CYBERPOLIS

Graduation document | Jelle van Kampen | Juli 2022

Preface

The digital city as a graduation project comes from a fascination I have for the digital world or cyberspace. I see the digital world as a hyper global world existing as a parallel to our physical reality. One where we form a global society, mostly without any geographic or political restrictions. Created and maintained by the community, the market and the individual. This digital society consists of an infinite number of communities with their own cultures, subcultures and movements that all became part of our daily identity today. Also, the digital society sometimes knows how to give a better reflection on our physical reality. For example, under-represented groups in society can find each other digitally and initiate a movement to fight for change #BlackLivesMatter

When I think of a digital city, I think of a city that houses a much more open, global and digital society that allows them to shape and change our physical reality.

Student

Jelle van Kampen
Master of Urbanism
Academie van Bouwkunst, Rotterdam
vankampen.jelle@gmail.com
0634441414

Commission

Mentor
Dana Behrman
Senior Urban Designer / Associate
UNstudio / UNsense

Chairman
Thijs van Spaandonk
Head of urbanism
Academie van Bouwkunst Rotterdam

External critic
Ryanne Janssen
Senior Urbanist
Municipality of Rotterdam

External critic
Ganesh Babu
Urban Designer
Posad Maxwan

A new digital era

We are at the beginning of a new technological era. An era that can cause a total automation of the living environments as we know them. The rapid development of multiple disruptive technologies will blur the boundaries between the physical, digital and biological worlds. A new layer of digital communication that is present everywhere and in which everything is connected; in which people communicate with people, people with objects, and objects with objects. The technologies will provide a completely new way of building, organizing and experiencing the city. It will radically change the city as we know it!

How digitization will take place and what the digital cities will look like, will depend on who is using the technology and their motivation of using it.

So what do we want our cities to look like in the future?

Summary

Cyberpolis

An optimistic future for the digitization of cities.

Cyberpolis is an urban prototype for a speculative digital city. This city is inspired by the social side of the digital world (online platforms). An open and accessible world, where users use technology to shape their own environment, by forming collectives, sharing content and discussing. The city as a social platform, made by and for the residents!

In Cyberpolis, the residents are in charge. They will experiment with the city and use digital technology to physically change the city according to their own wishes. This makes it a city that rebels against current smart city concepts to make cities smarter, more efficient and more generic. It focuses on collective expression, spontaneity and local identity.

The Cyberpolitans
The inhabitants of this cyber city are called the Cyberpolitans. They are all creative, actively participating residents and the existing city is their playground.

If you want to become a Cyberpolitan, you must register on the Cyberpolis platform. The user profile is your digital identity and acts as a passport for the cyber city. The platform offers every user the opportunity to join collectives (digital communities) that are each linked to and responsible for their own part of the cityscape.

Tabula scripta
Cyberpolis is not a new city on a new location. It is a new way of city making and developing within the existing city. It builds on a tradition of collective and bottom-up initiatives that residents use to appropriate the city. That is why this way of developing is not imposed, but always at the initiative of the collective.

It happens at existing local places where the social networks and structures are strong and vital. These locations are scattered throughout the city and are appropriated by collectives or digital communities who determine how their piece of cityscape works and what it will look like.

A city without architects. Or...
A city where everyone can be an architect
In a future where digital communication is so self-evident that it can be regarded as a second language, it is possible for everyone to use and deploy this technology themselves to design and build architectural typologies for the city. Technology as a toolkit for the city. This means that architects will be superfluous. Anyone in Cyberpolis can be an architect themselves.

When digital communities as collectives will determine what their part of the city will look like, how it is organized and how it is experienced, the city as we know it will radically change. The city becomes more spontaneous, more local, more expressive. It is a digital city made for and by its residents.

