

Learning in Virtual Reality

Education Without Real World Limits



WIRRED

“
REALITY
IS SO
OVERRATED
”



Today's Format

- What is virtual reality (“VR”)?
- Activity 1 - building your Google Cardboard
- What can VR add to the classroom?
- Activity 2 - building a VR learning experience
- Open discussion / ideas / Q & A
- VR in 2016

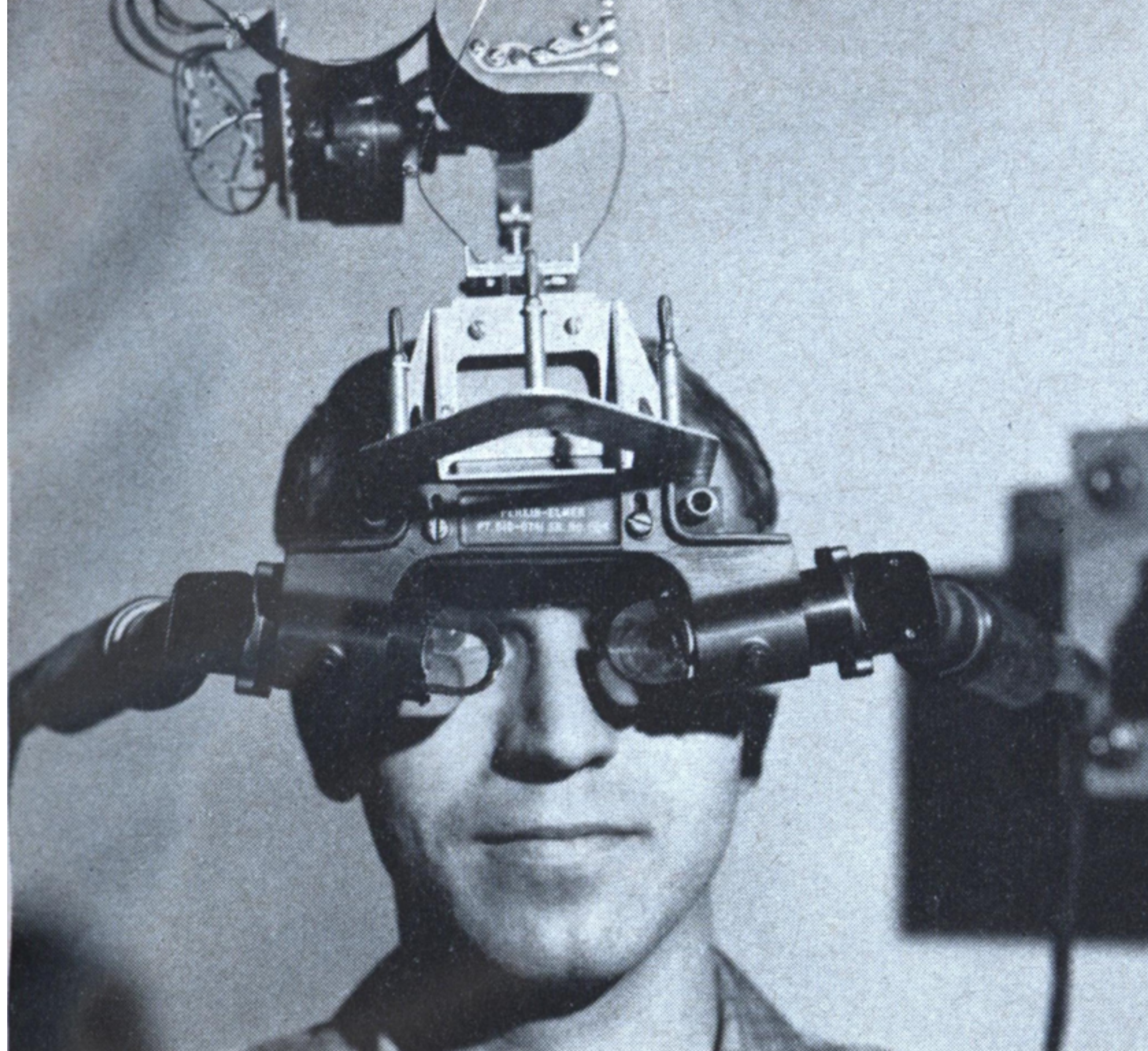
What is virtual reality (“VR”)?

