

# Foundational Immersion Concepts

Developing Immersive Applications

Created by: Chek Tien TAN



# Learning Objectives:

- explain Milgram and Kishino's Reality-Virtuality Continuum
- appreciate the different interpretations of immersion

# Recap

- thinking about the differences between AR, VR, and MR experiences

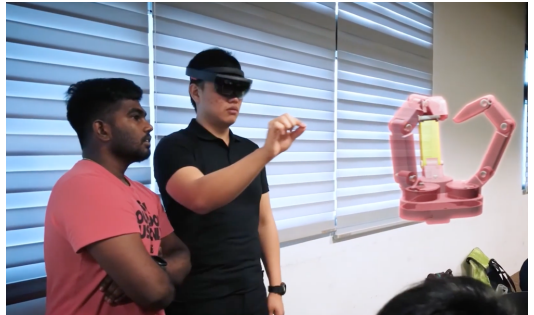
# VR vs AR vs MR

## Watch:

<https://youtu.be/d3wx3VGtFjo>

## Prompt:

What type of experience is this?



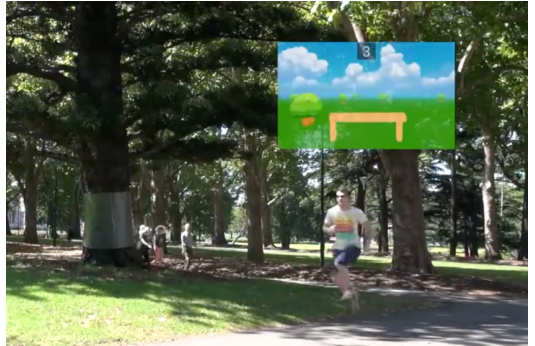
# VR vs AR vs MR

## Watch:

[https://youtu.be/oY\\_94nGMIXY](https://youtu.be/oY_94nGMIXY)

## Prompt:

What type of experience is this?



# VR vs AR vs MR

## Watch:

<https://youtu.be/DAOKFVCFrJ4>

## Prompt:

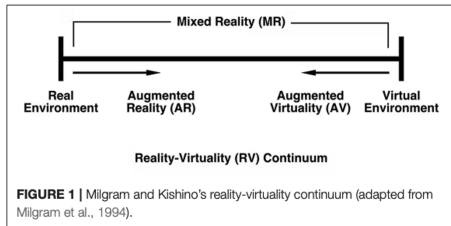
What type of experience is this?



# Milgram-Kishino RV Continuum

- not the immersification continuum
- originally meant for display technologies

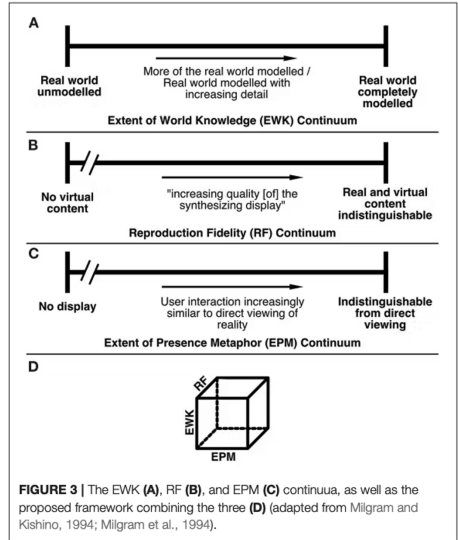
Source: <https://doi.org/10.1117/12.197321>



# Dimensions of the RV Continuum

- EWK: how much the system understands the real world
- RF: how realistic the assets are
- EPM: how interaction affords realism

Source: <https://doi.org/10.1117/12.197321>

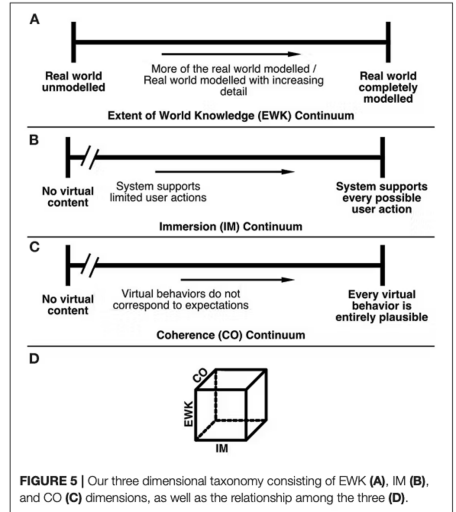




# Revisiting the RV Continuum

- combined RF and EPM into IM
- added CO to represent the user
- common perception of MR is different

Source: <https://doi.org/10.3389/frvir.2021.647997>



# Summary

Today we covered:

- RV continuum foundations and dimensions
- classifying experiences along the continuum
- updated RV continuum perspectives

**Next:** Immersion as system properties and user experiences