

THE INTERFACE

ENVIRONMENT + PROCESS FOR INTERACTION

ENVIRONMENT

MATERIAL, FORMAL COMPONENTS

+

BIOLOGICAL, ERGONOMICAL ASPECTS

PROCESS

SET OF PROCEDURES

+

PROCEDURAL RULES (PROTOCOLS)

TYPES OF INTERFACE

DIRECT MANIPULATION

PUSH-BUTTONS, SWITCHES, KEYBOARD, MOUSE, LIGHT PEN, TOUCHSCREEN...

OPTO-THERMO-MECHANICAL DETECTION

PRESENCE, MOVEMENT (DIRECTION, SPEED, DISTANCE),

HAPTICS (TOUCH), SOUND

BIOMETRIC DETECTION

**BODY TEMP, SKIN CONDUCTIVITY, SKIN STATIC ELECTRICITY,
PULSE, ECG, MYOELECTRIC, MYOTENSION,
SMELLS (DETECTING CHEMICAL COMPOUNDS),
BRAIN AND NERVES ELECTRICAL FUNCTIONS**

BIOMETRIC RECOGNITION

**FACE AND FACIAL ELEMENTS, FACIAL EXPRESSIONS/EMOTIONS,
OTHER BODY PARTS, BODY POSES, SPEECH**

BEHAVIORAL DETECTION AND INFERENCE

BEHAVIOR AND PREFERENCE PATTERNS, PSYCHOLOGY, LIFESTYLES

ONLINE COLLECTION OF BIG DATA, SOCIAL MEDIA, POPULAR APPS, ETC.

OLD PRACTICE BY ORGS WORKING WITH LARGE # OF CLIENTS:

BANKS, TRADING, CORPORATIONS, INSURANCE

EMPOWERED BY MASSIVE NETWORKING,

IMPROVED COMPUTATION ALGORITHMS AND SPEED

**MANY
COMPUTER/DIGITAL INTERFACES
ARE OLD**

SOME FROM LATE 19 CENTURY: KEYBOARD

OTHERS FROM 50'S TO 80'S IN 20 CENTURY:

MOUSE, SCREEN, LIGHTEN, TABLET, TOUCHSCREEN, HUD, VR

TECHNOLOGICAL CONCEPTS AND TECHNIQUES

OOP, GUI, WYSIWYG, NETWORKING, P2P

CHANGE SLOWLY

FACTORS

TECHNOLOGICAL

NEW SOLUTIONS DIFFICULT TO INVENT, TEST AND IMPLEMENT

ECONOMIC

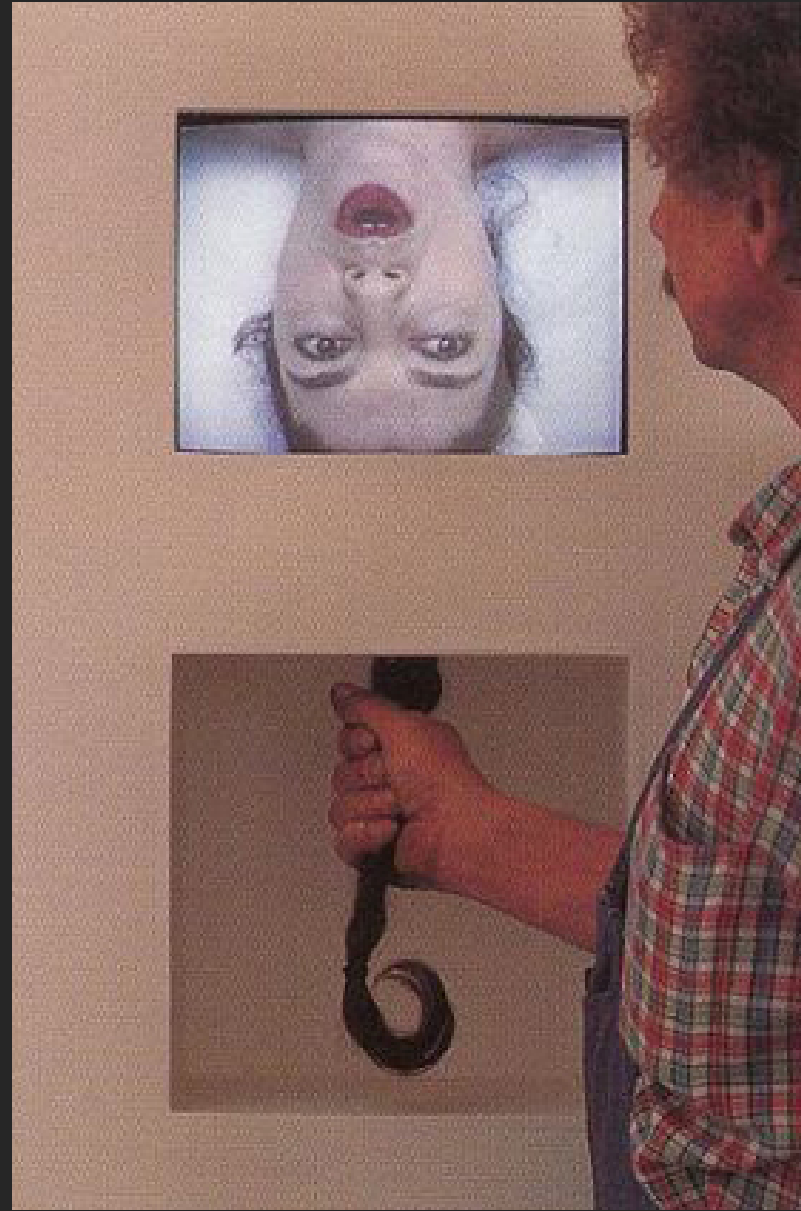
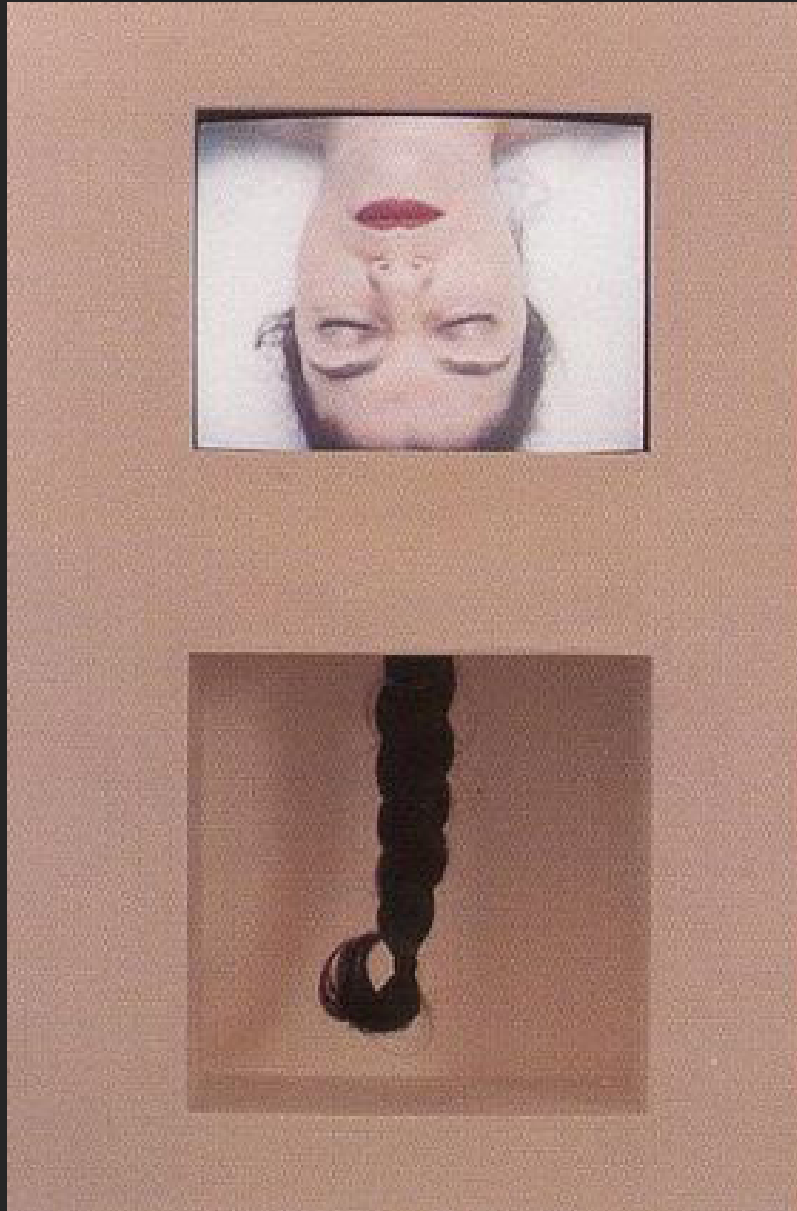
INVESTMENT AND PROFIT INTERESTS INFLUENCE THE PACE OF CHANGE

