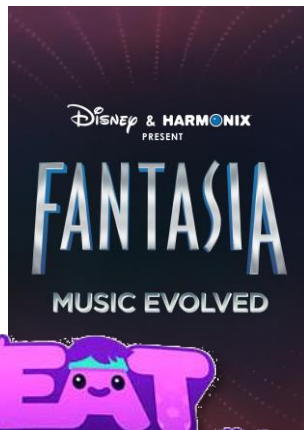




# Through the Portal and Back: Designing VR Experiences for Public Spaces

**Jeff Hesser and Mike Mandel**  
Cofounders, Secret Portal

# About Us



# Secret Portal

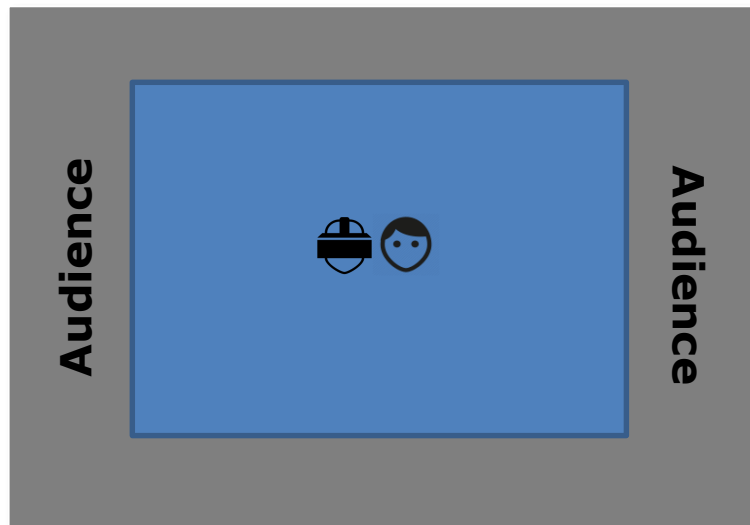


Across the Divide

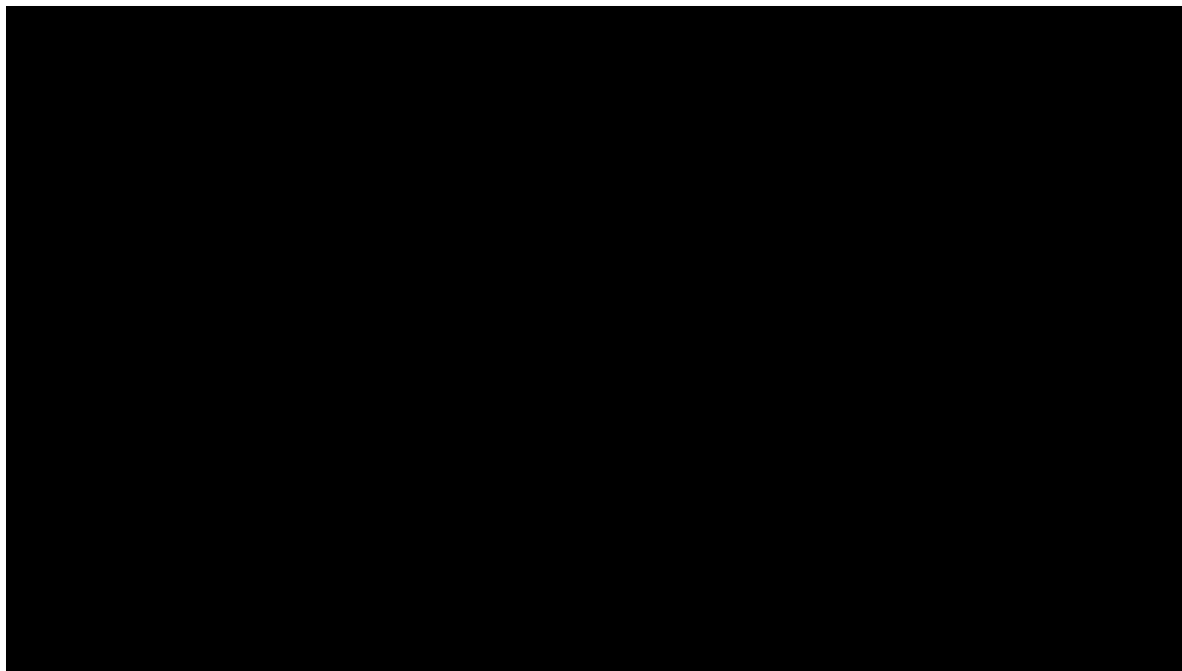


Between Lands

# Secret Portal



# Between Lands





# Why Public Spaces + VR?



# Why Public Spaces + VR?



# Why Public Spaces + VR?





# Public Spaces + Room Scale



- Comfort issues understood
- Large 360° tracking volume

# Public Spaces + Room Scale



- Comfort issues understood
- Large 360° tracking volume
- Playground for convergence of physical + digital