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1

Ten principles of Cyberpolis

Ten principles of Cyberpolis

CYBERPOLIS IS A DIGITAL & OPTIMISTIC FUTURE FOR CITIES

AN URBAN PROTOTYPE FOR CITY MAKING

CITIZENS CAN EXPERIMENT WITH THEIR OWN CITY

USE DIGITAL TECHNOLOGY TO CHANGE THE CITY IN A PHYSICAL WAY

THE CYBERPOLITANS OPERATE AS COLLECTIVES

IN CYBERPOLIS THE CITY IS DESIGNED AND MAINTAINED BY THE CITIZENS

A CITY WHERE BEAUTY IS SUBJECTIVE

CYBERPOLIS IS A CITY WITHOUT ARCHITECTS

A CITY WHERE PARTICIPATION IS KEY

CYBERPOLIS CAN TAKE PLACE ANYWHERE AND CAN START ANYTIME

CYBERPOLIS IS A DIGITAL & OPTIMISTIC FUTURE FOR CITIES

AN URBAN PROTOTYPE FOR CITY MAKING

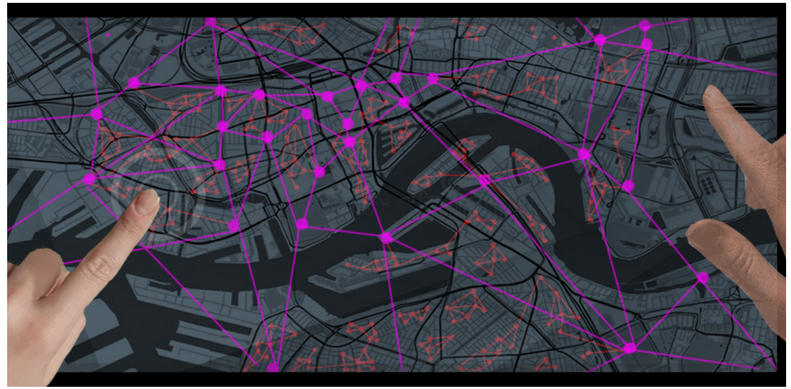
A CITY OF EXPERIMENT

A CITY OF EXPRESSION

A CITY OF COLLECTIVE VALUES

CITIZENS CAN EXPERIMENT WITH THEIR OWN CITY

A New way of urban development
Cyberpolis is a new way of urban development, Within the tradition of existing bottom-up development systems, creative breeding grounds and spaces for experiment within the city. Cyberpolis will offer a new way of city making as addition to what we are currently doing. The platform ensures that existing social physical places flourish and new seeds are planted and spread throughout the city.



A city of participants
Digital communities are allowed to experiment with their own urban landscape. Personal expression, subcultures and freedom will define the urban domain. The citizens are the type of people that we already have in our current cities. The type of people that are creative, visionary bring initiatives and are part of strong social structure within our existing cities.

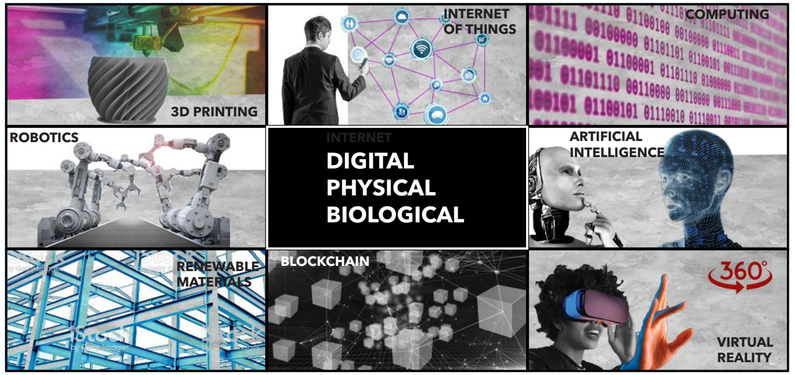
USE DIGITAL TECHNOLOGY TO CHANGE THE CITY IN A PHYSICAL WAY

Technology as a toolkit for the city
In Cyberpolis, the digital technology is used as a toolbox for city making. Digital communities will own the new disruptive technology themselves, and use it to transform the physical city.

