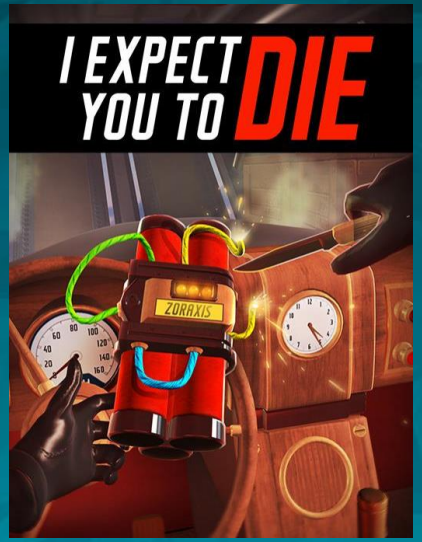
Getting Started in Transformative VR

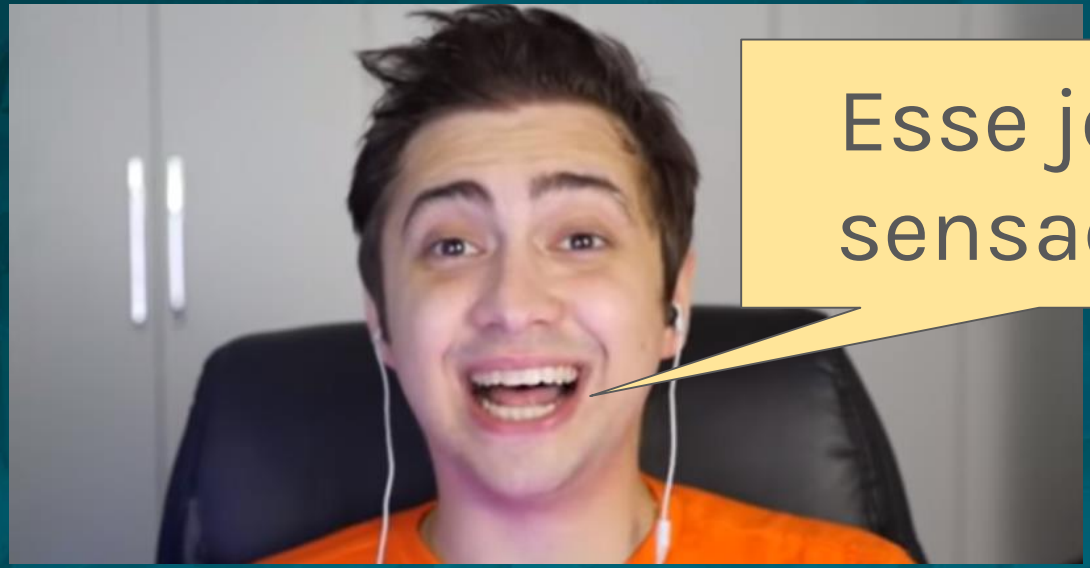
BIG
Brazil's Independent Games Festival

Shawn Patton

Principal Game Designer // VR Advocate

SCHELL GAMES





EU NÃO NASCI PRA SER UM ESPIÃO! - I EXPECT YOU TO...

462K views • 1 year ago

QUASE MORRI NO FUNDO DO MAR! - I EXPECT YOU TO DI...

304K views • 1 year ago

O GOLPE FINAL! - I EXPECT YOU TO DIE (PSVR)

236K views • 1 year ago

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Transformational games are those games developed with the intention of changing players in a specific way that transfers and persists outside the game.

Transformative Games are Hard

High Level Purpose
Audience & Context
Barriers
Player Transformation
Expert Resources
Domain Map
Prior Work
Assessment
The Transformational Framework

the
Transformational Framework
A process tool for the development of transformational games
Sabrina Culyba

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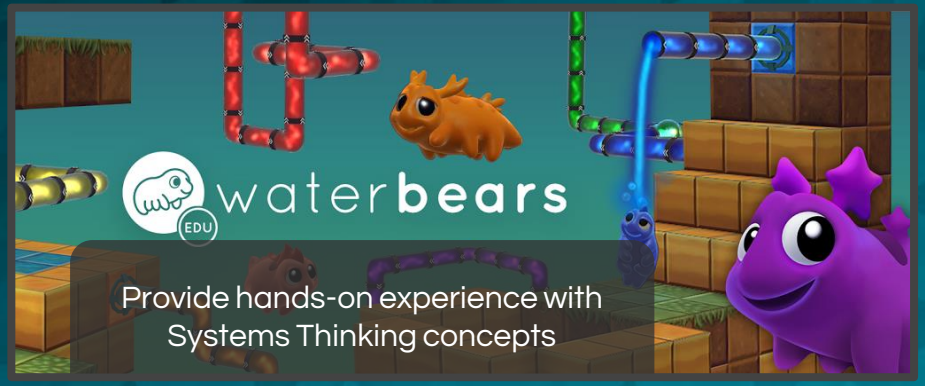
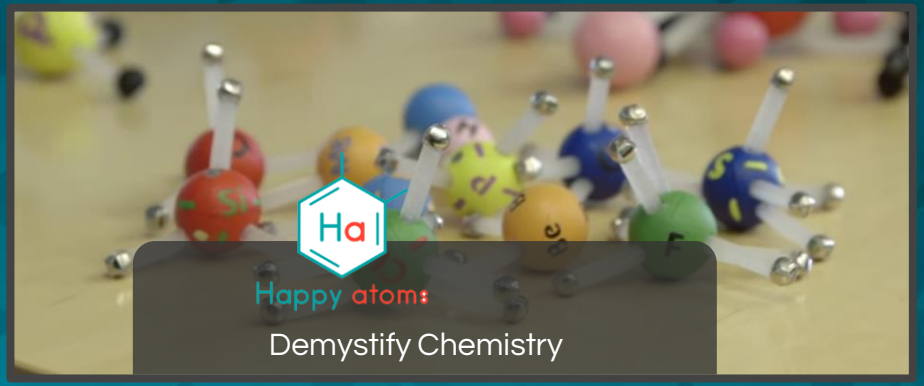
High Level Purpose

What is the big-picture goal for impact on the world that is motivating your game's development? How does this impact goal compete with other goals like profit, popularity, or critical acclaim?





- Brief
- Impact Focused, Not Product Focused
- Inspirational

Player Transformations

What are the defining ways you want your players to be different after playing your game?

