

From Simulations to Hybrid Space

-----how nomadic technologies change the real-----

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...what is real?

Concept of the space <<----->> nomadic technologies



VIRTUAL + PHYSICAL = HYBRID

REAL x IMAGINARY

History of VIRTUAL SPACE

Simulation Space ---> Hybrid Space

- Art
- Science Fiction

place for the mind
(imaginary space)

computer as
simulation machines

Concept of Cyberspace
(W. Gibson, Neuromancer)

- immaterial
- disconnected from physical world
- 90's

Ex.: multi-user environments, MUDs

The construction of virtual / mind space

Descartes and the distinction between the real and the imaginary

--> Does the mental image correspond to the real?

--> psychological concept of idea

--> human mind = inner space

--> ...what is real?

The construction of virtual / mind space

Descartes and the distinction between the real and the imaginary

----- Does the mental image represent the world? -----

a world that could have no connection to external reality

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|_ _ _ cyberspace as a
 mindspace

Cyberspace as a mindspace: immateriality and simulation

immaterial --> material

simulation --> "real"

physical x virtual
body x mind

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physical + virtual
body + mind

Cyberspace as a mindspace: immateriality and simulation

The construction of immateriality

INTERFACES -computer monitor
 -cables connected to the
 telephonic network

consequences

- stop --> enter (immobility)
- screen = barrier (body representation)

Cyberspace as a mindspace:
immateriality and simulation

The oddness of immateriality

Space is completely dependent on the technologies that create it (mediated space).

"For information to exist, it must be instantiated in a medium." *N. Katherine Hayles*

Cyberspace as a mindspace:
immateriality and simulation

information + matter

Since Descartes: mind x body

+ -

Today: inversion of the relation, or at least an equality

physical, body, hybrid (blurred)

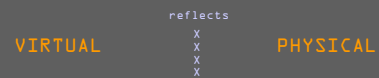
Cyberspace as a mindspace:
immateriality and simulation

Computer as simulation machines (50 years)

- equations
- economic models
- cognitive models of the brain
- space (desktop / interactivity)
- life (Conway's Game of Life)



Cyberspace as a mindspace:
immateriality and simulation

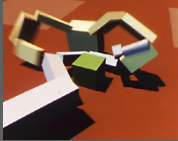


Why simulate the physical world if it is possible to create whole new forms of life and spaces?

Cyberspace as a mindspace:
immateriality and simulation

ART Karl Sims

Evolved Virtual
Creatures (94)



Panspermia (90)



Towards a hybrid reality:
merging physical and digital

1. Technology:

desktop --> cell phones

2. Arts (AI):

Karl Sims --> Christa Sommerer and
Laurent Mignonneau

3. Science Fiction:

Neuromancer --> The Thirteenth Floor

Towards a hybrid reality:
merging physical and digital

ART Christa Sommerer and Laurent Mignonneau

Interactive Plant
Growing (93)



A-Volve (94/95)



Towards a hybrid reality:
merging physical and digital

How can we inhabit cyberspace?

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How do digital spaces change our way of
inhabiting the physical world?

Towards a hybrid reality:
merging physical and digital

Mark Weiser (PARC - Xerox):

mainframes

∨

∨

personal computing

∨

∨

ubiquitous computing >>

pervasiveness

transparency

mobility

Towards a hybrid reality:
merging physical and digital

Cyberspace

Hybrid Space

computer simulations

multi-user domains

hypertext windows

ubiquitous computing

mixed/augmented reality

wearable computing

nomadic technologies

Towards a hybrid reality:
merging physical and digital

Nomadic Technologies

shrink + enlarge the world

local x global

real x imaginary

Former examples: telegraph, railroad

Sci-Fi hybrid reality:
anticipating future

The Thirteenth Floor

The Matrix



Sci-Fi hybrid reality:
anticipating future

The Thirteenth Floor

"I think, therefore I am." *Descartes*

Challenge: is reality indeed real or is it
just a simulation running inside computers?

Sci-Fi hybrid reality:
anticipating future

The Matrix

VIRTUAL || PHYSICAL
----- immobility

Neo: created the connection (movement / ubiquity)
awareness of both worlds = real

Descartes idea: the machines played the role
of the malign demon, making people believe
that the world represented inside their minds
was indeed real.

Sci-Fi hybrid reality:
anticipating future

The Thirteenth Floor

VIRTUAL PHYSICAL == real

Explores the complexity that happens when
movement occurs.

VIRTUAL WORLDS

|
|
identity
representation

HYBRID SPACE

|
|
connectivity
ubiquitousness

Virtual reality = ways of people to explore
realms otherwise inaccessible (imaginary)

Mark Weiser

Ubiquitous computing -- > invisible tools
(tabs, pads, boards)



cell phones

Kanny (Finland)
Handy (Germany)

Invisibleness -- mobility

Characteristics of hybrid technologies:

- smaller screen size (but still immersive)
- closer sense of community (transparent mediation)

REAL = PHYSICAL + VIRTUAL (blurred reality)

IMAGINARY = everywhere (enfolding distant contexts)

Is the multi-user environment here?