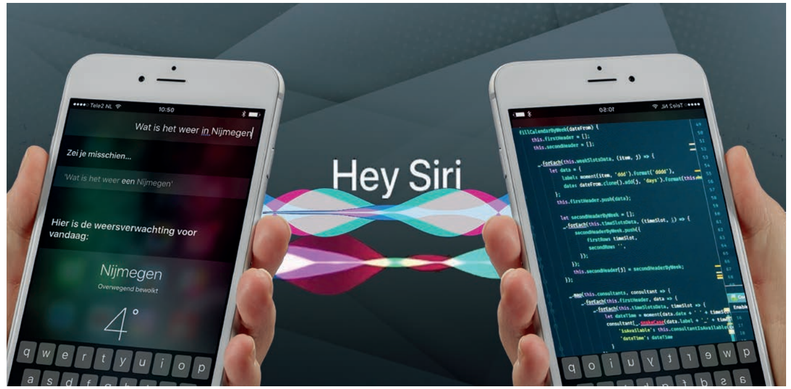
3D printing, robotics and renewable and flexible materials can be used for building

The internet of things, blockchain technology and quick computing for organizing

Artificial intelligence and virtual reality for experiencing the city



A second language
In Cyberpolis, all the citizens are programmers or developers. This is possible because the language of the digital and physical worlds are coming closer together. One of the main reasons is because the'digital natives' will be the majority of people within the near future. They learned coding, programming and developing at school and woudn't be able to survive without digital technology. Another reason is that Artificial intelligence will get more advanced. Therefore the digital technology is very simple to communicate with (extreme user friendly interfaces).

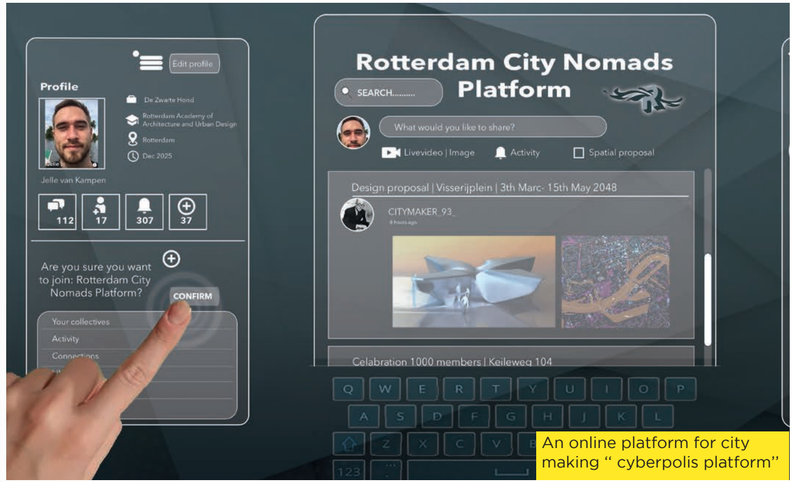


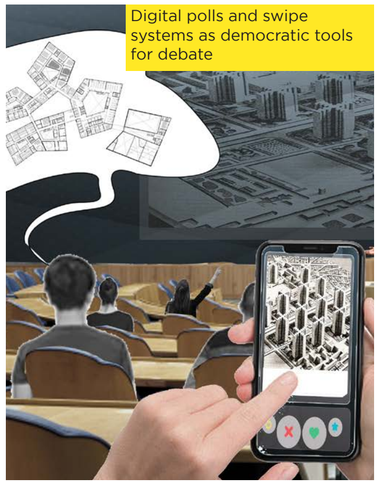
It will radically change our cities!

It will change the way we...

THE CYBERPOLITANS OPERATE AS COLLECTIVES

The Cyberpolitans
The citizens of Cyberpolis are called the Cyberpolitans. To become a Cyberpolitan you need to register on the Cyberpolis platform. The platform allows each Cyberpolitan to be part of several digital communities. Within the communities the platform enables them o share ideas and initiatives and to make democratic choices about their own city. Each digital community is linked to a certain location within the existing city.





IN CYBERPOLIS THE CITY IS DESIGNED AND MAINTAINED BY ITS CITIZENS

Ideas
When everyone is a city maker and sharing and having ideas about how to live together and how the city should look like.. decisions should be made. Therefore the Cyberpolitans are constantly debating within their communities, to determine the future of their cityscape.

