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# Rana Hamadeh Standard\_Deviation II

July 7 to October 3, 2022

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Rana Hamadeh's *operatic* practice blurs the boundaries between art, theater, and exhibition-making and tests out different models for collective thinking and study. Her years-long projects evolve in sequential chapters, manifesting as large-scale sound compositions with complex network designs, machinic interactions, audiovisual installations, stage sets, texts, and conversations. Her work mainly thinks through the infrastructures and technologies of justice—linguistic, legal, and performative—understanding *justice* through the modalities of measuring, spectacle, and "machinic opera."

Hamadeh's solo exhibition *Standard\_Deviation II* will occupy the entire Edith-Russ-Haus for Media Art. It comprises a new time-based sonic, visual, and networked-media installation that extends over the building's two floors, turning the exhibition spaces into one living, breathing theatrical machine. This tentacular, cacophonous installation is the latest in Hamadeh's *Standard\_Deviation* series, part of the longstanding discursive umbrella project *The Destiny Project* (2020-).

*The Destiny Project* is invested in exploring modalities of production, consumption, circulation, and articulation of desire within the contemporary global public discourse. It attunes itself particularly to the economies, technologies, and destinies/destinations of desire as manifested in, and shaped by, fields such as predictive analytics and emergent practices related to data justice and algorithmic justice.

*Standard\_Deviation II* uses the foundational narrative of the Sophoclean tragedy *Oedipus Rex* as a device to consider relations of desire, reproduction, derivation, and self-similarity. Rather than renarrating the harrowing misfortunes of Oedipus, king of Thebes, whose grievous journey of self-discovery unfolds at the height of the Theban plague, the work conducts a reading of Sophocles's play itself—that is, a reading of Sophocles's "figuration of tragedy"—as a machine and technology of endurance.

Among other narrational interventions, this work shifts the focus from Oedipus to his father, who—as the myth says—is the original receiver of the curse-prophecy, following his alleged abduction, rape, and murder of young Chrysipus, the son of Pelops. This shift resituates the story as a "tragedy of reproduction by virtue of derivation and self-similarity": Is it every Oedipus's destiny to *become* their father? Every proxy's destiny to *become* its origin?

In *Standard\_Deviation II*, a series of automated operations rework historical

materials to address contemporary questions while simultaneously experimenting with visual and sonic languages to establish a new vocabulary connecting technology and myth. This transformation of 3D animated work into a time-based visual, sonic, and networked-media exhibition follows Hamadeh's continuous experimentation with the possibilities of remediation: how to allow one medium to insert itself into another and operate within it. This method amplifies, complicates, and destabilizes the audience's engagement with their own assumed and prescribed spectatorial role.

From dreams to trance, horror to phantasmagorical tableaux vivants, the fragmented visuals echo cut-scenes in a computer game. They translate the acts of *Oedipus Rex* into a series of virtual spaces, whereby the dream-like/nightmarish settings and disorienting audio map out, accommodate, and augment the tragedy's intense emotional journeys. As it does so, the work plots the topography of the ancient play's dramaturgical construct, following the crescendos and decrescendos of its strains and anxieties, temporal and psychological entanglements, and modes of address. All against a backdrop of parallel histories, fictions, symbols, codes, and relations.

A system of interplaying sonic zones and interconnected installations spanning the two floors of the Edith-Russ-Haus operate both as a structuring score to lead the audience's movement through the space and as a dramaturgical marker of the work's intensities. The real space of the Edith-Russ Haus becomes an extension of the architectural spaces that Hamadeh originally created for the 3D modeled worlds of the first chapter of *Standard\_Deviation*. A network of programmed devices intervene in this sonic and visual system, creating a bridge between the machines that are operative inside the animated film and the reality of the exhibition space. Cacophonous and immersive, the exhibition is carried out by interwoven narrational, affective, and machinic operations.

Timely questions arise from this very understanding of tragedy as proposed by Sophocles, surrounding the relations of desire and destiny and their economies of reproduction. *Oedipus Rex*, though an ancient text, today still lends itself as a rich tool not just to think through these relations but, even further, to situate them within conversations around technology and mediation. *Standard\_Deviation II* asks how, in a hyper-mediated social reality, we can articulate and address tragedy. Moreover, can such an extended approach to mediation and remediation allow us to not just experience the world differently but also desire it differently?

Rana Hamadeh was the 2021 recipient of the Media Art Grant from the

Foundation of Lower Saxony at the Edith-Russ-Haus.

As the exhibition consists of one huge interconnected multimedia installation, this time the visitor guide would like to provide reference text materials that make the mapping of the complexity of the installation accessible. These are the texts, stories and references the artist built into the libretto as a source of inspiration or motivation to think.

