

COMP210: Interfaces & Interaction

3: Presence

“We see things not as they are, but as we are - that is, we see the world not as it is, but as moulded by the individual peculiarities of our mind” - Philosopher, G.T.W Patrick. (1890)

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Our point of view is inseparable from our understanding of reality.

Presence (again)

'Presence is the psychological state of subjective perception in which even though part or all of an individual's current experience is generated by and/or filtered through human-made technology, part or all of the individual's perception fails to accurately acknowledge the role of the technology in the experience.'

International Society for Presence Research, 2000

(ISPR Website)



Duck Test

Illusions

V/AR are illusion based experiences

There are four main components to this illusion:

- ▶ the stable spacial place,
- ▶ self-embodiment,
- ▶ physical interaction & ,
- ▶ social communication.

The Uncanny Valley

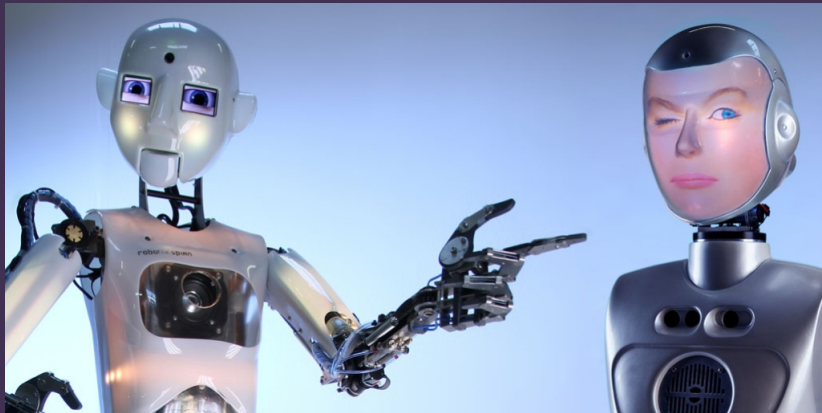


Figure: Engineered Arts - Penryn

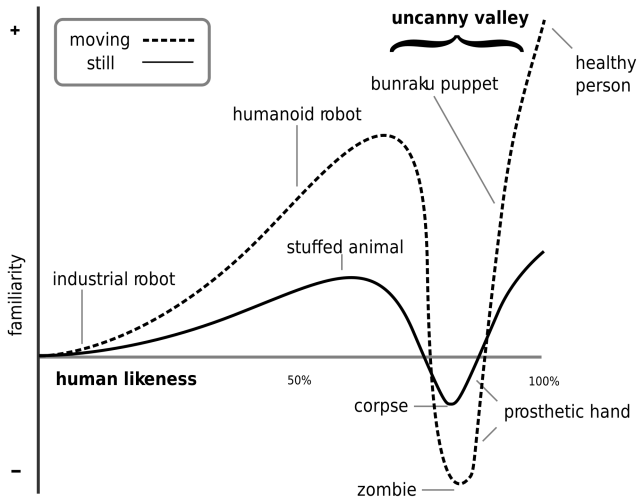


Figure: Masahiro Mori -

Fidelity Continua

The notion of the uncanny valley applies to aspects of VR as well. These components have been defined as the Fidelity Continua.

- ▶ **Representation** fidelity - Hyper-realistic to abstract and non-objective worlds.
- ▶ **Interaction** Fidelity - Degree to which a interaction in VR corresponds with the same interaction in the real world.
- ▶ **Experiential** Fidelity - The degree to which the user experience matches the intentions of the VR creator. Procedural worlds have a very low experiential fidelity.

What do we want from V/AR?

Some aim to recreate reality to the highest fidelity.

Others seek to surpass it.

Perception

Objective vs. Subjective Reality

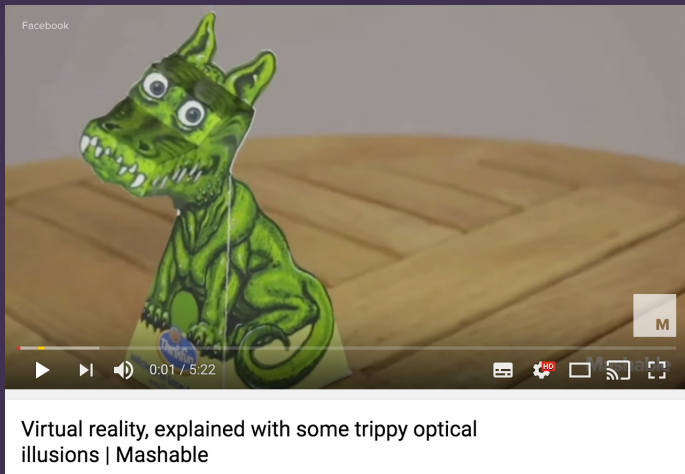


Figure: Michael Abrash, the chief scientist for Facebook's Oculus

Human-Centred Design

Learning outcomes

- ▶ Outcome 1
- ▶ Outcome 2
- ▶ Outcome 3

Sensory Substitution

Sensory substitution is the replacement one sensory cue that is not yet able to be simulated with one that is. The majority of the time the replacement relies on the dominance of sight. (sight is more dominant than proprioception and so on)

Redirected Walking