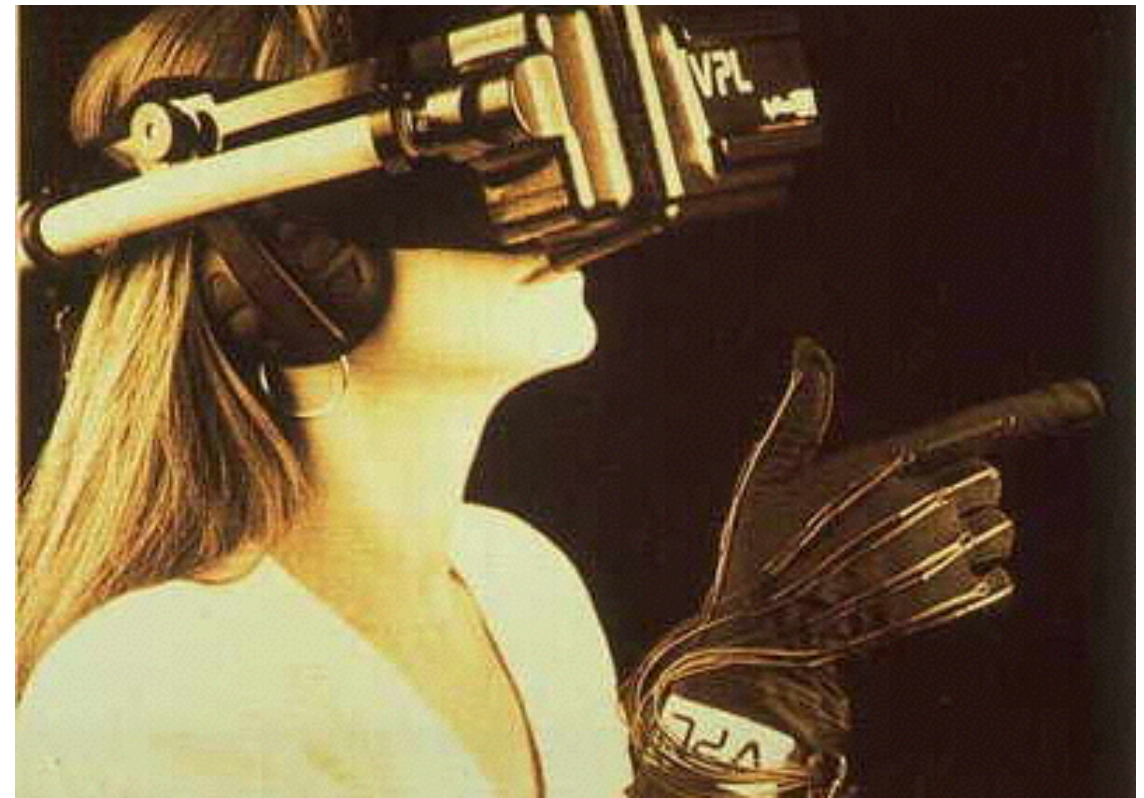
“immersive multimedia or computer-simulated reality, replicates an environment that simulates a physical presence in places in the real world or an imagined world, allowing the user to interact in that world. Virtual realities artificially create sensory experiences, which can include sight, hearing, touch, and smell.”













(x,z): -189,1799

Glove: FLA

a: Dactyl_NightMare



It's different now

- hardware is cheaper and more powerful
- computer graphics are almost photo realistic
- the Internet made everyone more connected
- app stores and crowd funding



JANUARY 19 • 2015 EDITION

Forbes

30

UNDER

30

THE CLASS OF 2015:
600 GAME CHANGERS,
IN 20 INDUSTRIES,
TRANSFORMING
THE WORLD

PALMER LUCKEY, 22

FACEBOOK'S
\$2 BILLION MAN
LEGITIMIZES
VIRTUAL REALITY



TIME

The Surprising Joy of **Virtual Reality**

And why it's
about to change
the world

By Joel Stein

*Palmer Luckey, 22,
inventor of the
Oculus Rift, is one
of the visionaries
making virtual reality
mainstream*

This kid is about to change gaming, movies, TV, music, design, medicine, sex, sports, art, travel, social networking, education—and reality. The **Oculus Rift** is here, and it will blow your mind.
by Peter Rubin

Oculus Rift: Step Into the Game



Developer kit for the Oculus Rift - the first truly immersive virtual reality headset for games.

