

Immersive Technologies Production: Methods Taught

Level 7

3D COMPUTING ANIMATION

Immersive Technologies

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- Analyse different creative approaches in Immersive Technology –
- Apply a range of Immersive Technology skills within a variety of creative contexts.
- Critically reflect on a range of Immersive Technology skills as applied to a variety of creative contexts.





- **Research and Inspiration:**
  Demonstrate fundamentals knowledge of Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR/XR) and skills to produce Immersive Technology across numerous areas of application.

- **(Pre)Production**
  Demonstrate using Immersive Technologies the creation of 2D And 3D digital assets, design, implementation, spatial sound and testing.





- You can create an immersive experience that can influence your viewer by orienting their surroundings, with the aim of evoking real emotions that connect them to the story you want to tell.

- You will focus on non-linear and interactive storytelling for in-depth environments, and study user testing and case development for creative work audiences. An in-depth video development concept approach that examines the legacy of film, interactive documentary and gaming.



What is Immersive Technologies



Virtual Reality (VR)

Augmented Reality (AR)

Mixed Reality MR

Virtual Reality - VR
Users have headsets to create a simulator environment and helps an Individual to immerse into it, and to experience an entirely different reality.

Virtual Reality - VR



In the eighteen hundreds, this idea evolved from photography to the advance VR we make use of today.
The first VR device called Senso-Rama.

Augmented **R**eality
Overlays digital content and information onto the physical world, helping to perform tasks better and more efficiently.

Augmented Reality - AR



AR which falls in between reality and virtual reality is a method used to render real-world data and present it intuitively so that virtual elements resemble the present reality to an extent.

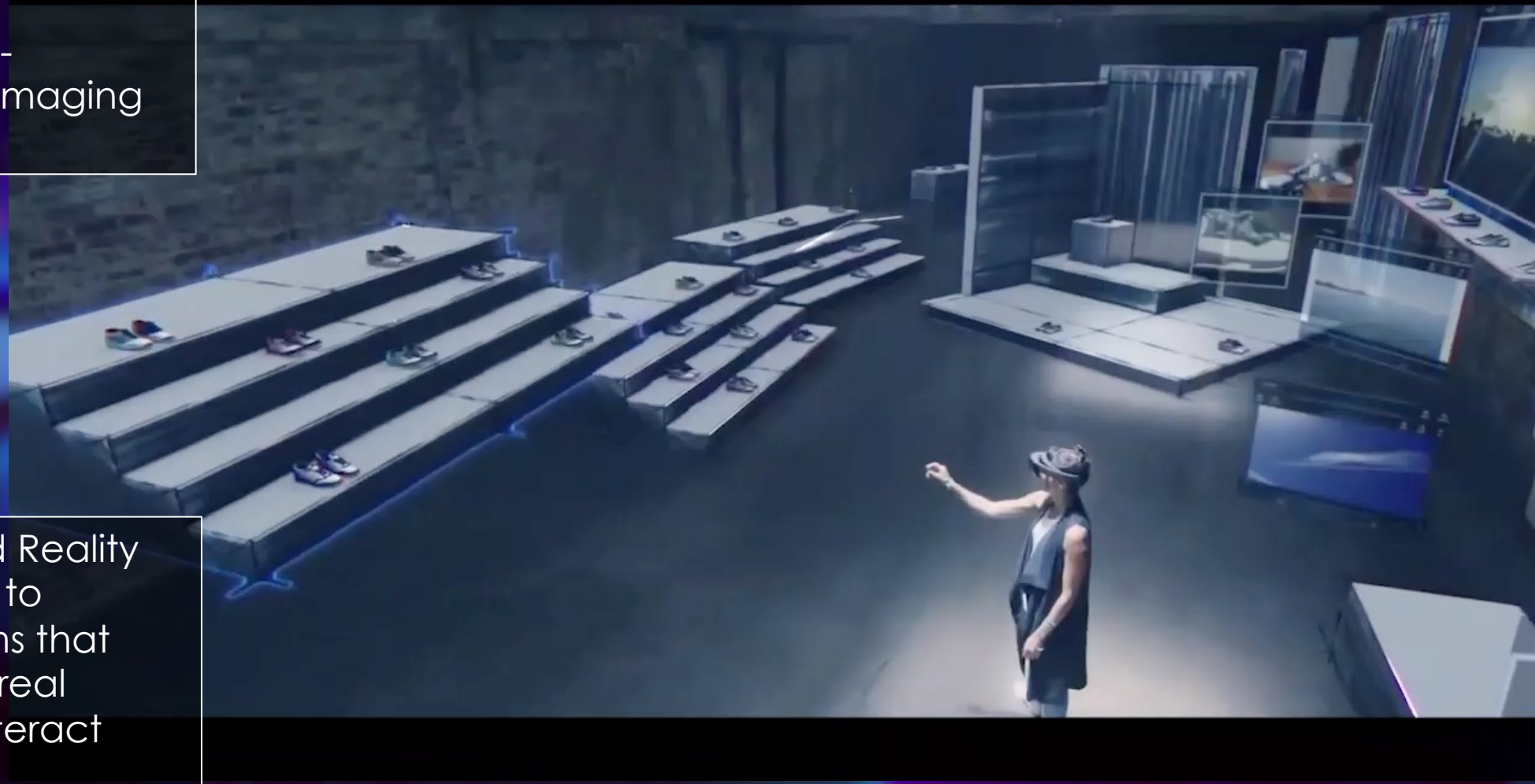
Get a behind-the-scenes look at the making of READY PLAYER ONE





