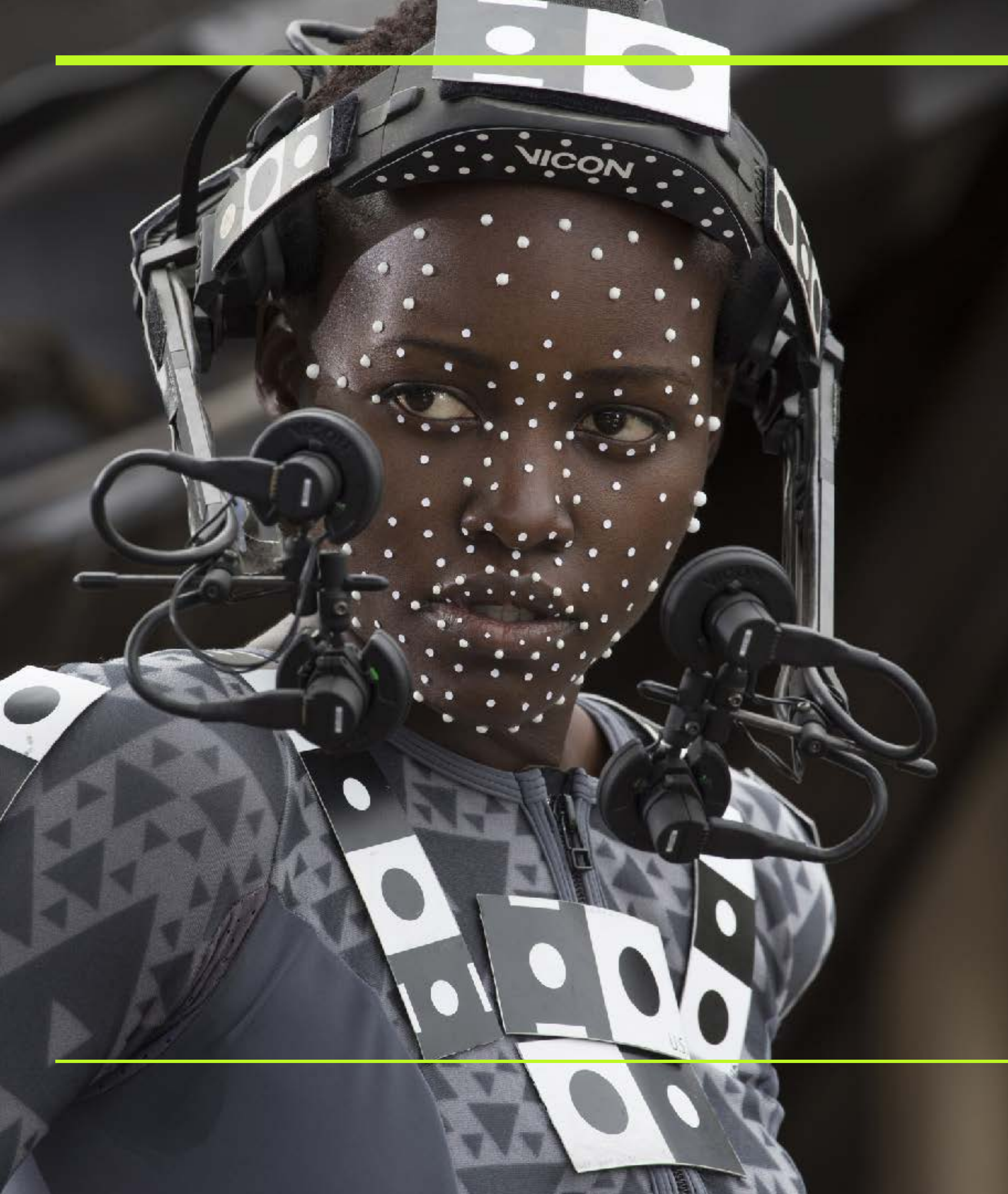


What do you know about Motion Capture?

What is Motion Capture?



Motion Capture

Wikipedia: ***Motion capture*** (sometimes referred as ***mocap*** or ***mo-cap***, for short) is the process of recording high-resolution ***movement*** of objects or people into a computer system.