- Knowledge : The player knows something
- Skill : The player can do something
- Physical : The player's body is changed
- Disposition : The player's feelings are changed
- Experience : The player's personal anecdotes are changed
- Identity : The player's sense of self is changed

Barriers

What things stand in the way of your purpose and how you want to change your players? Why aren't they already changed?

- Difficulty - It's hard to do or understand
- Complexity - It's scope makes it overwhelming
- Accessibility - It's gated by money, tools, time…
- Fear - It's scary or risky

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EM BREVE!

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VR Survey Time

VR : Virtual Reality

An artificial environment which is experienced through sensory stimuli (such as sights and sounds) provided by a computer and in which one's actions partially determine what happens in the environment.

Microsoft MR

Oculus Go

Vive Pro

PSVR

AR : Augmented Reality

An enhanced version of reality created by the use of technology to overlay digital information on an image of something being viewed through a device (such as a smartphone camera).

ARKit is iOS

ARCore is Android

HoloLens

Phone

Glass EE

Magic Leap

Intel Vaunt

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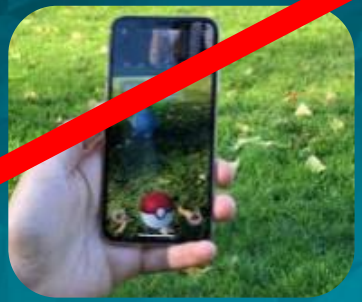

Phone

Glass EE

Magic Leap

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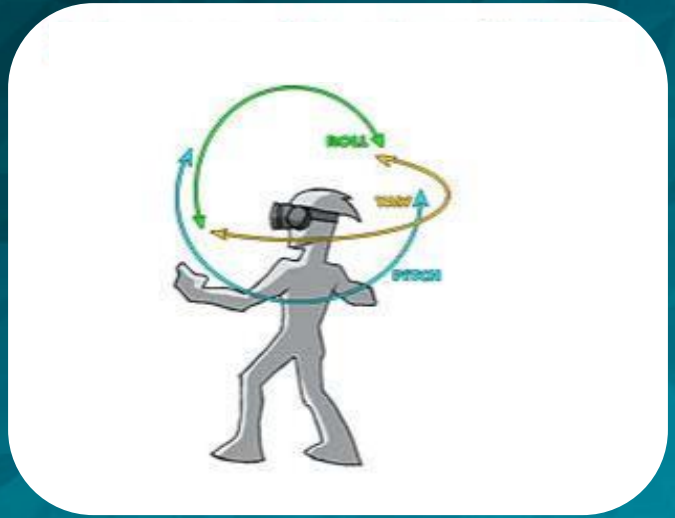
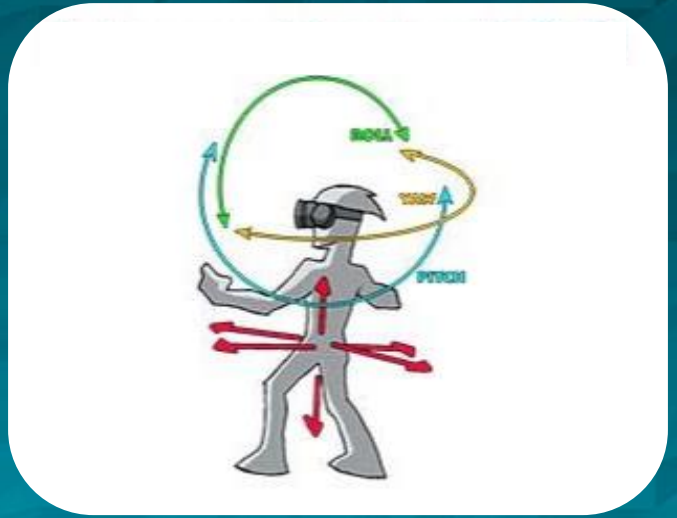
DOF : Degrees of Freedom

3 DOF : Orientation: Pitch, Yaw, Roll

6 DOF : Position: X Y Z





Head.Hands : Controls

3.3 DOF : Head Orientation and one hand pointing

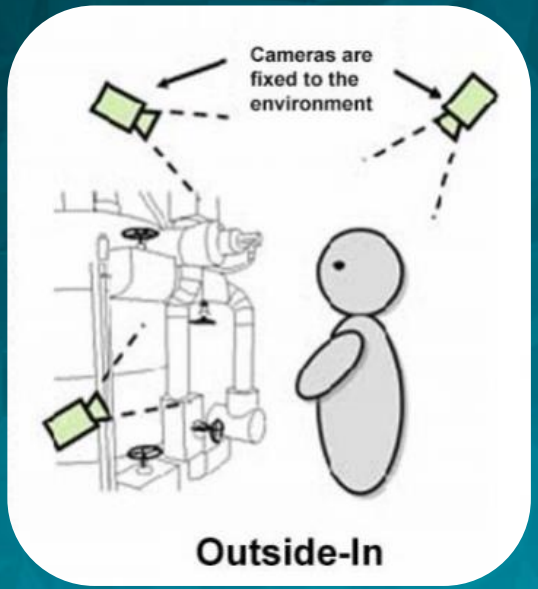
6.6 DOF : Position and orientation for head and both hands

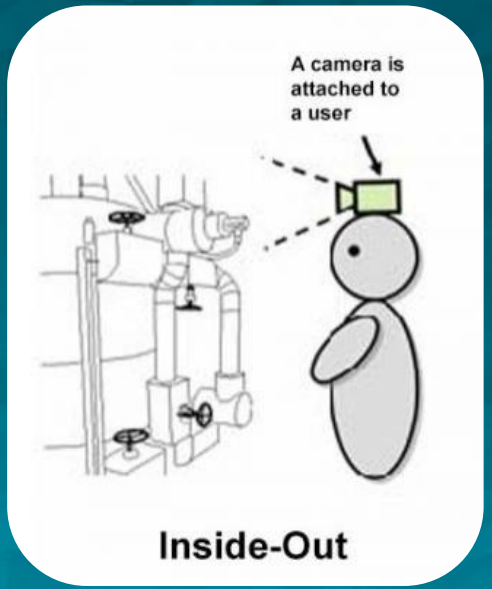
Google Daydream

Oculus Rift

Tracking

The means by which the Degrees of Freedom are sensed, calculated and sent to the computer.