Created by

Oculus

9,522 backers pledged \$2, help bring this project to life



Facebook buys Oculus VR, a virtual reality gaming company, for \$2 billion

MARCH 25, 2014

Why Ethanol Makers Are Actually Relieved With New EPA Cuts 9:09 AM EST

Is Virtual Reality Ready for Its Close-up? 8:55 AM EST

Top 12 Reasons People Gave Up on the Apple Watch 8:40 AM EST

Express Scripts is Taking on Turing Pharmaceuticals' 5,000% Price Hike 8:39 AM EST

Crowdfunded News Site Hits New Subscriber Milestone 7:28 AM EST

Why Investors Should Think Beyond Returns On Investments 7:00 AM EST

Government is Stalling Clean Energy Innovations 7:00 AM EST

Zara is Going to Install iPads in its Changing Rooms 6:50 AM EST

China's Rut and U.S. Economic Updates--5 Things to Know Today 6:15 AM EST

GOP Has Few Options to Block Obama in Paris Climate Talks 6:00 AM EST

LEADERS IN INNOVATION

Facebook buys Oculus VR, a virtual reality gaming company, for \$2 billion

by Erin Griffith

@eringriffith

MARCH 25, 2014, 10:08 PM EST



Zuckerberg views gaming headset as a “new communication platform.”

FORTUNE — Facebook’s deals are becoming the stuff of legend. In the last few months alone, Mark Zuckerberg has spent \$19 billion on a messaging app, and reports say he’s paying \$60 million for a drone company. Today he announced Facebook’s latest



PHOTO: THOMAS

SONY

Google



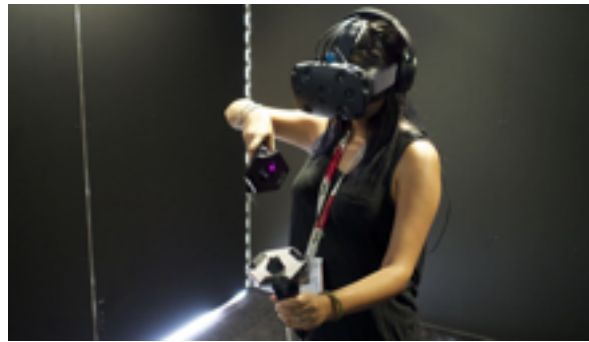
facebook



VALVE

htc

Expensive
Best VR



HTC Vive (“Room Scale”)

