



**Week 3: Living in a
Digital Worlds:
Sensitive Audiovisual
Data in Mixed Reality**

Jeanine Reutemann

paradim ***SHIFT***





1968; Ivan Sutherland and Bob Sproull
,Augmented Reality'



1991; Virtual Boy, Nintendo



hello.World

hello.World

Kyle Gabler, Todd Lin, Kyle Gray, Mary-Ann Wallace, & Melanie, Carnegie Mellon University



paradim *shift?*

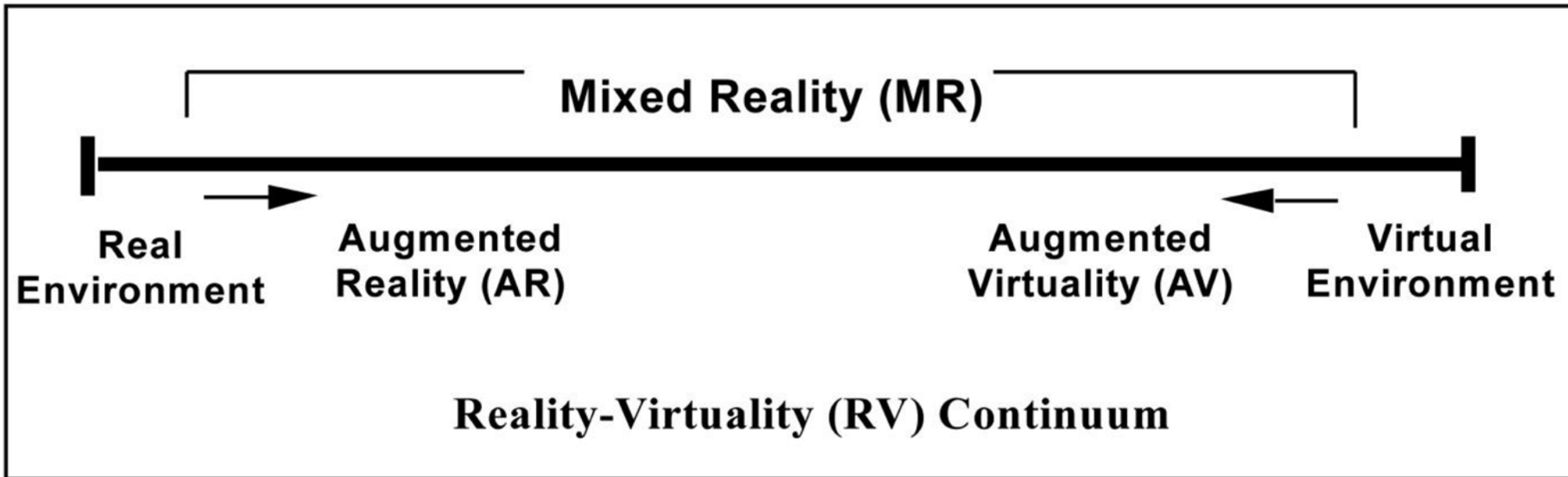
fake-reality crisis?

Virtual Reality



Augmented Reality





Milgram, Paul; H. Takemura; A. Utsumi; F. Kishino (1994). "[Augmented Reality: A class of displays on the reality-virtuality continuum](#)" (pdf). *Proceedings of Telem manipulator and Telepresence Technologies*. pp. 2351–34. Retrieved 2007-03-15.

VIRTUAL REALITY

AUGMENTED REALITY

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Immersive experiences

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Sense of presence

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VIRTUAL REALITY



**WHAT WAS YOUR BEST
VIRTUAL REALITY
EXPERIENCE SO FAR?**

(if non, what was your most immersive media-experience?)



Immersion

Immersion “is the strong illusion of being in a place in spite of the sure knowledge that you are not there“

Mel Slater 2009, 3551.



COMING SOON

WWW.THEBITCIRCUS.COM

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Because VR is tightly integrated with your sense of vision, bad experiences have a real, physical impact on users.

Smith, Will on wired.com, accessed November 30, 2015.