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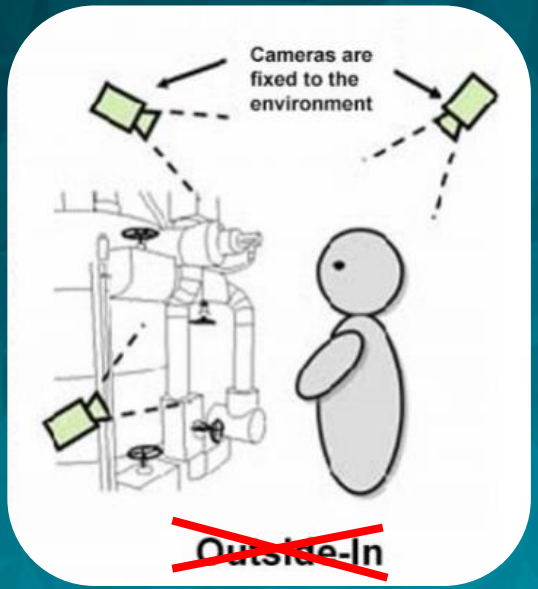
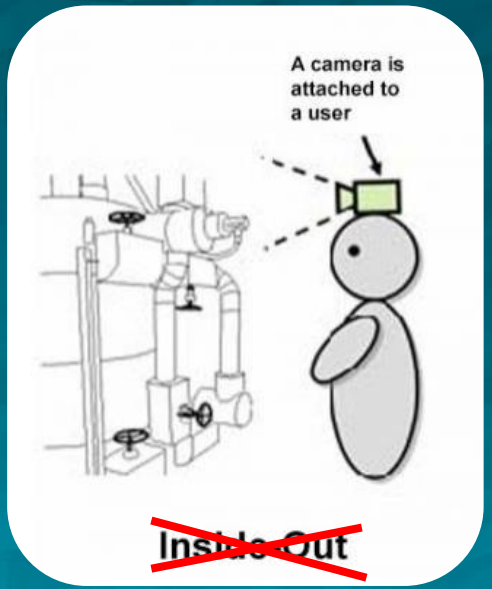
Hard!





Easy!

Wired vs. Wireless

Whether or not you need to have wires running out of the headset into a computing device.

VR Headsets

3 DOF Wireless

- Samsung Gear VR
- Facebook's Oculus Go
- Google Daydream
- Valve's Vive Focus

6 DOF Wired

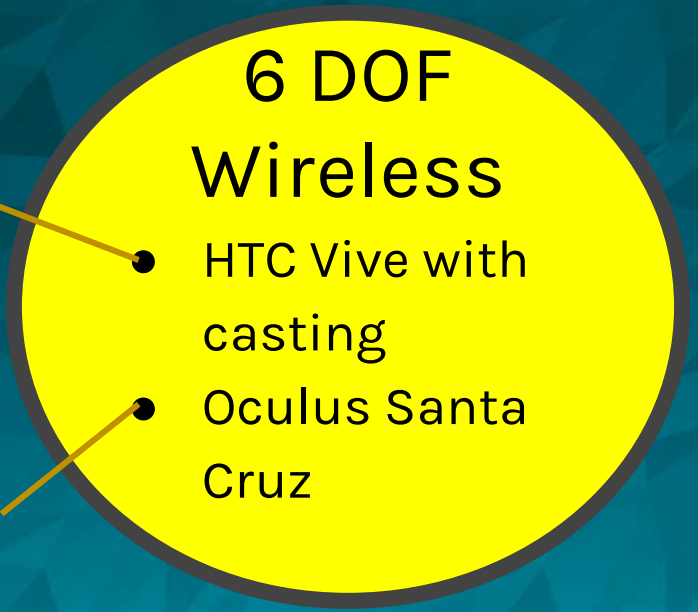
- Sony Playstation VR
- Facebook's Oculus Rift
- Microsoft MR
- Valve's HTC Vive

The Future...

…is Expensive or not here…

$800 + Computer ($1000)

???



1935 - Imagined by sci-fi authors

1968 - VR system created by Ivan Sutherland

1984 - Jaron Lanier - VPL Research “EyePhone”

1995 - Nintendo’s Virtual Boy

Time

1990 - “Virtuality” debuts in arcades and the cinema classic Hackers

1998 - DisneyQuest VR

2007 - 2018
VR BOOM!

2007 - Valve starts coding Vive

2012 Oculus Kickstarter $2.4 million

2015 Samsung Gear VR

2017
Microsoft MR

Time

2009 PSVR work begins

2014 Facebook buys
Oculus for $2 billion and
Google Cardboard

**2016 Vive, Oculus,
PSVR, & Daydream!!**

First VRDC!

2018
Vive Focus
Lenovo Mirage
Santa Cruz??

SAMSUNG
10:10 AM
T-Mobile
htc
BlackBerry
(3) Messages
10 08
Los Angeles
MOTOROLA
verizon
MESSAGING
LG
CONTACTS
SEND
END
NOKIA
Messaging
Select
Back
12:45
Wed.
04/27
London
05 56
T-Mobile
10:10AM
Gmail
Web
Market
Camera
Sprint
MESSAGES
CONTACTS
7:00

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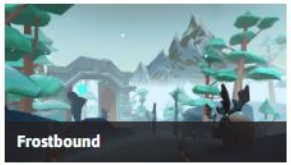
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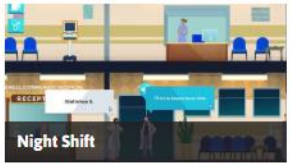
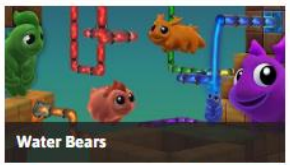

Night Shift

Baker Street Experience

Orion Trail VR

Orion Trail


Water Bears

Pittsburgh Zoo & PPG Aquarium

Lego Brickheadz Builder VR

Enemy Mind

Osmo's Mo the Monster

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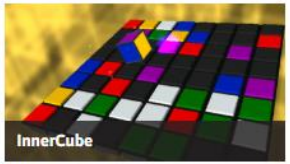
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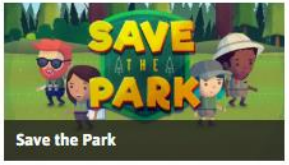
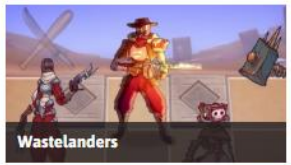


