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A Spectrum of Possibilities

A Catalog of Tools for Urban Citizenship in the Not-So-Far Future

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A SPECTRUM OF POSSIBILITIES

A CATALOG
OF TOOLS
FOR URBAN
CITIZENSHIP IN
THE NOT-SO-FAR
FUTURE



PUT ON MASK
FACE ID
VALUES
SET AIMS

Frequency of meat consumption per week
0 1 2 3 4 5 6 7 8 +9

Frequency of blood donation per year
0 1 2 3 4 5 6 7

Frequency of sport activity per wee
0 1 2 3 4 5 6

anima values
current data

A SPECTRUM OF POSSIBILITIES

A CATALOG OF TOOLS FOR URBAN CITIZENSHIP IN THE NOT-SO-FAR FUTURE

EDITED BY

Roy Bendor
Aadjan van der Helm
Tomasz Jaskiewicz

Delft, October 2018

INTRODUCTION

The velocity, tenacity, and complexity that characterize our times raise a significant challenge for designers and for those responsible for their education: how can we prepare the next generation of interaction designers to tackle the complexities and uncertainties that we face today and will face in the future? What kind of tools, techniques, and knowledge are necessary to untangle existing, and reshape future, sociotechnical relations? How can we encourage young designers to engage in their tasks with creativity, purpose, social awareness, and responsibility?

These questions motivate the project-based design course, Interactive Technology Design (ITD), part of the Design for Interaction (DfI) MSc program at Delft University of Technology's Faculty of Industrial Design Engineering. The course combines futuring techniques with fast-paced, iterative prototyping, aimed at creating tangible interaction experiences of speculative futures.

We have leveraged the 2018 edition of ITD as a vehicle for challenging our collective assumptions about the future of cities and citizenship. When big data is touted as the foundation of "smart" cities, and when new technologies ranging from self-driving cars to genetic engineering are bound to impact every aspect of urban life, a critical view on the consequences of these developments becomes more relevant than ever. Taking future Rotterdam as a case study, and in collaboration with the Horizon-2020 CAPS project, Open for Citizens, 34 teams of ITD students have designed and prototyped interactive "tools for urban citizenship". The resulting speculative futures presented in this book open our eyes to the effects that ubiquitous big data, combined with new futuristic technologies may have on the social fabric of our cities.

The site and 'real world' context for the course's speculative exploration is a future Rotterdam. A diverse, dynamic city, Rotterdam is considered a hub of social and technological innovation – truly a future-facing city. At the same time, the city is struggling with serious dilemmas concerning cultural diversity, immigration, socioeconomic inequality, and more. Each group of students was assigned one of Rotterdam's neighbourhoods and given an urban theme: energy, housing, health, natural resources, food security, and mobility. Groups explored their assigned neighbourhoods on fact-finding excursions, and used their findings to design prototypes that reflect the neighbourhood's character and address its specific challenges. Early prototypes were exhibited and tested by locals during the Future Flux Festival.

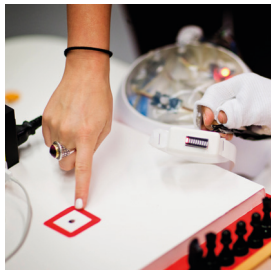
All in all, the 34 projects featured in this catalog provide us with a glimpse of what the future may hold for Rotterdam, but they also provide us with a window into the future of design. As the projects make evident, future designers may still be expected to solve complex problems, but as those problems become more and more 'wicked' – hard to define and difficult to untangle – communicating the future in provocative, imaginative ways will become inseparable from designing sustainable solutions for it.

We hope you find the projects as thought-provoking and inspiring as we do.

BRAINPOWER: THE ENERGY BRAIN GAME



In 2060 the price of batteries has gone through the roof. The inhabitants of Charlois, accustomed with making more with less, have invented a new way to generate energy from cognitive processes. The harder the user thinks, the more energy they can produce. Users can generate energy themselves by playing a game of chess with another user. But since the energy cannot be stored for long, they have to use the energy while the other player is thinking. Would experiencing playful energy dependency create a sense of community or frustration?





CITIZENSHIP CHALLENGES

Resource Distribution
Community Building

DATA THEMES

Energy Use and Production
Quantified Self

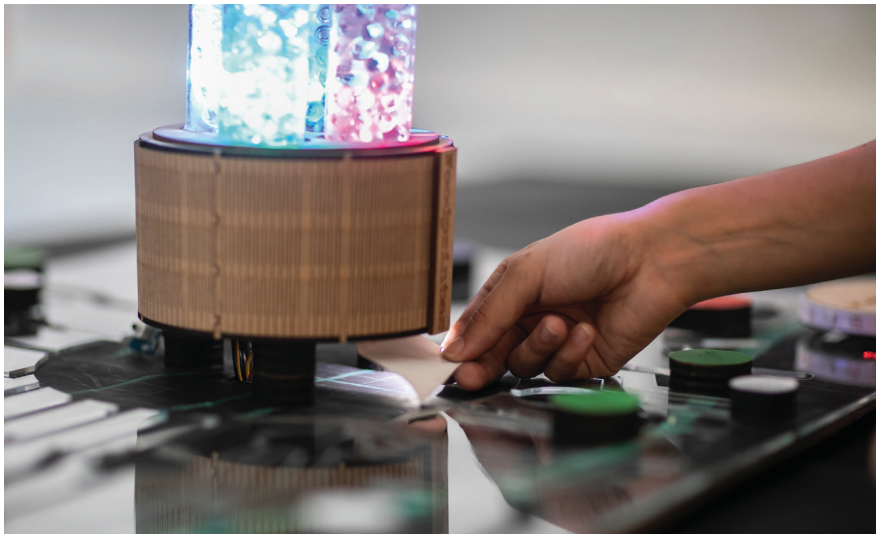


TEAM

Jaya van den Berg
Ying-Ju Chen
Frank Peeters
Jasna Zoričić







Charlois | food security

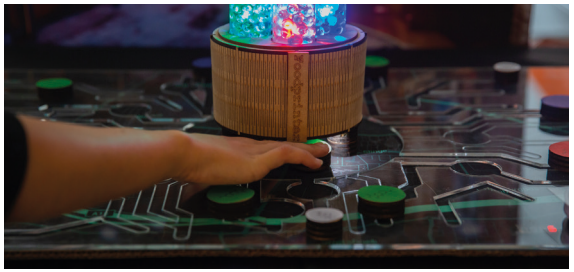
FOOD HACKING

In 2058, food printing at home has become common, but not all citizens have a sufficient amount of raw resources to load into the food printer. In the neighbourhood of Charlois, ingenious hackers have developed a way to collect more resources from nearby areas and add them to the food printing device. Users can experience what it means to hack and print their own food under a severe time limit, and discover in the process the moral consequences involved.

CITIZENSHIP CHALLENGES

Resource Distribution
Disruptive Technology
Hacking the City
Moral Clashes





DATA THEMES

Quantified Society



TEAM

Jasmijn de Boer
Xiaoying Chen
Carlos Precioso Domingo
Xinhe Yao





GOOGLE TRANSFEEL

In 2058 Google has added a powerful new feature to its very popular translation app, now designed as an interactive orb: emotional tone and context are added to verbal language, resulting in a much more holistic form of communication.

Citizens can experience this exciting new technology by engaging in a much more meaningful dialogue with people of all nationalities. How will they respond to their emotions becoming apparent to others? What else will the orb reveal about them?

CITIZENSHIP CHALLENGES

Disruptive Technology
Community Building
Personal Decision Making

DATA THEMES

Quantified Self
Social Credit







TEAM

Hao-Yung Chang
Tjitske Franx
Max van der Kroon
Esther van der Valk







Charlois | housing

SMART MIGRANTS DISPENSER

In the future, the government decided that every Dutch family was obliged to take an immigrant into their home. The process of matching immigrants to households is done by the smart migrants dispenser, one of which will be located in every municipality's town hall. Citizens are invited to experience the machine and find whom they will adopt. But if they are not careful and exceed the number of allowed choices, the machine will choose for them.

CITIZENSHIP CHALLENGES

Personal Decision Making
Moral Clashes
Regulating Physical Access
Community Building



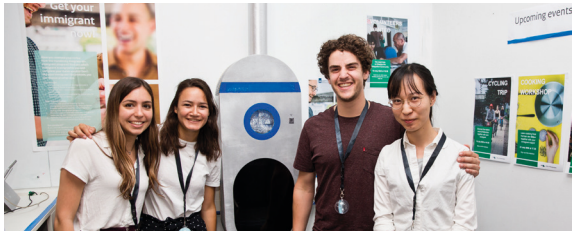
DATA THEMES

Social Credit
Access and Security

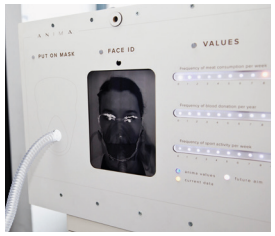


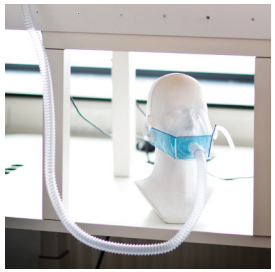
TEAM

Emil Flach
Sarah Kraanen
Maira Ribelles
Ziwei Li









CITIZENSHIP CHALLENGES

Moral Clashes
Personal Decision Making
Community Building



DATA THEMES

Quantified Self
Health Records
Social Credit

TEAM

Eveline Beukers
Pepijn van Houdt
Karin Tetteroo



Charlois | natural resources

VALORANIMA

In a future characterized by extreme pollution, access to clean air depends on people's values and behaviour. The more sustainable and community-oriented people's actions are, the cleaner the air they can consume, and the longer they may live. After signing a contract with the Charlois-based air provider, citizens can interact with the air distribution machine by making value-based choices about their behaviour and experiencing the consequences as changes in airflow. The experience is not recommended to the faint of heart.

