

CMU Lecture - 2

@xrprof

Tech can't be exactly used to stop pollution. It can be used to help reduce.

NOT IN MY BACKYARD: out of sight out of mind. We still have to work towards improving ocean health

VR can be used to give people more insights about ocean depletion.

VR headsets are used although it's a juxtaposition. Nature is all around us but we are using tech to get closer to it.

Although it is as simple as going out, we need to consider accessibility, availability, cost etc.

Tech is just a bridge to get us closer to nature. Not to mimic it.

Pinocchio illusion

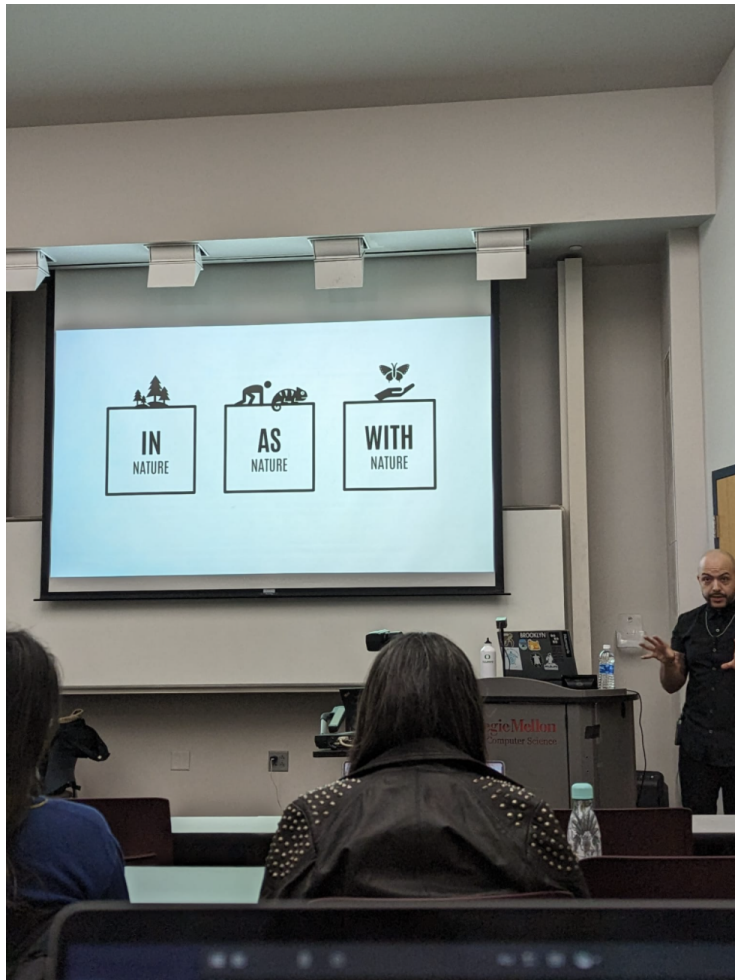
Rubber-hand illusion

Thumb magic trick illusion

Illusions get stronger with XR. Can be used as:

- Story telling mode
- Show spatial presence, just like Pokemon Go
- Product interactivity: have illusory sense of ownership like picking up an object etc

Interactions IN, AS and WITH nature:



- Interactions IN Nature
 - 360 degrees videos are more interactive
 - More interactivity = more influence on environmental attitude through cognitive absorption = absorbs you more into the threat and will motivate you more to act on it
 - Cognitive absorption works if the accessibility is less, hence it takes us closer
 - VR walk is similar to Nature walk. Gives more cognitive absorption. If not for this it is similar to 360 degree walk
- Interactions AS Nature
 - Perspective taking
 - We need to see the world through turtle's eyes
 - It's hard because it takes a lot of mental energy
 - Alternatives of perspective taking:
 - Living with the animals just like dressing up like them XD
 - Embodied Cognition Theory: (check definition)
 - Project Shell
 - Study 1:
 - Synchronous vs asynchronous haptic feedback
 - Study 2:
 - Can embodying wildlife encouragement conservation action reduce compassion fade??
 - It means that some loss of animals will happen during these studies. We become numb to the loss of lives
 - Also called psychic numbing
 - Age also is a factor: younger you are, you take more responsibility.
 - Study 3:
 - Check video
 - If I'm a turtle and I saw turtles dying, I donated more
- Interactions WITH Nature
 - Biophilia hypothesis
 - Petting a dog or feeding a giraffe makes you feel good and makes them feel good. Simulate the similar thing with VR
 - Tech can be used to gather non-environmentalists to connect with nature. Like gamers can be dragged towards nature by using VR and AR.
 - Using games to promote environmental conservation



Conclusion:

Go beyond solo, use VR to get others to connect with nature. (Check out Tortuga Base)

We need more immersive content.

“Together, we sink or swim”

Virtual Nature is inevitable. It is needed to create more interactions. Can be used to bridge the gap between humans and nature.

Q&A:

What can we do if it isn't animal based? Imagine melting glaciers? How do you mimic that? Embodying wildfire and all this is hard.

- Embodying elements is fascinating. Need to think about it.
- Maybe embodying an animal running through a wildfire can help in this study.