- 🎭 Capturing body movement for digital animation.
- Used in 🎬 film, 🎮 games, 💃 dance, 💻 virtual production
- Also used in the 🪖 military, 🏥 medical, and 🏃 sports applications.

IMC



INERTIAL MOTION CAPTURE (IMC)
**SENSORS ARE USED TO TRACK AND
RECORD MOVEMENT BY MEASURING
ACCELERATION, ROTATIONAL VELOCITY,
AND SOMETIMES MAGNETIC FIELD
ORIENTATION**

Types of mocaps

OMC



**OPTICAL MOTION CAPTURE IS A
TECHNOLOGY THAT USES CAMERAS
AND REFLECTIVE MARKERS TO TRACK
THE MOVEMENT OF OBJECTS OR
PEOPLE IN THREE-DIMENSIONAL SPACE**



LOVE DEATH
+ ROBOTS



NETFLIX

**Netflix's Love, Death and Robots Vol. 3 - Official
Making of Jibaro Clip (2022) Alberto Mielgo**



Mocap in Popular Animation

Love, Death & Robots

- [Wikimedia](#): *Love, Death & Robots is an adult animated anthology television series created by Tim Miller and streaming on Netflix.*
- Anthology series using stylized digital animation.
- Many episodes use motion capture for realism in character movement.
- Example: The Witness — exaggerated, fluid, and body-based storytelling.

How does motion make the scene feel real or surreal?



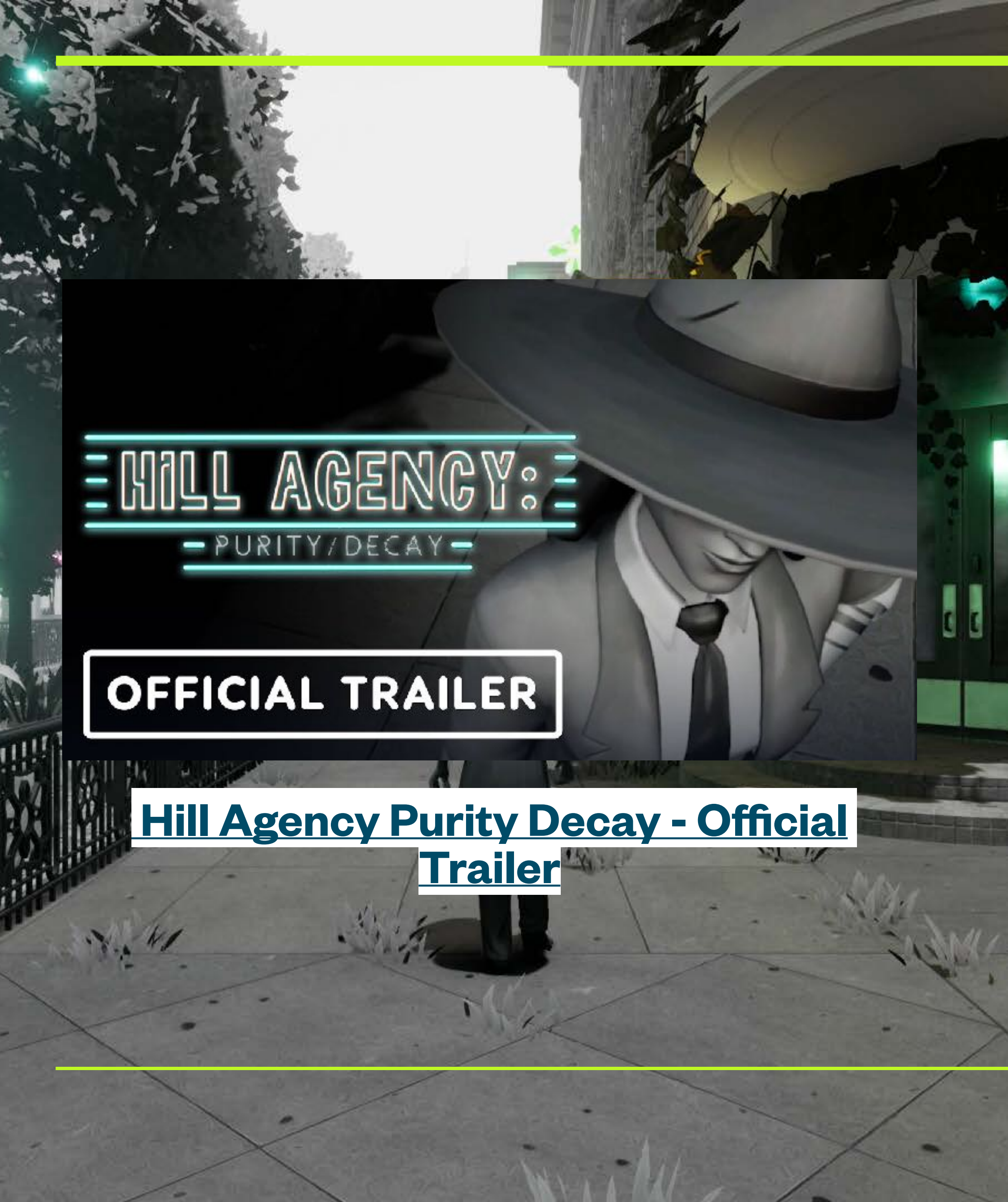
LOVE DEATH + ROBOTS | Live Horse Motion Capture | Netflix