# Challenge: Engage Everyone?!



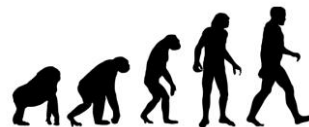
# Lessons Learned



Connect Your  
Physical + Virtual  
Worlds



Make it Social



Evolve Your  
Content



Plan for the  
Unexpected



Connect Your  
Physical + Virtual  
Worlds



Make it Social



Evolve Your  
Content



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Unexpected



# Design Both Realities Together



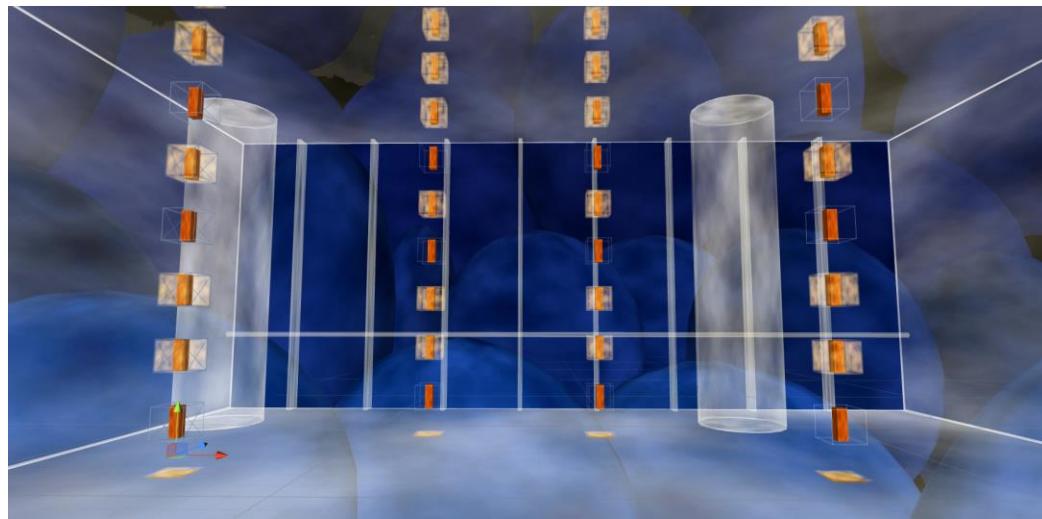
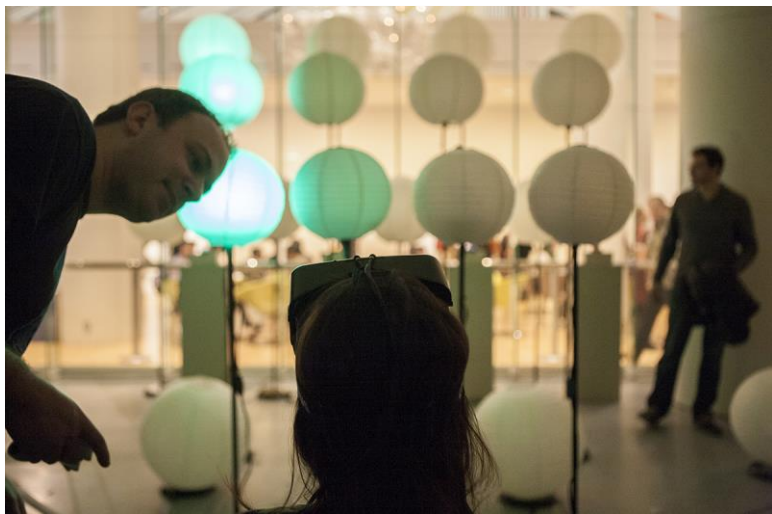
- Tactile (i.e touch what you see)

# Design Both Realities Together



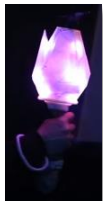
- Tactile (i.e touch what you see)
- Objects can bridge realities
  - A true "Mixed Reality"