The installation consists of a Pianola, a Key Frame reader (the so called Organ book), a Hantarex screen, a poster on a light box—*Oedipus Rex*—or the privatization of grief (a video game into which the project will be developed), stereoscopic equipment with pictures, and microphones.

The installation operates not just with recordings but also with live transmission of text onto screen and live processing of audio with microphones.

#### A USER'S MANUAL OF THE PIANO PIECE BY RANA HAMADEH:

"This work is a 12-minute composition for a player piano. The desire to turn the composition one day into a piece that is playable by human pianists in front of a live audience shall not conflict with the fact that the work's tongue—if one allows themselves to engage with a musical score as they would with the materiality of speech—is to be operated, interpreted, spoken, and played exclusively by machines. So, to the human "machines" out there that are curious to play the piece: your muscle; your cartilage; your flesh is the score. Queer it. Bend it. Break it. Burn it. Lick it. You play. The score only ventriloquizes.

The perforated leporello-shaped card presented to you by this edition, and referred to as the organbook, carries an encoded part of the

score (nearly 50 seconds of the composition), which, theoretically, can be played by an actual piano player, as long as there exists a key-frame that can read it. The organbook, however, lends itself not only as a ready-to-play musical score, but just as much a sculpture, a wall rug, a queer zine, a meta-prayer, an embraced right to opacity encoded in and as "relation." For your reference, each organbook in this edition plays a different section of the composition. A full digital rendition of the composition, as well as the separate numbered parts that correspond to each edition, can be listened to via the included weblink.

The text, or "skin" chosen for this composition is the scripture of the first Qur'ānic instance of revelation, whereby the Archangel Gabriel demands that the Prophet recite—redeeming the reciting voice as the expression of God's script. God's script however, is not to be conflated with Qur'ānic scripture. For, it is the human flesh—the tongue, the lung, the teeth, the genitals – at the instant of recitation that presents the very document of God's script; is God's script that gets to be revealed to itself each time it recites "itself."

"The grammatical construct of the word *qur'ān* in the Arabic language—a derivative of the three lettered verb *qara'a* (meaning "he recited")—can be translated both as "recitation" as well as "that which holds the potentiality of recitability."

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*Al Qur'ān*, or, the *Qur'ān*—a singling-out of all that can be potentially recitable as human flesh and the totality of modes with which it can be recited—implies a claim to some sort of "universality": the *Qur'ān* becomes a score that claims to encode the vocal articulations from which all speech-sounds are derived, the closures and the articulation points of all that is spoken and speakable; positing itself therefore as the index and administrator of "all potential discourse." But what if the vocal tract is turned into a set of keys? What happens when the flesh becomes a humanly scripted code? In this work, I applied different paradigms of text encoding, as well as computational translations, transliteration, and transmission of text, and transformed the generated script into MIDI language (which is by nature "percussive"). I then conjugated the resulting percussive score through the text's semantic and prosodic constructs, forming the material and sonic principles of the composition. The MIDI score is cut onto an organ book, which operates the piano's notes and dynamics. The piano's playing, in an exhibition setting, is recorded live, and translated—live again—into text through the reverse engineering of the previous translation and encoding processes, hence allowing the Qur'ānic text (and incidental alterations of it resulting from a machinic hearing impairment) to show on a screen each time a new note is played. These operations, while not

changing the syntax of the Qur'ānic text, change both the interlocution and the interlocuter, allowing the machinic voice to bring about other questions related to the documental voice and its politics."

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On the stereoscopic images one can see a selection of still image, that are turned into a 3 D illusion while using these antique devices. The images are stills from the *Standard\_Deviation I* animation film that is visible in the Aquarium of the Edith-Russ-Haus , screened publicly every day after sunset.

One of the main historical and political references that fed to the libretto is the Childcare Benefit scandal in the Netherlands in 2021.

"Between 2013 and 2019, authorities in the Netherlands wrongly accused an estimated 26,000 parents of making fraudulent benefit claims, requiring them to pay back the allowances they had received in their entirety. In many cases, this sum amounted to tens of thousands of euros, driving families into severe financial hardship. The scandal was brought to public attention in September 2018. Investigators have subsequently described the working procedure of the Tax and Customs Administration as 'discriminatory' and filled with 'institutional bias'. [4] [5] On 15 January 2021, two months before the 2021 general election, the third Rutte cabinet resigned over the scandal following a parliamentary inquiry into the matter, which concluded that 'fundamental principles of the rule of law' had been violated." (from Wikipedia)

The report *Xenophobic Machines* exposes how racial profiling was

baked into the design of the algorithmic system used to determine whether claims for childcare benefit were flagged as incorrect and potentially fraudulent. Tens of thousands of parents and caregivers from mostly low-income families were falsely accused of fraud by the Dutch tax authorities as a result, with people from ethnic minorities disproportionately impacted. While the scandal brought down the Dutch government in January, sufficient lessons have not been learnt despite multiple investigations.

