

Introduction (part 2)

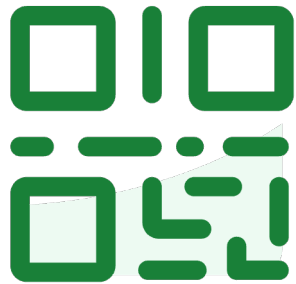
Notes for the SIT-DP module: **Developing Immersive Applications**

Created by: Chek Tien TAN



slido

Please download and install the
Slido app on all computers you use



**Join at slido.com
#dia-week02-intro2**

① Start presenting to display the joining instructions on this slide.

Recap

- differentiate AR, VR, MR and XR
- describe the historical evolution of immersive technologies

slido

Please download and install the
Slido app on all computers you use



**VR was invented in the 21st
Century (2001 - 2100)**

① Start presenting to display the poll results on this slide.

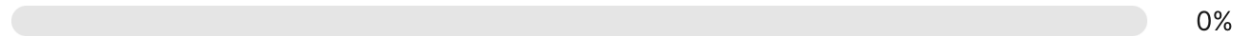
VR was invented in the 21st Century (2001 - 2100)

☐ True



0%

☐ False



0%

slido

Please download and install the
Slido app on all computers you use

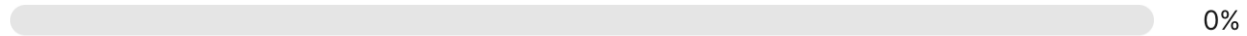


**Which device sparked the current
(21st Century) rise of VR?**

① Start presenting to display the poll results on this slide.

Which device sparked the current (21st Century) rise of VR?