Save the Park

Peg + Cat

S.E.C.R.E.T.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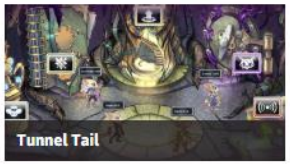
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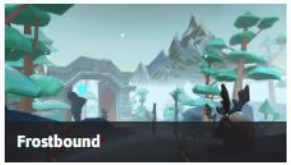
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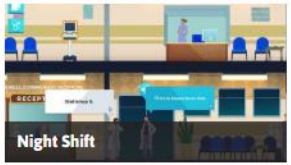
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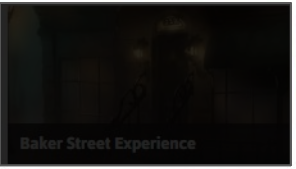
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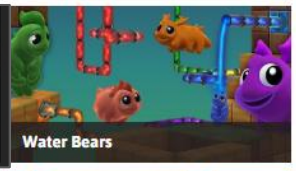
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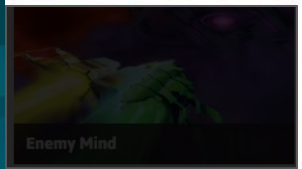
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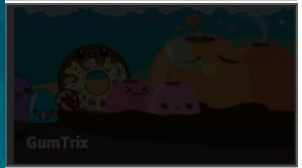
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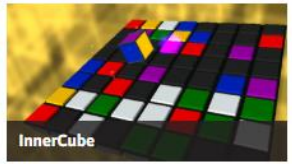
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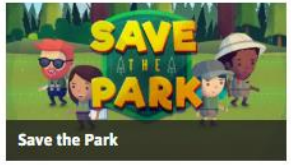
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AT THE
PARK
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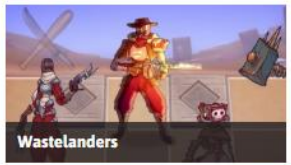
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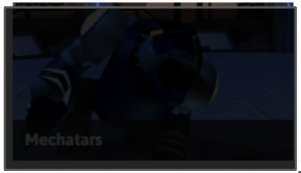
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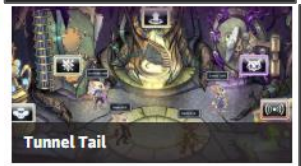
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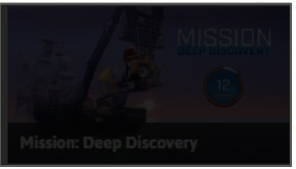
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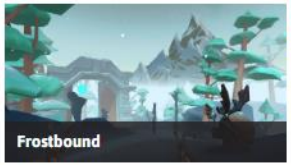
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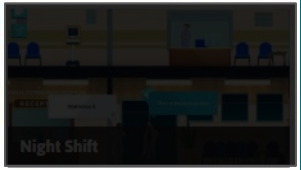
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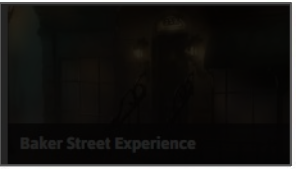
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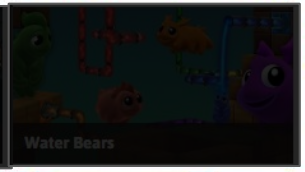
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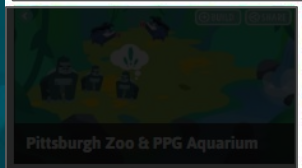
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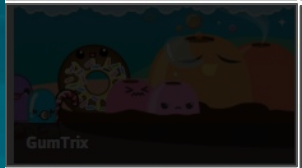
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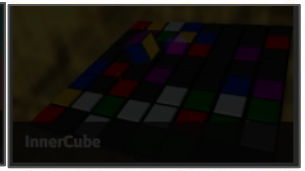
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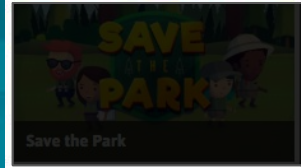
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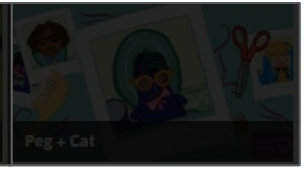
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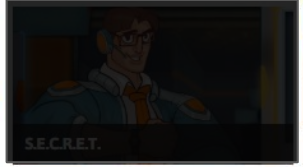
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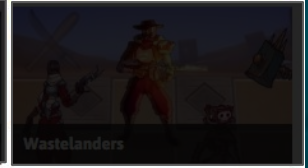
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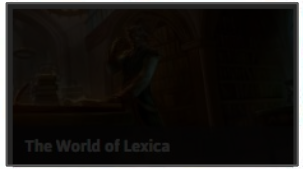
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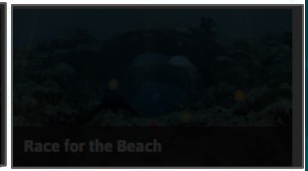
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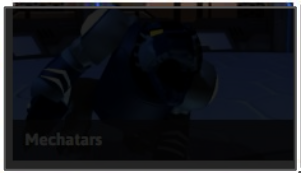
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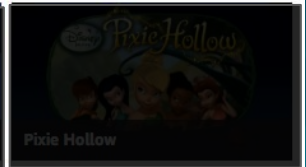
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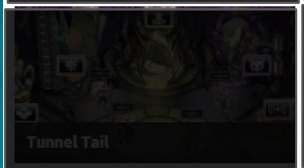
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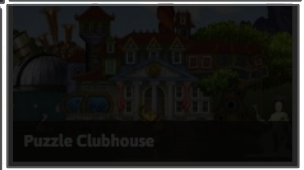
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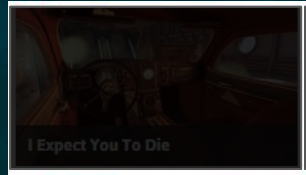
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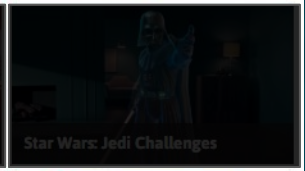
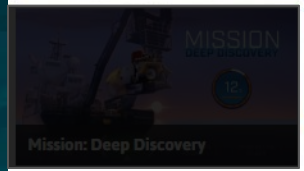
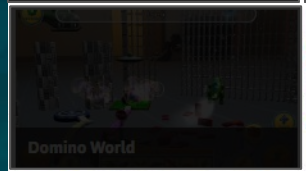

