



## **Hacking into sonic algorithmic aesthetics.**

**On noise, silence, sound, voices and music in the age of AI**

**Think Tank II with Prof. Dieter Mersch (ZHdK, Switzerland); Dr. Hanns Holger Rutz (University of Music and Performing Arts (KUG) Institute of Electronic Music and Acoustics (IEM), Dr. Miguel Marques Cardoso, Alexander Gerner (CFCUL), Vinicius Jonas (CFCUL)**

Org. by Philosophy of Human technology//

Hacking Humans. Dramaturgies and Technologies of Becoming Other

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This Think Tank is a take on the sonic technological condition in cultures of digitalisations, that push further the limits of mathematization and algorithmic influence in the making of our digital selves and aesthetic social experiences (such as by automatized personalisation and identity strategies in listening and production of aesthetic experience- as for example shown in aesthetic recommendation strategies of listening to music and watching films -Netflix and Spotify/ Dazer or algorithms to reduce stress or other apps (e.g. Endel) that puts the listener into a resonant state of mind) in which pre- and posthuman quantification, big data analysis and acceleration of computing power and simulation strategies enter the field of arts, aesthetic and sonic production and music composition/ performance/ listening/ experience. How does the field of computer music or AI endowed sound algorithms and machine learning transform the condition of human music production or listening strategies and how do they relate to or change music's mediality and performative dimensions, such as in co-AI-endowed compositions or in human-computer/ robotic/ AI stage performances or transformations of states of embodied minds? Can we hack these new technological approaches by reflecting and experimenting with immersive experiences of sound or the strategy of pure or reduced listening as opposed to causal or semantic listening? Can sound and noise be an interruption, bifurcation or crossing out, a scandal and outburst of pure temporality as in the face-to-face encounter of the other (Lévinas) or the voice or word? What are musical counterpoints such as silence (Cage) when we temper with the un-programable sound or music or social aesthetic resonance practices? How can these hacking methods inform aesthetic and social production in an age of electro-acoustic programming, AI-endowed compositions and human-machine/AI co-performances? Could *noise* even be a sonic experimental-reflexive practice, rather than a reduced information concept? In how far can we have the possibility of unpredictability, glitch and *unconceptuality* while tempering with musical digital networks? Hacking is understood here as a sonic method of probing, re-composition, improvisation and investigation in the sense initially proposed by P.R.Samson, of an unconventional application of technology that may enhance the potential of human experience by multiplying its energy, by transforming its habitual uses to open up new perspectives of interacting with and becoming an "Other".



## **Philosophy, Science and Human Technology of Music, Sound, Noise, Resonance**

***Workshop/Thinktank Series organized by Alexander Gerner and Vinicius Jonas (PhilHumTech; CFCUL)***

Music, Sound, and Listening have always been sources of powerful theoretical insights and give rise to a rich history of artistic, technical and social human praxis. Several notions and scientific concepts are derived from musical/sonic/acoustic as well dynamic phenomena and practices that proliferate in various modes of thinking and making sense of or even changing the existing world. Besides the relation of acoustics and phenomenology of listening or music and mathematics as well the debate on informational noise and resonance, Epistemologies of aesthetics and aesthetic practices can be contrasted and applied with scientific concepts such as entropy, synchrony, entrainment among others. From artistic practices and theories to physics and biology, from metaphysics to mathematics, from phenomenology to social sciences, from philosophical cognitive to experimental Neuroscience one can identify a manifold of musical/sonic diagonally related concepts and metaphors being employed, such as noise, resonance, oscillations, synchronicity, improvisation/composition, consonance/dissonance, syncope, theme. Music-related practices can function as a rich laboratory to investigate topics such as interaction and participation (human-human, human-machine, machine-machine), subjectivation/ socialization, embodied techniques and technologies, non-conceptual forms of communication and political action, as well as thinking with sounds, schemas, diagrams and musical or sonic themata. Broadening these approaches to resonances, syncope and interferences in anthropotechnical and social theory spheres we aim to clarify further how the fascination with aesthetic, acoustic and electromagnetic concepts can be made productive in interdisciplinary praxis fields such as (performative) arts, complexity sciences, the humanities, social (cognitive) sciences and praxis in society in order to renew the techno- human condition from hacking into a sonic point of view. This may as well include noise and information accounts, negentropy or embodied sense of listening dependent on body postures and gestures, the fitting of awareness of tones, sounds and sound combinations in the physical attitude, sonic ecologies of a precognitive ground of experience, and epistemologies of noise, in which “noise” may even provide for unpredictability inherent in information that innovates the state of given knowledge.