☒ Sega VR



☒ Oculus Rift DK1



☒ Google Cardboard



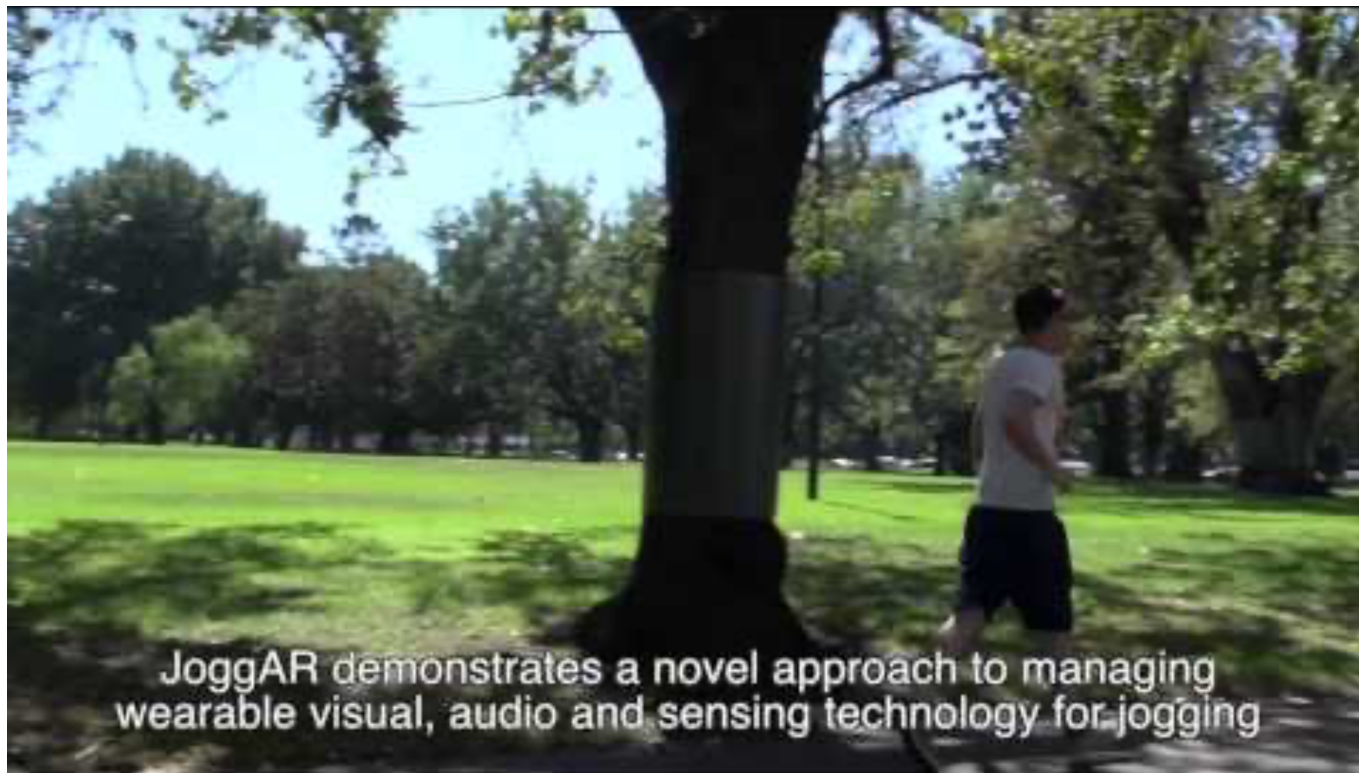
☒ Oculus Quest



☒ Meta Quest 2



What type of experience is this?



JoggAR demonstrates a novel approach to managing wearable visual, audio and sensing technology for jogging

<https://youtu.be/d3wx3VGtFjo>

slido

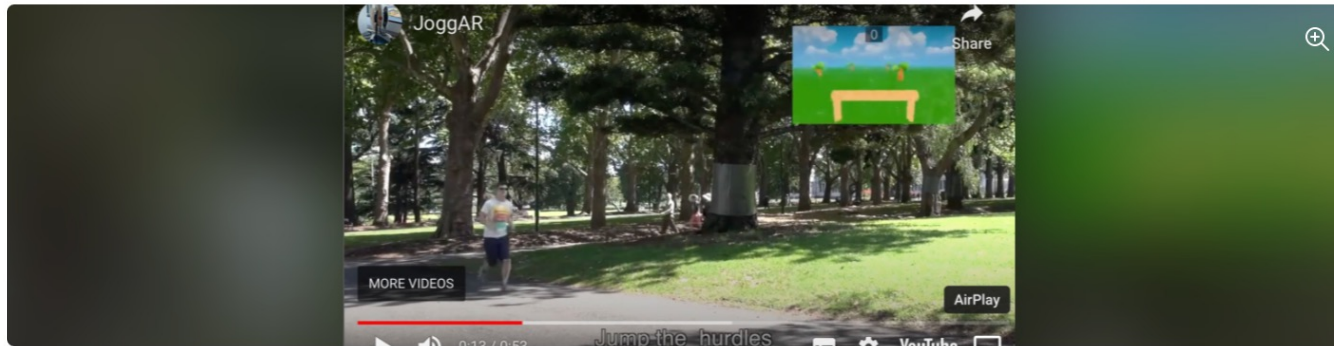
Please download and install the
Slido app on all computers you use



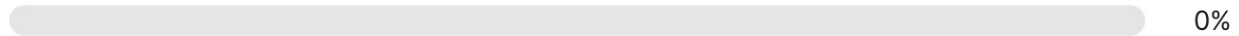
What type of experience is this?

① Start presenting to display the poll results on this slide.

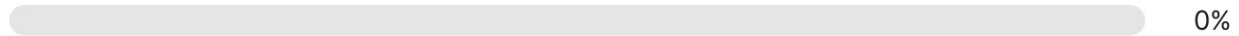
What type of experience is this?



☒ AR



☒ VR



☒ MR



What type of experience is this?



<https://youtu.be/d3wx3VGtFjo>

slido

Please download and install the
Slido app on all computers you use



What type of experience is this?

① Start presenting to display the poll results on this slide.

What type of experience is this?