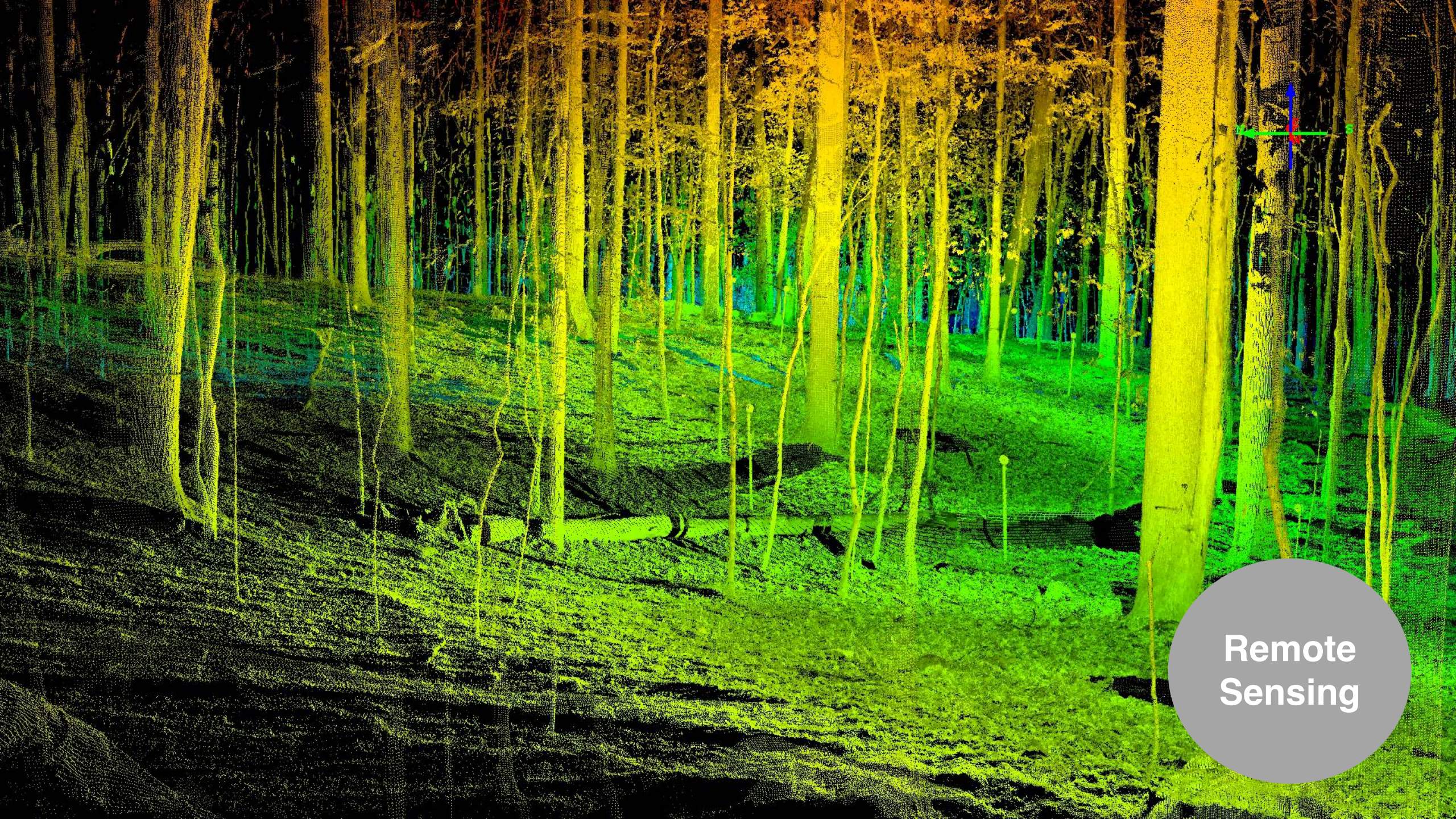
**Visual
Anthropology**



**Remote
Sensing**



Remote
Sensing



Remote
Sensing



**Remote
Sensing**



Virtual ‘Empathy’