# Consider Venue Space



# Objects Exist In Both Realities

**Physical**



**Digital**



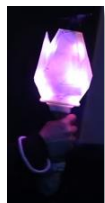
# Custom Props are Powerful



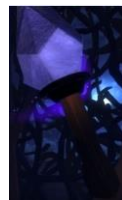


# Connecting Objects Across Realities

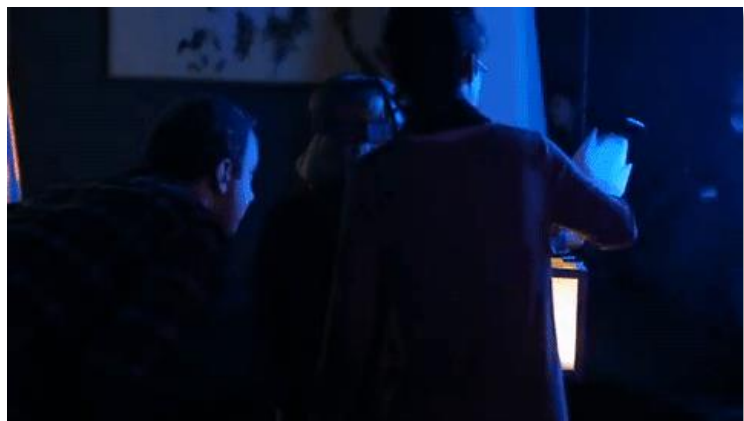
**Physical**



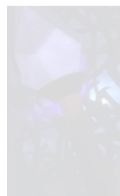
**Digital**



# Connecting Objects Across Realities



Digital



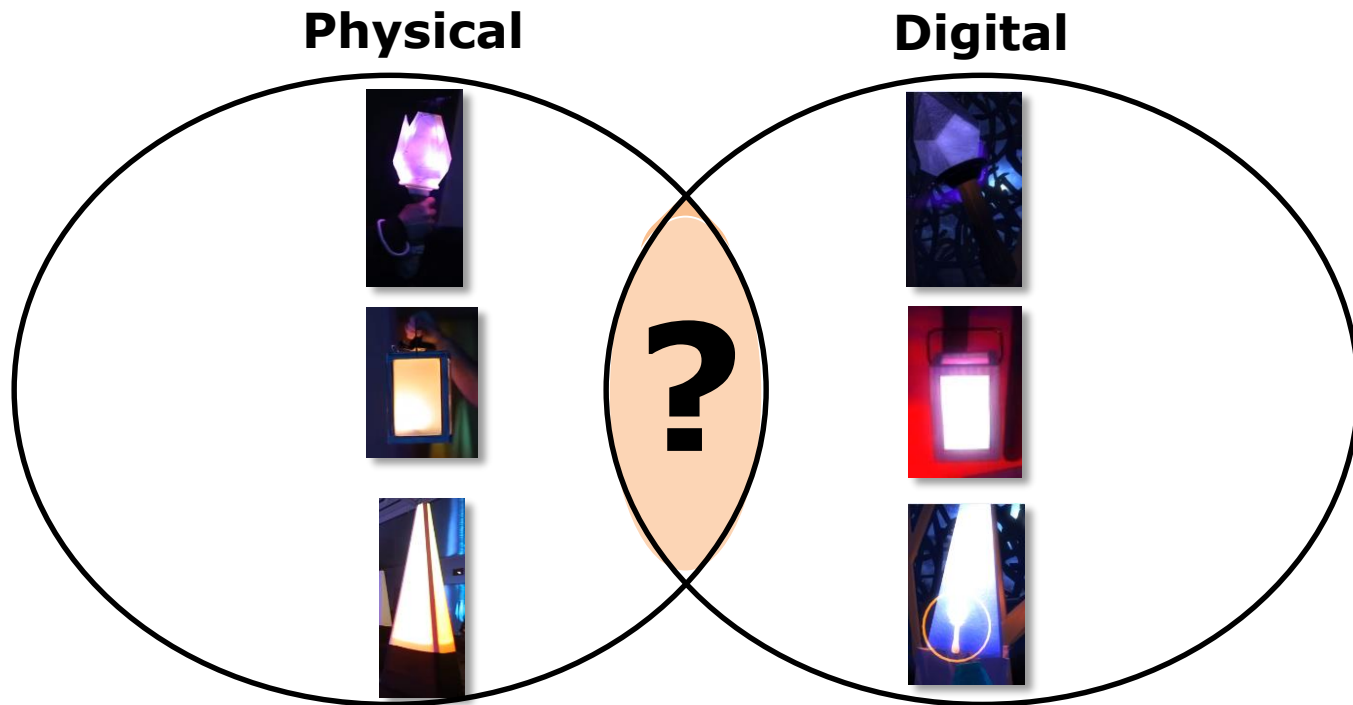
# Connecting Objects Across Realities



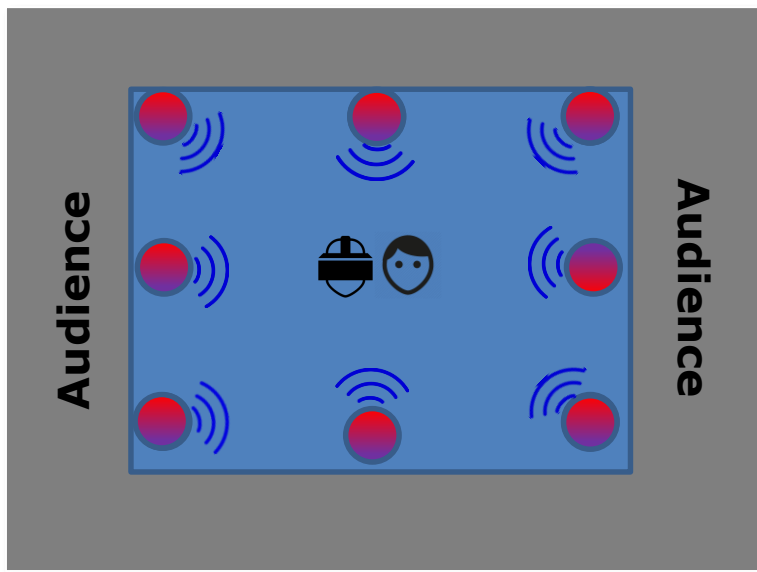
Digital



# What Can Be Shared Equally?

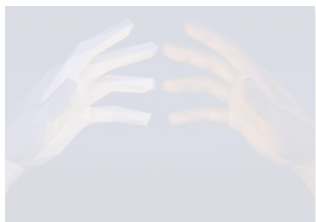


# Shared Audio Environment



- No headphones!
- Shared spatialized audio for everyone
- Unique perspectives for audience