Game Design & Embodiment

Meagan Byrne – Achimostawinan Games

- Website: *A detective mystery game where you play as a tough as nails P.I. solving everything from petty crimes to global conspiracies all while exploring the various different worlds that make up North America of the future.*
- Métis game designer using mocap for narrative embodiment.
- Hill Agency: PURITY&decay — characters reflect Indigenous worldviews and movement.

How can movement reflect culture and identity?





Hill Agency: PURITYdecay | GamePlay PC

Experimental Motion + Sound

David Rokeby – Very Nervous System (1986–2004)

- Website: *Very Nervous System* is [an] interactive sound installations... I use video cameras, image processors, computers, synthesizers and a sound system to create a space in which the movements of one's body create sound and/or music.
- Early example of motion tracking as art (not using suits, but camera sensors)
- Influenced embodied digital media practices — connects mocap to sound + space

What happens when we *play* with our body as input?



David Rokeby, Very Nervous System
(1982-1991)



PERCEPTION NEURON[®] 3

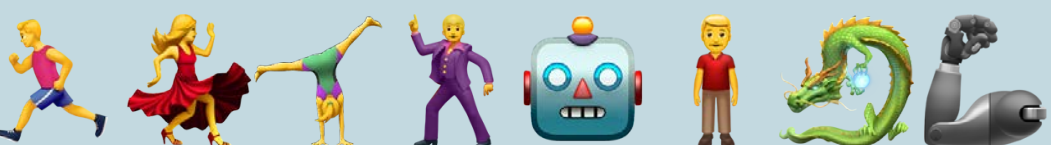
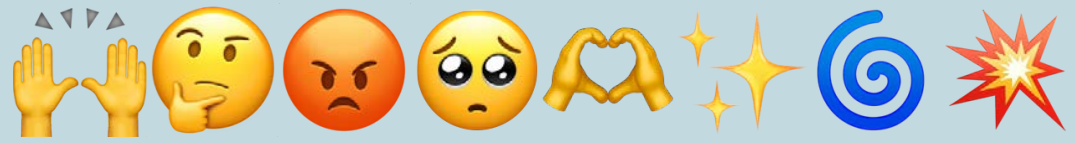

The Perception Neuron 3 (PN3) is a motion capture system utilizing **inertial measurement unit (IMU) sensors** to **track full-body movement**.

- Data exported and retargeted to **Blender** rigs (and many others).



Looking Ahead: Motion in Your Scene

Think briefly about these questions.

- **What kind of movement fits your character?**  ...
- **How does your character's gesture tell a story?**  ...
- **What moment will you record with the mocap suit?** 

 Let's do a round and share your ideas.