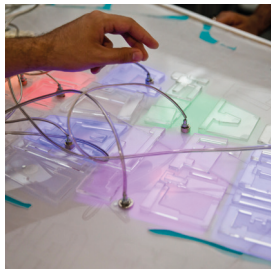


THE COMMUNITY ENERGY COUNCIL



In a future Rotterdam there isn't enough energy to go around. Because of that, the government has to allocate energy to neighbourhoods with the help of energy councils that negotiate and decide on energy distribution. Citizens are invited to represent Cool district on the energy council. Will they be able to negotiate successfully enough energy for the district's different businesses, or would the city's main shopping and entertainment district be left in the dark?





CITIZENSHIP CHALLENGES

Participatory Engagement
Resource Distribution
City-Level Decision Making

DATA THEMES

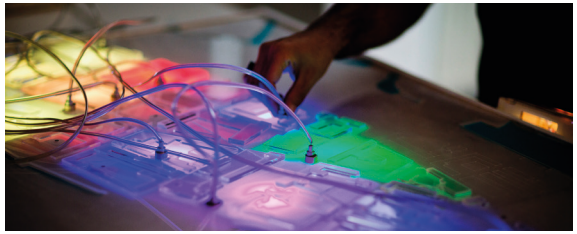
Energy Use and Production
Quantification of Citizen Value

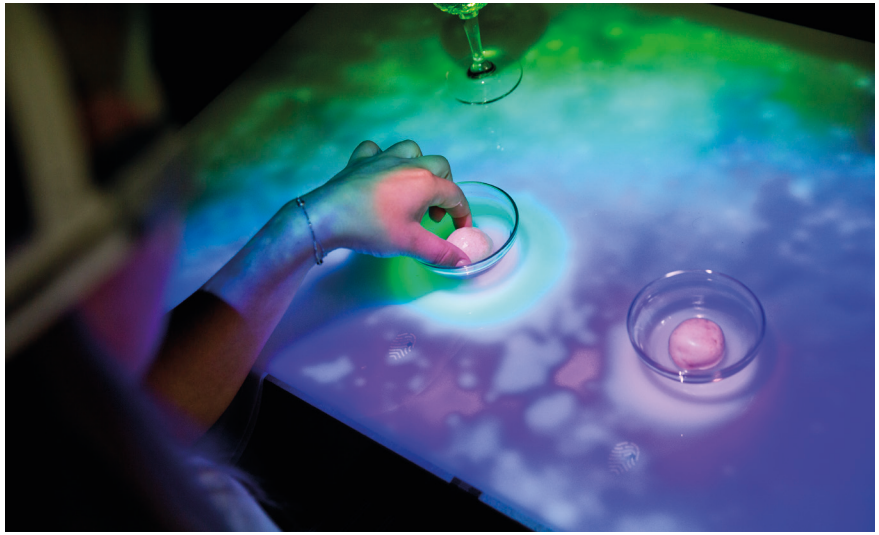


TEAM

Liz Espinosa de la Rosa
Ferkan Metin
Jimena Pérez Villegas
Emiel Wolf







Cool | food security

GUSTO:
THE ARTIFICIAL FLAVOUR EXPERIENCE

In the future, food scarcity will become so bad that governments will subsidize innovative food engineering in an effort to prevent mass starvation. Citizens will receive basic food rations made of cheap alternatives. The problem is, this food alternative is tasteless, odourless, and overall bland.

How would the restaurant sector in Rotterdam's Cool district respond? Users can find out by wearing the neuron-stimulating headset that tricks the brain into perceiving different flavours where none actually exist.

CITIZENSHIP CHALLENGES

Resource Distribution
Community Building
Hacking People





DATA THEMES

Quantified Self



TEAM

Sam van Eijk
Pablo Ferreras Chumillas
Jeroen ter Haar Romenij
Marianne Langrand (not in photo)







DESIGN-A-CHILD

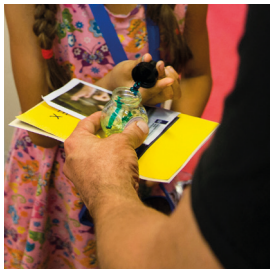
In 2060, genetic engineering has blossomed into a mature, global industry. Parents can now design their babies in chic boutiques in Rotterdam's Cool district. With all these new possibilities, the limit is only the expecting parents' imagination.

Citizens can experience being baby designers by playing with the available settings and considering the consequences. After all, who doesn't want the best for their children?



CITIZENSHIP CHALLENGES

Disruptive Technology
Moral Clashes
Hacking People
Personal Decision Making



DATA THEMES

Health Records
Economy



TEAM

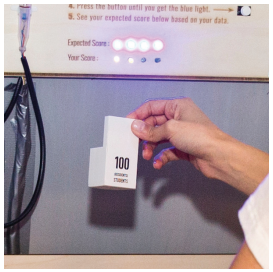
Wietse Bosch
Iris Hendriksen
Mark Janssen
Hannah Pak (not in photo)



THE BOX:
SAVE A LIFE – GET A HOME

A nuclear disaster has rendered parts of the Netherlands inhabitable, leading to overpopulation in an already crowded Rotterdam. Although the government has issued small capsules to help house all the newly arrived, the possibility to move to a bigger home exists. All you have to do is to participate in the governance of complex city problems. Citizens that in this way save many lives from nuclear poisoning, can move into better housing.

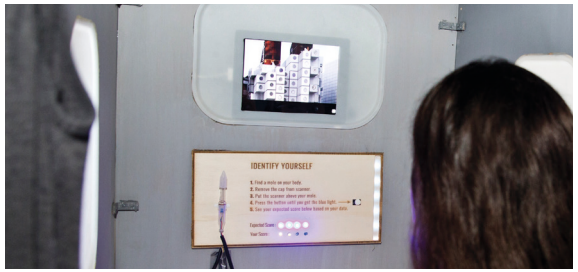






CITIZENSHIP CHALLENGES

Regulating Physical Access
Moral Clashes
Top-Down Governance



DATA THEMES

Social Credit
Access and Security



TEAM

Alara Bozbay
Maria Ntourmetaki
Maurits van Rossum
Sara Sundström Konradsson



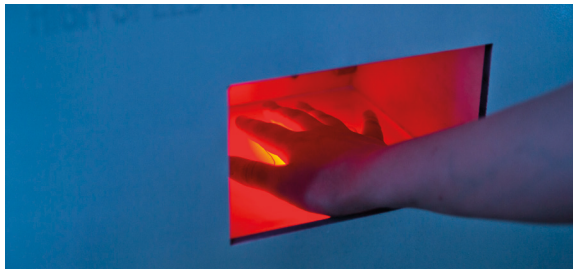


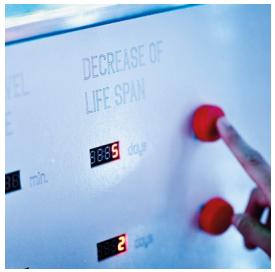
Cool | mobility

LIGHTWAY

In the future, Rotterdam has become a node in a global teleportation network. In order to keep the Rotterdam node active in the network, regular use of the facility is required. However, travelling in this way causes cellular deterioration.

Before boarding, passengers need to scan their body to find out how much they may age because of the trip. Citizens can experience the boarding monitor and calculate the anticipated damage. Will the ride still be worth it?







CITIZENSHIP CHALLENGES

Personal Decision Making
Disruptive Technologies
Regulating Physical Access

DATA THEMES

Health Records
Access and Security



TEAM

Evy Düsman
Eva Legemaate
Andrea Montella Lavin
Jooyoung Park





Cool | natural resources

WHISKEY & COLA: FASHION FOR THE ANTHROPOCENE

The latest rage in Cool district during 2060 is genetically modified cotton. This helps meet demands for luxury clothing in world in which overconsumption has decimated the cotton harvest worldwide. Unfortunately, allergic reactions to GMO cotton have risen as well. Citizens can find out how allergic they are to GMO cotton, and discover whether they too can enjoy the new fashion made of it.

