



CS-525V:  
Building Effective  
Virtual Worlds

VR as a Medium

Robert W. Lindeman

Worcester Polytechnic Institute  
Department of Computer Science  
gogo@wpi.edu

---

# Plan for Tonight

---

- VR as a medium
- What is a survey paper

# The VR Medium

---

- We use media to communicate ideas
  - Film
  - Books
  - Paintings
  
- The message travels through several hands
  - Composer/writer/designer
  - Tools
  - Presentation materials (performers, gallery)
  - Transport medium
  - Viewer/player

## The VR Medium (cont.)

---

- Each step changes the message somewhat
  - E.g., bad/good actors, picture vs. chapter books
  
- What is received is rarely what was originally intended
  - Is this bad?

# Balancing User Control and Story

---

- Storytelling in VR and games requires
  - Putting together interesting content
  - Making sure the user experiences the content
- How can we balance the desire for control by the user with the need to tell the story?
- How can the technology be used as an asset rather than a liability?

# User Sophistication

---

- Movies were very simple at first
  - Train entering a station, factory workers leaving for the day
  - Fixed camera view
- Audiences became more sophisticated/jaded
- Film makers became more artistic
- Trying to get at viewer's head, rather than just the senses
  - VR and gaming are not there yet!

# The VR Interface

---

- The user only gets what we give
- How can we effectively use VR interfaces?
- Control of time and space
  - Should the user have to traverse a large space at 1-to-1 speed?
  - Should the user be allowed to replay events?
  - How should these controls be provided?

# Representation of Self

---

- ❑ How should the user "look" in VR?
- ❑ Is a hand enough?
- ❑ Do they need feet?
- ❑ How should others look?
- ❑ Is "perfect" fidelity necessary (desirable)?



# Goal of the Application

---

- Inform
  - Transfer some knowledge to the user
- Persuade
  - Change the user's mind
- Entertain
  - Have fun!
- Escape
  - Simulate something impossible
- Experience
  - Have the user experience something the author has experienced