ERGONOMIC

LIMITED REPERTOIRE OF COMFORTABLE SOLUTIONS

DUE TO OUR EVOLVED ADAPTATIONS AND NEEDS

**SURPRISING/UNCONVENTIONAL INTERFACES
POINT TO THE CONCEPTS AND ASPECTS
OF THE INTERFACE DESIGN**



Mona Hatoum - 1995 - Pull

The trick points to the mediatized representation in IM, and role of trust.



Blind Self Portrait

Kyle McDonald and Matt Mets

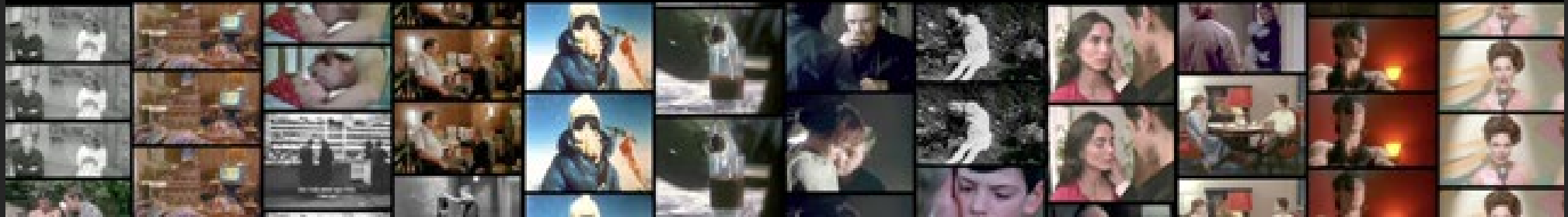
Kyle McDonald & Matt Mets - 2012 - Blind Self Portrait

Passive participation, trust.



Julian Palacz

algorithmic search for love



Julian Palacz - 2010 - Algorithmic Search for Love

Visitor as a creative director. Playfulness.

