

Immersive Virtual Reality as Empathy Machine: a critical eye on the extensions and limitations of the term

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DEPARTMENT OF PERFORMING AND DIGITAL ARTS

GreekCHI Symposium

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What does it mean to call VR an “empathy machine”?



Immersion

System properties.



Presence

Feeling of being there.



Empathy

Contingent outcome.

The popular claim often moves too quickly from **immersion** to **presence** and from **presence** to **empathy**.

> *"If VR makes me feel present, does it make me understand?"*

Empathy is not one outcome



Affective

What do I feel?

Emotional resonance.



Cognitive

What do I understand?

Perspective-taking.



Somatic

What happens in my body?

Bodily resonance.



Reflective

How do I interpret it?

Critical evaluation.

How immersive VR may shape experience



Presence

Place feels authentic.



Simulation

Sensory engagement.



Ownership

Shifts self-perception.



Perspective

Adopting another position.

These are proposed pathways, not guarantees of accurate understanding.

Feeling more ≠ understanding more

Affective Empathy

d = 0.325

Small-to-moderate effect. Emotion increases short-term but fades rapidly.

Cognitive Empathy

No Effect

No statistically significant improvement in contextual understanding or donations.

A preregistered trial (N = 155): short-term emotional empathy increased in film conditions, but cognitive empathy and donations did not reliably improve; the affective gain largely faded by 10 days.

05 / THE CRITICAL TURN

The experience is authored

A headset does not remove the frame.
Design is never neutral.



Narrative
Context supplied.



Embodiment
Position inhabited.



Spatial Design
Visibility control.



Interaction
Viewer agency.

Three works, three invitations

ARORA - MILK, 2015

Clouds Over Sidra

- Emotional proximity: Humanising presence.
- Limitation: Structural distance remains.



COLINART, 2016

Notes on Blindness

- Sensory translation: Evokes blindness aspects.
- Boundary: Refrains from reality replication.



WILLIAMS, 2019

Traveling While Black

- Social framing: Constrained movement.
- Encounters: Space and testimony combined.



These are interpretive readings of authored works, not controlled tests of audience effects.

07 / CONTRIBUTION

Toward reflective empathy

Not just: "Did they feel?"

But: "What was understood, and what was omitted?"

Outcome
Targeted dimension.

Mechanism
Design influence.

Context
Historical framing.

Evidence
Verifiable claims.

Reflective empathy is a proposed analytical lens, not a validated scale.

Immersion is a condition, not an ethical outcome.

VR can intensify presence and feeling. It cannot guarantee understanding.

Selected sources: Slater (2009); Martingano, Herrera & Konrath (2021); Martingano et al. (2023); Sora-Domenjó (2022).


THANK YOU!
Questions?