*The workshop series part of the project Hacking Humans. Dramaturgies and Technologies of becoming other inserted in the research line **PHILHUMTECH** and which develops studies in philosophy of technology that account for (a) how recent, emergent and convergent technologies constitute, magnify, amplify human experiences or put autonomy, personhood, freedom, privacy and human life at risk and describe its techno-anthropologic, philosophical, ethical, policy consequences. How should policy and the public be advised in questions of technology, if technologies and techniques redefine the proper constitutive layers of being human and its proper (inter-) actions, development and the future of humanity (b) How do instruments, tools, devices and apparatuses as well as systems and techniques and bodily senses in their inventive poetic actions and kinetic movements (e.g. gesture and diagrams) and aesthetic qualities produce and transform human knowledge, experience and social life. (c) develops further case studies in a philosophy of human enhancement. As its main goal this workshops series aims to promote presentations and discussions, hands on hackathons and dialogues centered on music/sonic-related theories, concepts, technologies, and practices being put to use as instruments to do research on contemporary philosophical, human technological, scientific and artistic issues.*



## Hanns Holger Rutz

Dr. Hanns Holger Rutz (b. 1977) studied computer music and audio engineering (TU Berlin) and holds a Ph.D. in computer music (Plymouth University, UK). Since 2013 he works at the Institute of Electronic Music and Acoustics (IEM) Graz. Rutz participated in the FWF projects “Patterns of Intuition” on algorithmic composition and artistic research, and “SysSon” on sonification research, and currently he is the P.I. of Algorithms that Matter (ALMAT), a research project hosted by IEM/KUG, Graz, that tackles theoretically and artistically the following main question: “How can art contribute to understand the increasing influence of algorithms and translate them into aesthetic positions?” In his artistic works (installations, live improvisations, and electroacoustic compositions), experiments with software and algorithms are also an important element. Some of his recent publications include: “Algorithms under Reconfiguration” (2018 / Leuven University Press) and “Escaping, Prolonging” (2017 / Graz esc media art laboratory). More info at: <https://almat.iem.at/team.html>, and <https://www.sciss.de>.

## Miguel Marques Cardoso

Dr. Miguel Marques Cardoso (b. 1978) completed his Ph.D. studies in 2015 at the School of Arts (Porto) with a thesis entitled “Composing Interactive Music Systems”, that aimed at establishing new methodologies and programming paradigms for computer-based interactive music practices. Before that Miguel Cardoso studied Communication Design at Faculdade de Belas Artes (Porto), and collaborated with the company Bestiario (Barcelona/Lisbon), in the area of data visualisation, as well as with Fractal Labs LDT/AG. Besides working as a researcher in the areas of Computer Music and Design, Miguel Cardoso has also taught as assistant professor at Faculdade de Belas Artes (Lisbon). In his academic and artistic practices, Miguel Cardoso deals with the following areas: design and web technologies, data visualisation, electronic and electroacoustic music, and computational media.

## Dieter Mersch

Prof. Dr. Dieter Mersch (b. 1951) studied mathematics at the University of Cologne and Bochum and holds a Ph.D. in semiotics in philosophy (TU Darmstadt). He has worked as Professor and Guest Professor in various institutions such as the School of Arts in Kiel, University of Potsdam, University of Chicago, and State University of São Paulo. Currently, Prof. Dr. Mersch is Professor for Philosophical Aesthetics at the Zurich University of the Arts (ZHdK) and the head of the Institute for Theory (ith) at the same university. Prof. Dr. Mersch is the President of the *Deutsche Gesellschaft für Ästhetik* <http://www.dgae.de/> and has published several influential books in the areas of media theory and aesthetics, such as “Was sich zeigt: Materialität, Präsenz, Ereignis” (2002), “Medientheorien zur Einführung” (2006), and “Ordo ab Chao” (2013), and has also co-organized publications such as “Logik des Bildlichen. Zur Kritik ikonischer Vernunft” (2009), “Bild. Ein interdisziplinäres Handbuch” (2014), and “Programm(e)” (2014). Publications available in English, include the books “Logic and Structure of Computer Game” (2010 / organised with Stephan Günzel) and his monography “Epistemologies of Aesthetics” (2015). Prof. Dr. Mersch is also the Editor-in-Chief of the Annual Book for Media Philosophy (publication in German). More info at: <https://www.zhdk.ch/person/181500/> / <http://www.dieter-mersch.de/>