Design the  
Physical + Virtual  
Together



Make it Social



Evolve Your  
Content



Plan for the  
Unexpected

# Social Scenarios

- Multiple VR participants
- VR + non-VR co-op
- VR + audience interaction



# Social Scenarios

- Multiple VR participants



- VR + non-VR co-op

Our  
Focus



- VR + audience interaction

we want to go  
further



# Working Together Across Realities

- Shared goal, distinct roles



# Working Together Across Realities

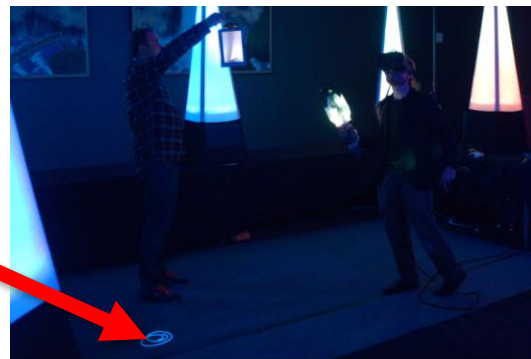
- Shared goal, distinct roles
- All participants are tracked





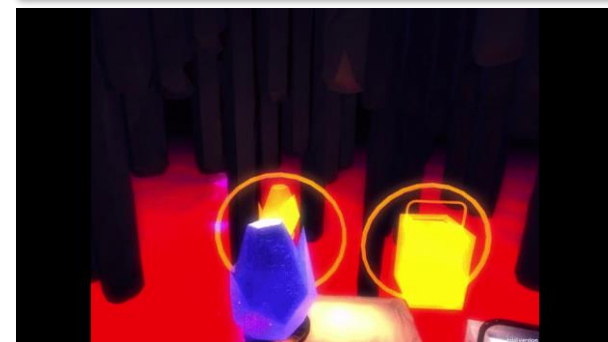
# Working Together Across Realities

- Shared goal, distinct roles
- All participants are tracked
- Some elements perceivable only in one reality



# Working Together Across Realities

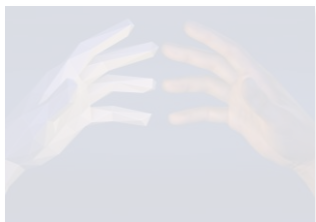
- Shared goal, distinct roles
- All participants are tracked
- Some elements perceivable only in one reality



# Audience is key element



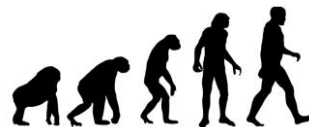
- Mirroring view not enough!
- Engage audience in the space
- Give them a unique perspective