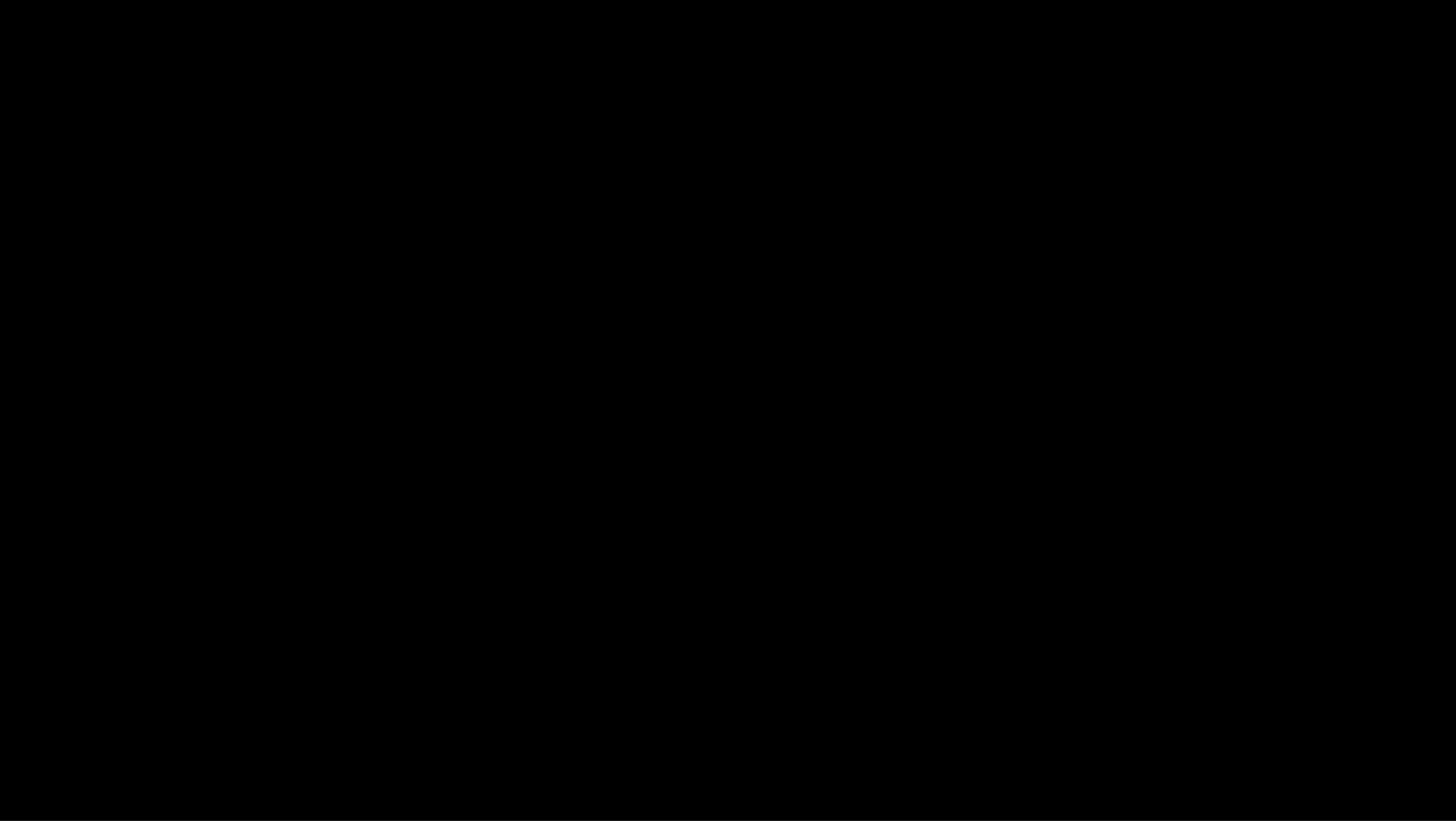
Simple interface with cognitively active input and interpretation of output.