☒ AR



☒ VR



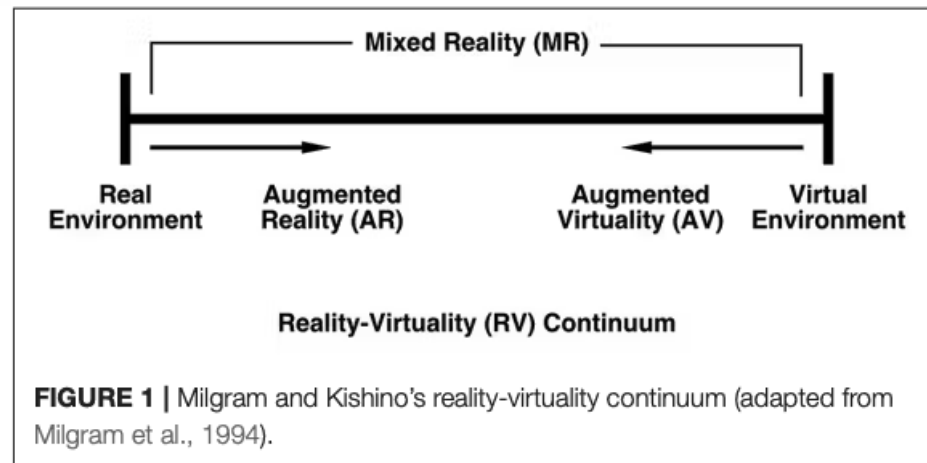
☒ MR



Milgram-Kishino's RV Continuum

- not the immersification continuum...
- originally meant for display technologies

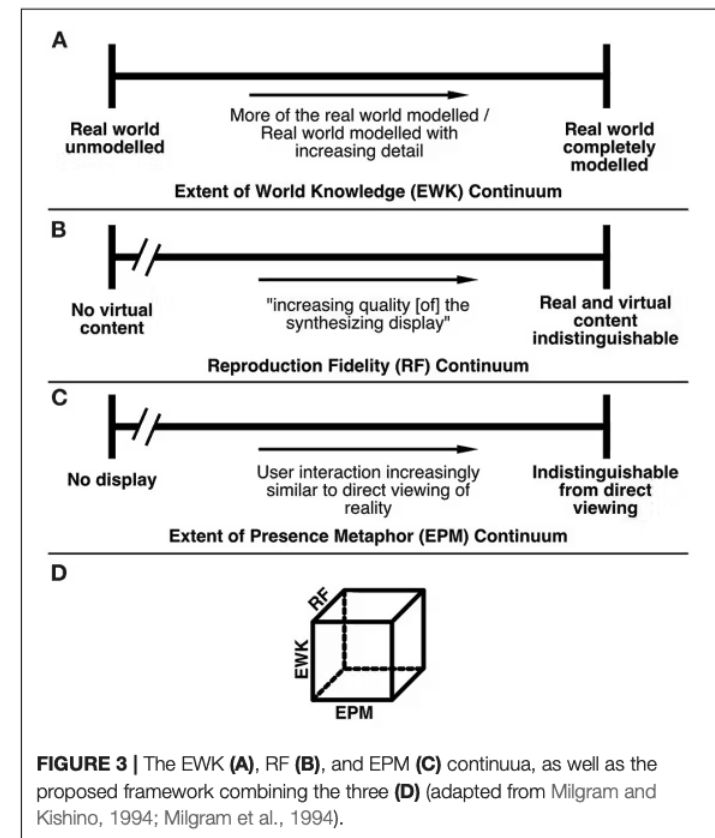
<https://doi.org/10.1117/12.197321>



Dimensions of RV Continuum

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

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



slido

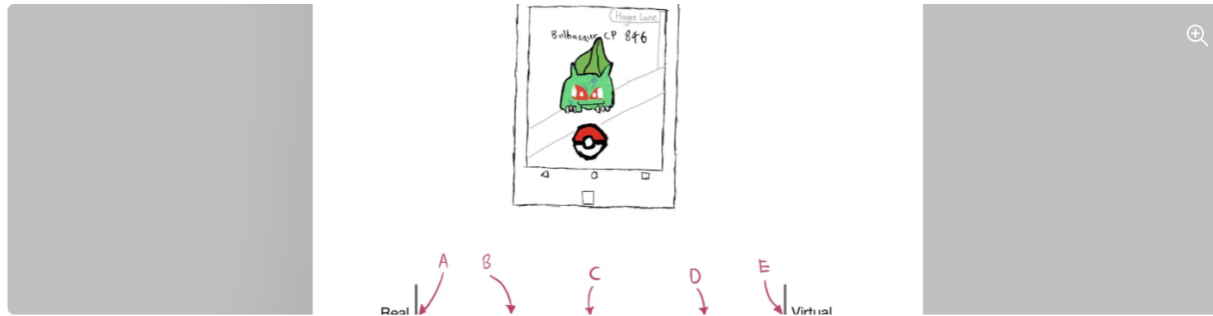
Please download and install the
Slido app on all computers you use



**Where should Pokemon GO be
placed on the RV Continuum?**

① Start presenting to display the poll results on this slide.