EXPLORING THE DIVERSITY OF

EMPATHY

ELEMENTAL

DEATH

MENTAL HEALTH

IMPERIALISM

VIOLENCE

FEMINISM

MISUNDERSTANDING

NEUROSCIENCE COMBOGENESIS

NATURE

NARRATIVE

INTERMEDIARY FORMS

DARK SIDE

DIALOG

CONTROL

ETHICS

IMAGINARY

LOVE

EMOTIONAL EXCHANGE

DIGITIZATION

COMPASSION

DEAD DOGS

VIDEO WORK

ENTANGLEMENT

EPISTEMOLOGICAL TURN

POWER

GENEALOGY

GENDER

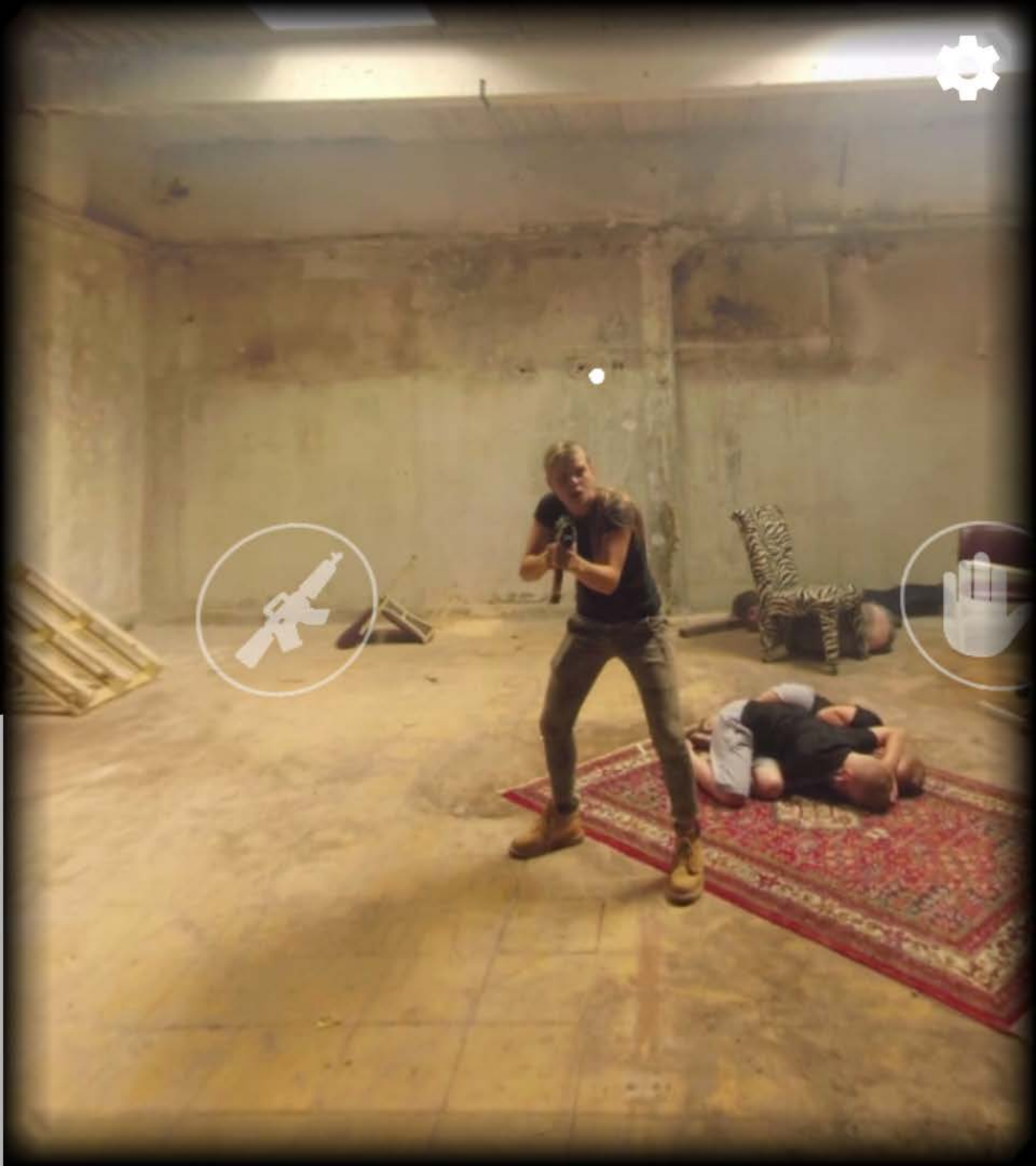
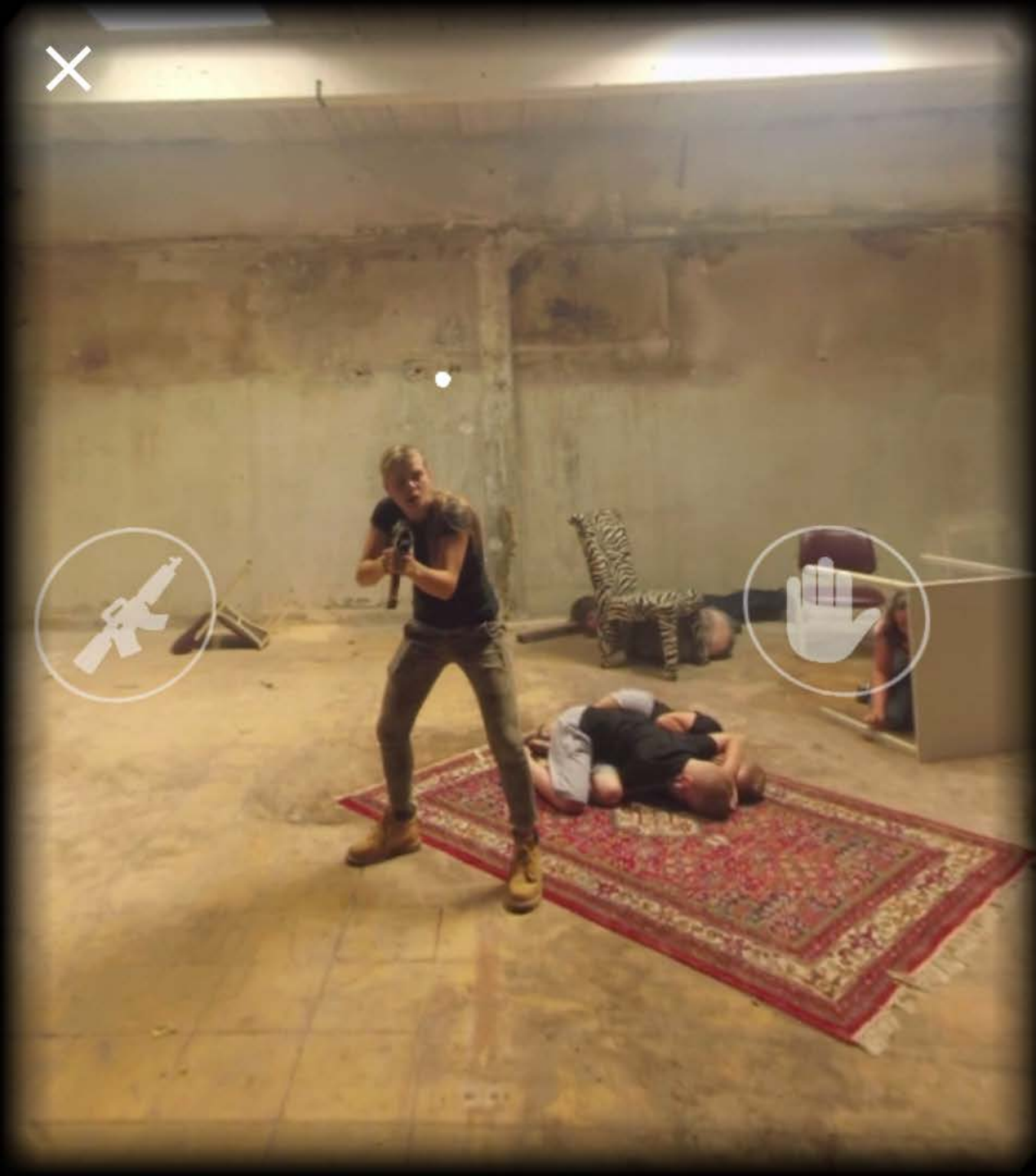
NONHUMAN