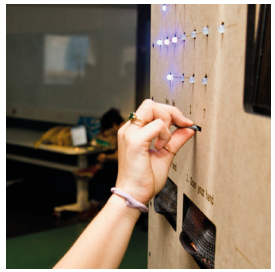
CITIZENSHIP CHALLENGES

Disruptive Technologies
Hacking People
Moral Clashes
Personal Decision Making
Manipulation Through Data

DATA THEMES

Health Records



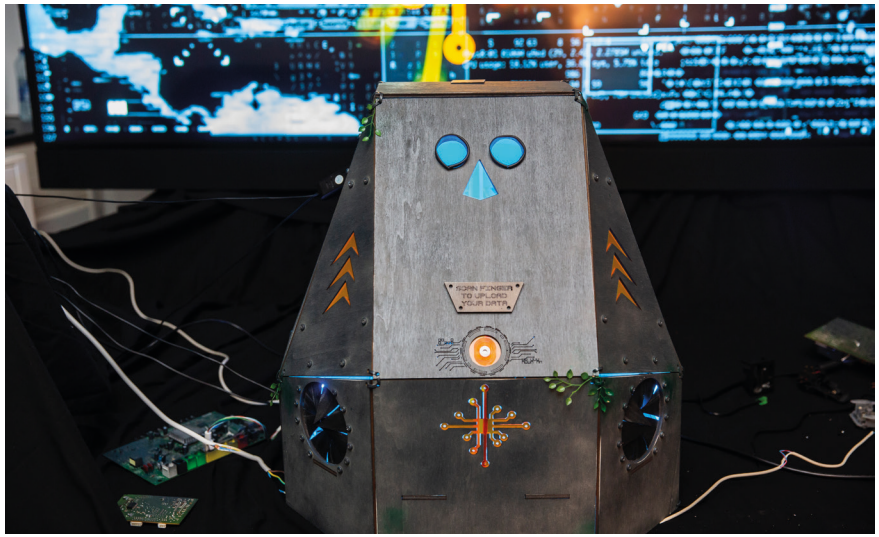




TEAM

Emma Hoogenboezem
Priscilla Lanotte
Tjapko Vermeulen
Nazli Yilmaz





HACK THE BLOCK(CHAIN)

By 2060 housing corporations will regulate their properties by using data profiles structured as a blockchain. If during a routine data analysis, the housing corporation detects irregular behaviours, residents are scheduled for eviction. Some might attempt to escape this by hacking into the blockchain and perform a data swap that would help keep their home. Will they be able to master the complex set of operations and deal with the moral implications of imposing eviction on others?



CITIZENSHIP CHALLENGES

City-Level Decision Making
Hacking the City
Manipulation through Data
Moral Clashes



DATA THEMES

Access and Security



TEAM

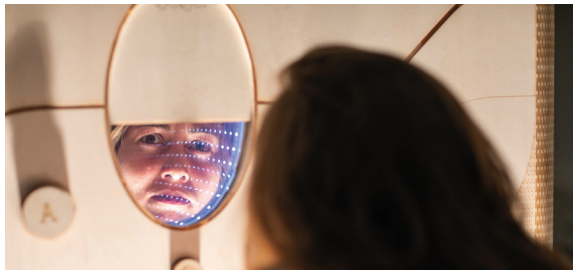
Hannah Kisjes
Eline van Terwisga (not in photo)
Martijn Verbeij
Maud Verheij



GATEWAY TO NEW ROTTERDAM



In the future, Rotterdam has become so overpopulated and impoverished that the well-to-do have established New Rotterdam as a more affluent municipality. Getting to New Rotterdam can be done quickly by using the newly installed hyperloop. The hyperloop gates, however, only allow the passage of those deemed “good citizens”. Citizens are invited to try out the hyperloop gate interface, reflect on six urban dilemmas, and find out whether they are permitted access to New Rotterdam.



CITIZENSHIP CHALLENGES

Regulating Physical Access

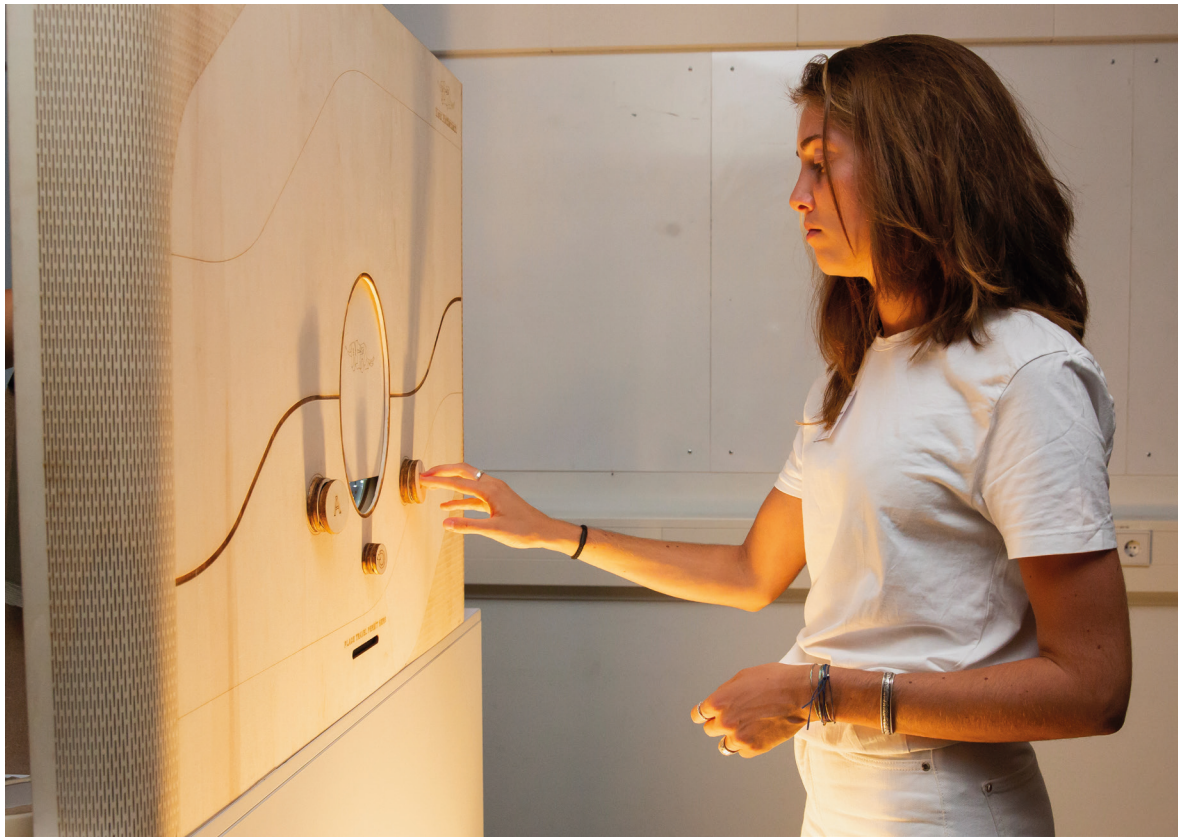
Moral Clashes



DATA THEMES

Social Credit

Access and Security



TEAM

Suzanne van Beek

Ellis Bots

Lara de Graaf

Rens de Graaf





NEW EXPRESS MARKET

In the future, the scarcity of energy has led to the creation of new mega-monopolies: energy companies have taken over the consumer product market. In Feijenoord, domestic goods are no longer sold in supermarkets but instead are now sold in vending machines that are owned and operated by the energy monopolies. Users can make a series of purchases through the store's vending machine, and learn that the special discounts offered for products manufactured by the energy companies instead of by competitors are literally irresistible.





CITIZENSHIP CHALLENGES

Resource Distribution
Top-Down Control
Manipulation Through Data



TEAM

Yancheng Du
Ilgaz Gülgec
Mingyu Liu
Nard van der Werff



DATA THEMES

Energy Use and Production



Feijenoord | food security

THE NEW McCRICKET

In 2058 eating meat has become almost impossible. Insects are now a major food staple, and are part of McDonald's everyday menu. While this may be better for the environment, it creates new ethical problem: what if your moral codes or religion forbids the consumption of insects? Will you be willing to pay the much higher price of meat only to maintain your values? Users can experience the dilemma by interacting with the smart machines that populate a replica McDonald's restaurant, including real live insects!





CITIZENSHIP CHALLENGES

Moral Clashes

Resource Distribution

DATA THEMES

Quantified Society





TEAM

Mert Bereket

Jesse Nijdam

Samira Miccolis

Qianqian Zheng

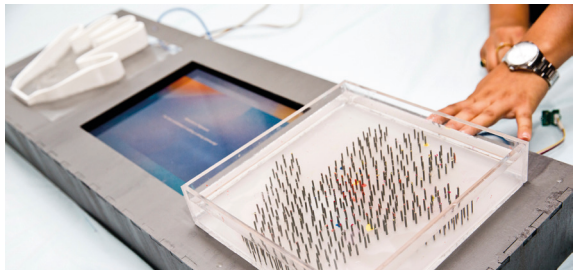


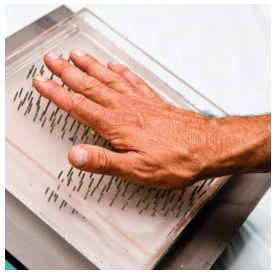


Feijenoord | health

THE MIXER

In 40 years, the prevalence of drug resistant viruses, made even more pressing by large waves of immigration, calls for new innovative solutions. In Feijenoord, the neighbourhood council has instated a mandatory DNA mixture program in order to create a stronger, more resilient community. Citizens can experience DNA mixing for themselves by donating their own genetic material and then receiving the more powerful mixed DNA in return. How willing would they be to give up their distinct characteristics to help their new community?