Technology is becoming more and more complex and therefor more difficult to use for normal citizens. We need simple and understandable operating systems that can be used by devices (the ones we know) .The platforms and devices will therefor be the link between technology and the user

Collectively owned city scapes
At the initiative of the digital communities, a local part of the city may be claimed by the communities. Each community hires an urbanist who designs and organizes the specific area based on the ideas and designs of the residents.

A CITY WHERE BEAUTY IS SUBJECTIVE

Freedom to a certain extend
the residents have to a certain extent, the freedom to create and imagine anything they want. That However, does not mean that everything is allowed to be build.
A committee has been set up within the platform to test plans against a number of joint rules to protect the common goods and values.

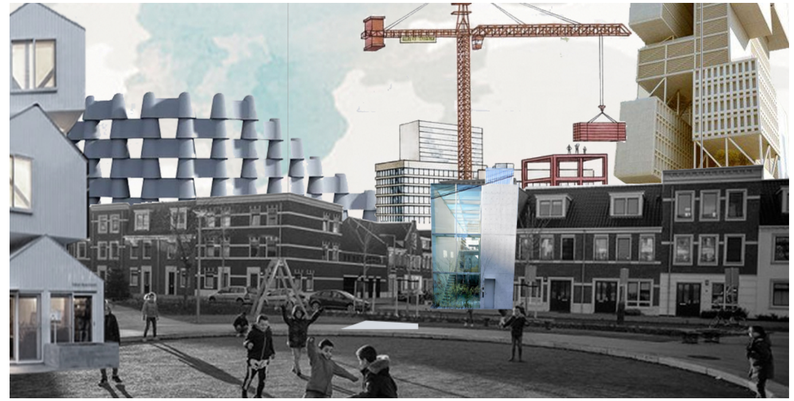
Guidelines
This also means there will be a new role for the municipality. They are now the observers of the cityscape. Observing, mapping and checking all the new rapid changing development. Their task is to set ground rules that protect the common goods

Spatial rules:
Respecting cultural heritage !
Protecting Accessibility and publicness of the area!

There are also a number of social rules that every design must comply with: no discrimination, no sexually offensive designs, no dissemination of disinformation.

CYBERPOLIS IS A CITY WITHOUT ARCHITECTS

A city without architects
The Cyberpolitans live a collectivist way of life. This means that the communities, collectively buy digital technology and materials to make their own city. The technology has been developed in such a way that ordinary citizens can use it to design and build spatial ideas for the city themselves. They are the architects of their own invented typologies, and the technology can bring them to reality.

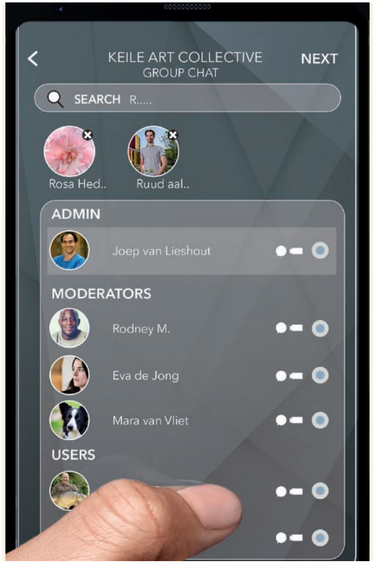


Effect on the cityscape
Cyberpolis eliminates the field of architecture. A city in which everyone can be an architect. This results in a city with primitive and flexible architecture that is always growing or shrinking. The architecture is simple and is a direct expression of a particular subculture or collective. Building processes and machines (such as cranes) will be always part of the changing cityscape.