ANIMALS

MONSTROUS NURSE

SUFFERING

TRANSNATIONAL





Code 112

The background is a complex, low-poly geometric pattern. It consists of numerous irregular polygons in various shades of purple, pink, red, orange, and brown. The colors transition from light, almost white, tones at the top to darker, more saturated colors at the bottom. The overall effect is a textured, crystalline surface.

**Impact of the effect;
unknown duration**



Sustainable Development Goals
**ACTION
CAMPAIGN**

PHILIPS

VR



CLOUDS OVER SIDRA

by Gabo Arora & Chris Milk





Visible people in VR

Aesthetics of VR-360video: Closeness Angle and Distorted Bodily Proportions



Filmstill: ,The Displaced', The New York Times, 2015.



Filmstill: ,The Displaced', The New York Times, 2015.

**Proxemics: study of
interpersonal distances
between people**





When a virtual person approaches too close, a state of arousal gets triggered by the viewer due an interpersonal distance transgression.

Reutemann, J. (2016): "Too close to be true. VR images bring the visible speaker into your face (literally)" in: *IMAGE EMBODIMENT – New Perspectives of the Sensory Turn*.



Film stills (desktop mode view) from the 360-degree VR video *Catatonic* from Guy Shelmerdine, Vrse, 2015.

Potential consequences?

(1) First, the lack of interpersonal distance transgression creates confusion. The closeness deflects from the content and confuses the senses through the visual overdose. “What the hell is this person doing so close to my face?”

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(4) Fourth, within an intimate distance zone, the sensory stimuli are intense and the vision can get blurred when something comes too near, as the eye cannot focus anymore.



**VR for post traumatic stress
disorder, fear and behavioral therapy**





Jordan Belamire

Follow

Author of the upcoming novel, *Swaying Magnolia*, an adult f/f romance. User Researcher by day, author by night. Fueled by dark chocolate.

Oct 20, 2016 · 5 min read

My First Virtual Reality Groping

Last week I was groped in virtual reality—did you know that could happen? I didn't, but now I'm all the wiser.

While visiting my brother-in-law last weekend, we decided to check out his HTC Vive, a virtual reality (VR) system. My husband and I stood in his home in Redwood City, on an idyllic eighty degree day, the three of us taking turns on the Vive.

It was my turn next. I glanced one last time around the room before strapping on the massive headset, and into a world more beautiful than I could have imagined.

«My First Virtual Reality Groping»

Medium.com a.r.t.i.c.l.e,
Jordan Belamire, 2016

«My First Virtual Reality Groping»

Medium.com a.r.ticle,
Jordan Belamire, 2016

In between a wave of zombies and demons to shoot down, I was hanging out next to BigBro442, waiting for our next attack. Suddenly, BigBro442's disembodied helmet faced me dead-on. His floating hand approached my body, and he started to virtually rub my chest.

“Stop!” I cried. I must have laughed from the embarrassment and the ridiculousness of the situation. Women, after all, are supposed to be cool, and take any form of sexual harassment with a laugh. But I still told him to stop.

This goaded him on, and even when I turned away from him, he chased me around, making grabbing and pinching motions near my chest. Emboldened, he even shoved his hand toward my virtual crotch and began rubbing.