CITIZENSHIP CHALLENGES

Hacking People
Regulating Physical Access
Participatory Engagement
Personal Decision Making



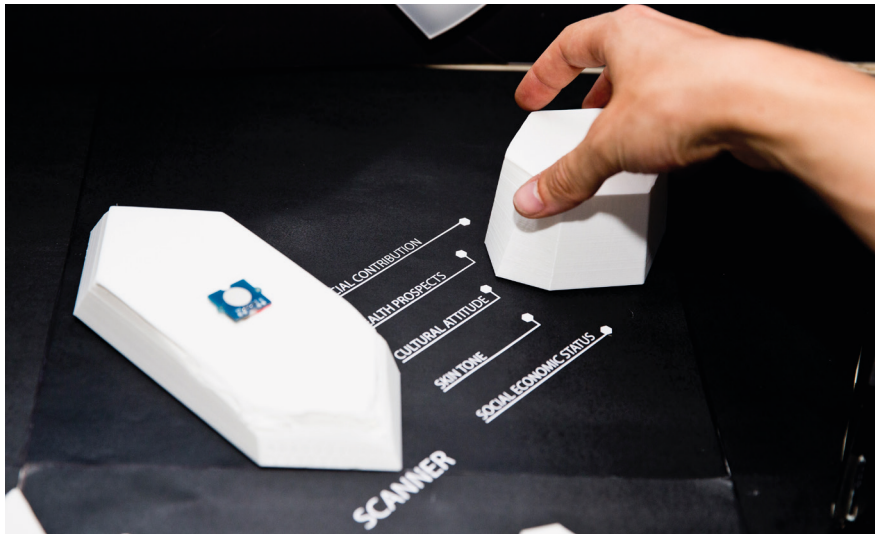
DATA THEMES

Health Records
Social Credit

TEAM

Yağmur Gökçe
Xiaomin Li
Vysali Somanchi
Etse Tselik





PASS: PROFILE ASSESSMENT SYSTEM

In a future overpopulated Rotterdam, Feijenoord's diversity has made it a very desirable place to live. To maintain that diversity, the local council has decided to regulate who can move into the neighbourhood by carefully analysing the candidate's genetic profile. Citizens can take the diversity test to find out whether their individual makeup would add to the neighbourhood's multiculturalism, or whether they need to find a home somewhere else.



CITIZENSHIP CHALLENGES

Top-Down Governance
Community Building
Regulating Physical Access
City-Level Decision Making



DATA THEMES

Access and Security
Health Records
Social Credit



TEAM

Meysa Boers
Guo Chen (not in photo)
Thomas Hazenoot
Marieke Noordermeer





Feijenoord | mobility

WATCHOUT

It's 2060 in Rotterdam, and those looking to escape the city's powerful surveillance system often go to the less regulated Feijenoord to have a good time. But now the neighbourhood itself is becoming less and less safe. Luckily people can purchase WatchOut: a new wearable the detects nearby danger and points in a safe direction to escape. Citizens can try out the watch in a simulated environment, but when the situations seem ambiguous, would they follow the watch's directions or follow their own intuition?



CITIZENSHIP CHALLENGES

Hacking the City
Personal Decision Making
Regulating Physical Access



DATA THEMES

Access and Security



TEAM

Jacco Bijlsma
Federico Rita
Loes Slöetjes
Yu Yin





Feijenoord | natural resources

TERRA PURIFICA

The soil in the future Feijenoord is so contaminated that it needs to be manually cleaned. Since this requires a large number of labourers, the government has stepped in and created a program that channels the unemployed to soil cleaning activities.

Citizens can experience the process of soil decontamination first hand, literally, and get a sense of what the work demands. Will they still be thankful for the work opportunity after discovering the cost to their own health?



CITIZENSHIP CHALLENGES

Personal Decision Making

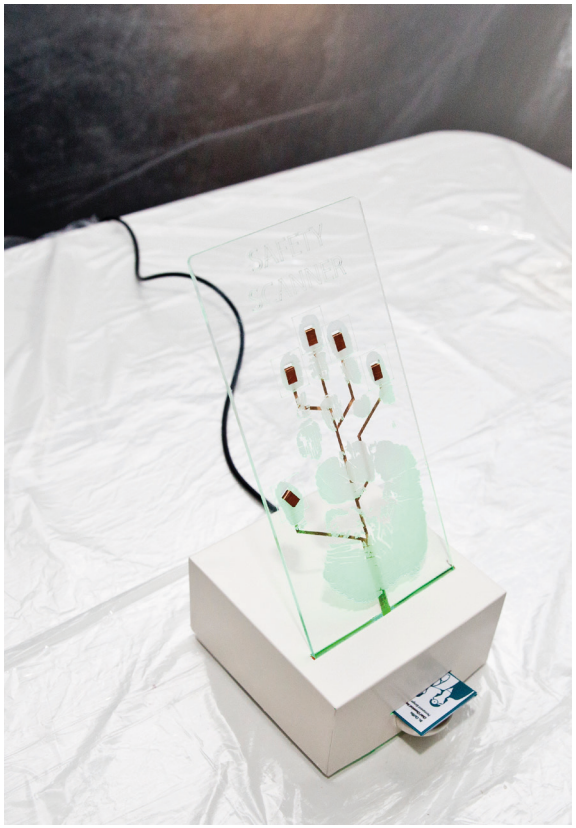
Moral Clashes



DATA THEMES

Health Records

Social Credit



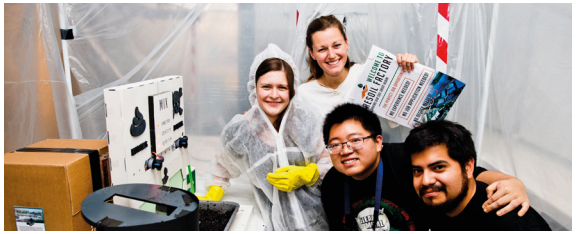
TEAM

Zhe Duan

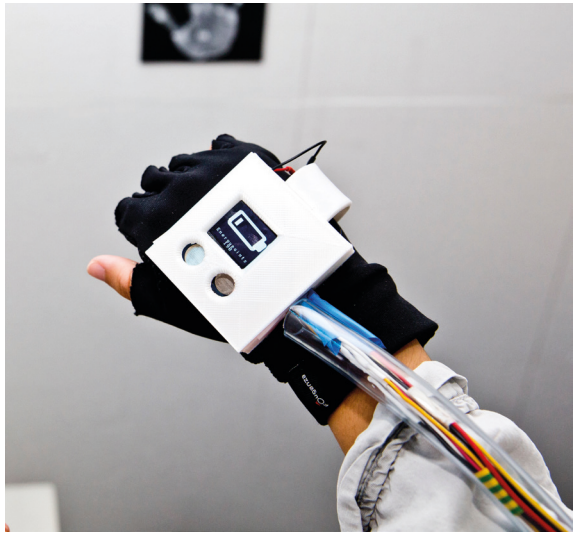
Floor van Gent

Cesar Lucho Lingan

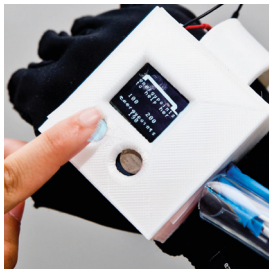
Maartje van Proosdij











Hillegersberg | energy

THE POWER PASS

In a future Hillegersberg, a shortage in resources has pushed the government to introduce new energy regulations: all energy is privatized and rationed daily. Energy use can only be permitted after scanning a personal, wearable power bank, and only if the user has enough energy credits at their disposal. Users are invited to experience the power bank through a variety of activities, including opening doors, accessing food, and turning on different appliances. But what happens once they are asked to transfer their energy credits to a family member in an emergency situation, and left in the dark without enough energy credits to use?

CITIZENSHIP CHALLENGES

Resource Distribution
Recourse Exchange
Personal Decision Making

DATA THEMES

Energy Use and Production
Quantified Self





TEAM

Claire Galjart
Bas Hilhorst
Wies Kruisdijk
Simon Visser





Hillegersberg | food security

BEE HELPFUL

In the year 2059 bees have gone extinct. Left with no other choice, humans have taken over the process of pollination to make sure that enough fruits and vegetables can grow. This is made possible by a smart pollinator glove that can detect if a flower's pollen can be harvested, or whether it has already been pollinated. Users can try out the new Synergy Polex V3, and see whether they can accumulate enough pollinating scores to gain a better social status.



CITIZENSHIP CHALLENGES

Resource Distribution
Participatory Engagement
Disruptive Technology



DATA THEMES

Quantified Self
Quantified Society
Social Credit



TEAM

Eva van Eck
Matthijs de Koning
Dario Sapienza
Jia Wang







THE EUTHANATOR

In the future, healthcare is so highly developed that people can live to be 150 years old. Sounds great, right? Unfortunately, old age comes at a price and with a rapidly declining quality of life, euthanasia has become popular. The government is willing to help, but not everyone. Citizens can experience the device that establishes the right to euthanasia and see whether they have acted in a civic manner – in ways that benefit the community as a whole – and can therefore enjoy the privilege of ending life earlier.