(Amnesty International report)

"Governments around the world are rushing to automate the delivery of public services, but it is the most marginalized in society that are paying the highest price."

—Merel Koning, Senior Advisor on Technology and Human Rights

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## EXECUTIVE SUMMARY OF XENOPHOBIC MACHINES

Discrimination through Unregulated Use of Algorithmic in the Dutch Childcare Benefits Scandal

Around the world, algorithmic decision-making systems are increasingly deployed to automate governmental tasks and to identify, detect, and punish people that meet predetermined profiles of alleged perpetrators and criminals. Many of these systems have been designed with a particular emphasis to combat fraud.

In the Netherlands, fraud in social security became a prominent theme in political debate during the 1980s and 1990s. Consequently, social security enforcement policies and administrative sanctions were intensified. The childcare benefits scheme was introduced in 2005. This scheme is enforced by the Dutch tax authorities, who subjected it to these harsh social security law enforcement policies and the administrative sanction system. In 2013, an algorithmic decision-making system for fraud detection was adopted: the "risk classification model". This algorithmic decision-making system included self-learning elements to create risk profiles of childcare benefits applicants who were supposedly more likely to submit inaccurate applications and renewals and potentially commit fraud. Parents and caregivers who were selected by this system had their benefits suspended

and were subjected to investigation. The tax authorities had to prove the efficiency of their data-driven fraud detection methods, including the algorithmic decision-making system, by seizing enough funds from alleged fraudsters to cover the costs of the operation. This challenge created a perverse incentive to seize as many funds as possible, regardless of the correctness of the fraud accusations. Parents and caregivers were requested to provide additional evidence to prove their entitlement to benefits. However, when they tried to find out what information was considered incorrect or false, or what evidence was deemed missing, they were often met with silence; the tax authorities consistently refused to clarify their decisions. It was also impossible for parents and caregivers, journalists, politicians, oversight bodies and civil society to obtain meaningful information about the existence and workings of the risk classification model.

As a result, a national scandal ensued in which tens of thousands of parents and caregivers were falsely accused of childcare benefit fraud by the Dutch tax authorities. The Dutch childcare benefits scandal was brought to public attention in 2018 and is an ongoing political scandal in the Netherlands today. It led to the fall of the Dutch Cabinet in 2021. The scandal involved improper government action, including but not limited to harsh rules and policies, rigid interpretations of laws,

unjustified accusations of fraud, ruthless benefits recovery policies, obstruction of legal and investigative procedures, inadequate and incorrect information, opacity of the childcare benefits fraud system, and the failure of the Dutch authorities to take action in response to people who raised the alarm.

Parents and caregivers who acted in good faith and accidentally made minor administrative errors on applications or renewals were wrongfully accused of fraud. A missing signature on the childcare services contract or a late or incomplete payment of the mandatory personal contribution had severe consequences. Parents and caregivers had to repay large sums of money (payable immediately and in a lump sum) and were labeled as fraudsters. This led to devastating financial problems for the families, ranging from debt and unemployment to forced evictions because people were unable to pay their rent or make payments on their mortgages. Others were left with mental health issues and stress on their personal relationships, leading to divorces and broken homes.

The scandal also included racial profiling by the risk classification model, which is the focus of this report. The tax authorities used information on whether an applicant had Dutch nationality as a risk factor in the algorithmic system. "Dutch citizenship: yes/no" was used as a parameter in the risk classification

model for assessing the risk of inaccurate applications. Consequently, people of non-Dutch nationalities received higher risk scores. The use of the risk classification model amounted to racial profiling. The use of nationality in the risk classification model reveals the assumptions held by the designer, developer and/ or user of the system that people of certain nationalities would be more likely to commit fraud or crime than people of other nationalities. It is also indicative of the tax authorities' perception that there is a link between race/ethnicity and crime, as well as an acceptance of the practice of generalizing the behavior of some individuals to all others who are perceived to share the same race or ethnicity.

Nationality was used as a constitutive element to pinpoint certain societal groups, based on the idea that these groups supposedly shared certain common cultural values, traditions and/or backgrounds that would make them more likely to engage in fraudulent or criminal behavior. Using nationality as a factor in risk scoring for law enforcement purposes in the search for potential perpetrators, or crime or fraud suspects, as was the case with the risk classification model, amounts to differential treatment based on ethnicity. This treatment of parents and caregivers with non-Dutch nationalities by the Dutch tax authorities resulted in racial profiling. Different layers of inequality

were created through discrimination based on people's race and ethnicity in the use of the risk classification model, combined with the policies and practices that more often affected people with a lower economic status, who frequently belonged to an ethnic minority. The childcare benefits scandal must therefore be understood through the lens of intersectional discrimination.

