Abstracts for Sonic Machines

Jacob Remin and Anders Carlsson. robot music

Abstract: "robot music" is an ongoing robotic research project initiated in 2017 between artists goto80 and jacob remin centered around automation, creation and loss of control.

central to robot music, is robotic arms that play music on a commodore 64 and other sound machines. while the robot performs, we sit next to it to talk to people about robots being "creative" and "stealing our jobs".

also central to this project is the conversation. we find the installation to be a perfect "conversation piece" for engaging with the audience in their dreams and fears of the future. but more than this, we would also love to collaborate with researchers and other artists on the subject of automation and art, and we could see ourselves facilitate different discussions during the conference in connection with the installation.

it is possible to tweak this project in many different directions: the robot has already successfully performed at a rave, so setting up a performance in connection with EVA copenhagen would also be possible. this project is ongoing and open and we are into loosing control and experiencing the unexpected here: so we are very interested in collaborating with researchers, institutions and other artists on the project. please let us know if you see any possibilities for this!

more information and documentation here: www.jacobremin.com/robotmusic

Thomas Grill, Till Bovermann and Almut Schilling. Embracing the temporal deterioration of digital audio - A manifesto

Abstract: Most of today's media output, be it audio or video, is produced and stored in the digital domain. Although digital data are adorned by the myth of lossless transmission and migration, everyday experience does prove the existence of degradation and, ultimately, data loss in various forms. This pertains to the physical nature of storage media and playback devices as well as to media formats and software in the context of their technological infrastructure.

Since degradation cannot be avoided by principle, we propose alternative perspectives on its nature and implications, specifically for the domain of digital audio. Therewith, we unearth latent degrees of freedom pertaining to the artistic practice with sound in the omnipresence of decay,
- conceptually, by understanding, accepting and integrating the fact of decay,
- practically, by researching its causes and effects, and proposing feasible methods to cope with degradation in the digital audio medium,
- technologically, by developing and prototyping (digital) audio tools with specific degradation characteristics, and,
- aesthetically, by presenting our own approaches to embodiments of decay in works of sound art.

We hypothesize that by providing pertinent knowledge and respective means to work with digital degradation in a constructive fashion, we will turn its inevitability from being a source of irritation and ignorance into a source for aesthetic choice.

Prior to working out approaches as to how to embrace its nature and make use of it by artistic means, it will be essential to understand theoretical fundaments and to elaborate on causes, mechanisms and effects of deterioration. Questions are: How can degradation effects be understood, actuated, reproduced, directed and harnessed within sound art? Which are the mechanisms and implications of obsolescence found in hard- and software? How can we model the process of decay in the digital domain, and what are its products and residues? What is the impact of the environment, esp. human interaction? To which extent are (digital) artworks products of their material sources or their symptoms of decay?

We will formalize the research on these subjects in the context of our "rotting sounds" project, recently funded by the Austrian Science Fund (FWF). To set up this project, we will conduct formal research on the fundaments of data degradation, and will organize five topical workshops in order to generate novel ideas and concepts. We will further develop a low-level digital audio toolkit on which we will base our experiments on deterioration in all its conceivable forms, regarding technical components such as data carriers, electronic circuits, algorithm logic and language, as well as aesthetics and meaning in the form of musical content. A selection of experimental prototypes will be produced as artworks, and exposed to the public in the form of performances and exhibitions over long durations and/ or in demanding environments. Written publications and a symposium will reflect on the project's concepts, results and repercussions.

The manifesto shall represent an introduction to our endeavor for interested observers, as much as it shall form a concise guideline for us carrying out the research.