Star Wars: Jedi Challenges

HoloLAB Champions
HoloLAB Champions (Formerly SuperChem VR)

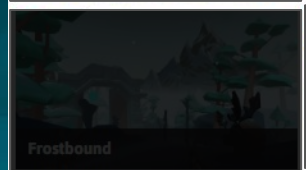
Happy Atoms

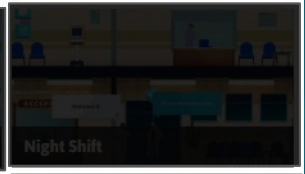

MISSION
Mission: Deep Discovery

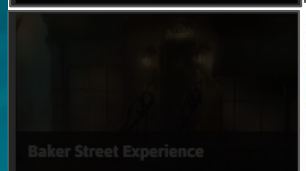
Daniel Tiger's Stop & Go Potty


Domino World

Water Bears VR

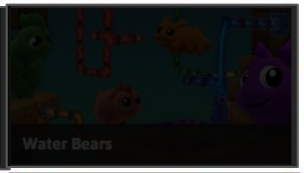

Frostbound

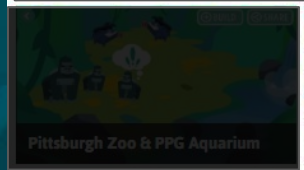

Night Shift


Baker Street Experience

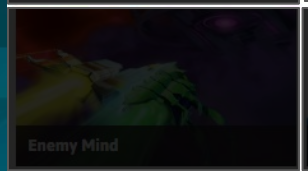
Orion Trail VR

Orion Trail

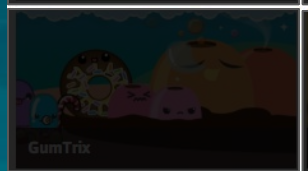

Water Bears


Pittsburgh Zoo & PPG Aquarium

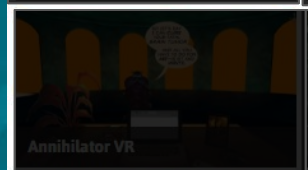
Lego Brickheadz Builder VR


Enemy Mind

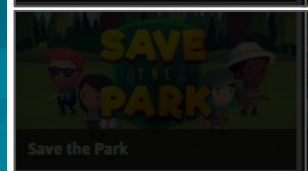
Osmo's Mo the Monster

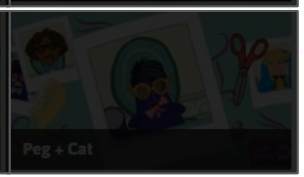

GumTrix

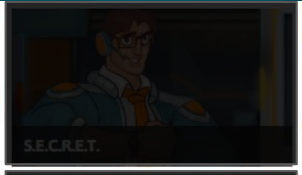
InnerCube


Annihilator VR

Daniel Tiger's Neighborhood Ride


SAVE
PARK
Save the Park


Peg + Cat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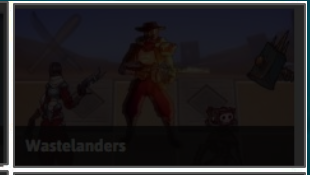
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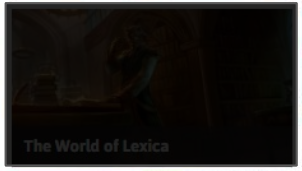
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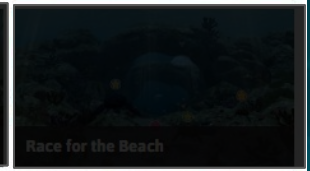
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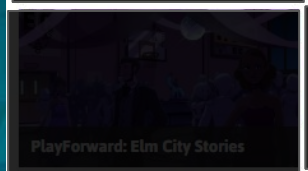
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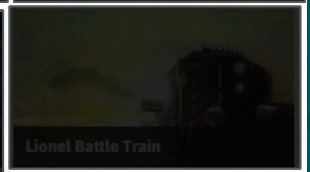
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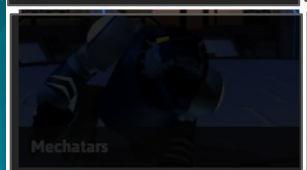
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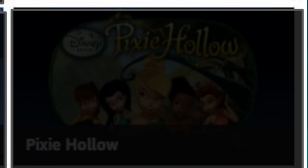
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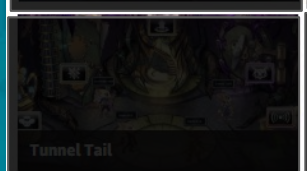
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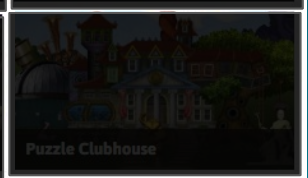
Puzzle Clubhouse

I Expect You To Die

Water Bears VR

HoloLAB Champions
HoloLAB Champions (Formerly SuperChem VR)