Design the  
Physical + Virtual  
Together



Make it Social

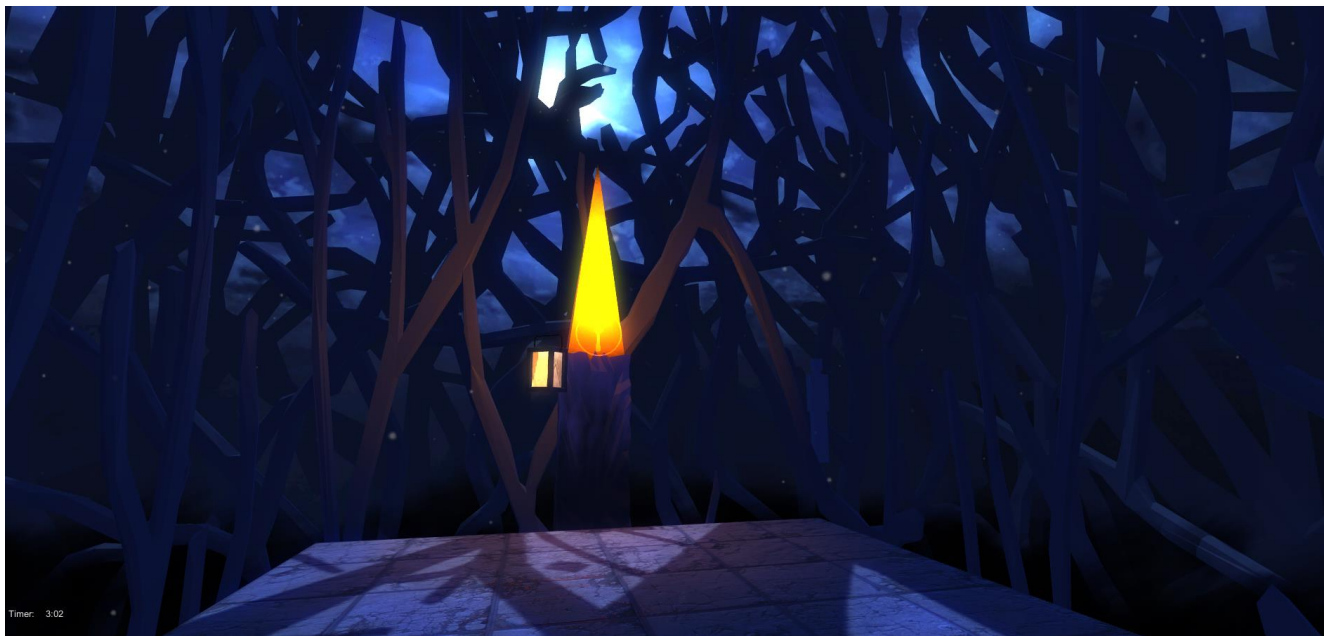


Evolve Your  
Content



Plan for the  
Unexpected

# Allow the Space to Evolve Quickly



# Make the Space Change

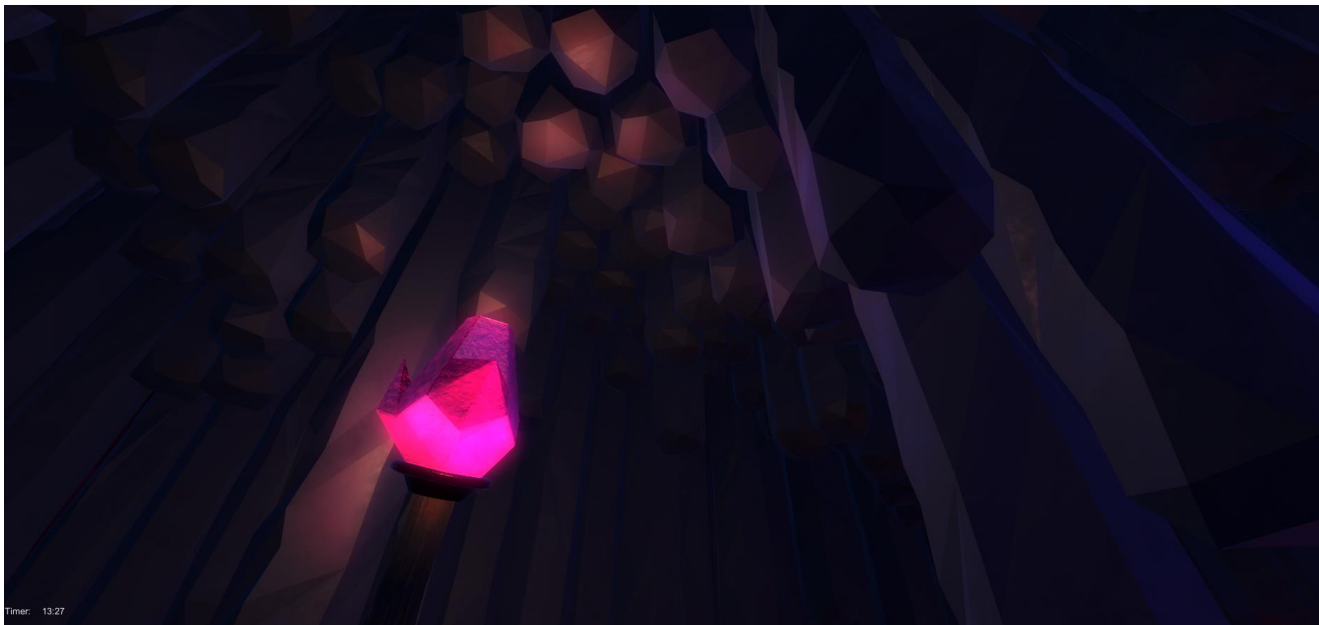


# Make the Space Feel Big

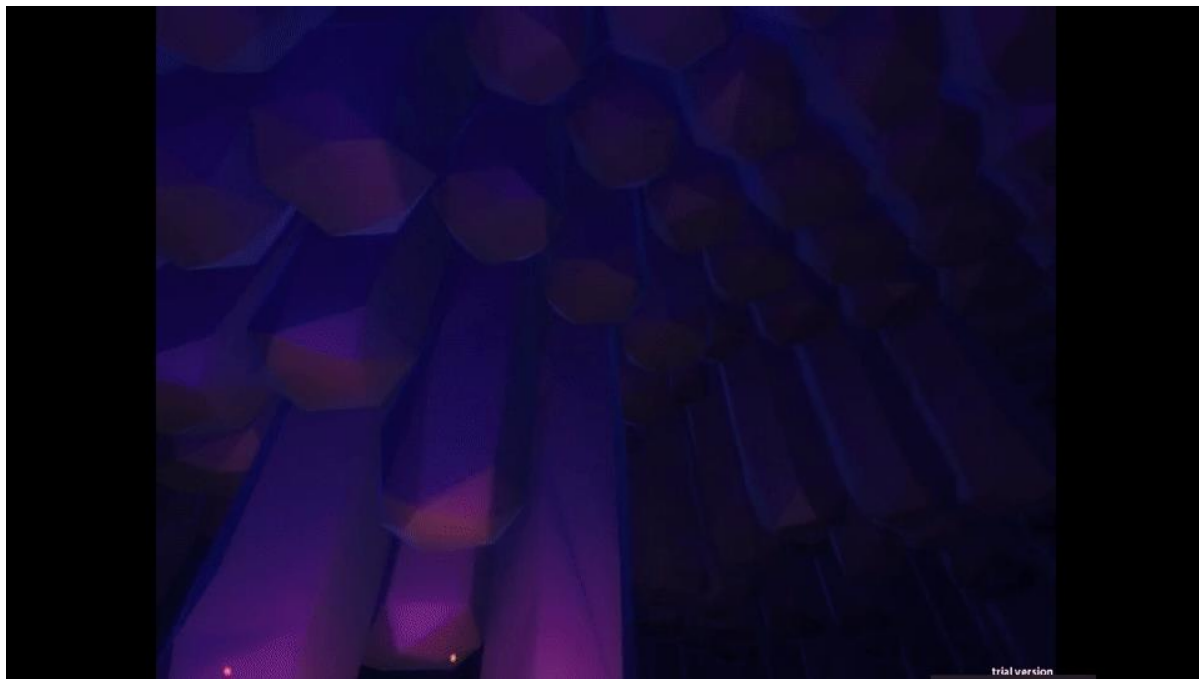




