"IMAGINEERING"

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abstract

the bioelectrical acitivity of the brain (EEG) is being used to control a cursor on a computerscreen to finally communicate via an interface with the outside world. this high-tech sophisticated brain-computer-interface (BCI) has to be fed with imagination, the archaic domain of the artist. information is the common denominator of "imagineering" to create a truely coherent "art-science" that's what culture begins with.

"imagineering" has been built to melt imagination and engineering, art and technology, personality and society, culture and politics. the audience is being asked to take part in the installation to proof its own power of imagination, whereas five handicapped artists communicated via the internet to create in contradiction to their own bodies "a perfect virtual body" by the means of communication only.

1.dead living bodies

art has ever been comprehended as a process of expression. the internal status of the brain-body interrelation of the given artist had to be processed into form, content and gestalt to communicate with the outside world.



the orthesis (mechanical hand) of the paralysed patient is being steered by the power of his own brain.

in the metaphor of externalisation of the mind, the bioelectrical acitivity of the brain itself (EEG) is being used to control a cursor on a computerscreen. this channel of communication from the inside of the body to the outside world must be loaded with information. this information stems from pure imagination only.

with the brain-computer-interface (BCI) an interface to the physical world is provided. the body itself has become the computerscreen, the cursor has become the tool to reincarnate the "dead parts" of handicapped bodies by mental activity only "imagineering" is grounded in complete analogy to the expressionistic concept of the artist but based in an information assisted environment, in this environment the real new artist is a truely handicapped, but information assisted figure, in trying to communicate with the world he/she must imagine the action

only. the realisation is being executed by the information assistants.



after a training period of more than 30 minutes members of the public try to steer the "lego"-train according to the randomly given instruction by the computer either in the one or the other direction.

all this is in correspondence with the arts from the inspiration to the final realisation in an artwork, but executed by the artist, or at least signed by him/herself. this artistic structure of processes mustn't be further understood as an extroadinay mental procedure. as "imagineering" can demonstrate, this brain-body-activity is ordinary to all the human internal and external processes, even though the realisation looks extroadinary. in order to demonstrate the realisation of the art metaphor of "imagineering" the audience has been invited to a 30 minutes training with the brain-computer-interface (BCI) in the exhibition. according to the power of imagination—and training procedures—the users had been able to steer an electric train either in the one or the other direction, at will.

2.information based bodies



installation view. on the 5 monitors the handicapped artists communicating live via internet between themselves and the public in the exhibition.

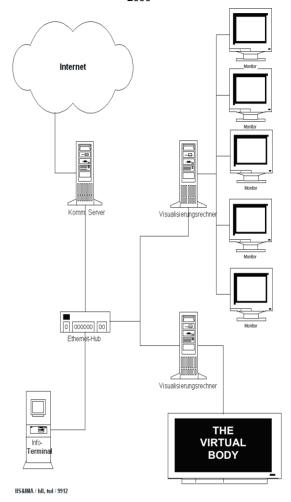
"imagineering", comprehended as the common ground of advanced artistic and basic ordinary expressions, has been pushed forward to an experiment incorporating five 'truely handicapped artists' as the grand metaphor of the humankind in the face of information technology. (blind, left hermisphere paralized, right hemisphere paralized, two wheelchairdrivers.) the mental processes of each of the five artist have been communicated via internet to finally create a 'complete virtual body'



the virtual body. this figure contains the whole datastream between the artists themselves and the public during whole period of the exhibition (6 months).

INSTALLATION

graz, "dome in the rocks" 2000



project partners:

prof. gert pfurtscheller, dr.christa neuper, di. dr. christoph guger. (technical university, graz) prof. werner schmeiser, franz ammer, oskar kalamidas, hans krameritsch, otto lechner, (all private). dieter tschermernig, di. franz höller (joanneum research, graz)

reference:

"kunst, wissenschaft und kommunikation" (art, science and communication) graz 2000. helmut konrad, richard kriesche. springer wien, new york.