



# AWAKE - MATRIX REDONE

Synthetic Environments for the Modification of the  
Bodily Self-Consciousness and Implicit Motor Training

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# The Challenge: from Fiction to Reality

In the science-fiction thriller *The Matrix*, the heroes "plugged in" to a new generation virtual world for training.

While their bodies rested in reclining chairs, they learned how to fight martial-arts battles, drive motorcycles and helicopters in a virtual world.

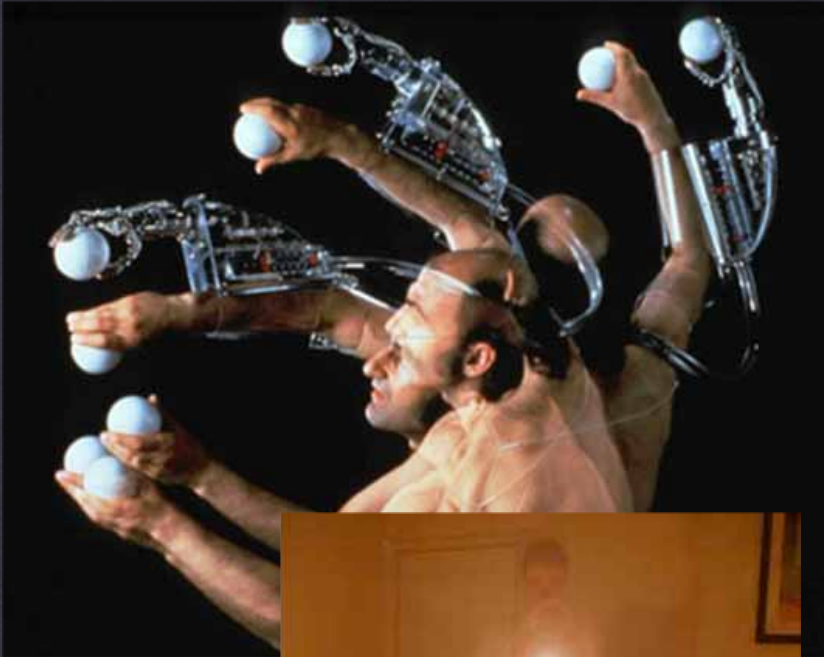


To see the original Matrix scene (<http://www.youtube.com/watch?v=6AQpomu9V6Q>)

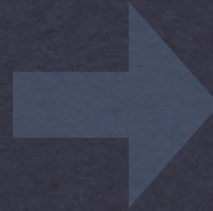
# The Goal: Bodily Self Consciousness

The Matrix environment simulates **bodily self consciousness**: a subject can acquire a complex behavioral skill – mastering martial arts – by experiencing through a **somatic simulation** (passive interaction) the behavioral processes related to the skill.

Main objective of the project is to replicate this approach without the need of “jacking in” the brain.



# VIRTUAL REALITY EMBODIMENT



# VIRTUAL



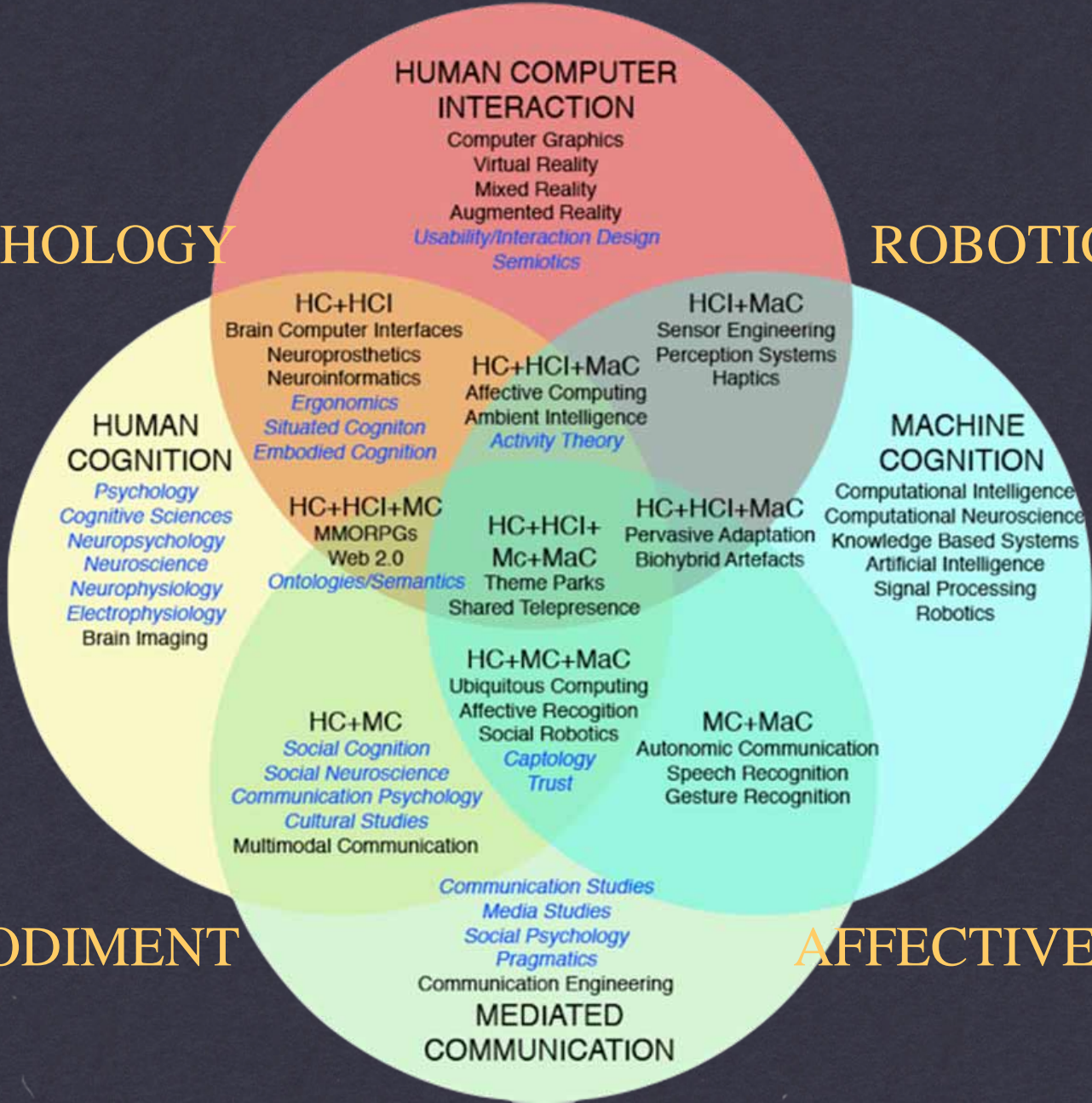
AN ARTIFICIAL  
REALITY THAT  
PROJECTS THE USER  
INTO A **3D SPACE**  
GENERATED BY THE

