Google Cardboard and the Role of VR in Online Learning

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Emerging Ideas Session
Essential Question:
Does VR/Immersive content provide value in a 100% online learning environment?

Implementation Considerations:
• Asynchronous Online Learning Environments
• Scalability
• Hardware Costs (VR headsets/viewers, cameras, etc.)
• Content Production Costs
• Bring Your Own Device (BYOD)
• Accessibility
• Knowledge Gap/Usability
Roadmap for Immersive Learning

**Level 4: Augmented Reality (AR)**
- User has control over viewpoint and path
- Live events can be modified
- Examples: HaloLens, Pokemon Go, etc.

**Level 3: Virtual Reality (VR)**
- User has control over viewpoint and path
- Simulate unlikely or unsafe environments
- Examples: Oculus Rift, HTC Vive, Playstation VR, etc.

**Level 2: 360° Video**
- User has control over viewpoint, but not path
- Captures events as they happen
- Examples: Google Cardboard, Mobile Apps, YouTube 360, etc.

**Level 1: Traditional Video**
- User has no control over viewpoint or path
- Examples: Traditional 2D video, 3D Video, etc.

Video ➡ 360° ➡ VR…

- From passive experiences (consume content) to interactive experiences (manipulate and augment content)

- 360° Video is a viable stepping stone towards “true” Virtual Reality
  - Can be viewed on a desktop, mobile device, and with a Google Cardboard or VR headset

- **Goal**: Create engaging and immersive instructional content that supports learning objectives.
360° Video Proof of Concept

• SPLED 801: Behavior and Classroom Management (Lead Instructional Designer: Linas Mockus)
  o Options for Arranging Seating in a Classroom Environment
    ▪ Clusters
    ▪ Semi-Circles

• Next Steps…
  o Evaluation and Student Feedback
  o Apply to the RN to BSN Program (Health Assessment)
  o Make 360° video more interactive and immersive (spatial audio, interactions, etc.)
Call for Action…

• What VR related projects/initiatives are occurring at your institution?

• What role should Virtual Reality or 360° Video have in online education?
  ▪ Possible ideas, program applications, and/or use cases?

• How can the implementation considerations be addressed for the future adoption of VR in online learning environments?

Collaborate, Share, Connect, and Network!

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References


