GIX_Ih-UYg3aHk/edit?usp=sharing
- **VR for All Seasons:** <http://www.libraryasincubatorproject.org/?p=18939>
- **YouTube 360:** <https://www.youtube.com/channel/UCzughhs6NWbgTzMuM09WKDQ>

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