AN ARTIFICIAL REALITY  
THAT PROJECTS THE USER  
INTO A **BODILY SELF-  
CONSCIOUSNESS**  
GENERATED BY THE

From ~~Virtual Reality~~ to **VIRTUAL** ~~COMPUTER~~ **COMPUTER.**  
A PARADIGM SHIFT: FROM EXTERNAL TO INTERNAL WORLD  
**EMBODIMENT**

CYBERPSYCHOLOGY

ROBOTICS



EMBODIMENT

AFFECTIVE COMPUTING

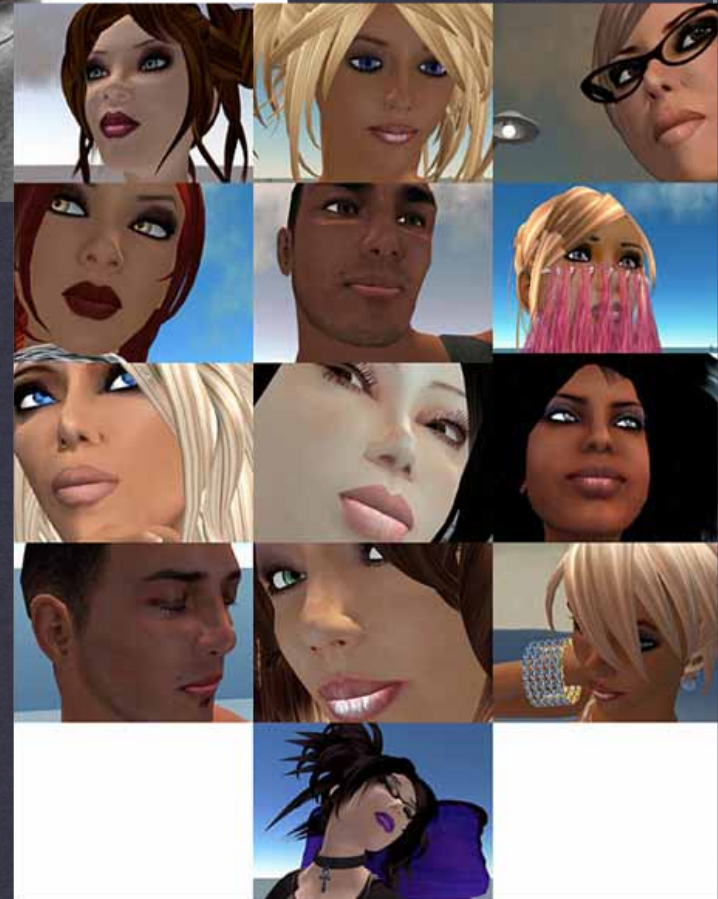
A MULTIDISCIPLINARY APPROACH: From COMPUTER SCIENCE TO COGNITIVE SCIENCE  
THE INVOLVED COMMUNITIES

3-5 Year

# Application: Enter in a different body

Applications:

- Health Care
- Persuasive Computing
- Entertainment
- Cultural Training



# Application: Implicit Motor Training



## Applications:

- Direct learning and training from Experts
- Acquisition of Complex Motor Skills
- Leisure Experiences