

Computationally Recognizing the Subconsciousness

Katherine Parker December, 5th 2020

Incorporating “Deep Dream” fabrication, and Photogrammetry.

Components

Person stands in front of the projection. The projection utilizes projection mapping to project an internal organ onto the surface of skin. (Potentially no projection at this point so that all of the organs produced from CNN neuron isolation are invented). Run image/ video depending on capability of software though “deep dream” software that looks for some kind of internal organ (stomach). Have CNN produce an image of a body made-up of organs- not organized in a biological, functional way. Apply this body with disorganized organs image onto the photogrammetry of the body. Create a 3-D representation of a body externally composed to internal organs that does not have any information about the inside of the body.

Incorporate eye-tracking: I'm conceptually interested in tracking human perception along with computational perception, along with the internal, subconscious processes eye tracking refers beyond. Not sure how/ what to do with this data in this presentation yet.

Presentation

- Create film of the CNN neuron gradually fabricating organs with each iteration. Project this film back onto a body?
- Have the photogrammetry of the body put in a VR environment- viewer can roughly put their body inside of disorganized body.

Questions:

- How does CNN read organs? Scientific illustrations vs. ultrasounds/ x-rays. What does the training set for organs look like? Is this neuron isolated?
- Can “Deep Dream” software work on 3D images? Videos? - Example of security cameras labeling objects/ people.
- What is the time span for “Deep Dream” neuron isolation iterations? How many iterations are needed to produce recognizable images? What additional filters are used to tease out images? Can this be interactive?
- What kind of information do eye-trackers pick up? Generalized location on 3D surfaces or only 2D?
- Relevant research in prosthetics?

Conceptual Questions

- Relationship to body without organs- body without organization?
- Internal condition vs external condition- ImageNet characterization.