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## **THE INFLUENCE OF THE COMPLEX SYSTEMS IN THE NEW MEDIA CIRCUITS**

Deleuze and the virtual

Influence of science

Social models of organization

The Production of Artworks

Complex Networks

References / Bibliography

Extra info/ Links / References

Postmodern philosophers receive the influences from the history of sciences; shapes of thoughts in French authors are markedly based on the concepts of symbolic and virtual, forms that directly could be assimilated to language and image. However, these French authors are profoundly and directly embedded by science and scientific theory. In Deleuze and Guattari the trilogy / art, science and philosophy / become a triple paradigm on how to resolve complex circuits, from thought to industrial production and also, the social organization. The concept of complex circuits could include different models such as the biologic forms, the order of the social, the family and patriarchy, the emergence of new media technologies of communication and information, and the production of the artwork.

From XXth century, the philosophy deals with the questions concerning the parameters of thought concentrated on questions about mental image and production of knowledge. The French philosopher Lacan in his Borromean knot diagram expressed the process of knowledge and the expression of thought strategically based in the definition of the real, the symbolic and the imaginary. Contemporaneously, the paradigm of evolution and the development of new technologies are studied using these parameters to understand complex processes of knowledge and evolution. The dynamic thought proceeding from the French philosophy is a definitive point to understand the process of evolution concentrated in the ways that technology does in our society. Technology is a concrete realization of thought rooted in the virtual.

New media technology emerges from the fields of science and engineering. According to the processes of representation in nature, the digital media amplifies the virtual through software and interface. The digital technology is a synthesis between nature and technology. Apart, the new media technologies of communication and information reproduce the mind process of knowledge, as the unconscious. Their final consequence is the expression of the force of the virtual.

Deleuze recovers the concept of the virtual from Lacan (imaginary) and states the correlation between science and philosophy. In his study, defines the influence in the philosophy of deterministic and indeterministic physical systems. The modern physics are turning away from the classical physics using concepts as the multiplicity, the chance or the indeterminacy. The conception of a past Euclidean space is totally deformed by the Quantum Mechanics (QM). Also, the Marxian dialectics conceptualize space and time as extended into the social organizations. In Marxian dialectics and Quantum Mechanics, Being, or Time, is a multiplicity. The space of time belongs to the dark precursor.

Hence, the structures of the virtual are understood as multiplicities. Thanks to Newtonian physics classical ontology defines in an exemplary expression how "the individuals are regarded as spatial-temporally localized". But when modern science, as modern literature (Stephan Mallarme), introduces the concept of chance into the observation of different phenomena, the indeterminism of non-linearity and the chaos become a new paradigm for the definition and explanation of different circuits.

In modern physics, like in the modern poets, a new dimension of thought in life was introduced. These were the theories of chance in Mallarme, and the esoteric theories by Emanuel Swedenborg, for example the "magical thinking", "the magi of the virtue" and "the wonders of intelligence". In Swedenborg's philosophy, the magical in its power conjures up the visions in the human mind. In the "critical thinking" of Deleuze, it is believed that the "absurdity" should displace physicist. The subversion of humanism could hardly be more radical.

Following the diagrammatic model of thought based on the real, the symbolic and the imaginary, the object of knowledge is studied and analysed according to the media and the techne used. Because each object of knowledge is carried by a techne. So, the correspondent analysis on this techne will also develop this object of knowledge. The study of the techne is operated by media ontology. Some of the German philosophers that have forged this theory are Benjamin, Adorno, Heidegger, Kittler, or Simondon. In media ontologies, the object of knowledge is the study of the own media. Understanding the media, the process of knowledge is represented. The deconstruction of techne, indeed the hardware, is also a radical theory confronted to physicist developed by media ecologies.

In media studies, the process of knowledge is always represented as a resemble of the act of thought. In Turing, thought is compared to computational processes but, in Turing words, accepting that the human mind will never be able to be replaced by a machine, it will never be possible to replace the mathematician by a machine. Either mathematics is incompletable in this sense, it is evident that axioms can never be comprised in a finite rule, that is to say, the human mind (even within the realm of pure mathematics) infinitely surpasses the powers of any finite machine. The working of the human mind is not reducible to operations of the brain, and the human mind infinitely surpasses the powers of any finite machine. The brain, "to all appearances" is "a finite machine with a finite number of parts, namely, the neurons and their connections". As finite machines are taken to be Turing machines, brains are consequently also considered as Turing machines. The working of the human mind cannot be reduced to the working of the brain. The human mind, indeed, infinitely surpasses the power of any finite machine. It would require a substantial deepening of our understanding of the basic operations of the mind. It would involve some extra mathematical elements concerning the psychology of the being. Mental procedures cannot go beyond mechanical procedures.