Sensitive Audiovisual Data

The voices you are about to listen to are
from others who were here before you

AUGMENTED REALITY

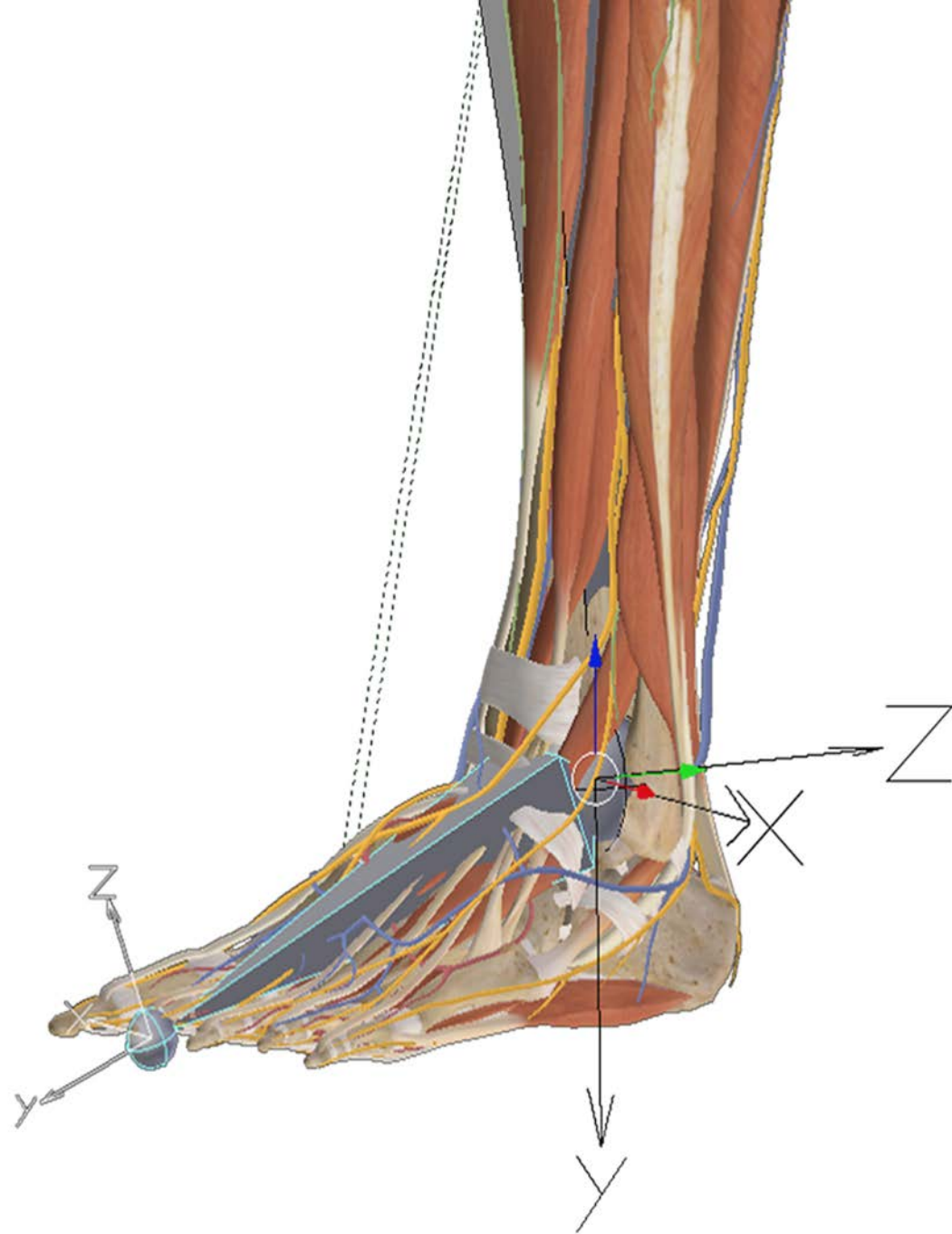


POKÉMON GO





CENTRE FOR
INNOVATION
Leiden University



ETH Zürich / VR 360° Video





Met holografische projectie naar onderwijs op maat



An underwater scene with a vibrant blue and cyan color palette. Several jellyfish of various sizes are floating in the water, illuminated from above. Two fish are swimming in the foreground, one on the left and one in the center. The overall atmosphere is serene and ethereal.