Mixed Reality - MR brings together real world and digital elements. In mixed reality, you interact with and manipulate both physical and virtual items and environments, using next-generation sensing and imaging technologies.

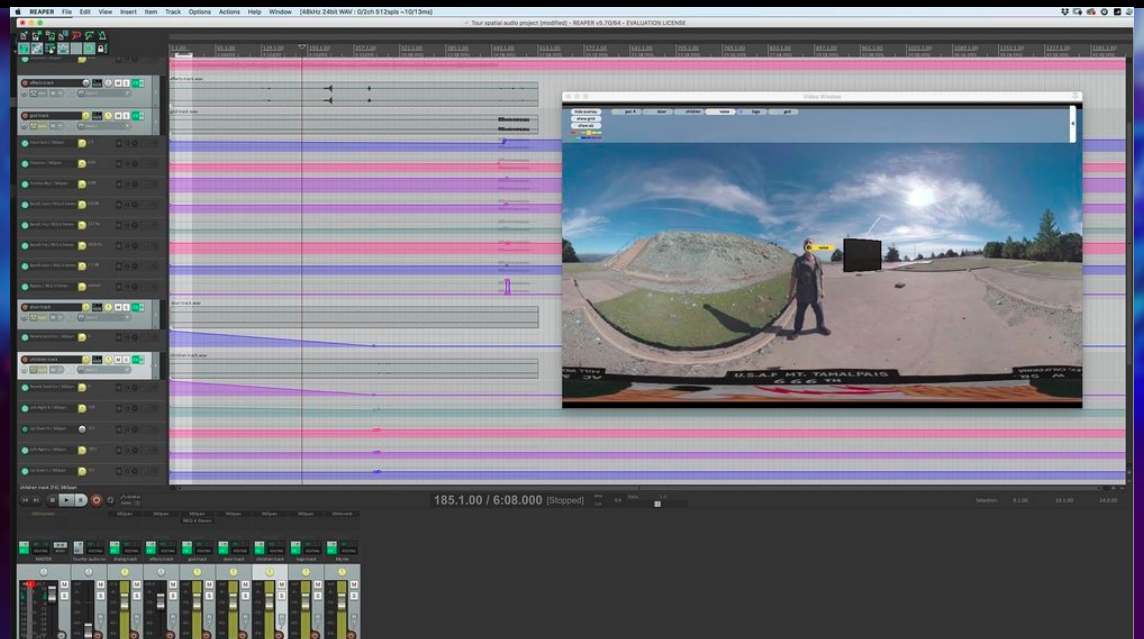
Mixed Reality - MR



Microsoft Hololens Mixed Reality smart glasses allows you to experience 3d holograms that melt seamlessly into the real environment you can interact with.