According to Allan Turing, the brain functions basically like a digital computer but accepting that the human mind cannot prove the consistency of subjective mathematics and vice versa. Here can be stated the Scientific relativism and the technological paradigm. In the claim that the number of possible states of mind may converge to infinity is obtained as a consequence of the dynamic development of the mind. Even more it is understood that mathematics describes a non-sensual reality. It is assumed that consciousness is scientifically explicable, and then functionalism is to be false. Consciousness could be modelled in a computer program in the same way that the weather can be modelled, but accepting functionalism you should believe that consciousness is a computational process.

Returning to Deleuze and using symbolic and virtual parameters, thought is studied under the framework of science. Lacan rediscovered by Deleuze, in a theoretical development of philosophy concludes that the representation of imaginary conducts into the phantasmatic level of reality, mind, where the resolution of the process of knowledge could be traumatic, a ghost in the machine.

Features of spectral sound are also used to understand the complex process in mind. Sound, as the thought, is a complex system represented through Nuclear physics and other techniques. The masculine paradigm of technoscience (stating that science has become a paradigm for evolution) has been questioned by other open possibilities of understanding reality. The technoscience will be replaced by biopolitics, cyberfeminism, and open source movements. This new theoretical framework opens a field of possibilities where openness, art, science and technology disrupt the conventional paradigm of society, at all levels, personally, institutionally and economically. Art emerges as a commoditized work framed into capitalist policies. Meanwhile, new structures emerge. The lab uses chemicals and other techniques to destabilize capitalist patriarchy. The spectral sound is used for chemical hacking to confront Technoscience in front of Biopolitics and express the ethics of hacktivism. Holistic physics avoids technical complexity and submerges into experimental where ordinary experience is experimented with inexpensive equipment.

Departing from the influence of nuclear physics and the particles vibrations, spectral sound studies the behavior of waves or the collapse of systems as in cybernetic studies (Wiener), such the stochastic processes in gases behaviors. Modern physics depart from Heisenberg, Einstein, Schrodinger and amplify the frame of understanding pattern behavior. Heisenberg atom vibration is studied under parameters of chance and unverifiability. Confronting that, holistic physics propose a new perspective on the science of the future where mind and matter are accepted as a sensual physical phenomenon. Even more mind is a mystery intellectual black hole. Again the reference to the definition of conscious is required, like in Turing, Bergson uses conscious as well as intuition to confront science and moral for a more based critical thinking. Speculation, inner experience, and other processes are used to explain mind as a complex biological system where the mind could be the software, and the brain, the hardware. Moreover, also, the mind could be understood as a superconductor or a laser tube rather than a computer circuitry. The experience of inner physics, magical thinking, psychedelic, the use of drugs and chemicals reinforce the idea of quantum consciousness, the quantum model of mind, the quantum psychology, the quantum-mediated telepathy, or the experimental quantum physics.

All these new methodologies change the behaving of social objectification where the Virtual is overtaking the sphere of real. Understanding techne and following media ontology theories, artworks are presented in the scene liberating the subject from formal constraints, deconstructing the hardware, allowing the experience of knowledge in the field of interpretation, where universalism is expressed virtualizing potentias and a rapprochement of the disembodied transforms the model of social production.

History of science from Galileo to Newton, through Heisenberg, Schrodinger, Eisenstein, or endophysics and thermodynamics are retaken and brought to a new dimension where falsification and Anthropocene question a calculable computer model universe where dissipative variable particles depend on observation phenomena. Here, endophysics introduce the study of demons. Demons do not work. A censor blocks them. The figure of a demon resembling the Newtonian God controlling the machine universe contributes to understanding incompleteness.