Happy Atoms

I Expect You To Die

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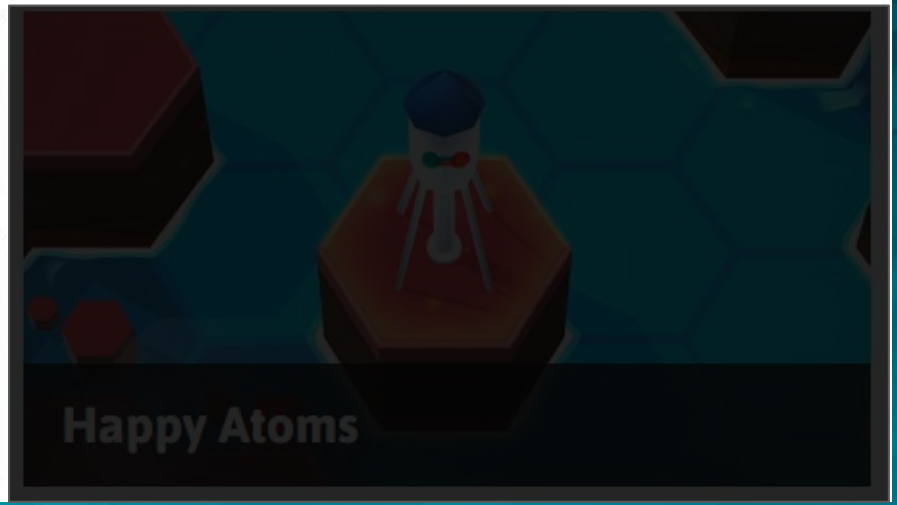
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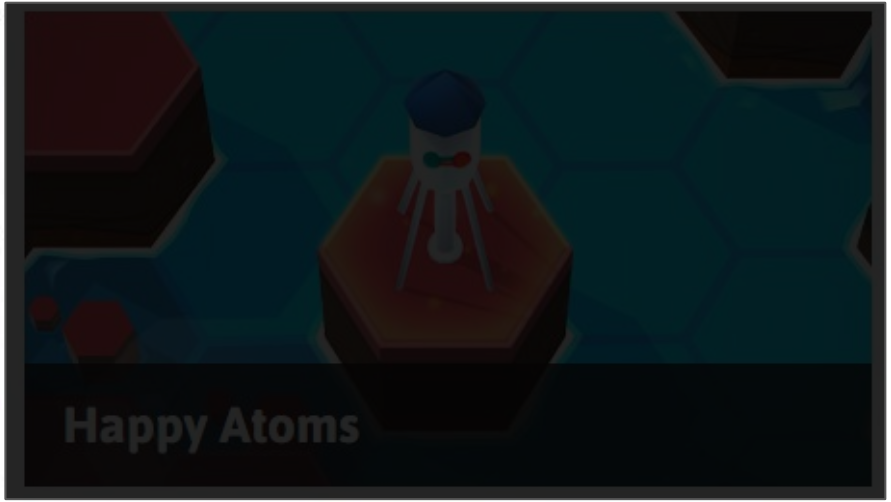


Happy Atoms

LAYERS OF DISCOVERY

BELIEVE YOU ARE THERE

LEAD THEM TO CLEVERNESS

BELIEVE YOU ARE THERE

Presence

Presence > Gameplay

5 Presence Breakers

Motion Sickness

Proprioceptive Disconnect

Control Confusion

Shallow Object Interactions

Unrealistic Audio

5 Presence Breakers

1. Motion Sickness
2. Proprioceptive Disconnect
3. Control Confusion
4. Shallow Object Interaction
5. Unrealistic Audio

* Note the lack of controllers, this was even mouse controlled version!

IEXPECTYOUTODIE.SCHELLGAMES.COM

Water Bears VR

Provide hands-on experience with Systems Thinking concepts.

0

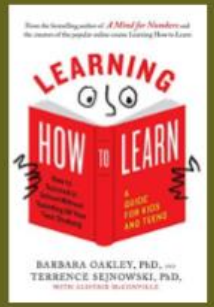
Barriers

Difficulty & Complexity

Barbara Oakley, Ph.D

Learning How to Learn

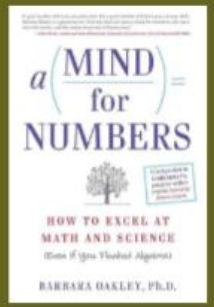
The bestseller A Mind for Numbers has been revamped in this edition for kids and teens to teach them simple tricks to learn difficult subjects - whether they feel like good students or not. Surprisingly, this book goes deeper in many ways than A Mind for Numbers - even as the powerful illustrations add more fun!



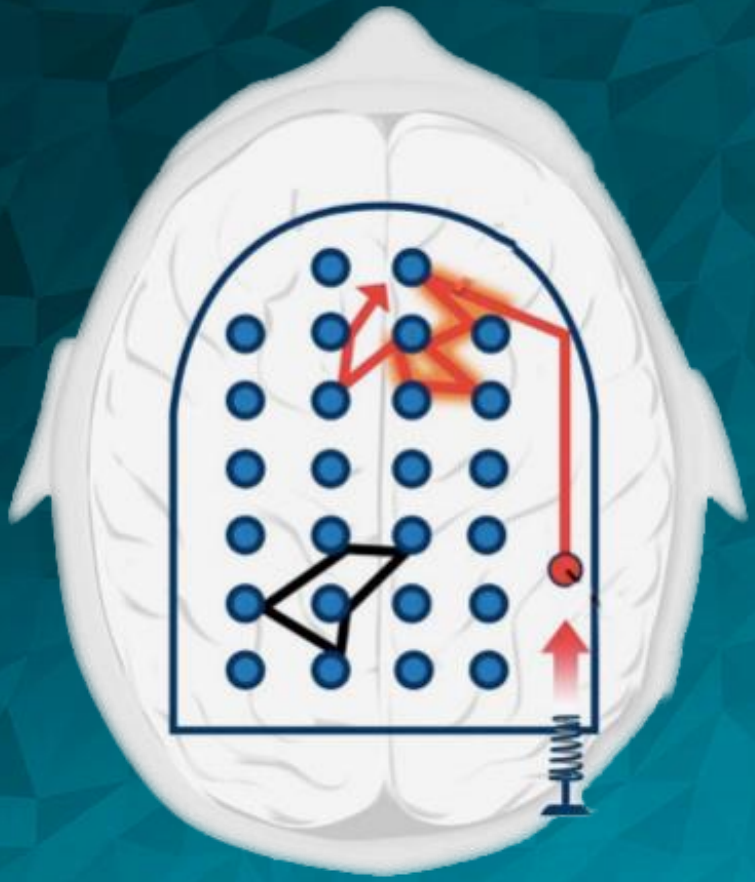
A Mind For Numbers

"A good teacher will leave you educated. But a great teacher will leave you curious. Well, Barbara Oakley is a great teacher. Not only does she have a mind for numbers, she has a way with words, and she makes every one of them count."