The risk classification model was a black box system that included a self-learning algorithm. Black box systems are algorithmic systems whose inputs and workings are not visible to the users of the system or to other parties. The civil servant (as the system user) did not have access to any details about what information had been used as the basis for assigning a specific risk score to an applicant. The self-learning algorithm gave the risk classification model the ability to learn from experiences over time, independently and autonomously, and to make changes to how it worked without these changes being explicitly programmed by the programmers from the tax authorities. The fact the tax authorities used a black box system and a self-learning algorithm obstructed accountability and transparency and were incompatible with the principles of good governance, legality, and the rule of law. The use, workings and effect of the risk classification model were hidden from the public for a long time. Moreover, due to opacity from the

tax authorities, as well as the lack of implementation and enforcement and/or the limited scope of transparency obligations stemming from international data protection law, parents and caregivers were deprived of meaningful information about the results of the risk classification model in their individual cases. They were unable to defend themselves against the system. This opacity obstructed the right to an effective remedy and violated the principle of good governance and the rule of law.

The Dutch tax authorities did not assess the human rights risks and impacts prior to using the risk classification model and did not mitigate any risks to prevent discrimination stemming from the use of the risk classification model. Oversight over the tax authorities' use of the risk classification model failed, due to the fragmented nature of the oversight, a lack of binding human rights oversight mechanisms, and the underlying opacity of the tax authorities.

While the Dutch government publicly disapproves of racial profiling, it continues to allow the use of ethnicity and other prohibited grounds of discrimination risk factors as a basis for suspicion and for decision-making in law enforcement. The lack of transparency and accountability of the tax authorities drove the victims of the childcare benefits scandal into a vortex of bureaucratic and opaque

legal procedures, with no effective remedies available to the parents and caregivers that were discriminated against with the risk classification model. In January 2021, the Dutch Cabinet announced a fixed amount of compensation for victims. The proposed compensation scheme does not take into account individual assessments and lacks any effective redress for the discrimination victims suffered as a result of the use of the algorithmic decision-making system.

—Amnesty International

## GLOSSARY

### ALGORITHMIC SYSTEM

A system which uses a set of mathematical instructions or rules that calculate an answer to a problem or question.

### ALGORITHMIC DECISIONMAKING SYSTEM

An algorithmic system that is used in (support of) various steps of decisionmaking processes.

### AUTOMATED DECISIONMAKING SYSTEM

An algorithmic decision-making system where no human is involved in the decision-making process. The decision is taken solely by the system.

### SEMI-AUTOMATED DECISION-MAKING SYSTEM

An algorithmic decision-making system where a human is involved in the decision-making process. Often these systems are used to select cases for human review or to assist humans in the decision-making process by providing information and/or suggested outcomes.

### BLACK BOX SYSTEM

An algorithmic system where the inputs and outputs can be viewed, but the internal workings are unknown.

### PROXY

In computer programming, a proxy is a feature that is correlated to something else. In algorithmic systems, a seemingly neutral feature (such as postal code) may be correlated with a protected characteristic (nationality or ethnicity).

### RISK CLASSIFICATION MODEL

An algorithmic decision-making system used by the Dutch tax authorities to score applications of childcare benefits according to the risk of inaccuracy.

### SELF-LEARNING ALGORITHMS

Self-learning algorithms give algorithmic systems the ability to independently and autonomously learn from experiences over time, and to make changes to how they work without these changes being explicitly programmed by humans

## BIOGRAFIE

Rana Hamadeh, born 1983 in Beirut, lives and works in Rotterdam.

In the course of her artistic Hamadeh develops long-term discursive projects research which she realizes in the form of theater performances, sound compositions, interactive audiovisual installations, system designs, and pedagogical arrangements. *Standard\_Deviation* is part of her long-term series of works called *The Destiny Project*. Since 2020, *The Destiny Project* has explores the production, consumption, circulation, and articulation of desire in contemporary global public discourse.

# OPENING HOURS

Tuesday till Friday  
2 a.m. – 6 p.m.  
Saturday and Sunday  
11 a.m. – 6 p.m.  
Monday closed

## ADMISSION

2,50 Euro / 1,50 Euro  
Free admission for students of  
the Oldenburg universities.  
Free admission on 16 July,  
27 August and 24 September 2022

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