In Deleuze and Guattari, dynamical systems (or complex circuits) are taken to exhibit non-linear behaviour that represents quantum particles, chaos, disorder. These models are based on complex Schrodinger equation, which differs from classical Newtonian physics, where space and time are deterministic and defined by realist ontology. Contrary thermodynamics, chaos theory, chance, chaos, complexity, multiplicity and unpredictability report the principle of uncertainty in Heisenberg. Deleuze and Guattari state that classical science slow down the chaos in nature and its emerging and disappearing forms. Meanwhile non-deterministic and chance theories represent the complexity of behavior such in the kinetic theory of gases. Chance and unpredictability lead to no description, impossible definition, with no categories where the imprecision of measurement produces and unambiguous definition. Demonic science at this level is supported by a subjective interference. According to Deleuze and Guattari, chaos is incomprehensible; chaos is a virtual entity, a disordered incomprehensible virtual entity. Like in sound spectral processes the behavior of the electron in the electric current allows the study of particles, the formation of phonons. Moreover, according to its spectral features representing the virtual particle formation, where particles emerge and disappear, participating of creation and annihilation, in the known as an interference pattern. This process of representation allows the visualization of the immaterial. The concept of the virtual in Deleuze extends the theories to the Chaoids: art, science and philosophy for a renew thought and knowledge.

In research, brain and mind, mind and matter, are totally influenced by the immateriality away from the fashionable non-sense of postmodern intellectual's abuse of science. A new social order where the unknown informs new social and economic structures, from labs to quantum networks, emerges.

Analysing complex system, the techne of hardware is studied as an ecologic media representing processes of the mind, but complex circuits are extended to the social organization or new media technologies of communication and information, among many more. Within those, the network emerges as part of the known as quantum networks, described by cybergeography, by quantum cryptography, and are threatened by security and government policies, policies of power and masculinity subject. Contrary, Biopolitics supported by Julia Kristeva confront Geopolitics of power in the netspace as it behaves as a complex system. Networks should be protected by autonomous servers and offline networks, to defend citizenships and privacy. Complex network topologies, quantum complex networks and networks structures behave like rhizome diagrams; they are the quantum random network.

So from thought to spectral sound to computer network, and also the emergence of lab and media ecology practices represent the disruptive complex system where models for art, science and technology are based on the Deleuzian concept of rhizome, on the Structure of the rhizome, which is ceaselessly established and represents multiplicity. Like life science, thought appears as an intelligent form of life.

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more research on neural computation, collective intelligence, and freedom.

<https://www.reddit.com/r/ControlProblem>

<https://www.youtube.com/watch?v=rfoy2kWOwrs>

<https://www.hackcanada.com/homegrown/wetware/index.html>

"The modern man of wisdom melds the old with the new, the alchemical with the electronic ... blending the most arcane elements of science in an effort to enhance, reprogram, and redesign his own wetware, his very mind and body ... bending it to his will, and in so doing, bending the will of that which surrounds him ... thereby achieving a post-human state ... something greater than human ... and something somewhat less." — CYBØRG/ASM, 2000

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"The only way to deal with an unfree world is to become so absolutely free that your very existence is an act of rebellion."

[http://pmwdzvbyvnmwobk5.onion/project/brain\\_hacking](http://pmwdzvbyvnmwobk5.onion/project/brain_hacking)

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I was scared to death / I could have died of joy

[http://www.catherinerichards.ca/html/Dyson\\_essay.pdf](http://www.catherinerichards.ca/html/Dyson_essay.pdf)

[https://www.google.ca/search?q=I+was+scared+to+death+/+I+could+have+died+of+joy&es\\_sm=93&source=lnms&tbm=isch&sa=X&ved=0CAcQAUoAWoVChMI1eGTp5L8yAIVUvRjCh2qvgNe&biw=1024&bih=499](https://www.google.ca/search?q=I+was+scared+to+death+/+I+could+have+died+of+joy&es_sm=93&source=lnms&tbm=isch&sa=X&ved=0CAcQAUoAWoVChMI1eGTp5L8yAIVUvRjCh2qvgNe&biw=1024&bih=499)

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MIND CONTROL

<http://www.whale.to/b/sp/springmeier.html>

The research, called Hippocampal Neuron Patterning, grows live neurons on computer chips, William Tolles, the recently retired associate director of research at the Naval Research Lab, said March 15. This technology that alters neurons could potentially be used on people to create zombie armies, Lawrence Korb, a senior fellow at the Brookings Institution, said March 16 .... The research has captured the attention of the U.S. Intelligence community."

-Programming and Metaprogramming in the Human Biocomputer

- Large Neural computers that have artificial intelligence using neural processing which is a type of learning similar to learning done by the human brain are being used.