Where should Pokemon GO be placed on the RV Continuum?

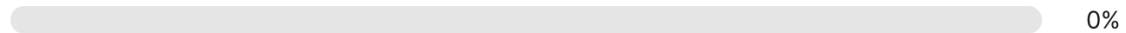


☒ A



0%

☒ B



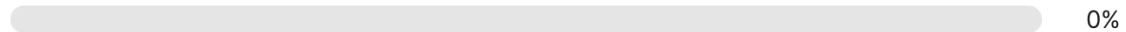
0%

☒ C



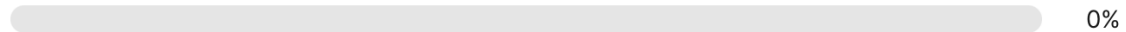
0%

☒ D



0%

☒ E



0%

slido

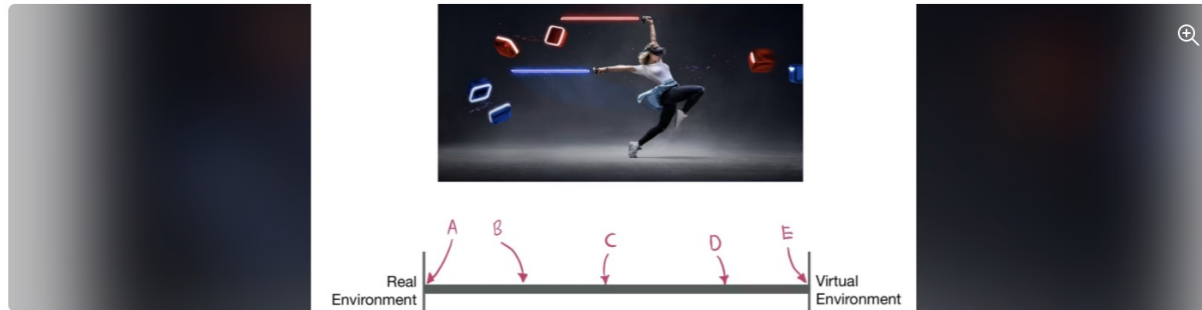
Please download and install the
Slido app on all computers you use



**Where should Beat Saber be
placed on the RV Continuum?**

① Start presenting to display the poll results on this slide.

Where should Beat Saber be placed on the RV Continuum?

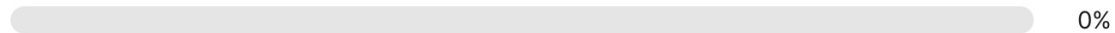


☒ A



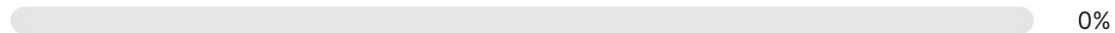
0%

☒ B



0%

☒ C



0%

☒ D



0%

☒ E



0%

slido

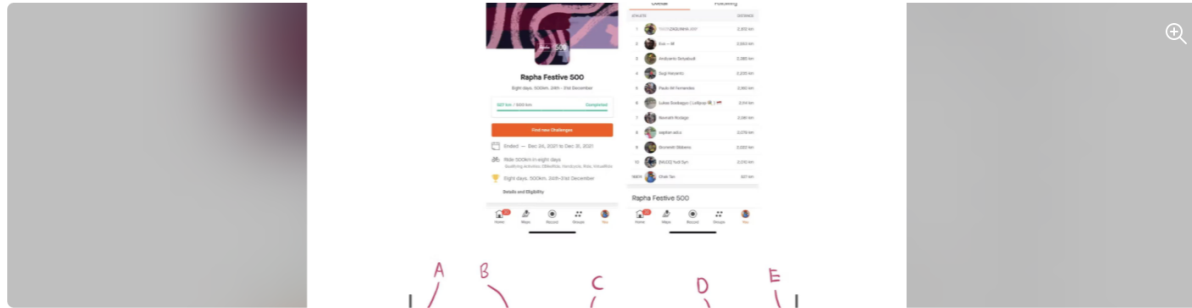
Please download and install the
Slido app on all computers you use