# Make the Space Feel Small



# Make the Space Fun to Explore

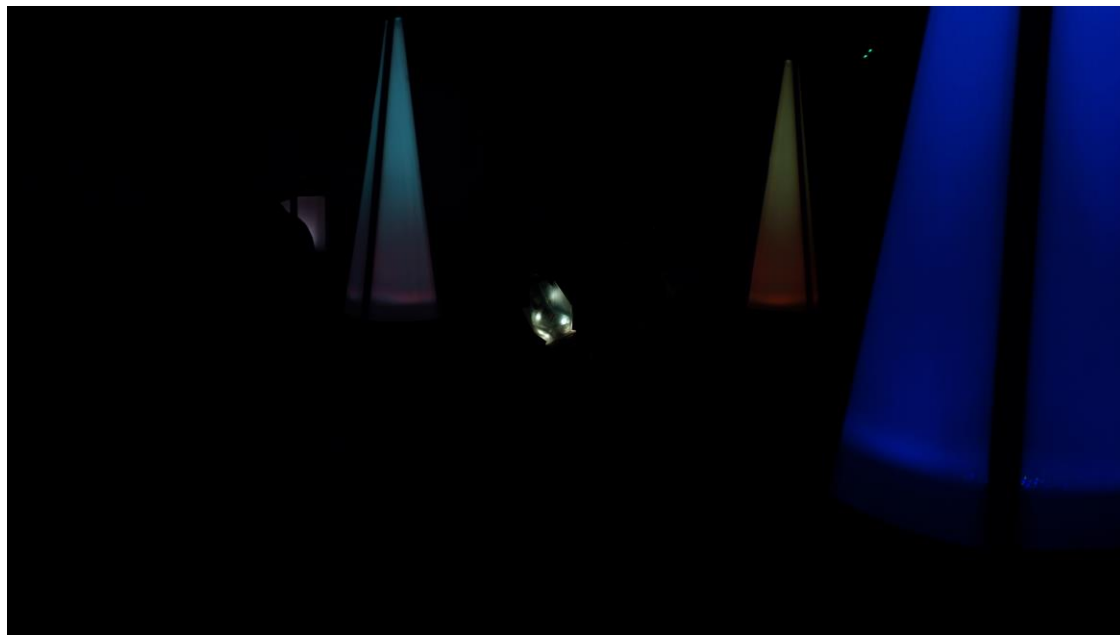


# Evolve the Experience

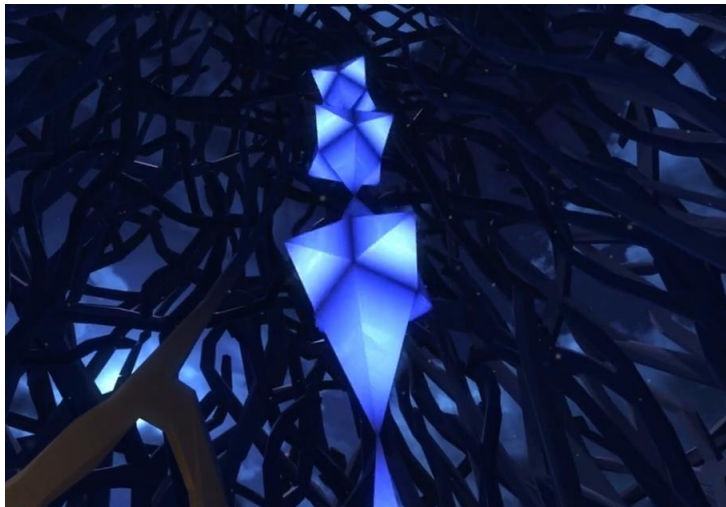
- Don't repeat same content
- Think about a longer term arc
- We planned a 30 minute arc over 4 turns