-HAARP The Beast computer was located northeast of Anchorage, and so is the HAARP project. The HAARP facility is near Gakona, a hamlet about 140 miles north of Prince William Sound and its signals travel on a field line to Australia. The Beast Computer is also linked to Australia as well as satellite systems. The HAARP site took a 4-wheeled truck to reach, and the Beast Computer site in 1973 was even more remote. The University of Alaska Fairbanks (which has its own super computer) and the Alaskan Poker Flat Rocket Range also were involved with the HAARP project. 30% of the U of A's supercomputer's use was for DoD projects. HAARP uses 3 powerful transmitter sites in Alaska. Somewhat on the flip side, the human brain which they control can, IF it has a memex implant, interface with the Beast computer which acts as a vast repository of human knowledge as well as answering questions to essentially all previously answered questions instantaneously. If the human brain has some type of virtual reality holodeck attachment, the computer can even walk the slave

through a realistic setting indistinguishable from the real world. Robocop or robo-soldier has an incredible advantage with such extended memex/remote viewing capabilities.

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mind control (from martin howse)

<http://www.mindcontrolforums.com/mindnet/mn165.htm>

<http://www.alphane.com/moon/PalmTree/>

<http://www.raven1.net/ravindex.htm>

Transcranial magnetic stimulation

[http://en.wikipedia.org/wiki/Transcranial\\_magnetic\\_stimulation](http://en.wikipedia.org/wiki/Transcranial_magnetic_stimulation)

[http://en.wikipedia.org/wiki/God\\_helmet](http://en.wikipedia.org/wiki/God_helmet) god helmet/Trans-Cerebral  
Magnetic Stimulation [TCS]

<http://www.apaw71.dsl.pipex.com/MADS/htmlfiles/FAQ.html>

<http://www.apaw71.dsl.pipex.com/MADS/docs/Results.pdf>

<http://www.apaw71.dsl.pipex.com/MADS/docs/labresearch.pdf>

<http://www.psy.herts.ac.uk/wiseman/papers/BJP-hauntings.pdf>

[with thanks to Jonathan Kemp]

Michael Persinger:

[http://oldwebsite.laurentian.ca/neurosci/\\_people/Persinger.htm](http://oldwebsite.laurentian.ca/neurosci/_people/Persinger.htm)

<http://www.shaktitechnology.com/>

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## REFERENCE PAGE FOR UNDERSTANDING ELECTROMAGNETIC WAVES & MIND-CONTROL

Our brains operate on waves that are very low frequency (from one cycle per second) to about 50 cycles per second. A cycle per second is called a Hertz (Hz). Due to the wide range of different amplitudes and frequencies it has been more practical to induce various measuring units. It would be nice if all the measuring units could be done in feet or meters or whatever, but the range in size from the very tiny to the very large means that they use different measuring units. Just like you use different measuring units to get a quart of milk and 3 gallons of gas. The milk could be called a quarter-gallon but it isn't. In measuring frequency they use the following measuring terms: 1,000,000 cycles per second = Megahertz (MHz) 1,000 cycles per second = Kiloherz (KHz) 1 cycle per second = Hertz (Hz) In measuring amplitude they measure the length of the waves with kilometers, meters, and centimeters. The very small waves are measured in angstroms, microns, and nanometers. What is an angstrom. A nanometer is one billionth of a meter. That is a very tiny fraction written as 1/1,000,000,000 of a meter or for short an nanometer. A micron is one millionth (1/1,000,000) of a meter. Ten nanometers are said to make up an angstrom. (In other words an angstrom is 1 ten-billionth of a meter.) After they measure radio frequencies, the waves of different lengths are given other names. They could just say 'waves from 30,000 to 300,000 MHz", but instead they shorten things by having a special name for these waves EHF (Extremely High Frequency waves.) This names are as follows: Extremely High Frequency EHF: 30,000 to 300,000 MHz Superhigh Frequency SHF: 3,000 to 30,000 MHz Ultrahigh Frequency UHF: 300 to 3,000 MHz High Frequency VHF: 30 to 300 MHz Medium Frequency MF: 300 to 3,000 KI-lz Low Frequency LF: 30 to 300 KHz Very Low Frequency VLF: 3 to 30KHz Extremely Low Frequency ELF: Below 3 KHz to 1 Hz or less BRAIN FREQUENCIES (FREKS) RELATE TO STATES OF ACTIVITY The lower brain frequencies pertain to sleep and dream states. The middle brain frequencies pertain to normal wakeful activity. The higher brain frequencies pertain to aroused, or concerned or states of anxiety. No brain waves means a person is "brain dead", even though some body functions may continue. Naturally occurring phenomena, such as lightning in a thunderstorms, sunny days that soak a person with extra positive ions, can all affect the thinking of brain. CHART GOING UP THE FREQUENCY SCALE These frequency no's are in Hertz which is cycles per sec. (However the first part of the scale are non-linear, asymmetrical waves, which are mistakenly called Hertzian by many people.) 1 Approx. beginning of brain waves 6.66 Theta brain waves 7.85 Alpha brain waves 15.7 Beta brain waves 30-30.56 Government VLF stations 32-33 Government VLF stations 34-42 Government VLF stations 50 Approx. Upper limit of brain wave frequencies 60 Produces an audible sound