L: Daniel Rozin - 1999 - Wooden Mirror-Motoristic Reflective Sculpture

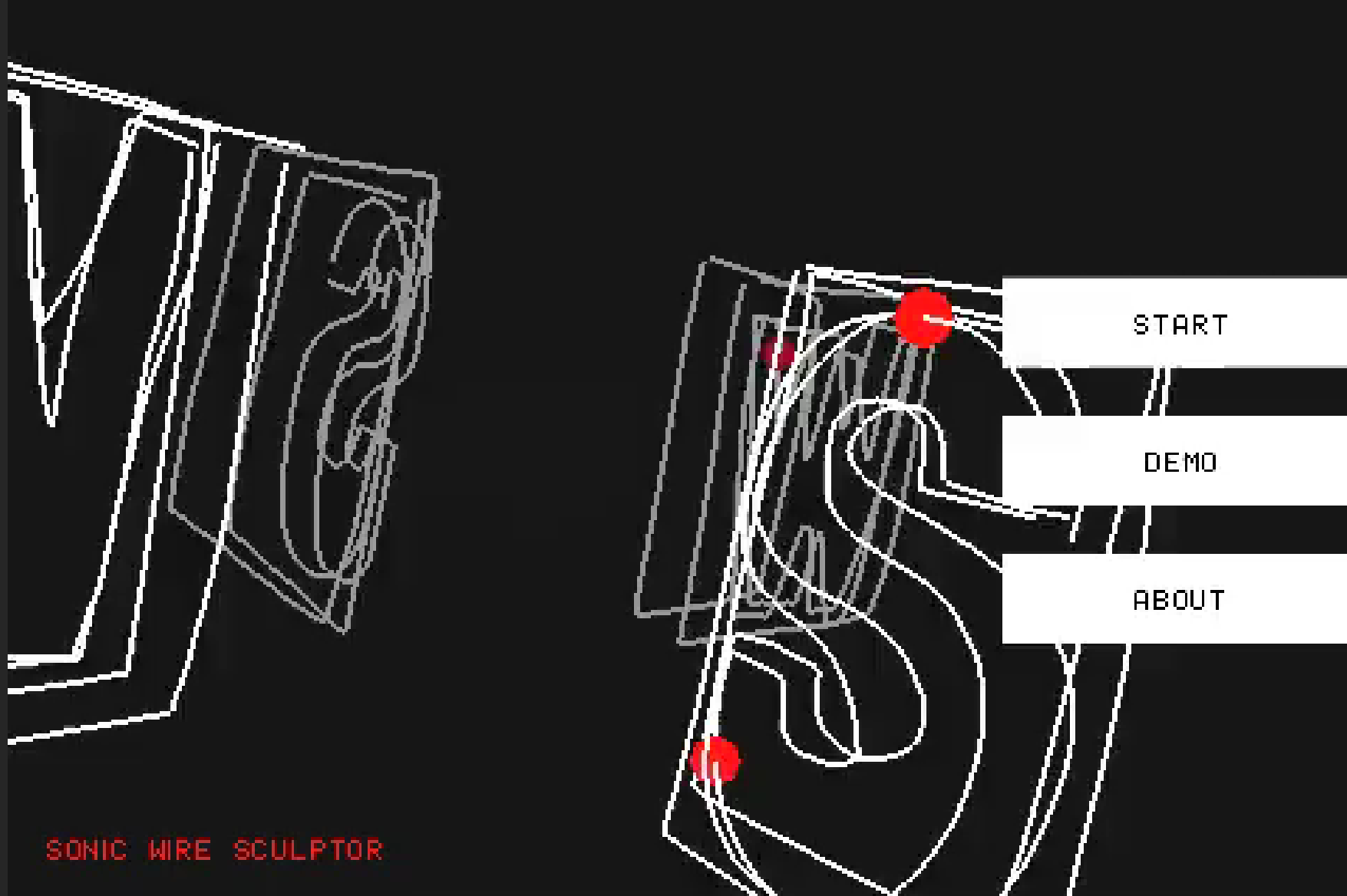
R: Christa Sommerer & Laurent Mignonneau - 2015 - Portrait on the Fly

Classic IM setups, unconventional visualizations/representations.



Jasper van Loenen - 2011 - Test Screen

Reveals the complexity of the interface control system - 93 parameters.



Amit Pitaru et al. - 2010 - Sonic Wire Sculptor

Visual intuition in making sound.