360 Audio Mixing for VR:
Spatial Audio and 3D Sound and Ambisonics





What is Immersive Technologies



VR - Digital environments that shut out the real world

AR - Digital content on top of your real world

MR - Digital content interacts with your real world



Students Examples



HDRI IMAGE
360°

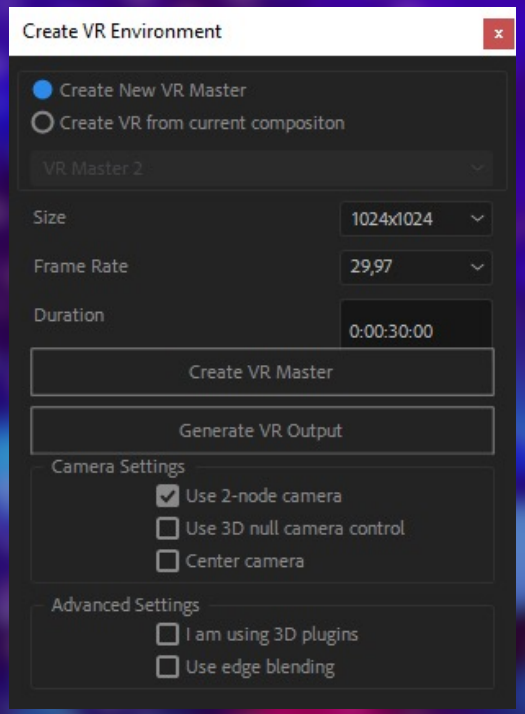


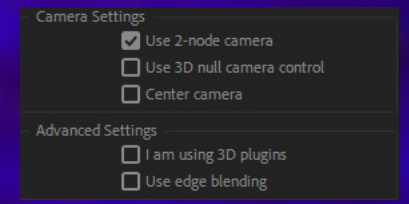
Virtual Reality
2d and 3d assets
Animation
Lighting
Colour Correction
VFX integration