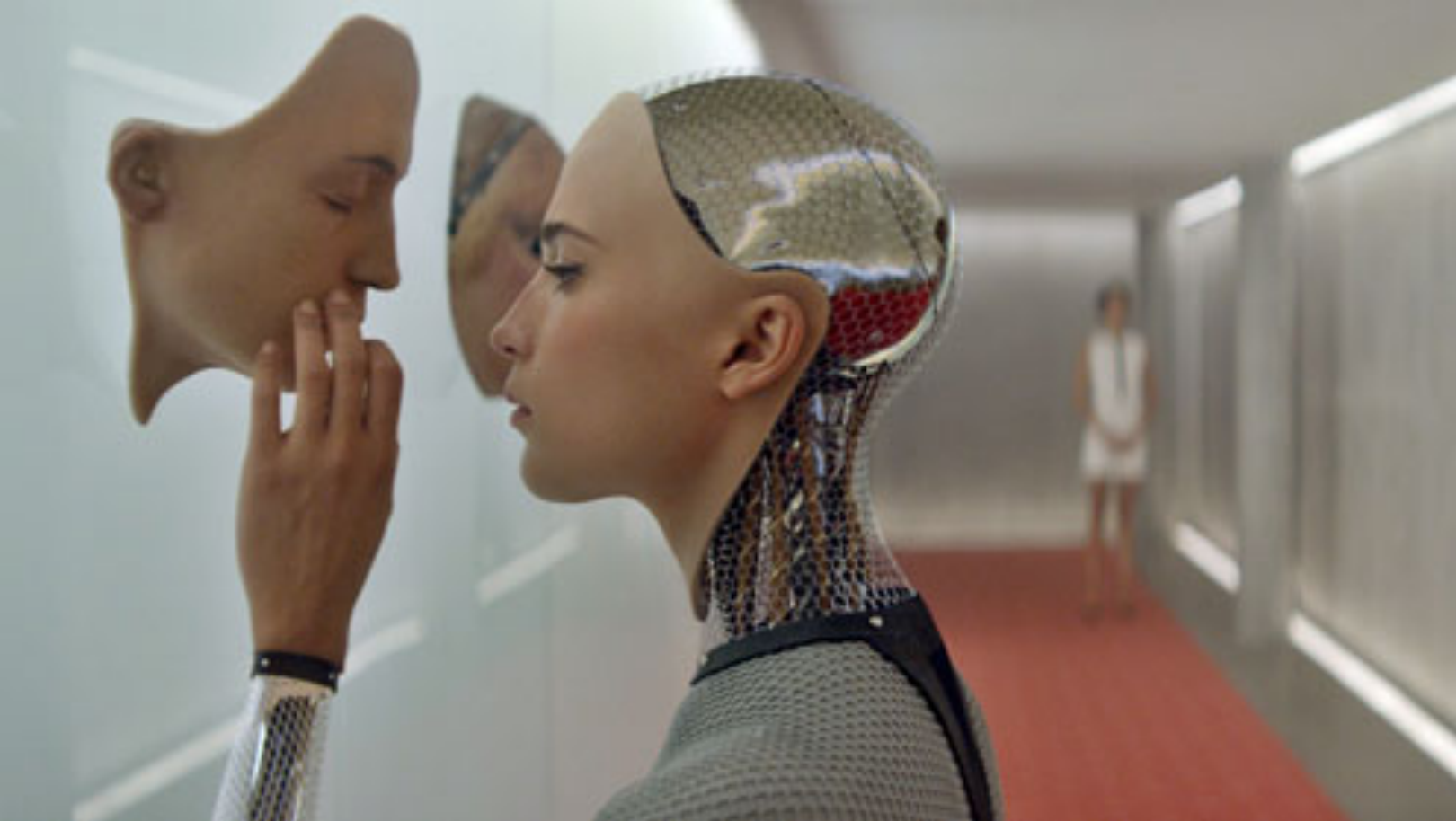
Free your mind

Scroll Down



DISTANCE
0.4 M

MULTIPLIER
x1



**Critically watch
the movie:
“Ex Machina”
(2015).**

Guiding questions:

...How gets Eva (main character, AI robot) introduced? Use of visuals (colors, style, movements), sounds, dialogues...

...How does Eva’s character changes during the film? Storytelling perspective...?