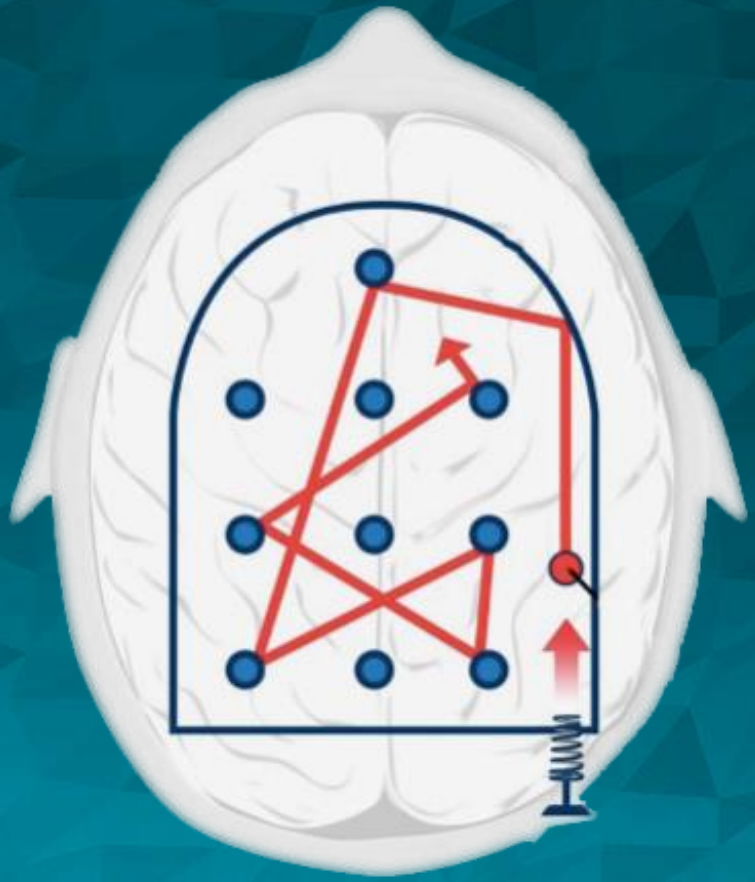
Mike Rowe, *Creator and host of Discovery Channel's "Dirty Jobs" and CEO of mikeroweWORKS*



Focused Mode



Diffuse Mode



Focused Mode

Diffuse Mode

HoloLAB Champions

- Virtual Lab practice. Real Lab Mastery.
- Grant from Institute of Education Sciences

RELOAD EQUIPMENT
Exit
CAMERA CONTROL PANEL
Time Elapsed
00:07:11.166
Erlenmeyer Flask

Barriers

Difficulty

Complexity

Fear

What’s the catch?

Cons of VR/AR Education

- New Technology
- Harder Development

Considerations of VR/AR Training

- New Technology - Embrace it! Prep for Standalone 6.6 DOF VR arrival!
- Harder Development - Plan for it!
  - Bigger budget for longer timelines
  - Embrace Rapid Iteration
  - Robust Playtesting & Issue Tracking

GDC
Playtesting VR
Brownboxing, Spycams, and Fuzzy Rugs
Shawn Patton
Principal Designer @ Schell Games
GAME DEVELOPERS CONFERENCE® | MARCH 19-23, 2018 | EXPO: MARCH 21-23, 2018 #GDC18
UBM

SELF
DESTRUCT

Four Magical Questions

Useful in any VR experience

1. What was the most frustrating moment or interaction?
2. What was your favorite moment or interaction?
3. Was there anything you wanted to do that you couldn’t?
4. If you had a magic wand to wave, and you could change, add, or remove anything from the experience, what would it be?

Frustrating, Favorite, Wanted, Wand

FFWW

Five Magical Questions

For I Expect You to Die

1. What was the most frustrating moment or interaction?
2. What was your favorite moment or interaction?
3. Was there anything you wanted to do that you couldn’t?
4. If you had a magic wand to wave, and you could change, add, or remove anything from the experience, what would it be?
5. When did you feel most clever?

FFWWC

Name	Least favorite moment or interaction?	Favorite moment or interaction?	Anything wanted to do but couldn't?	Magic wand/change anything at all?	When did you feel the most clever?
Josh	n/a	Smooth experience; natural interactions	tried to move projector around	More guns!	figuring out targets in tutorial
Tucker Cox	Getting gassed after shooting window (never turned on car)	Messing with the gus, game physics	Walk out of the car; open the door, leave office, walk around office	Plot twist... like everything is an illusion/a game. Everything is real but fake, play up on this fact	Shooting drawer targets in mid air.
Jason	Had trouble learning the controls (althought he was pretty good still)			Wants motion activated controls (like flipping the switchblade open)	
Andrew	Interacting with things while given instructions in car... missed the direction.	Interacting with cigar and other "toy" objects	n/a	n/a	Manipulating objects
David Robins	bomb	getting used to the controls	light the car on fire,tutorial too long	more options to fail	turning around to find the gun
Melissa	Wierd that you don't have a body	Burning stuff	no	n/a	figuring out how to place and shoot targets
Noah		shooting and art style			noticing the gun
Victor	Hard to tell there was gas outside the car; next steps not clear	Using guns and TK	Game forced me to turn around, but not sensors behind me (lost tracking)	Gun shots should be much louder; haptics or audio for "click" of gun when pulling trigger	Setting all the books on fire
Brain	TK hard - dont have to hold stick down once you grab it	completing the level / roll down window to get screwdriver		team play component (like keep talking and nobody explodes)	disarming in reverse, using dynamite in canan
Matt	Dropping things on or around chair before knowing about TK	Using guns and TK	No	Want to see my virtual body in the game	Figuring out opening the lighter
Garret	Learning the controls (most frustrating)	The immersiveness of it all	no	no	Finding the secrets (finding the car key)
Steven	no	Shooting gun and TK	no	Random events or randomizing puzzles (replace bomb with something else, have laser come from side some times... mix it up)	Shooting the laser in the car
Kyle	Hard to use telekinesis	I really liked the gun, how it could go far outa	I wanted a person to come in to shoot	I really liked the gun, how it could go far outa	When I found the key
Joe	leaning the controller is tough		knife on screws	more of a time restriction, like gas slowly leaking into the car through unseald seams	
Franklin	Tutorial stuff; felt like I got the hang of it before tutorial ended	Liked how dumb it made me feel: "oh, I can just do that."	Wanted to use knife as screwdriver	Have Nolan North be the narrator (he's everywhere)?	figuring out rolling up and down window instead of shooting it
Hunter	Not being able to choose level I want	How free it is; do anything i want	No	Being easier to grab stuff; took a few tries to grab things, accidently throw or let go of something	Discovering more items by opening compartments
Dakota	not being able to use knife to unscrew panel; and tutorial is annoying...something about it wasn't right	Everything!	knife as screwdriver, being able to adjust seat leaning back/forward	n/a	Finding the key
Mason	freezing objects was diffiult. two different grab buttons	retina scanner		add more elements like the arm bomb card (that are intentionally misleading)	
Alex	freezing things in the air was hard, wanted button on other hand to freeze	gun			finding the disk in the door
Kaed	gas outside of car keeping me from screwdrivers	Stuff catching on fire	Not being able to use knife as screwdriver (didn't really bother him though)	n/a	shooting the laser