**Where should Strava be placed on
the RV Continuum?**

① Start presenting to display the poll results on this slide.

Where should Strava be placed on the RV Continuum?



✓ A

0%

✓ B

0%

✓ C

0%

✓ D

0%

✓ E

0%

slido

Please download and install the
Slido app on all computers you use

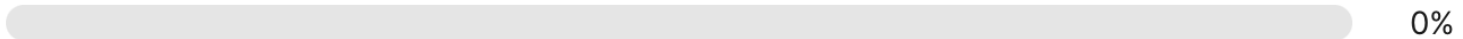


**Why is Strava not considered to be near the
extreme end of "Real Environment" in the RV
spectrum?**

① Start presenting to display the poll results on this slide.

Why is Strava not considered to be near the extreme end of "Real Environment" in the RV spectrum?

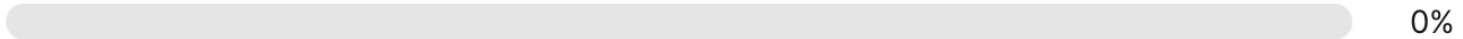
☑ It has some "Extent of World Knowledge"



☑ It has some "Reproduction Fidelity"



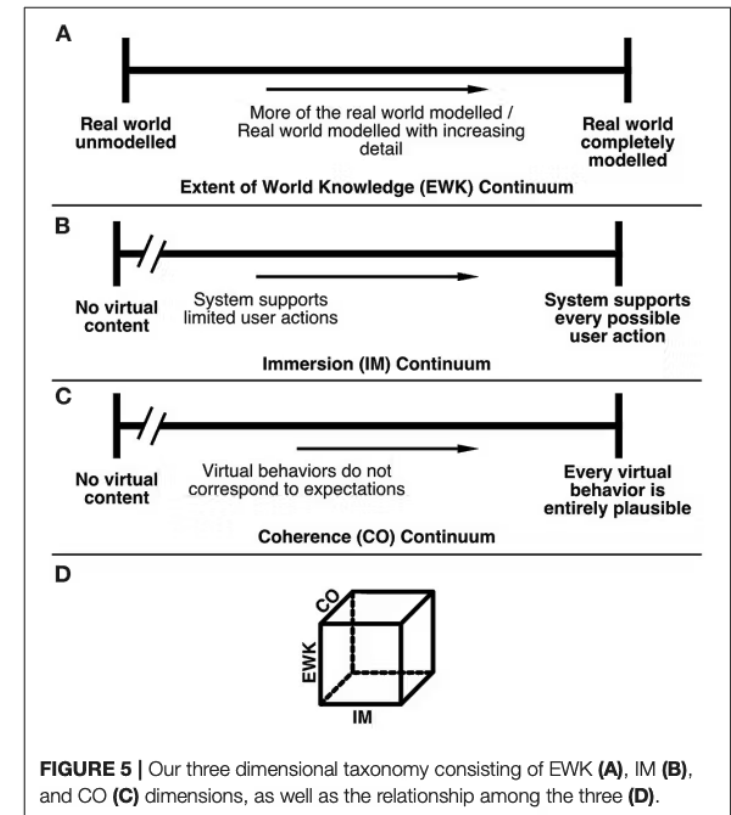
☑ It has some "Extent of Presence Metaphor"



Revisiting the RV Continuum

- combined the RF and EPM into IM (our THE article came before this 😅)
- added CO to represent the user
- note that this but one academic paper
- common perception of MR is different

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



slido

Please download and install the
Slido app on all computers you use

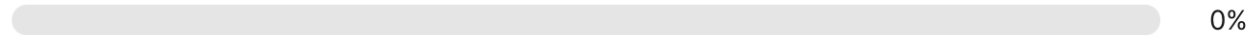


**What is the common public
perception of the difference
between AR and MR?**

① Start presenting to display the poll results on this slide.