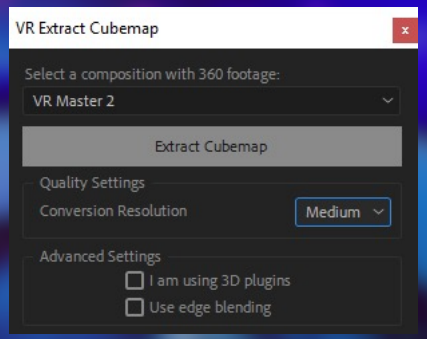


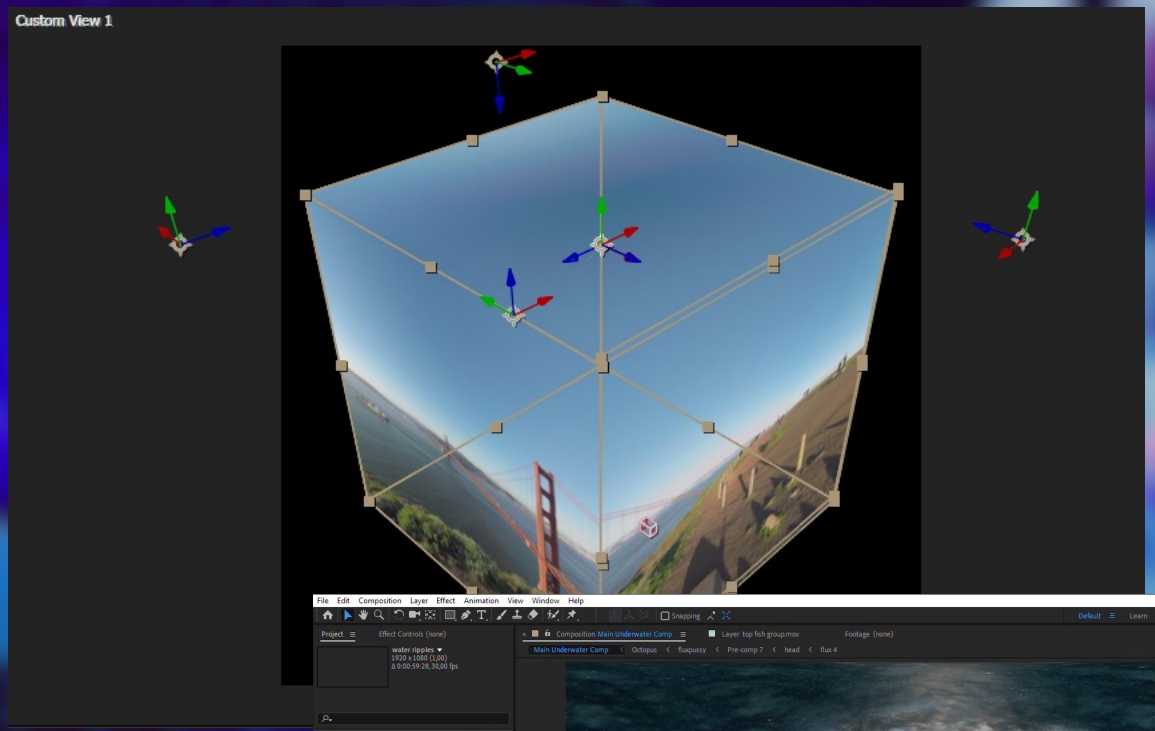
Step by Step Video Tutorial
VR *Composition Production “Underwater Scene”*

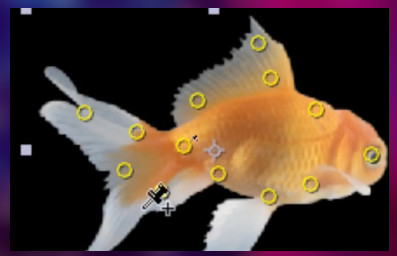
Construct VR environments in After Effects – Live demo













Adobe Immersive Environment in After Effects allows you to preview how your 360 and 180 degree footage looks like in a VR head-mount display (HMD)



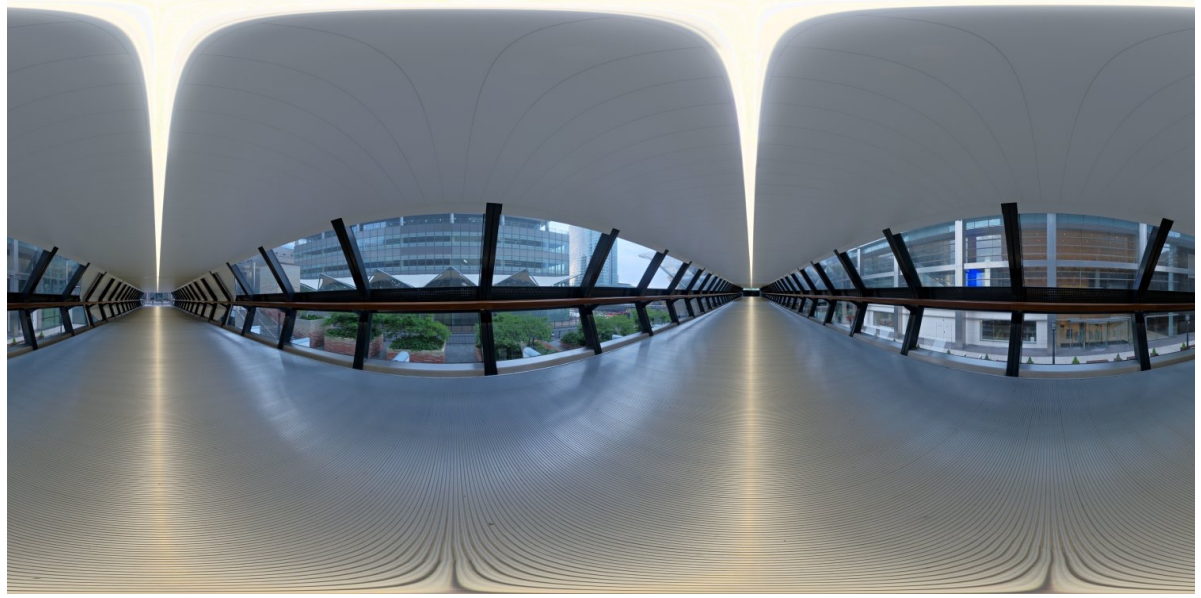
Use of 3D workflows and output methods in the areas of 3D modelling, HDRI images using VR

Develop storytelling skills by identifying and using different tools for
building and rebuilding stories in
and around different Immersive environments.