A CITY WHERE PARTICIPATION IS KEY

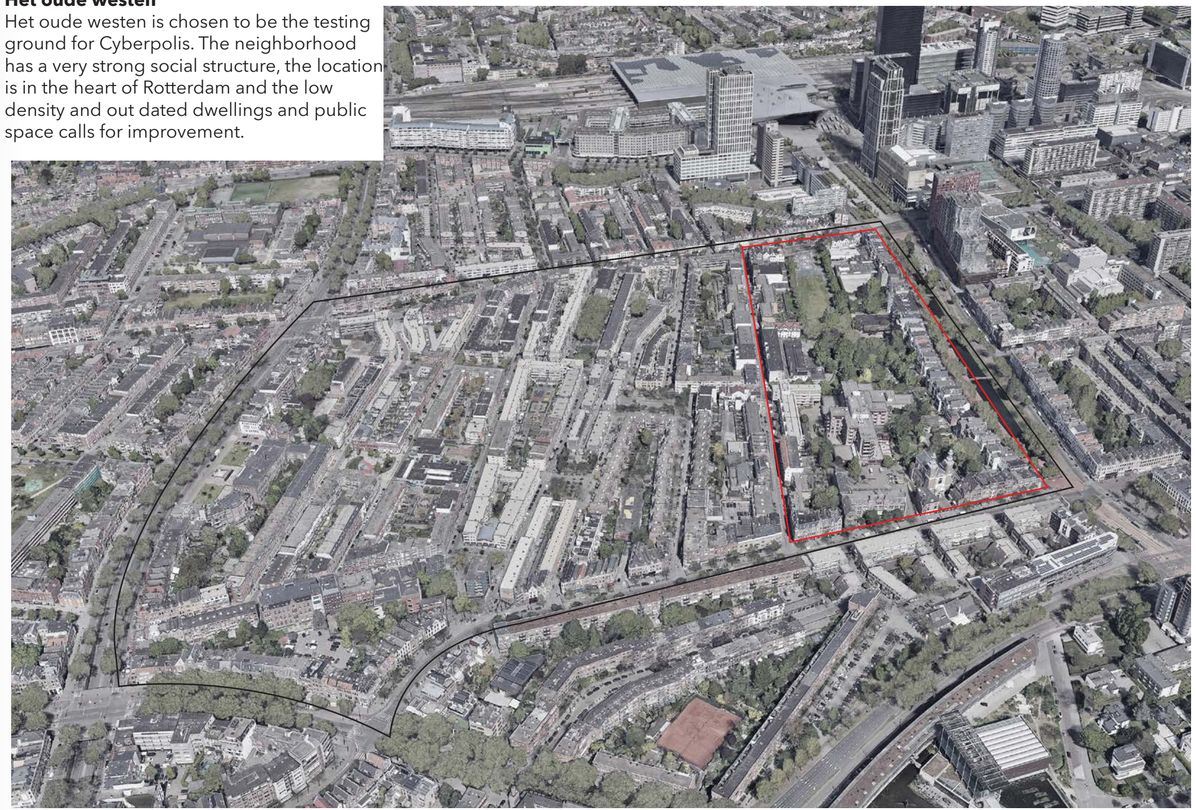
Hierarchy
Within the communities, new kind of values are arising .The new kind of values are based on creativity, tools, intellectual property and patent laws. The amount of participation will define the individuals rank within the hierarchy of the community that is always growing or shrinking. Depending on the persons commitment towards the community , everyone has a certain role within the community. This means some have more responsibility, some might be in charge of the community itself and have the option to kick/ban people, while others are in charge of building etc. The amount of participation will define the persons role within the community. The administrator has

the most responsibility is backed by its moderators.



CYBERPOLIS CAN TAKE PLACE ANYWHERE AND CAN START BY TOMORROW

Het oude westen
Het oude westen is chosen to be the testing ground for Cyberpolis. The neighborhood has a very strong social structure, the location is in the heart of Rotterdam and the low density and out dated dwellings and public space calls for improvement.



OBSERVATION

collage
The urban structure of the old west is actually the result of two interventions. First the construction of the neighborhood structure Then the urban renewal plan in the years 70-80This results in an intricate fabric with streets, squares, alleys, collective and private space. However, the question is whether the size and scale and appearance still match this time

CHALLENGES

The collective thinking from the 70s and 80s is interesting, but doesn't seem to work well at the block level. By finding a new size and scale for the structure from urban renewal, the neighborhood can open up more to the outside and reconnect with this time. This does not require a radical master plan, but a new layer that can be added to the fabric.