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Michael Persinger: On the Possibility of Directly Accessing Every Human Brain by Electromagnetic Induction of Fundamental Algorithms, 1995

[http://xxn.org.uk/lib/exe/fetch.php?media=persinger\\_6\\_billion\\_brains.pdf](http://xxn.org.uk/lib/exe/fetch.php?media=persinger_6_billion_brains.pdf)

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<https://www.youtube.com/watch?v=wwk-Mlm5l24>

The Matrix - Our Reality In Question

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[http://activearchives.org/wiki/Dataradio\\_Presentation\\_\(WORM\)](http://activearchives.org/wiki/Dataradio_Presentation_(WORM))

DIMI-T Cassette Release: Liner Notes

DIMI-T (1973) In the 80's the composer is already at least able to discuss with his studio if the instruments are not even able to read his thoughts directly.

– Erkki Kurenniemi (1971)

Dimi-T (T=thinking, a.k.a. Electroencephalophone a.k.a. alpha/theta cyborg) is an electronic musical instrument built by Erkki Kurenniemi in 1973. It produces music from its player's thoughts. With electrodes fastened to the scalp the player's electrical brain activity is measured and used as a control signal of the instrument. The best control signals are obtained when the player is asleep or at least in a very relaxed state. The weak electric brain waves, amplified to 500 000 fold, are sampled with a peak detector and fed to a sample & hold -circuit to control the pitch of an oscillator. As a result the instrument produces a few milliseconds long, irregular but steady frequencies. The design of Dimi-T is loosely based on Manfred L. Eaton's ideas of bio-music. Kurenniemi was introduced to Eaton's ideas in an electroacoustic music conference held in Florence in 1968. In bio-music different responses of the human body, e.g. heartbeat or brain waves, serve as control signals of the music. Also Kurenniemi's Dimi-S (sexophone; 1972) is based on the ideas of bio-music. Only one Dimi-T unit was build and it was played only few times. One of the rare documents about the instrument is this

homemade recording. The other known document is a collective improvisation in the studio of the University of Helsinki in 1973. In addition to these, Dimi-T was on display in the exhibition of the Finnish artist group Dimensio in Dipoli, Espoo in 1974. Soon after this, Kurenniemi rented the instrument to the department of psychology at the University of Oslo for the sum of one Norwegian krone for an indefinite time. Some 30 years later Kurenniemi visited Oslo and tried to get Dimi-T to a working condition but did not succeed. Text: Mikko Ojanen Source: <http://hdl.handle.net/10138/39250> (HELDA - The Digital Repository of University of Helsinki)

<http://120years.net/dimi-helsinki-electronic-music-studioerkki-kurenniemifinland1961-2/>

### The DIMI-T or 'Electroencephalophone', 1970

Dimi-E was not a actual 'digital' instrument but an electronic unit that registered a weak EEG signal from the users earlobe. This signal was filtered and amplified and used as a control source for a voltage-controlled oscillator (VCO). "The original idea was to build four of these instruments, and let the musicians to go to sleep while hearing each other's generated sounds. During sleep there appears in the EEG slow high-amplitude delta waves, and short duration "sleep spindles." Would the brain waves of the sleeping players get synchronized? This test was never made."

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citation

werner alone has looked on reality bare

proposal for a really new "new physics"

nick herbert

ars electronica 90

pag.102

the flash of light in your eye, recorded as a pattern of neural impulses, is one such measurement,

holistic physics lab

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<http://www.flusserstudies.net/sites/www.flusserstudies.net/files/media/attachments/flusser-vampyroteuthis-infernalis.pdf>

We have lost trust in material objects as artificial memories and are beginning to create another type of artificial memory and to assemble immaterial and inter-subjective mediations. Admittedly these are not photophores on our skin, but they are indeed electromagnetic. A Vampyroteuthian revolution is under way.

the history of human art may be divided into three unequally long stages. The first stage lasted up until the first industrial revolution, the second for the duration of industrial society and the third started with the second industrial revolution and leads into a future as yet unimaginable

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Cells that repair the brain. Through treating everything from strokes to car-accident traumas, neurosurgeon Jocelyne Bloch knows the brain's unique inability to repair itself all too well. But now, she suggests, she and her colleagues may have found the key to neural repair: doublecortin-positive cells. Similar to stem cells, they are extremely adaptable and when extracted from a brain, cultured and then re-injected in a lesioned area of the same brain, can help repair and rebuild. "With a little help, the brain may be able to help itself."