Tethered
Spatially Aware



Oculus Rift



Playstation VR



Samsung Gear VR

Affordable
OK VR



Google Cardboard

Mobile
Turret Head

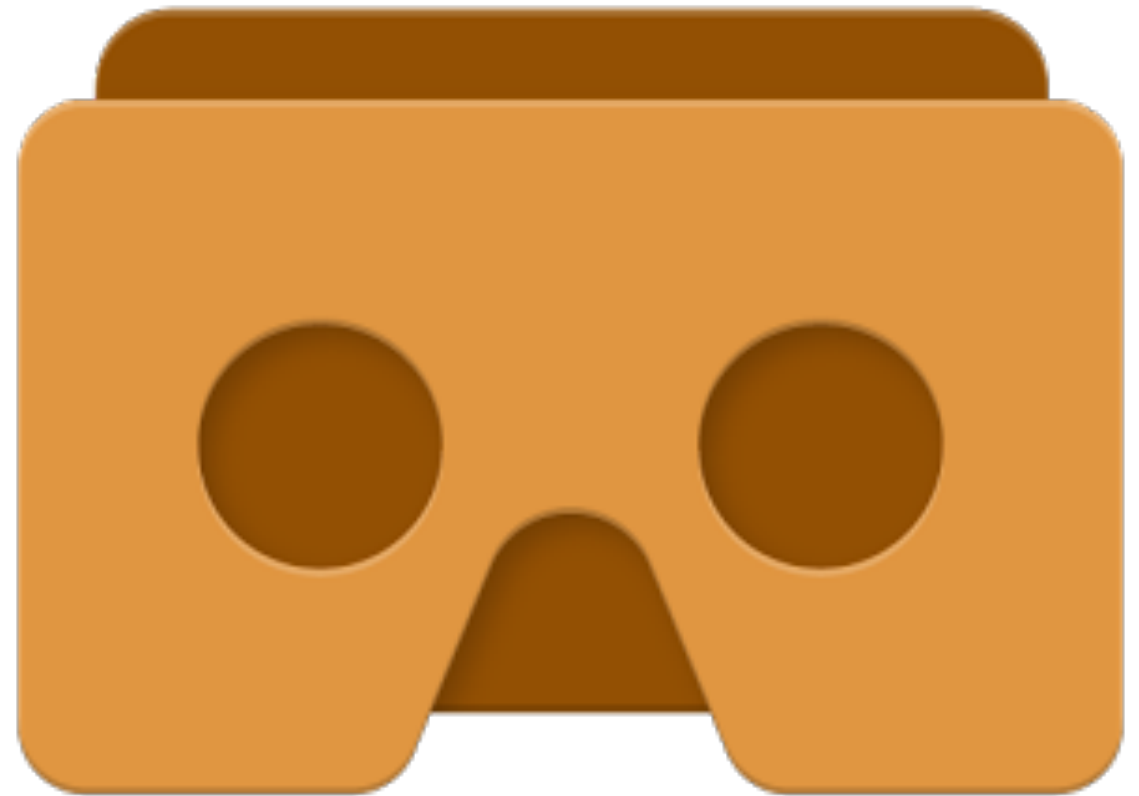


Building your Google Cardboard

Activity 1

Download the Cardboard app

- Go to the App Store (iPhone) or Play Store (Android) on your phone and search for “Cardboard”.
- Download the app with this icon.
- Launch it, put your phone in the Cardboard and step into VR!
- Ask if you need help.
- (Try looking for other Cardboard enabled apps in the Stores.)



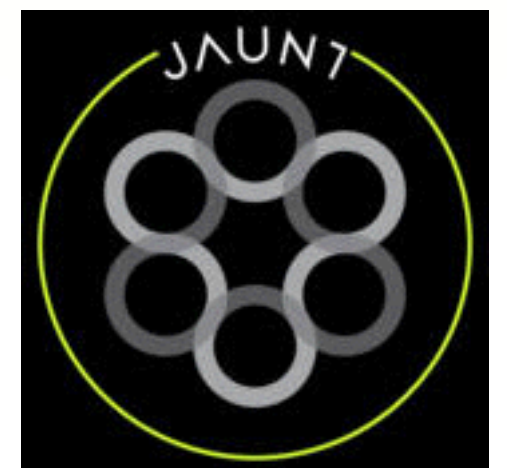
What can VR add to the
classroom?

New experiences

- Engaging experiences (immersive, novelty)
- Go to places and do things impossible in real life (or too expensive)
- Present perspectives uniquely (scale, point-of-view, self-presence)

360 degree videos

- YouTube (currently Android only)
- VRSE and Jaunt (both platforms)
- New York Times VR (new)