CITIZENSHIP CHALLENGES

Personal Decision Making
Participatory Engagement



TEAM

Bingyan Ding
Thom Masselink
Costanza Milano
Jiwei Zhou



DATA THEMES

Health Records
Social Credit



GENECO H: PARENTING BY DESIGN

In 2045, a combination of diseases and lack of housing spurred the government to develop a new program: babies are now created in a community effort by combining the DNA of several people. This results in less babies, but more parents. Citizens can experience the process in which different genetic qualities are selected and combined, while finding out whether their own DNA is sufficiently desirable to be included in the community mix.



CITIZENSHIP CHALLENGES

Hacking People
Community Building
Moral Clashes



DATA THEMES

Health Records
Access and Security
Social Credit
Quantified Self



TEAM

Koen van der Loop
Tim Smits
Mariê Toldo
Yu Wang





H-OME: STRANGER DANGER!



In a future Hillegersberg, risky streets call for drastic measures. The community council has commissioned a new means to identify potential danger before it becomes too late. Citizens can experience the device, which looks like a standard digital camera but which has incredible powers of foresight. Will they be able to avoid the dangers that await on the street?

CITIZENSHIP CHALLENGES

Manipulation Through Data
Top-Down Governance
Personal Decision Making
Regulating Physical Access





DATA THEMES

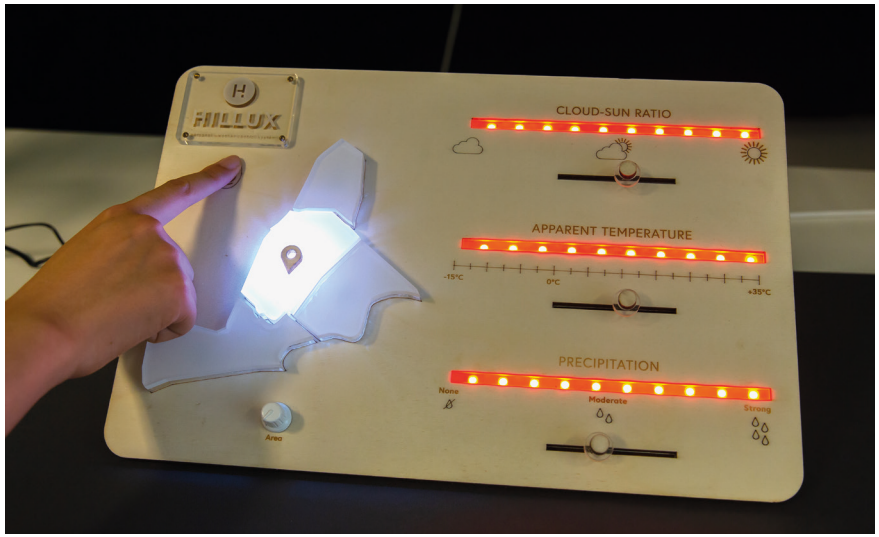
Access and Security
Crime and Safety



TEAM

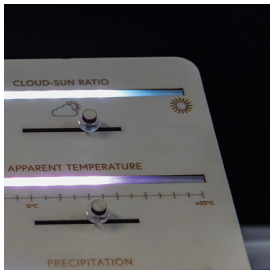
Ben Collin (not in photo)
Lisa Hoogeveen
Alberto Magni
Yu Fu





HILLUX:
MAKE THE WEATHER GREAT AGAIN

In 2078, the affluent neighbourhood of Hillegersberg has finally learned how to control the weather. The neighbourhood's inhabitants can now choose what kind of weather they would like: sunny, cloudy, rainy or windy. Citizens can interact with the voting machine and experience the consequences of their choices. They should be aware, however, that choices can only be made collectively. Others can literally make it rain on your parade!



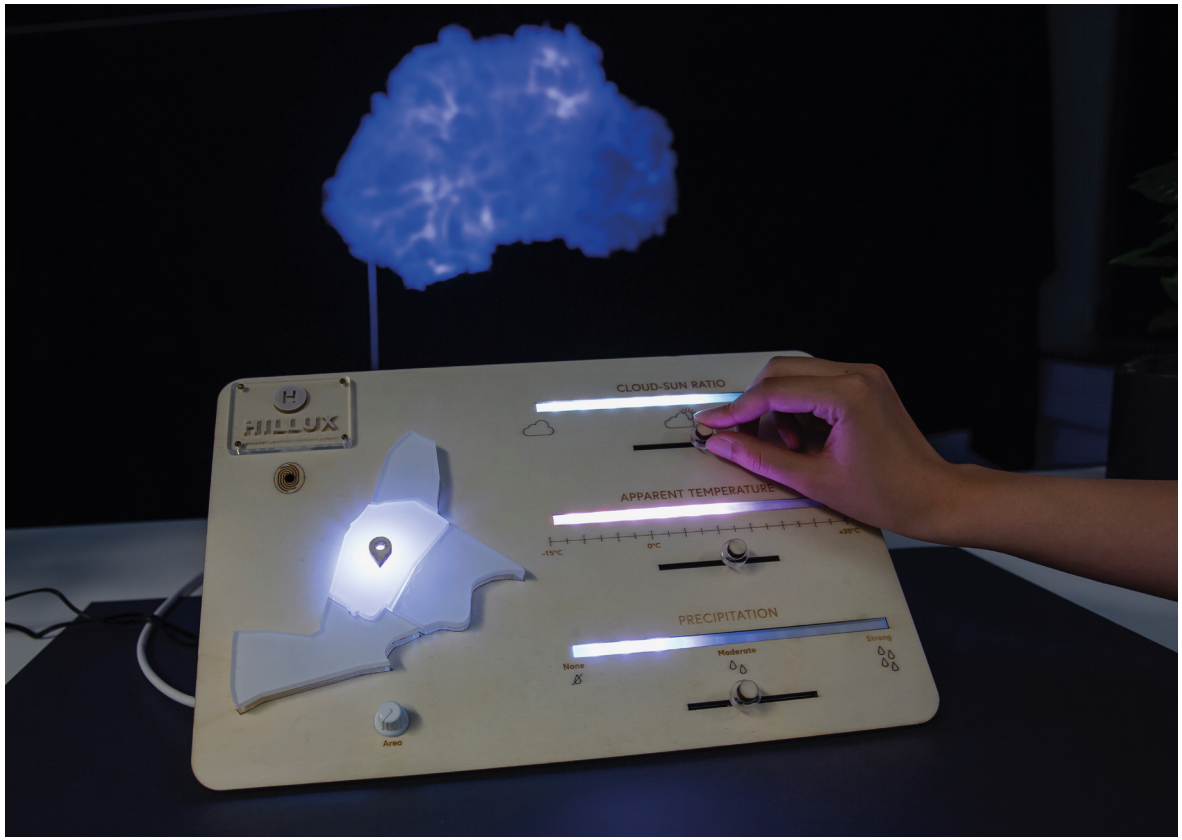
CITIZENSHIP CHALLENGES

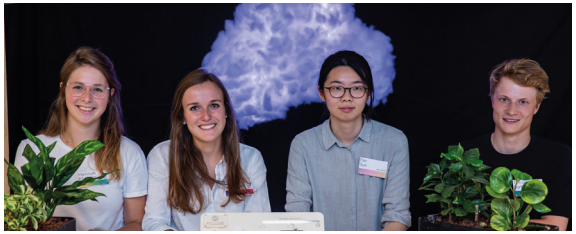
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DATA THEMES

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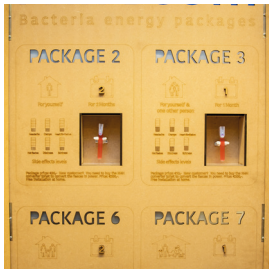


TEAM

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Hannah Klunder
Laura Schrauwen
Fan Sun











TEAM

Jiska Broere
Max Sampimon
Josephine de Vries
Chenye Xu

CITIZENSHIP CHALLENGES

Resource Distribution
Disruptive Technologies
Hacking People
Moral Clashes

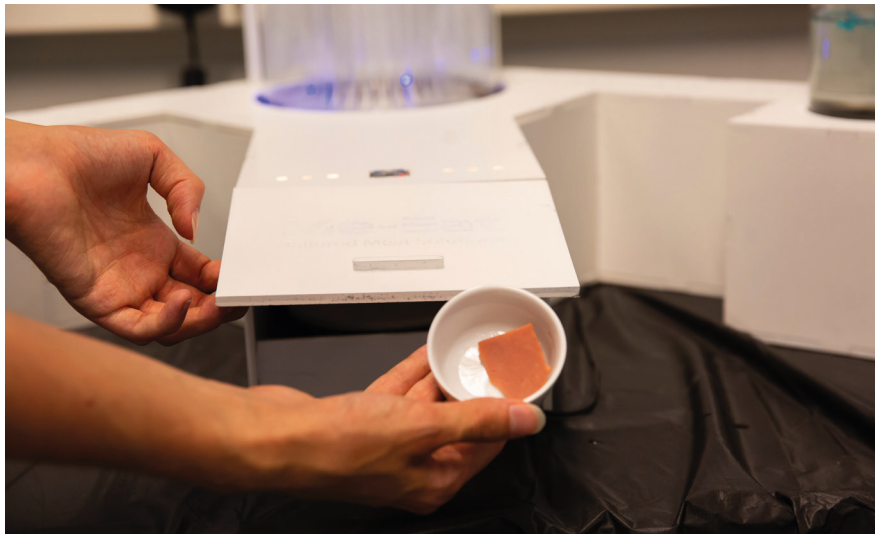
DATA THEMES

Energy Use and Production
Quantified Self
Health Records

DIGESTIVE BACTERIA ENERGY

In a world suffering severe energy scarcity, the creative makers of Merwe Vierhavens have come up with an ingenious way to create energy with faecal bacteria. The only catch is that the bacteria has to be ingested first. Users are invited to test the new energy source by selecting the energy package that best suits their body type and lifestyle, and then digest sample bacteria under supervision. Will they be deterred by the severe side-effects?