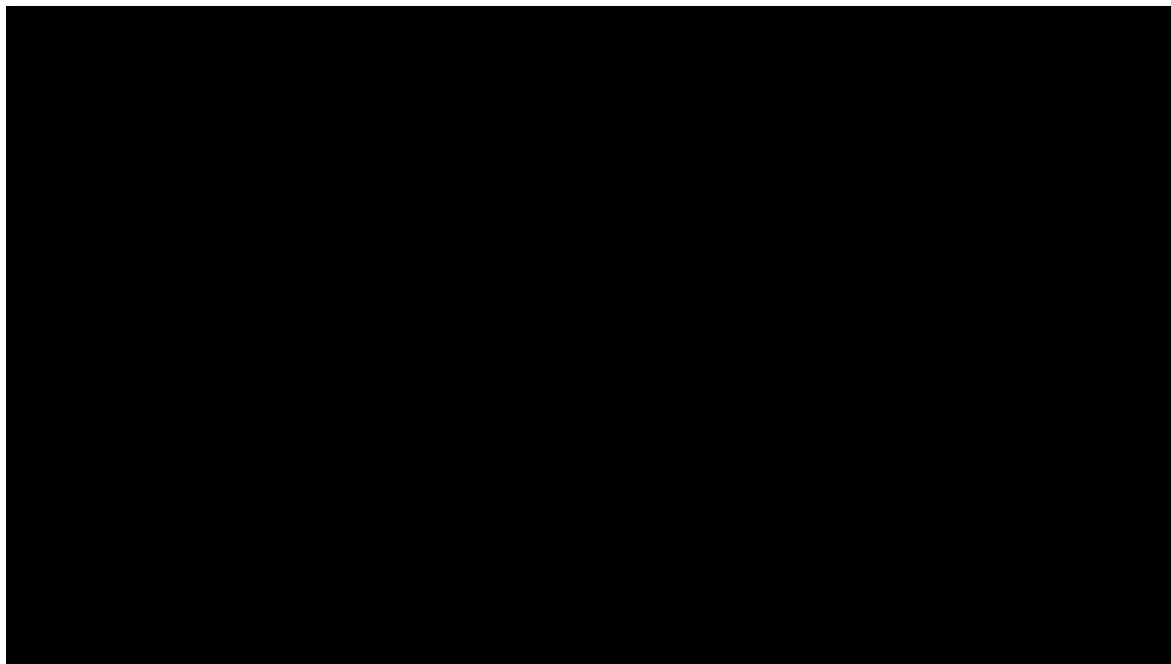
# Evolve the Experience: Start Here

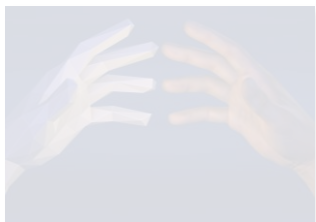


# Evolve the Experience: Start Here



# Evolve the Experience: End Here





Design the  
Physical + Virtual  
Together



Make it Social



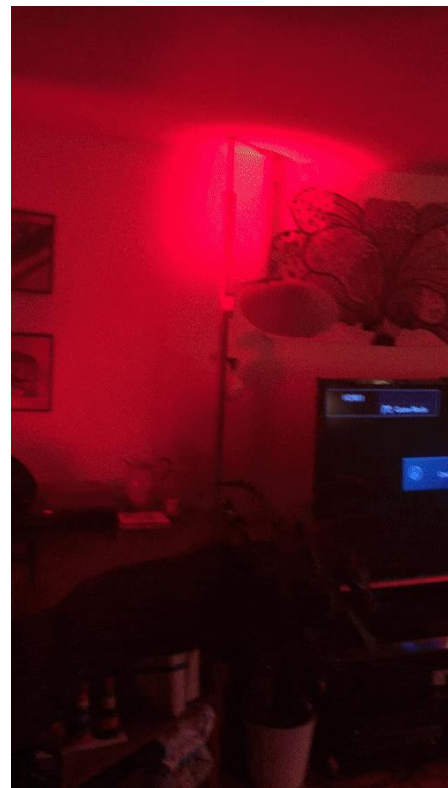
Evolve Your  
Content



Plan for the  
Unexpected

# Testing is Hard

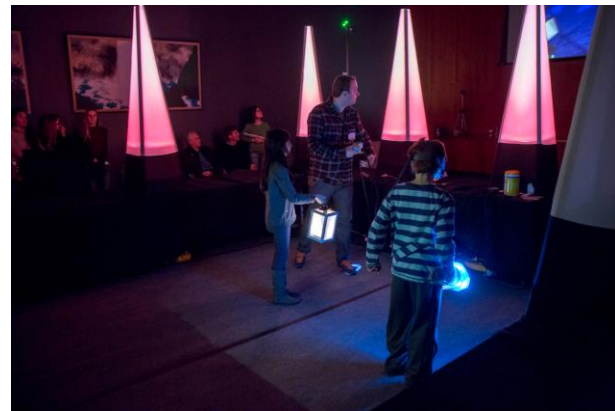
- Access to sites can be limited
- Accurate playtests difficult to conduct ahead of time