Getting Started in Transformative VR

BIG
Brazil's Independent Games Festival

Getting Started in Transformative VR

BIG
Brazil's Independent Games Festival

The Future

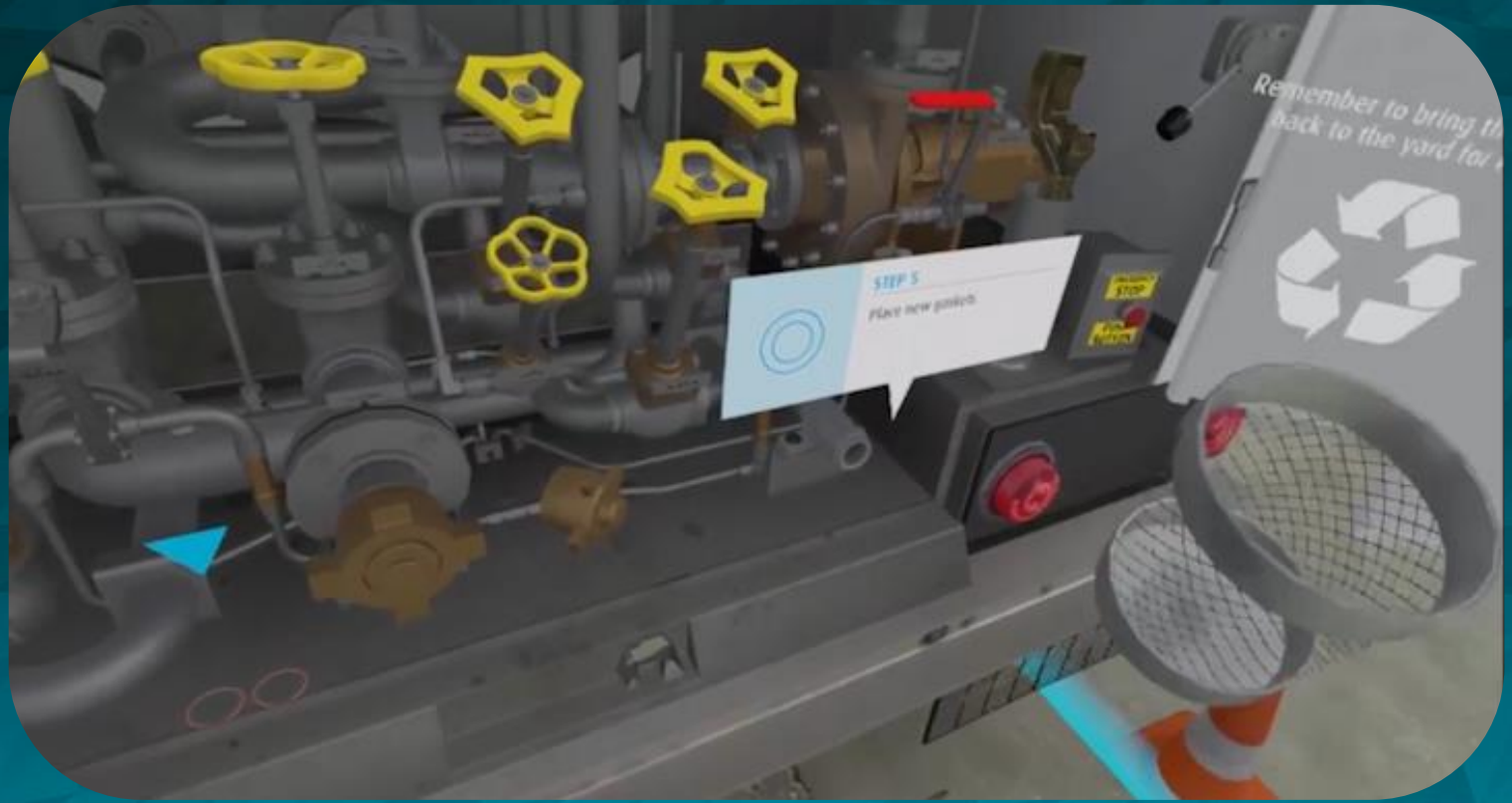
(of Transformative VR)

High Level Purpose
Audience & Context
Barriers
Player Transformation
Expert Resources
Domain Map
Prior Work
Assessment
The Transformational Framework

High Level Purpose
Audience & Context
Barriers
Player Transformation
Expert Resources
Domain Map
Prior Work
Assessment
The Transformational Framework

HARMAN
CAFE

Training for KFC cooks



Training for hazardous chemical truck drivers

DOT

digital group

www.dotgroup.com.br

Training for whatever the future holds

Future of Transformative VR

Present
~~Future~~ of Transformative VR

The Future is You!

Reminder: You Can Watch The World Cup In VR Using PSVR

Tuffcub, 3 days ago, 12 comments.

Sha

A

available

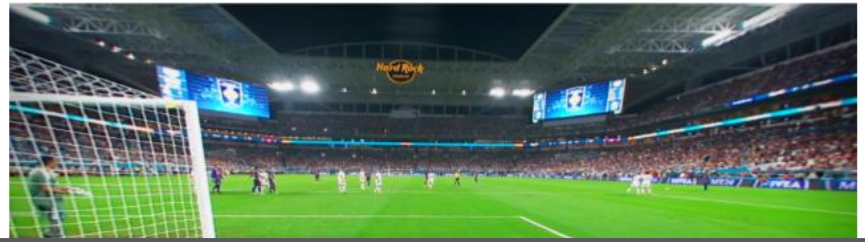
Watch the World Cup 2018 in VR on Oculus Go and Gear VR

Oculus Venues is livestreaming four games and several other region-specific e

David Lumb, @OutOnALumb
06.14.18 in AV

1
Comments

218
Shares



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shawn@schellgames.com
Slides : shawnpatton.com
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