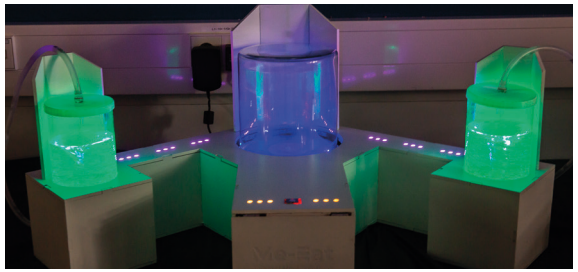






CITIZENSHIP CHALLENGES

Hacking People
Resource Distribution
Disruptive Technology

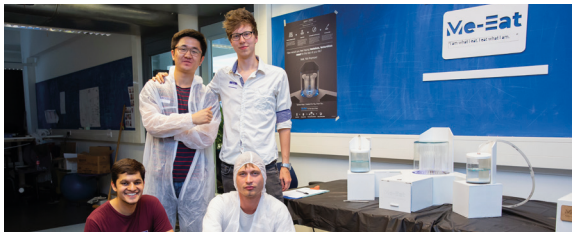


DATA THEMES

Health Records
Quantified Self

TEAM

Taresh Ghei
Xin Guo
Tim Rijkers
Daan van der Sluijs

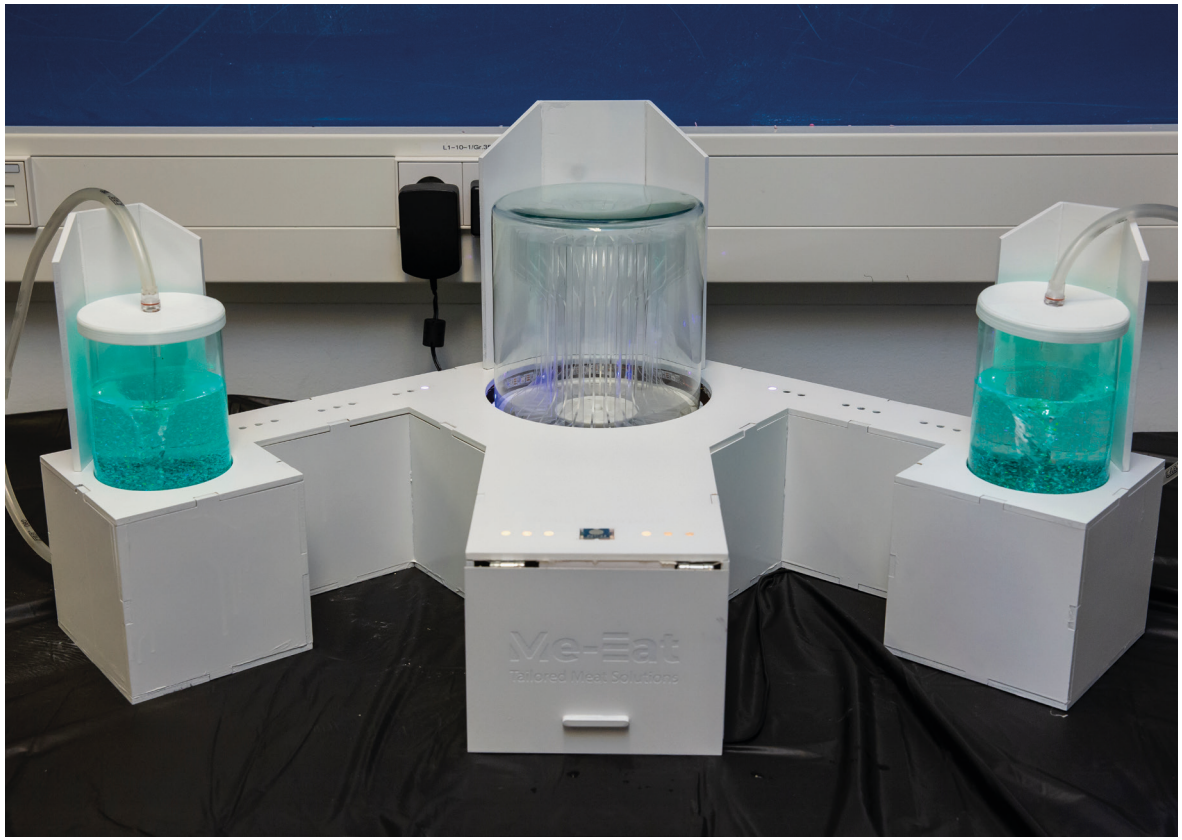


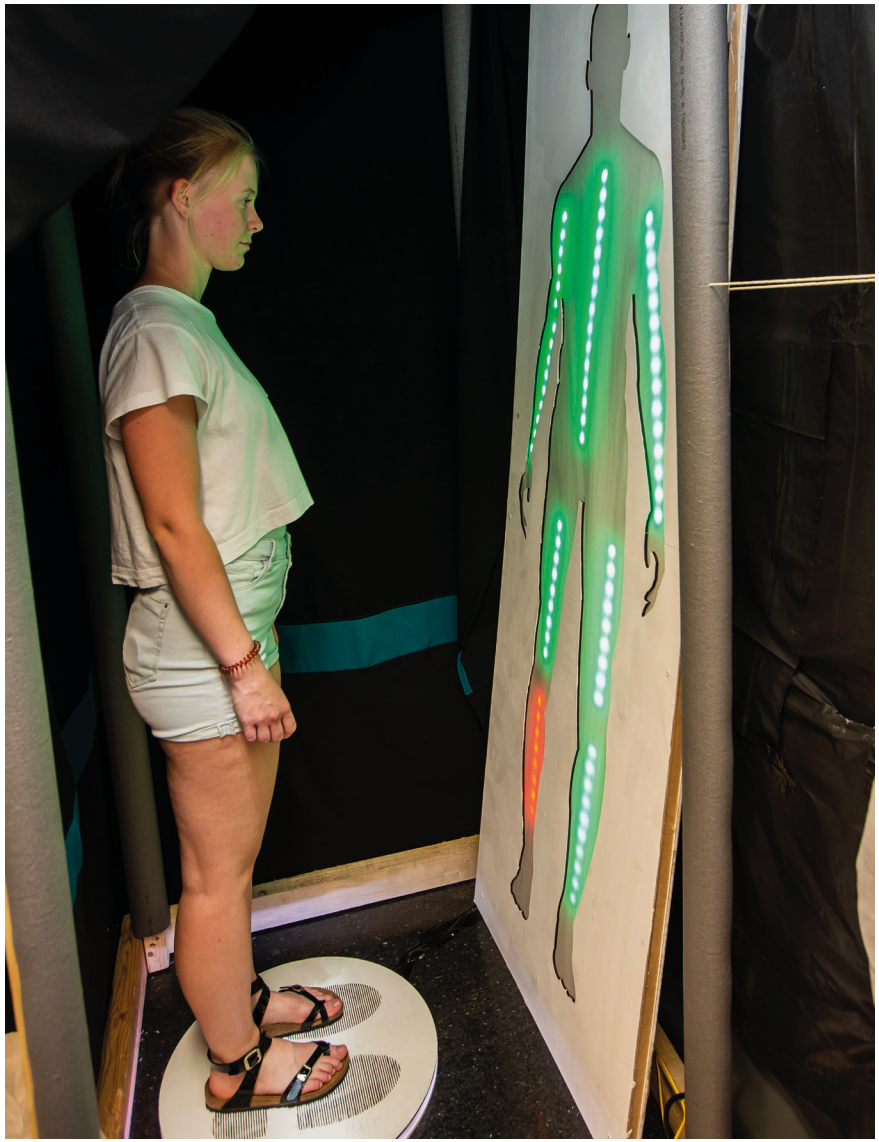
Merwe Vierhavens | food security

ME EAT: TAILORED MEAT, CREATED FOR YOU, FROM YOU

In 2060, climate change and pollution have rendered the soil much less fertile, leading the Dutch government to reserve the use of arable land to growing eatable food crops. Without free ranging livestock, meat is now grown in labs. The taste, however, is bland, and the texture is nothing like what people are used to.

Me Eat Inc., located at the innovation district of Merwevierhavens (M4H), has been experimenting with cultured meat for almost a decade. Their latest invention is meat enhanced by the DNA of consumers, and users are invited to taste the difference!