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[http://superkuhbitj6tul.onion/library/Neuroscience/1%20of%20the%20Vortex %20From%20Neurons%20to%20Self %20Rodolfo%20R%20Linas.pdf](http://superkuhbitj6tul.onion/library/Neuroscience/1%20of%20the%20Vortex%20From%20Neurons%20to%20Self%20Rodolfo%20R%20Linas.pdf)

R.Vario, Sueño, 1958. Pencil/paper, 23 × 16cm.

## Intrinsic Electrical Properties of Neurons: Oscillation, Resonance, Rhythmicity, and Coherence

Electrical resonance, a property supported by direct electrical connectivity among cells (as occurs in the heart, allowing it to function as a pump by the simultaneous contraction of all of its component muscle fibers) is perhaps the oldest form of communication among neurons.

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<https://en.wikipedia.org/wiki/Cybernetics>

Wiener decided to introduce the neologism cybernetics into his scientific theory. The name cybernetics was coined to denote the study of "teleological mechanisms" and was popularized through his book *Cybernetics, or Control and Communication in the Animal and the Machine* (MIT Press/John Wiley and Sons, NY, 1948). In the UK this became the focus for the Ratio Club.

cybernetic sciences such as the study of neural networks were downplayed; the discipline shifted into the world of social sciences and therapy.[16]

Basic cybernetics[edit] Artificial intelligence Robotics Computer Vision Control systems Emergence Learning organization New Cybernetics Second-order cybernetics Interactions of Actors Theory Conversation Theory Self-organization in cybernetics

In biology[edit] Bioengineering Biocybernetics Bionics Homeostasis Heterostasis Medical cybernetics Practopoiesis Synthetic Biology Systems Biology Autopoiesis Neuroscience

In computer science[edit] Design Patterns Robotics Decision support system Cellular automaton Simulation

In engineering[edit] Adaptive systems Engineering cybernetics Ergonomics Biomedical engineering Systems engineering

In mathematics[edit] Dynamical system Control theory Information theory Systems theory

In psychology[edit] Homunculus Psycho-Cybernetics Cybercognition Systems psychology Perceptual Control Theory Psychovector Analysis Attachment Theory Human-robot interaction Consciousness Embodied cognition Cognitive psychology Mind-body problem Behavioral cybernetics Teorias de la conducta

In sociology Affect Control Theory Memetics[citation needed] Sociocybernetics

In art[edit] Nicolas Schöffer's CYSP I (1956) was perhaps the first artwork to explicitly employ cybernetic principles (CYSP is an acronym that joins the first two letters of the words "CYbernetic" and "SPatiodynamic").[28] The artist Roy Ascott elaborated an extensive theory of cybernetic art in "Behaviourist Art and the Cybernetic Vision" (Cybernetica, Journal of the International Association for Cybernetics (Namur), Volume IX, No.4, 1966; Volume X No.1, 1967) and in "The Cybernetic Stance: My Process and Purpose" (Leonardo Vol 1, No 2, 1968). Art historian Edward A. Shanken has written about the history of art and cybernetics in essays including "Cybernetics and Art: Cultural Convergence in the 1960s"[29] and "From Cybernetics to Telematics: The Art, Pedagogy, and Theory of Roy Ascott"(2003),[30] which traces the trajectory of Ascott's work from cybernetic art to telematic art (art using computer networking as its medium, a precursor to net.art.) Telematic art Interactive Art Systems art

"Science concerned with the study of systems of any nature which are capable of receiving, storing and processing information so as to use it for control." — A. N. Kolmogorov

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Rain Ashford

"Designing, coding and building sensor-driven emotive wearables to amplify physiological data in social situations" [rainycatz.wordpress.com/](http://rainycatz.wordpress.com/) [twitter.com/rainycat/](https://twitter.com/rainycat/) From her AnemoneStarHeart EEG / ECG visualising device to the ThinkerBelle EEG Amplifying Dress, Rain's doctoral research investigates how wearable technology could broadcast physiological data from the body to create new forms of non-verbal communication, and questions the personal, societal and cultural implications.