To complete the lab task please download

- HDRI Image from student Moodle area for your 360 VR compositing exercises folder.
- Download 2D and 3D digital elements.







Please download your choice of HDRI from https://hdrihaven.com
and digital element from https://3dmodelhaven.com to begin designing your story.





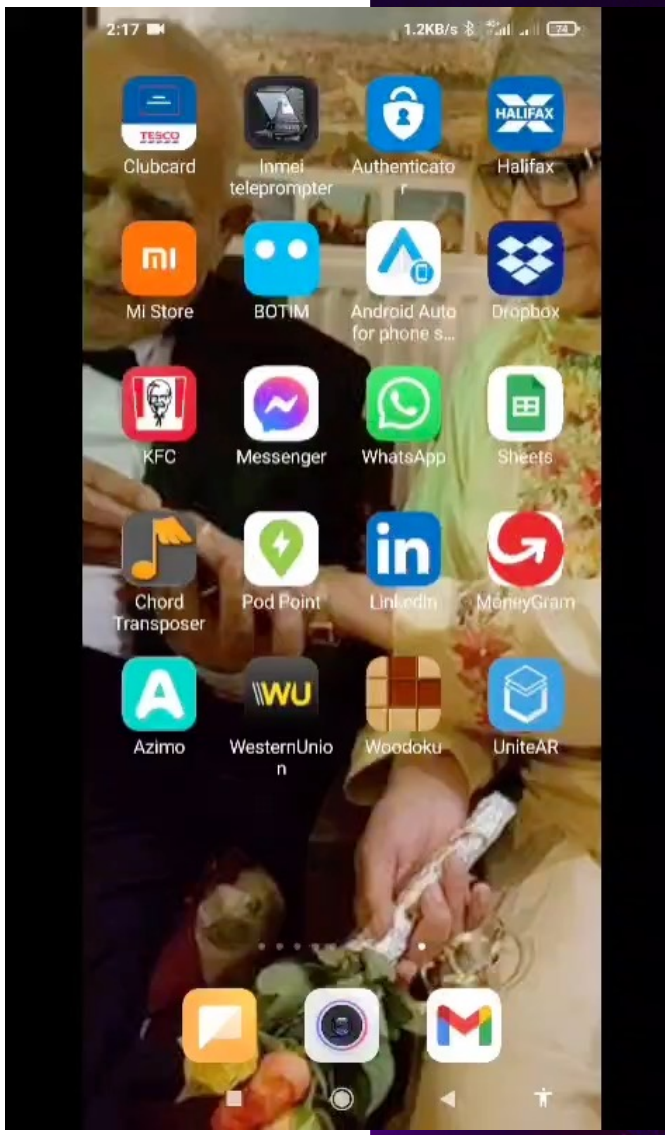


Augmented Reality

In a lab session.

Please download an Unite AR app on your smart phone

1 Start the Unite App
2 Hoover your smart phone camera over a computer table, the floor/carpet etc
3 Bottom Left select AR Gallery
4 Select an AR Content for example in Education section select “Jet Engine”





References:

XR - The Future of VR, AR & MR in One Extended Reality
https://www.youtube.com/watch?v=E0QLVj9FJ0A

XR - Oculus App Game - Films
https://www.oculus.com/experiences/go/section/1667658449918839/

https://www.vrs.org.uk/virtual-reality/history.html

https://www.wareable.com/vr/future-of-vr-horror-3422

Virtual Reality Society. (2019)
https://www.vrs.org.uk/virtual-reality-profiles/

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