SHOULD I STAY OR SHOULD MY LIMB GO?

In 2060 spending a year working on Mars is a common practice. Before returning to Earth, workers have to undergo a thorough medical examination to make sure they are healthy and are not bringing new viruses with them. But what happens if the examination finds something? Citizens can find out by undergoing a thorough medical scanning and entertaining the possibilities: would they be willing to give up a limb (or more) to be able to see their loved ones again on Earth? Or would they stay on Mars forever?

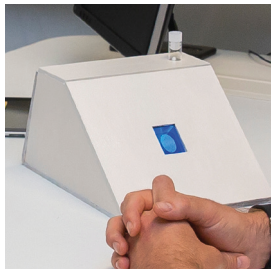


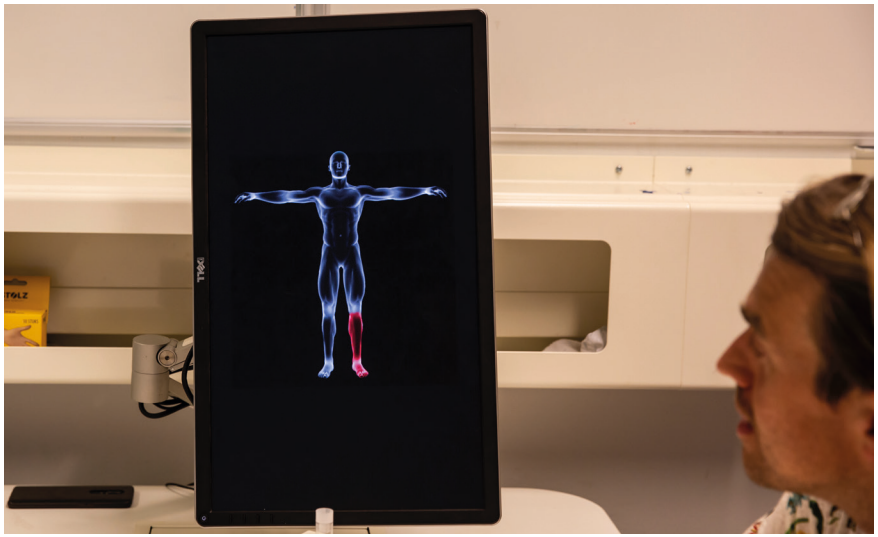
CITIZENSHIP CHALLENGES

Personal Decision Making
Regulating Physical Access

DATA THEMES

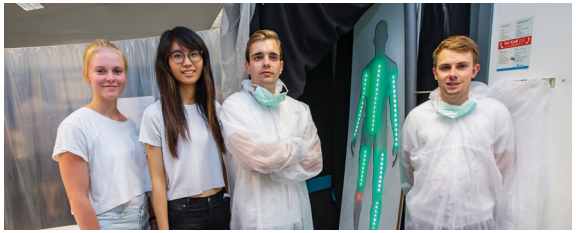
Health Records





TEAM

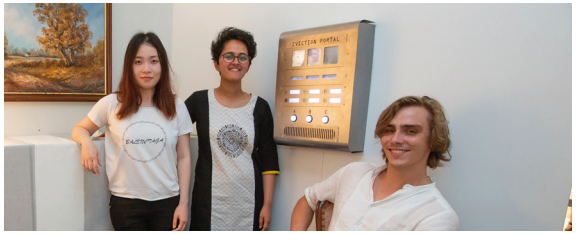
Mark Kent
Merijn Sabée
Suzanne Spiering
Jessica Tseng











TEAM

Ward Groutars

Jennifer Viola Rocha

Wenjun Zhou

CITIZENSHIP CHALLENGES

Participatory Engagement

Moral Clashes

Regulating Physical Access

DATA THEMES

Social Credit

Access and Security

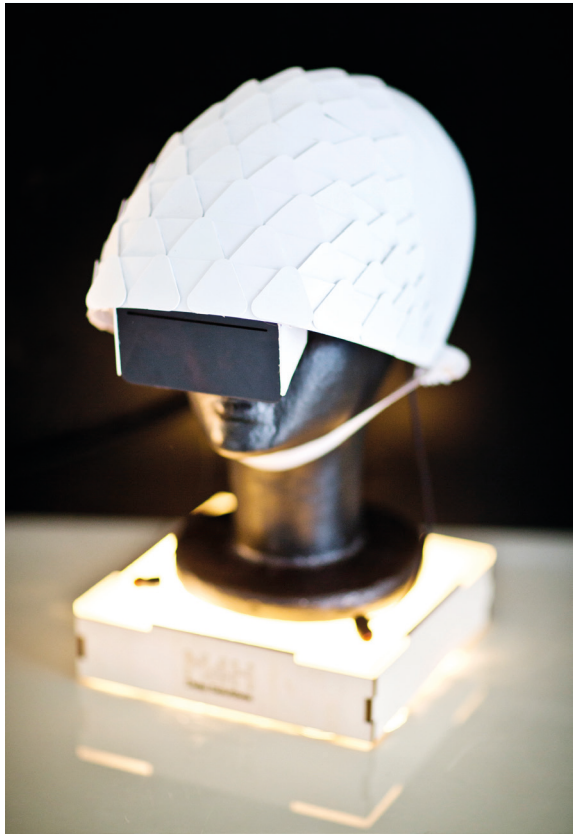
Merwe Vierhavens | housing

EVICTION PORTAL

In 2050 the housing crunch is so bad that even in Merwevierhavens (M4H) there isn't enough space for everyone. In an effort to maintain the neighbourhood's density, the community has instated a communal vote day in which inhabitants vote who to keep and who to kick out of the district.

Citizens can experience the in-home eviction portal, learn more about the candidates for eviction, and make their own choices. But will they be able to handle the community's aggregated choice?









CRIME-X FOR SAFER MOBILITY

Rotterdam in 2058 is not safe. Crime is rampant and moving around the city requires extra caution. M4H Data Solutions has developed a solution: a combination glove and helmet that allows those who wear them to tap into the city's data servers and find out where crime is more common. Citizens can try out the gear and appreciate its audio-visual feedback. But in a world where all past wrongdoings remain present, would citizens really feel safer?

CITIZENSHIP CHALLENGES

Personal Decision Making
Disruptive Technologies
Manipulating Through Data



DATA THEMES

Access and Security
Crime and Security



TEAM

Jelmer Koedood (not in photo)
Jeanine Mooij
Xinyi Wang
Chia Yu Yeh

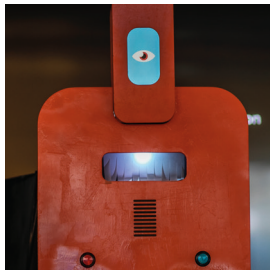




Merwe Vierhavens | natural resources

UPHONE

By 2039 the availability of resources needed to build electronic devices has declined dramatically. Because precious metals are so rare and so expensive, companies have come up with an alternative that uses human tissue instead. Citizens can experience the process in which new phones are created by interacting with a new type of vending machine. Will they be willing to pay the price of their new devices even it means paying with blood?



CITIZENSHIP CHALLENGES

Moral Clashes

Resource Distribution

Hacking People





DATA THEMES

Health Records

Economy



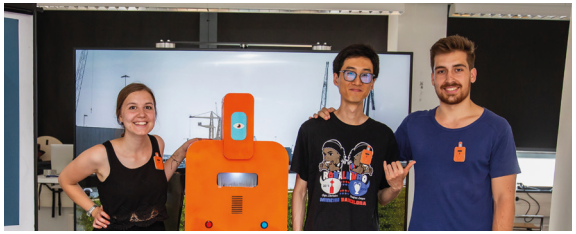
TEAM

Dennis Gecaj

Lucas de Jong (not on photo)

Marisea Pozzoni

Xingyu Yang



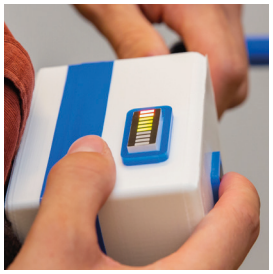




CITIZENSHIP CHALLENGES

Resource Distribution

Community Building





DATA THEMES

Demographics

Quantified Self

Health Records

TEAM

Maxim Houdijk

Yvonne Licher

Anna Söderbaum

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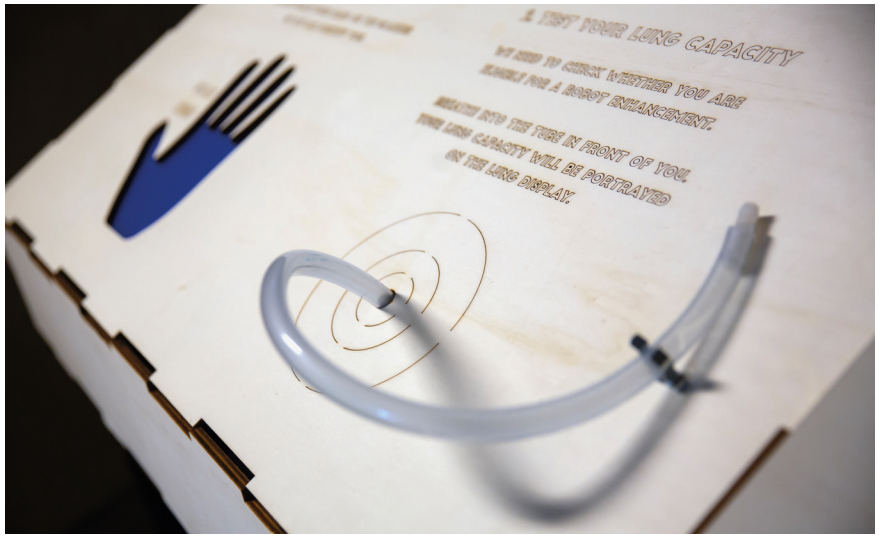


Spaanse Polder | food security

NUTRITION NEGOTIATION AND DISTRIBUTION POINT

In 2058, overpopulation has outpaced society's capacity to grow and distribute food. In Rotterdam's Spaanse Polder, once a distinct industrial neighbourhood, food is distributed three time a day directly to people's stomachs. The catch: the distribution of food is done in pairs. Users can try out the new mechanism in pairs, while negotiating and adjusting food intake according to nutritional needs. Will this lead to a stronger sense of social connectedness, or would it lead to conflict?