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<https://www.youtube.com/watch?v=GE11IKxtJc>

Emerging Researchers Session 2 Media Art History RE-CREATE 2015.11.04 Pia VAN GELDER,  
University of New South Wales

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post-digital aesthetics, art, computation and design. edited by david m. berry and michel dieter.

Going Beyond the Visible: New Aesthetic as an Aesthetic of Blindness?

shintaro miyazaki,

non-visual aesthetcs

simondon Transduction, amplification, modulation, resonance, coupling, oscillation and feedback

Sound-signal couplings L860-L930

In an article from 1920, physiologists at Harvard Medical School described methods of using vacuum tube amplifiers combined with 'telephone receivers' for listening to neural activities (Forbes and Racker 1920, 412).

This kind of auditory exploration is sometimes still practised as an immediate feedback method while probing brain tissues with invasive electrodes. In the late 1950s, during experiments with the visual perception of a cat's brain, David Hubel and Torsten Wiesel, recipients of the 1981 Nobel Prize for Physiology or Medicine, were not only looking at the visual stimuli the cat was watching, but also listening to the activity of specific neurons in the cat's visual cortex. They found that some neurons rapidly discharged bioelectrical pulses when the cat's vision was stimulated by a moving screen projection of thick lines oriented in one angle, while other neurons responded best to other angles.

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<https://events.ccc.de/congress/2015/Fahrplan/events/7416.html>

lecture: Evolution of Brain-Computer Interfaces The future of Neuro-Headsets and concepts towards open-source, high-quality devices as an alternative to commercial products Event large 4b8aa978adbb7c8e80151f5a83c6782a12e763374ae3a042a55e7e626a64d93b

This talk is a brief recap into EEG / BCI for hackers, makers, researchers, and artists. It will give an overview of current consumer devices and their flaws, and subsequently present fully open-source, high-quality hardware and software. Finally implications for the future of modern society are outlined, especially how commercial EEG consumer devices or services may be exploited by corporations to cloudsource market research, or spy on health conditions, brain states or even leak private information. Strategies to circumvent these risks and secure brain wave experience are being discussed.

In the recent years, affordable Brain-Computer Interfaces are becoming more accessible for consumers. Applications range from controlling computers / machines, biofeedback and Quantified Self. At first sight, the current generation of commercial devices seem to be decent in their functionality, and various use cases are suggested. However, neurophysiological signal quality, as well as limitations of software and hardware hackability are among the greatest issues and hurdles towards advancement in user experience.

This talk is a brief recap into EEG / BCI for hackers, makers, researchers, and artists. It will give an overview of current consumer devices and their flaws, and subsequently present fully open-source, high-quality hardware and software. Finally implications for the future of modern society are outlined, especially how commercial EEG consumer devices or services may be exploited by corporations to cloudsource market research, or spy on health conditions, brain states or even leak private information. Strategies to circumvent these risks and secure brain wave experience are being discussed.

This talk can be seen as a sequel to last year's talk by MeTaMiNd EvoLuTioN and will also deal with further proceedings in open-source neurotech.

-born 1984 in Mülheim/Ruhr -studied computer science at Uni Bielefeld and HTW Berlin -did research in neuroscience, working on EEG classification and neurofeedback software -working on software for non-invasive, computer vision-based wildlife identification

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<https://events.ccc.de/congress/2015/Fahrplan/events/7483.html>

Computational Meta-Psychology An Artificial Intelligence exploration into the creation of meaning  
Cosmic clockwork core mechanics by mandelwerk d50bpj2

Computational theories of the mind seem to be ideally suited to explain rationality. But how can computations be subverted by meaning, emotion and love?

Minds are computational systems that are realized by causal functionality provided by their computational substrate (such as nervous systems). Their primary purpose is the discovery and exploitation of structure in an entropic environment, but they are capable to something much more sinister, too: they give rise to meaning. Minds are the solution to a control problem: in our case, this problem amounts to navigating a social primate through a complex open environment in an attempt to stave off entropy long enough to serve evolutionary imperatives. Minds are capable of second-order control: they create representational structures that serve as a model of their environment. And minds are capable of rationality: they can learn how to build models that are entirely independent of their subjective benefit for the individual. Because we are the product of an evolutionary process, our minds are constrained by powerful safeguards against becoming fully rational in the way we construct these models: our motivational system can not only support our thinking and decision making to optimize individual rewards, but censor and distort our understanding to make us conform to social and evolutionary rewards. This opens a security hole for mind-viruses: statebuilding systems of beliefs that manage to copy themselves across populations and create causal preconditions to serve neither individuals nor societies, but primarily themselves. I will introduce a computational model of belief attractors that can help us to explain how our minds can become colonized and governed by irrational beliefs that co-evolve with social institutions. This talk is part of a series of insights on how to use the epistemology of Artificial Intelligence to understand the nature of our minds