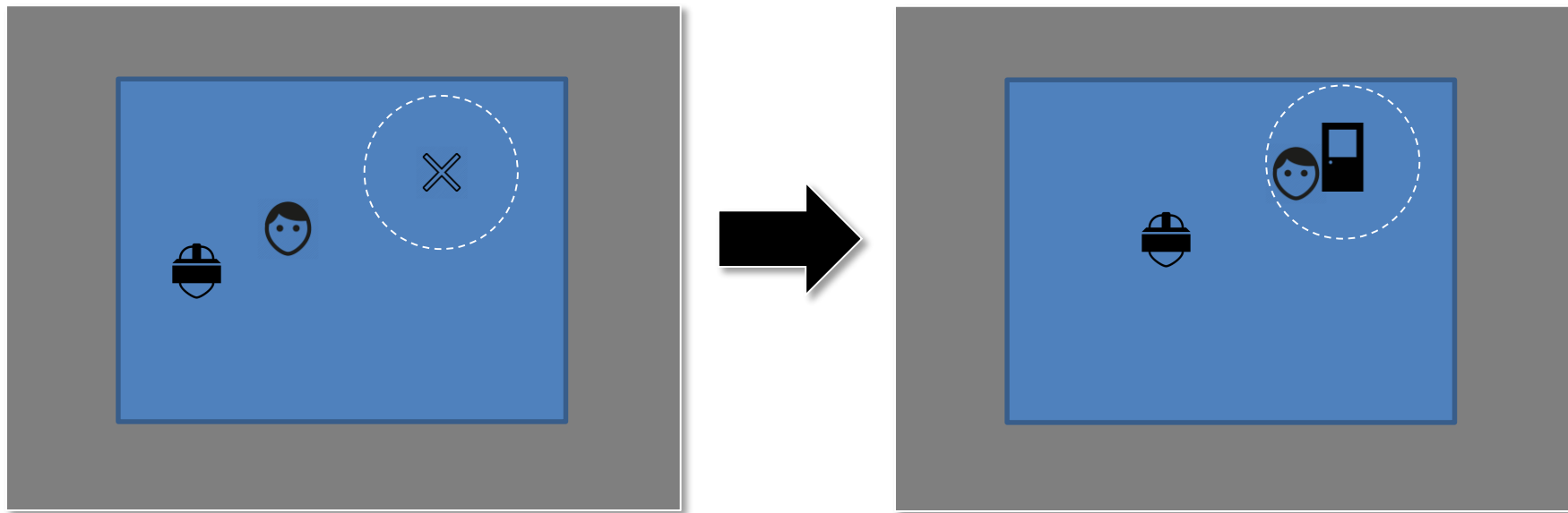


# Testing is Hard

- Access to sites can be limited
- Accurate playtests difficult to conduct ahead of time
- People come in all shapes + sizes



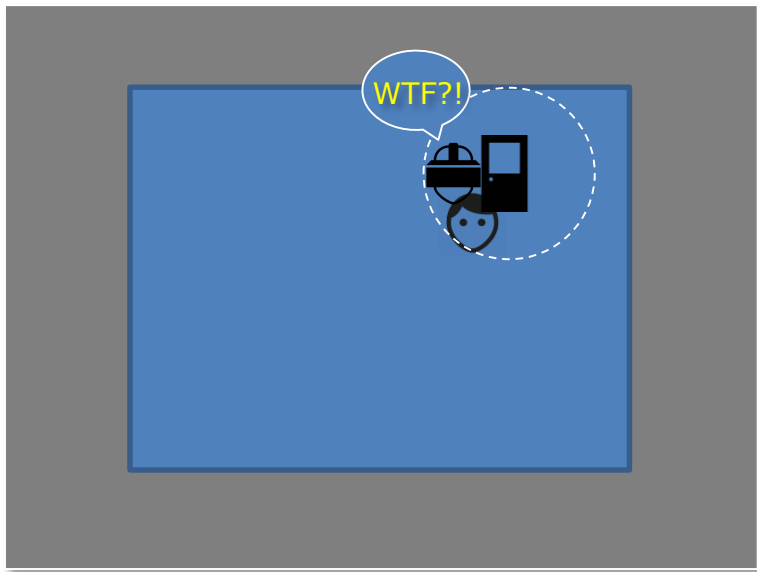
# People won't do what you expect!



# People won't do what you expect!



# People won't do what you expect!



# Dealing With The Unexpected

- Operator can activate progression cheats
  - Nobody knows! Fix it later 😊
- Always be auto-saving to resume quickly



# Managing Crowds

- Assign time slots ahead of time
- Bring large groups of audience members + participants into space at once



# Conclusions

- VR CAN be fun to watch
  - Remember to entertain your audience
- Connect your realities in as many ways as possible
- Consider the longer term arc of your content

# Thanks!

## Secret Portal is:

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Guy Mendilow   Dawn Rivers   Tim Zylicz

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[www.secretportalvr.com](http://www.secretportalvr.com)