**REFACE:
Portrait Sequencer
Tmema / 2007**

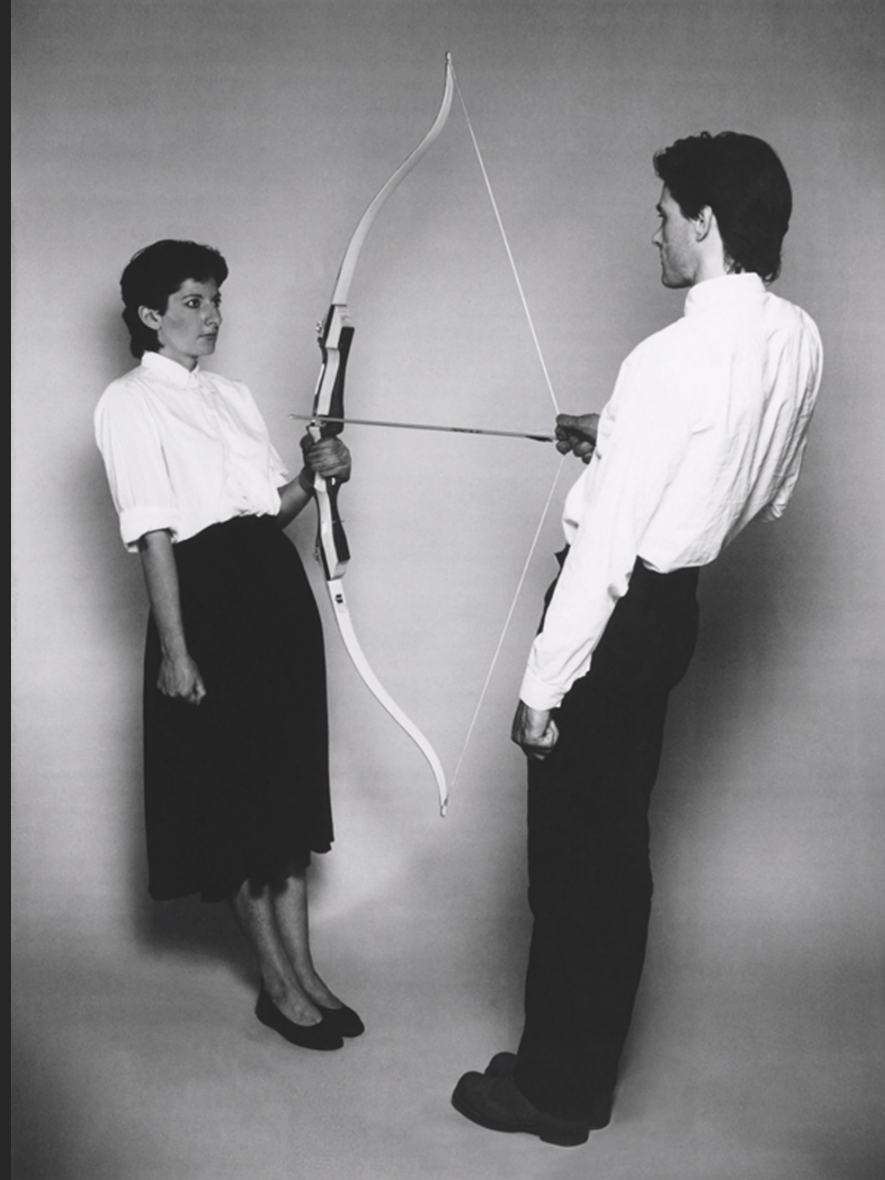
Golan Levin & Zachary Lieberman - 2007-2010 - Reface (Portrait Sequencer)

Blinking and facial expressions.



Daito Manabe - 2009 - Face Visualizer - Face Instrument

Facialization and soification via myoelectric sensors and actuators.



Marina Abramović & Ulay - 1980 - Rest-Energy

Importance of the context: performers + bow + arrow + the gallery.



Kenichi Okada - 2010 - Peeping Hole

Importance of the context: the participant's and the audience's interfaces work together.



Shinseungback Kimyonghun - 2013 - Nonfacial Mirror

Restrictive interface points to the function.

TAKEAWAYS

· IN INTERACTIVE ART AND DESIGN

INTERFACE IS INSTRUMENTAL FOR FACILITATING
SITUATION, EVENT, USAGE AND EXPERIENCE

SUPPORTS/REVEALS THE CONCEPT AND OVERALL INTENTION

- **CREATING INTERACTIVE INTERFACE INCLUDES
DESIGNING AND COMBINING
FORMAL COMPONENTS AND PROCEDURES
PERCEIVABLE DIRECTLY OR INDIRECTLY BY THE PARTICIPANTS**
- **INTERFACE TYPES AND DESIGNS CHANGE RELATIVELY SLOWLY,
THEIR FUNCTIONALITY CAN CHANGE RAPIDLY**

IN THE CLASS NOTES

MORE EXAMPLES

A SELCTED BIBLIOGRAPHY OF THE INTERFACE