Google Street View

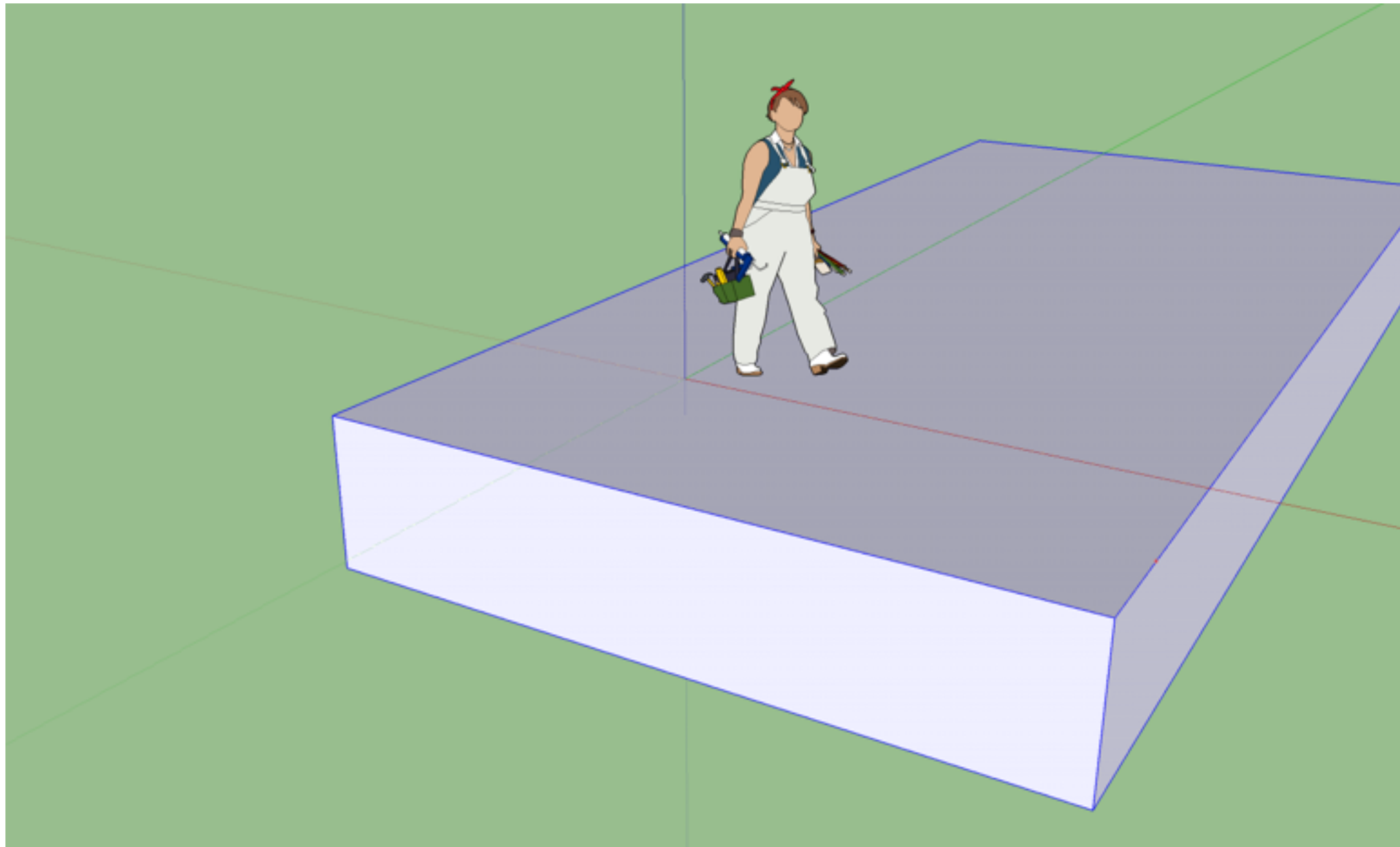
Cardboard VR apps

- Titans in Space (Android only)
- War of Words
- InMind VR

Incorporate VR into your lessons

- Mix-in 360 degree video content
- Travel to places using Google Street View
- Create panoramic images for VR
- Create custom 3d VR experiences (inVR)





Building a VR learning experience

Activity 2

Build in SketchUp

- Create new file
- Draw some blocks
- Import a squirrel!
- Export as FXB
- Upload to inVR...

Upload to inVR



- <http://invr.co>

username:

removed

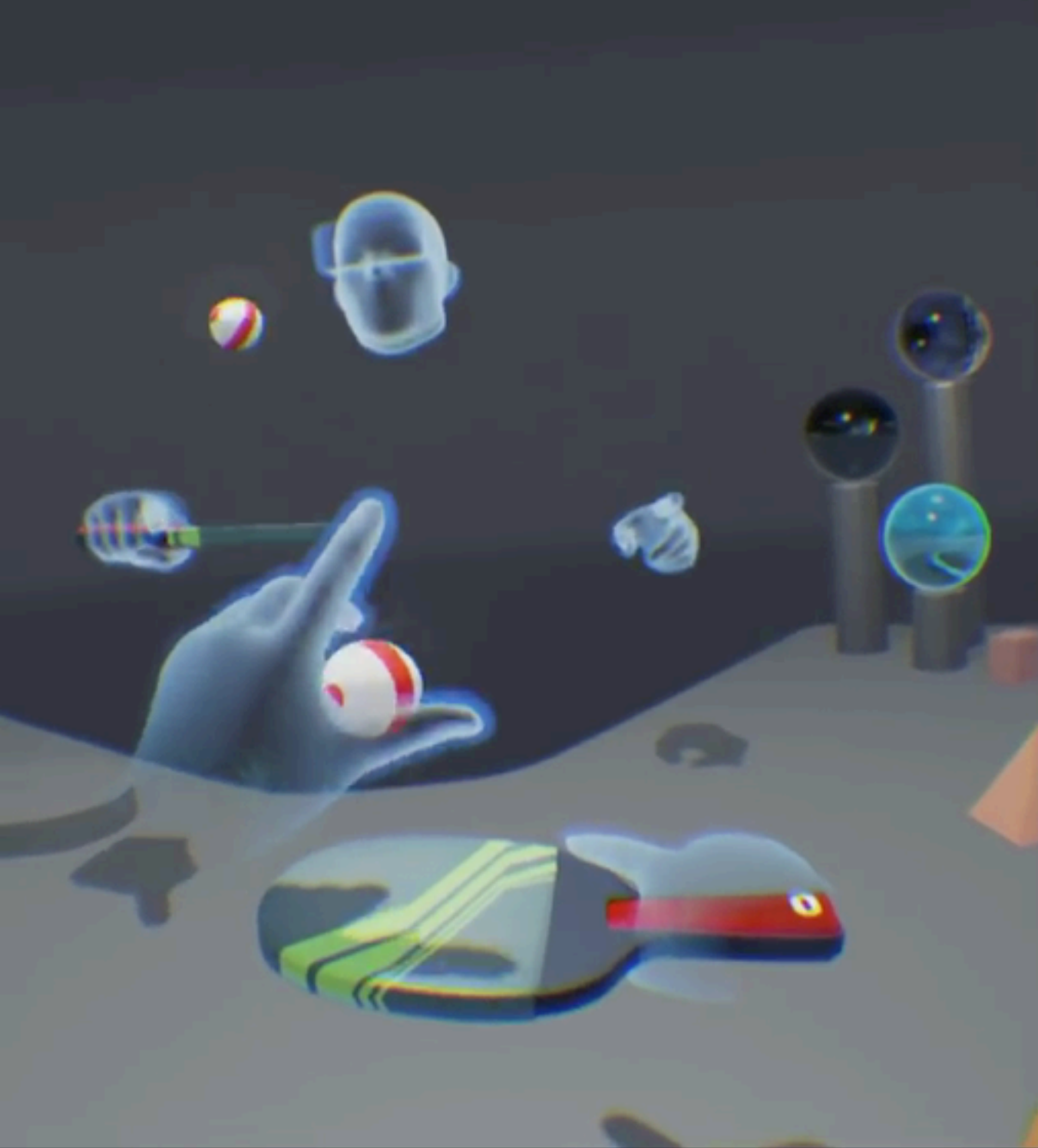
password:

removed

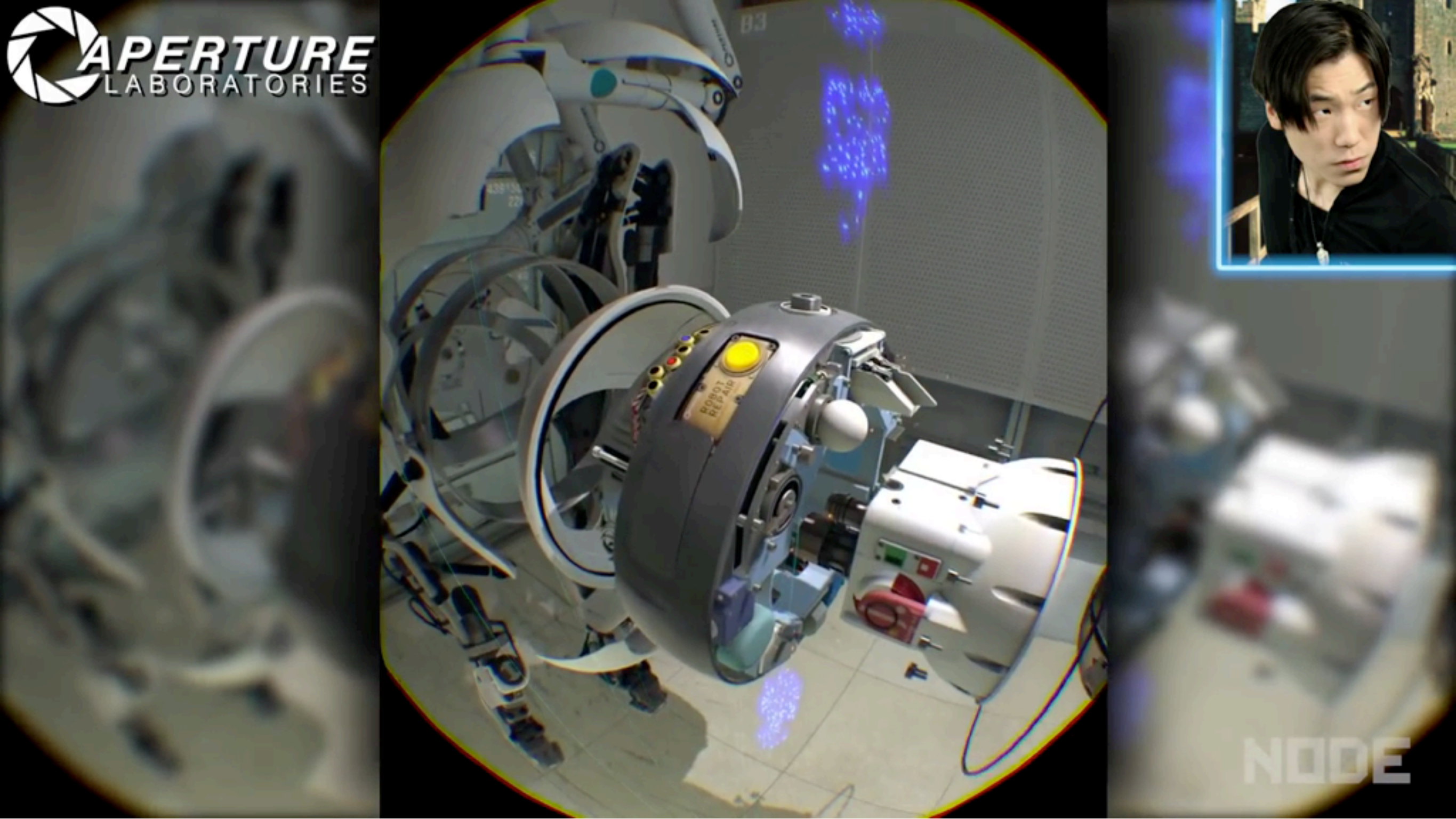
Keep Talking
and
Nobody Explodes

Open discussion / ideas / Q & A

VR in 2016



**Oculus Rift
Q2 2016
(Facebook)**

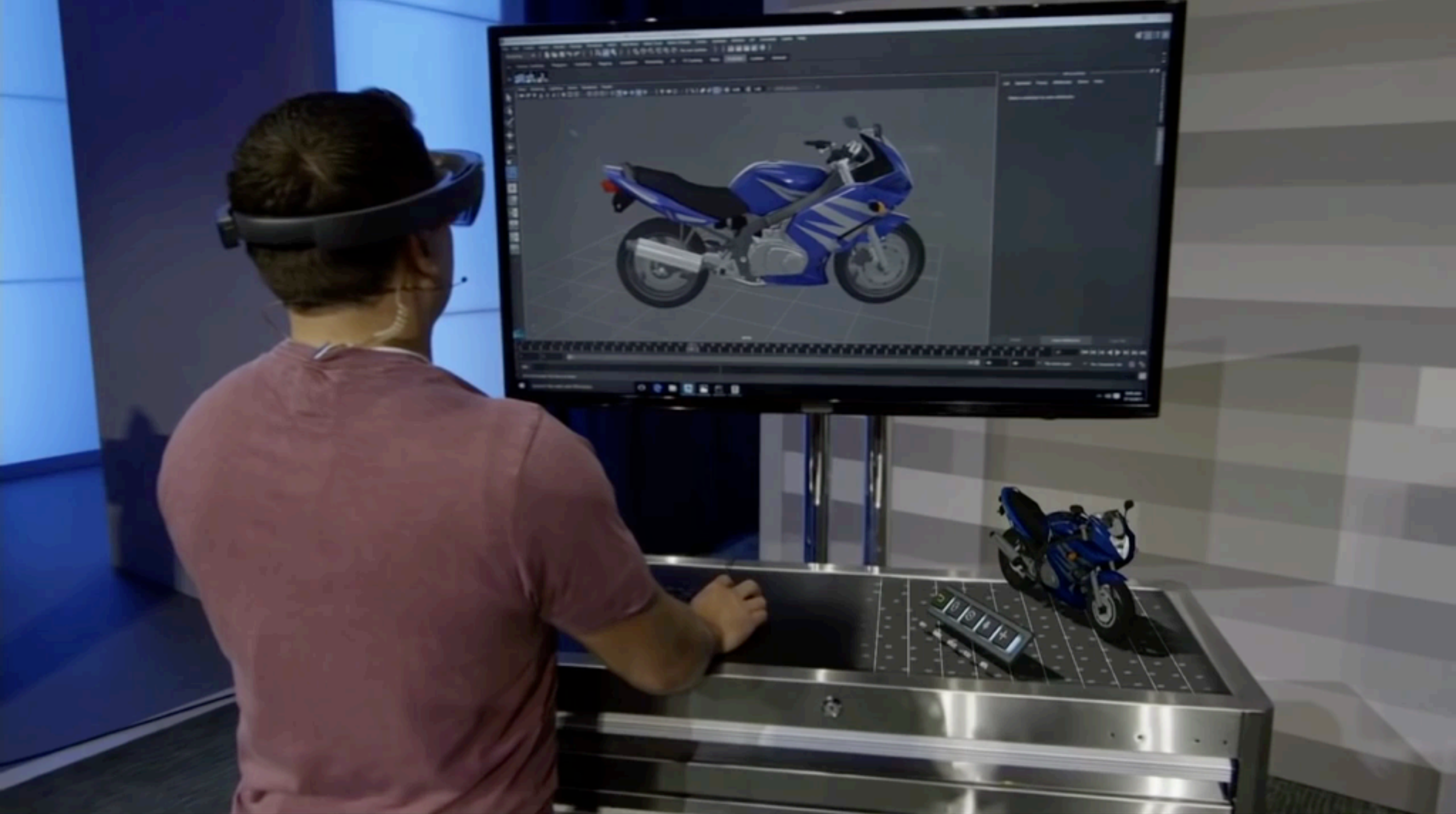


HTC Vive
Q1 2016
(Valve/Steam)



Playstation VR
Q2 2016
(Sony)

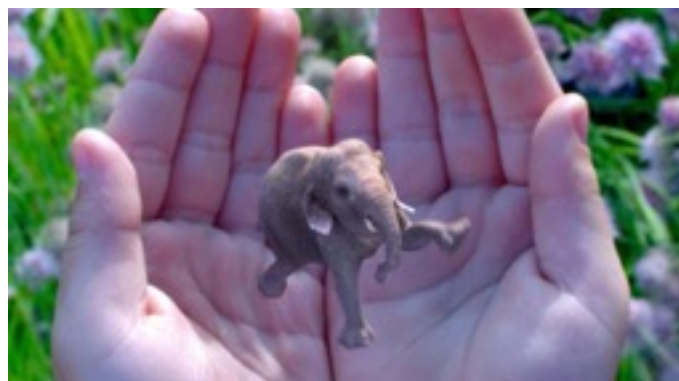
AR in 2016 and beyond



**Hololens
2016/2017
(Microsoft)**



Shot directly through Magic Leap technology on October 14, 2015.
No special effects or compositing were used in the creation of these videos.



**Magic Leap
2016/2017?
(Google is a big investor)**

Thank you