PROSTHESIS PROLETARIAT

In 2060 the iconic Van Nelle factory in Rotterdam's Spaanse Polder neighborhood has become a center for prosthetic robotics. Those who work in the area can choose to become more efficient by replacing their limbs with much stronger robotic ones. Citizens can experience the process of having their lungs, arms or legs replaced. Would they prefer to be more efficient over being more human?





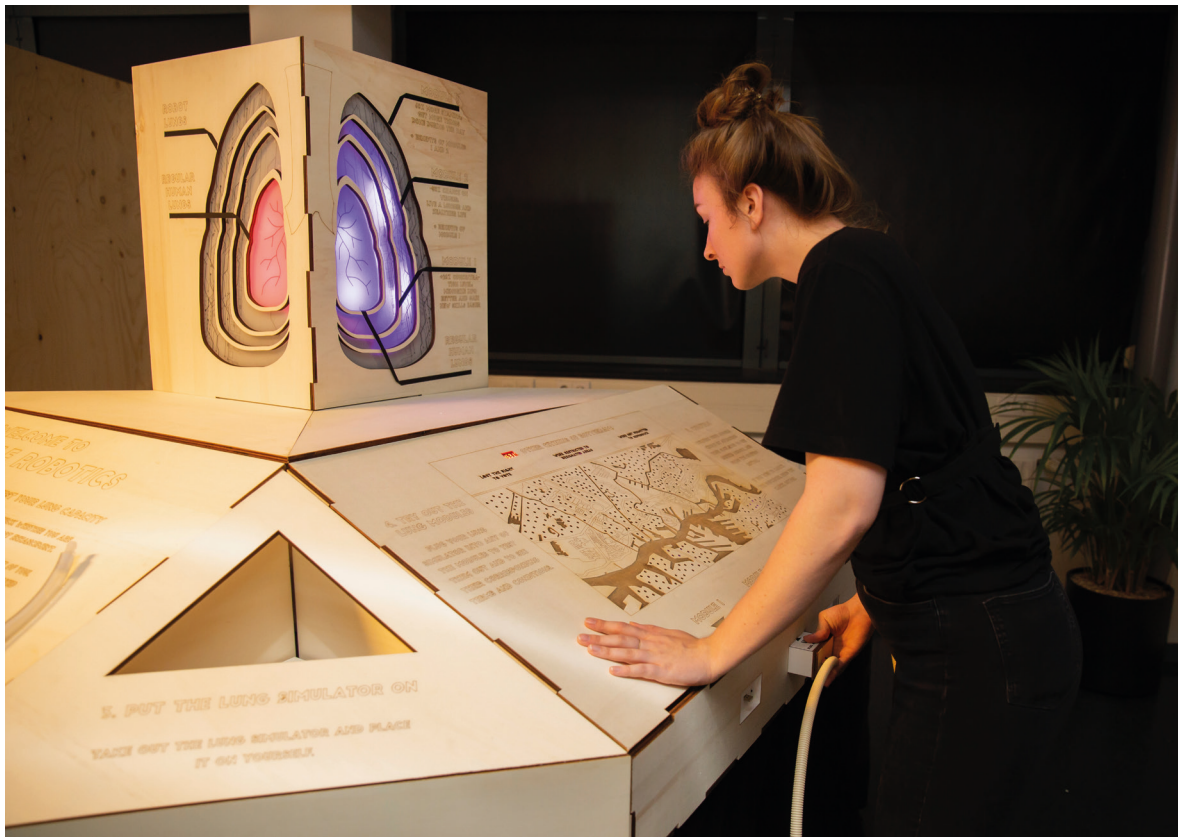
CITIZENSHIP CHALLENGES

Disruptive Technology
Hacking People
Personal Decision Making
Moral Clashes



DATA THEMES

Health Records
Social Credit



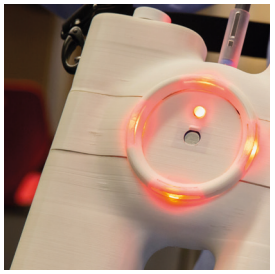
TEAM

Rosan Foppen
Mehdi Jonker
Cynthia Ko
Petra Salarić









CITIZENSHIP CHALLENGES

Resource Distribution

Moral Clashes

Top-Down Governance



DATA THEMES

Social Credit

TEAM

Salvo Cucinella

Jelle-Jacob Kuiper

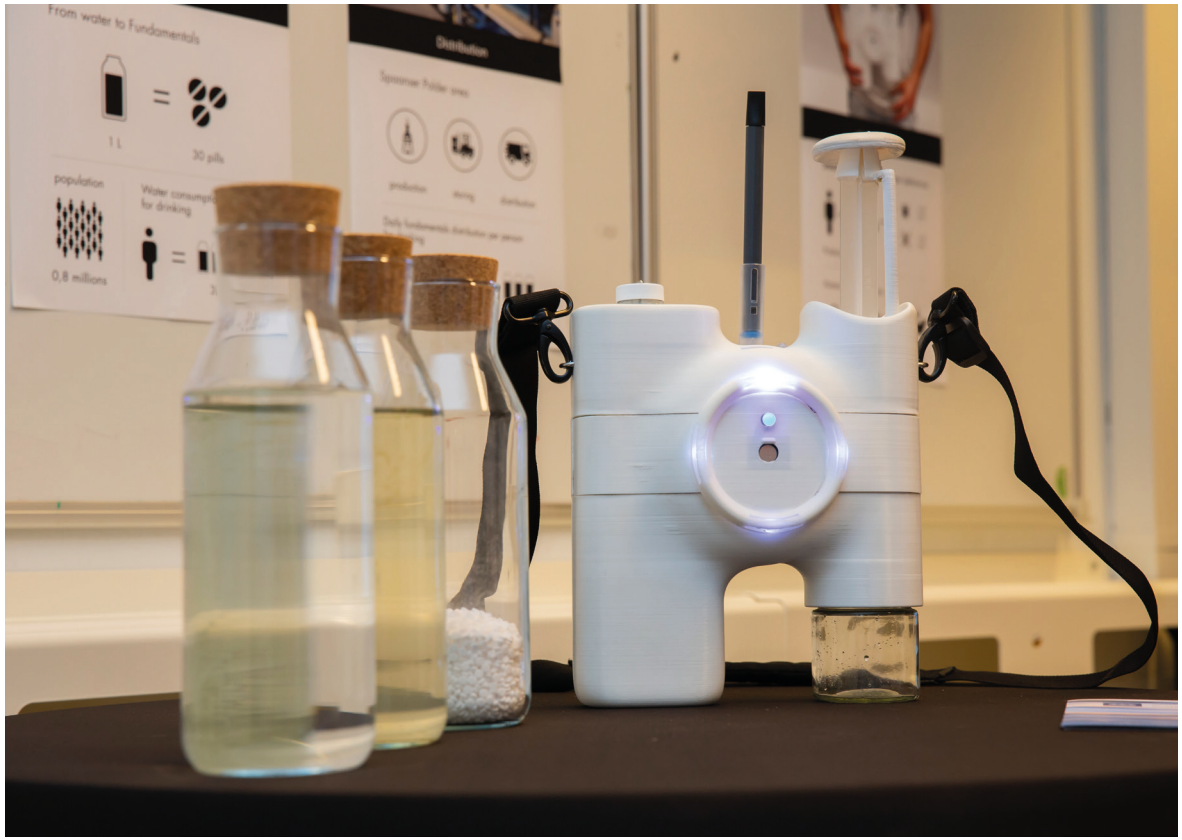
Deniz Sogutlu

En-Chun Yeh



FUNDAMENTALS: WATER PURIFICATION SYSTEM

In 2060, Rotterdam has resorted to water rationing in order to address the global water shortage and care for future generations. Water is now distributed in the form of pills, with a special device needed to turn those pills into liquid. Citizens can interact with this device and experience how it works by blowing into the special chamber. They can also discover that the device's functionality relies on their behavioural record.



COLOPHON

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