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Joscha AI researcher, cognitive scientist at MIT Joscha Bach studied computer science and philosophy in Berlin and New Zealand before embarking into Artificial Intelligence. He obtained his PhD in 2008 from the Institute of Cognitive Science in Osnabrück, founded IT companies and works at the MIT Media Lab and Harvard University in Boston, USA. He is the author of the cognitive architecture MicroPsi; his main interests involve Artificial General Intelligence and computational models of cognition and motivation.

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SADIE PLANT

Sadie Plant is Director of the Cybernetic Culture Research Unit at University of Warwick/UK and according to the newspaper The Guardian "probably the most interesting woman in the UK".

"Information War in the Age of Dangerous Substances" @ Public Netbase Media~Space, April 22nd 1998

<http://www.t0.or.at/sadie/drugs.htm>

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<https://www.youtube.com/watch?v=nXV4nTfGHuI>

radio jamming / mind control / EM frequencies / radiation / radio control / politics / mass control / HV / interference / noise / censorship / networks / political unwanted content / soviet / international law / transmitters / signals / speech synths / psychologically nuisance / receiver / jamming transmitters / decipher /

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<http://www.phantom.co.il/page.aspx?cat=48&cat-sub=152>

more about jamming

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<http://www.turing.org.uk/sources/wmays1.html>

alan turing / computers and mind / computing machinery and intelligence / neural networks / AI / morphogenesis / the mind/machine problem cannot be solved logically / universal machine / machine-brain analogy / brain cell agglomerations - bosy mechanics / EGG analysis /

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<https://www.evolution.com/futurist-transhuman-news-blog/neurohacking/iq-mindware-rewire-your-brain-get-smarter-push-your-limits-5.php>

transhumanism mind ware agi artificial general intelligence remote viewing military experiments

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<https://www.igmindware.com/>

<http://criticalposthumanism.net/about/>

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mind-machine

transhumanism

cyborgism

[https://en.wikipedia.org/wiki/The\\_Ghost\\_in\\_the\\_Machine](https://en.wikipedia.org/wiki/The_Ghost_in_the_Machine)

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sherry turkle

infant dolls

automata

behaviour

ontology of machine

cognition

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<http://archivecrfip2lpi.onion/details/TheImpactOfScienceOnSociety-B.Russell>

Bertrand Russell was a "scientific consultant" to evil psychopaths who wanted to run a world tyranny. In this book, he lays out a framework for a "scientific" global dictatorship, and ponders the intricacies of bringing it about, while blithely penning his sociopathic rationalizations for moving forward with it.

<https://www.metanexus.net/h-ship-fools-why-transhumanism-best-bet-prevent-extinction-civilization/on>

transhumanism and genetic engineering

with references of Fukuyama, 2002. Our Posthuman Future: Consequences of the Biotechnology Revolution, Farrar, Strauss, Giroux

i found a strange concept anarco-transhumanism

[http://lfbg75wjgi4nzdio.onion/f/Anarcho\\_Transhumanism](http://lfbg75wjgi4nzdio.onion/f/Anarcho_Transhumanism)

<https://hackernoon.com/biohack-your-intelligence-now-or-become-obsolete-97cdd15e395f>

aggressive bioenhancement of human abilities Enhanced posthumans / Unenhanced humans  
Intelligence = ability to accomplish complex goals There exist a number of medical and lifestyle interventions that can significantly enhance everyday intelligence. Modafinil, SSRI microdoses, MDMA, hormone signaling, optimal sleep, mitochondria-enhancing exercise, isolation from addictive news/social media, and lots of other things. The Singularity High Applied Intelligence building intellectual, financial, social and physiological wealth cryofreeze/ cryogenics

enhance neurogenesis with lithium \*(recommended to bipolars) improve stress resilience

GIST

transhumanist post-apocalyptic dark futurist cyborg prosthetics with cyberbrains

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<https://www.cnet.com/news/elon-musk-says-an-awesome-neuralink-update-is-coming-soon/Neuralink>

brain-computer

Elon Musk says an 'awesome' Neuralink update is coming soonThe device linking the brain with a computer could be implanted in a human for the first time later this year.brain computer interface tech