What is the common public perception of the difference between AR and MR?

☐ They are the same



☐ AR refers to blending virtual objects onto the real-world



☐ Virtual entities in MR can interact with real-world objects



slido

Please download and install the Slido app on all computers you use



"The 3D models are extremely high quality."

What dimension of the RV continuum is this referring to?

① Start presenting to display the poll results on this slide.

"The 3D models are extremely high quality."

What dimension of the RV continuum is this referring to?

☒ "Extent of World Knowledge"



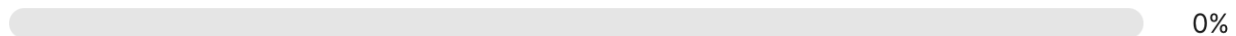
☒ "Reproduction Fidelity"



☒ "Extent of Presence Metaphor"



☒ "Coherence"



slido

Please download and install the
Slido app on all computers you use



"The 3D virtual dogs are able to jump onto the real table seen through the camera."

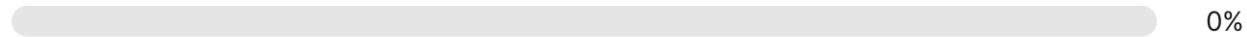
What dimension of the RV continuum is this referring to?

① Start presenting to display the poll results on this slide.

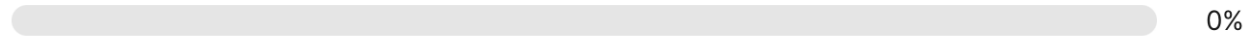
"The 3D virtual dogs are able to jump onto the real table seen through the camera."

What dimension of the RV continuum is this referring to?

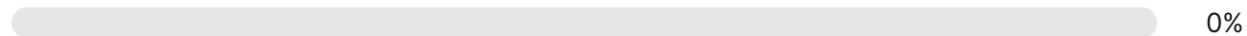
☐ "Extent of World Knowledge"



☐ "Reproduction Fidelity"



☐ "Extent of Presence Metaphor"



☐ "Coherence"



slido

Please download and install the
Slido app on all computers you use



**"The stereo optics provide a perception of depth
through an LCD display."**

**What dimension of the RV continuum is this
referring to?**

① Start presenting to display the poll results on this slide.

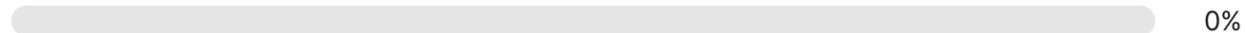
"The stereo optics provide a perception of depth through an LCD display."

What dimension of the RV continuum is this referring to?

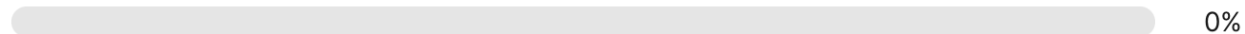
☐ "Extent of World Knowledge"



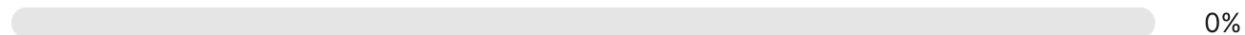
☐ "Reproduction Fidelity"



☐ "Extent of Presence Metaphor"



☐ "Coherence"



slido

Please download and install the
Slido app on all computers you use



**"For a moment I believed that I was actually 1000ft
above ground."**

**What dimension of the RV continuum is this
referring to?**

① Start presenting to display the poll results on this slide.

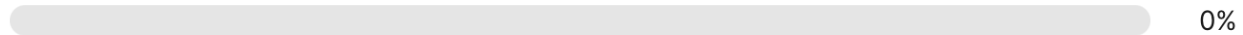
"For a moment I believed that I was actually 1000ft above ground."

What dimension of the RV continuum is this referring to?

☒ "Extent of World Knowledge"



☒ "Reproduction Fidelity"



☒ "Extent of Presence Metaphor"



☒ "Coherence"