Thomas	Grill	gr@grrrr.org	Austria	University of Music and Performing Arts Vienna	http://grrrr.org	✔
Till	Bovermann	lfsaw@lfsaw.de	Germany	University of Applied Arts Vienna	http://tai-studio.org	
Almut	Schilling	almut@abitpreservation.net	Germany	Academy of Fine Arts Vienna	http://www.abitpreservation.net	

John Richards. Speculative Sound Circuits

Abstract: A pocket calculator meets the Dirty Electronics Bed of Nails. A hardware mash-up originally based on mere fiction. But can these two circuits be combined to make music? This paper describes an object-orientated or object-based approach to the creation of electronic music, and how speculative, rather than technical approaches towards the design of musical instruments can lead to a new artistic practice. A part-playful, part-absurdist methodology is applied, where unlikely or disparate technological devices and objects are speculatively combined to make a sound-based

performance. This goes beyond approaches found in circuit bending and hacking and encourages the notion of object transformation and hybridisation. Both outer (knobs, switches, dials, etc.) and inner (electronic circuit) parts of devices are recontextualised. There is a deliberate, preconceived intention to disregard technical knowhow in terms of circuit design to create a tabula rasa for electronic music. The speculative nature of the method and the heightened sense of risk concerning sound or musical outcomes are seen as critical parts of making and performance.

Speculative sound circuits builds on the theoretical frameworks of DIY and maker music culture, David Tudor's composing inside electronics, the idea of objecthood found in the works of John Cage, and, borrowing from Brian Eno, oblique strategies for composition and performance. Anthony Dunne's notion of post-optimal object is also discussed as an important milestone towards the creation of new speculative performance paradigms in electronic music. Parallels are made with the instruments and work of Percy Grainger; and Garnet Hertz's Critical Making, where making and speculative circuits are seen as a modus operandi for critiquing technology and society. Dirty Electronics' Making for Radio is used as a specific example detailing a speculative sound circuit. In this work, a pocket calculator is chosen as a common or garden technological object that in general sits outside the domain of electronic music making. The Casio fx-19 and fx-102 scientific calculators and the Rockwell R8 calculator where used with the Dirty Electronics Bed of Nails: a prototypic, DIY noise circuit using a feedback network, and made with wood, nails and wire-wrapping techniques.

As such, speculative sound circuits place an emphasis on making as a procedual part of performance: it is only through the process of investigation, exploration and research of the circuit/object that the music/performance are found or realised. What constitutes musical instrument or sonic apparatus is also put up for grabs. Musical instrument becomes assemblage, where a collection of 'things' is explored through relationships. Consequently, the distinction between 'the work' and 'the instrument/machine' to enact the work becomes blurred. Paradoxically, there is a reinvigoration of technique and focus on machine aesthetics as a result of the problematising of electronic sound circuit through speculation.

http://www.dirtyelectronics.org

Jukka Hautamäki. Interfacing in live electronics performances.
Abstract: Finnish media artist Jukka Hautamäki will be talking about how he makes live electronics sound performances with his diy instruments.

Through his practice Hautamäki considers the relationship between modern hardware hacking with similar practices of the 60's and 70's, and during his talk will also speak about these influences and his relationship to media art history and media archeology.

Hautamäki's sound performances are microscopic studies into electronic sound. His live setup consists of primitive sound devices, which he manipulates in real time by changing components and reconnecting circuits.

Live setup is an abstraction of a sound machine divided into miniature components, which all have their specific task. Together these sonic components are creating vast network of tools for experimental performance.

In his live electronics performance practice he experiments with interfacing, by integrating bodily performance with media technology. Hautamäki will adress the concept of "forced" improvisation: his intentional challenge of using laborious interfaces, and turning chaos and trash-aesthetics into instruments of live electronics and inventiveness.

During the performances unexplainable electronic phenomenas happen, to which he is trying to react by improvising with sound. He is curious to study methods for creating sonic narration in relation to magic and hauntology.

BIO: Jukka Hautamäki (b. 1971 in Oulu) is a Helsinki-based media artist who works with sound, light, moving image and electronics. In his artworks, he studies new levels and interpretations of materiality, mediated by technology and media.

Hautamäki has performed live in Europe and North America. Performance venues include La-bas Biennale, Lal lal lal and AAVE festival in Helsinki, Ges21 in St. Petersburg, Mengi in Reykjavik, Avatar Centre in Quebec City, Electric Knife in London, Madame Claude in Berlin, CT-SWaM at Fridman Gallery, Harvestworks and Trans-Pecos in New York. His music style could be described as abstract noise with a rhythmic twist.

Hautamäki has kept numerous interactive sound art and electronics workshops, courses and lectures in Europe and North America. More information: jukkahautamaki.com