City renewal plan

1974 a city renewal plan added a new spatial layer to the neighbourhood with narrow streets and sqaures

Opening up towards the city

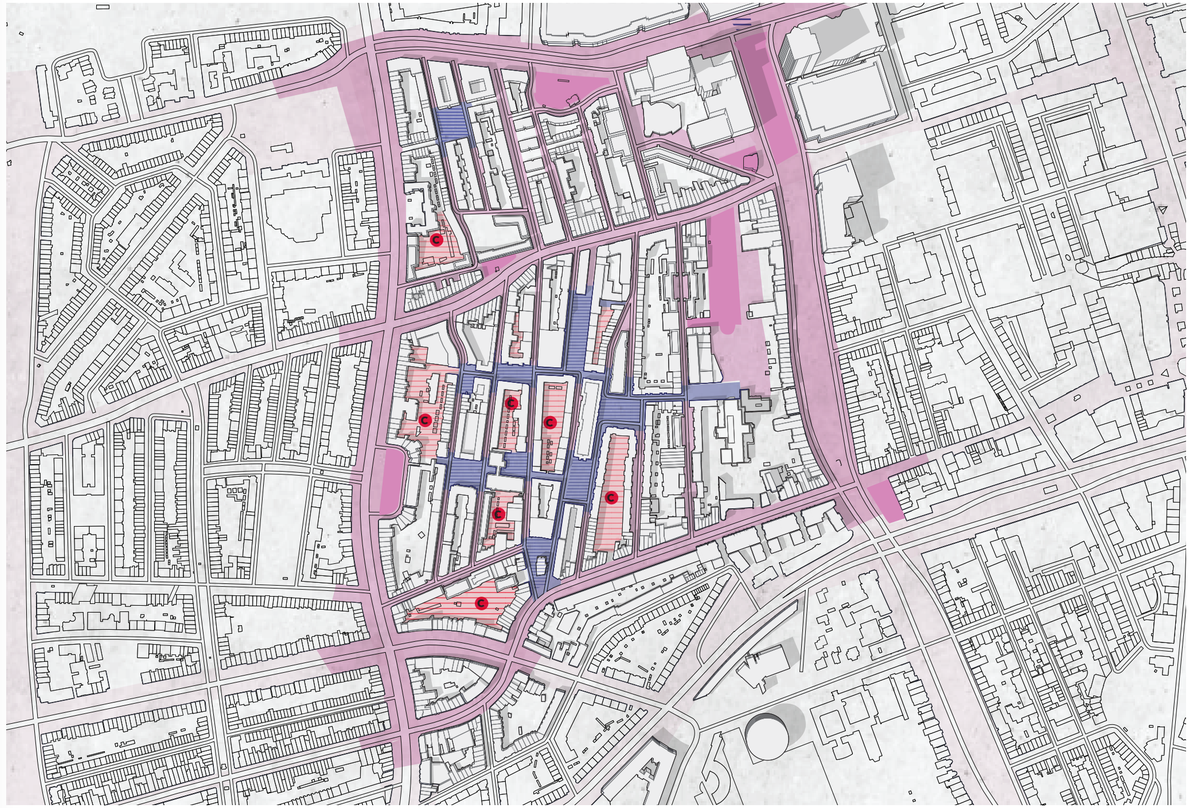
inhabitants and the manucipality worked together to open up the former orphanage garden

An unplanned district

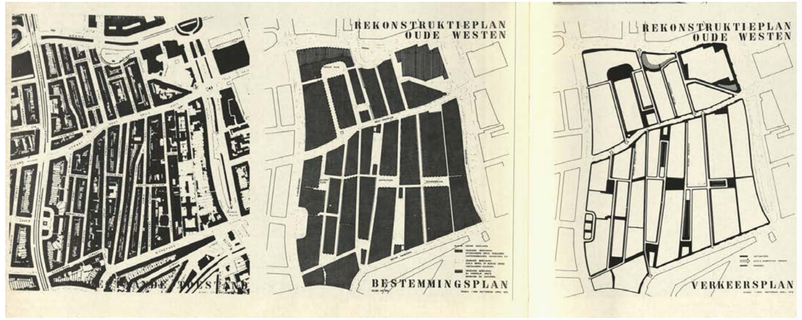
Industrial factory owners started building dwellings for their employees

Became the first suburb

In 1886 Rottedam en Delfshaven merged together,



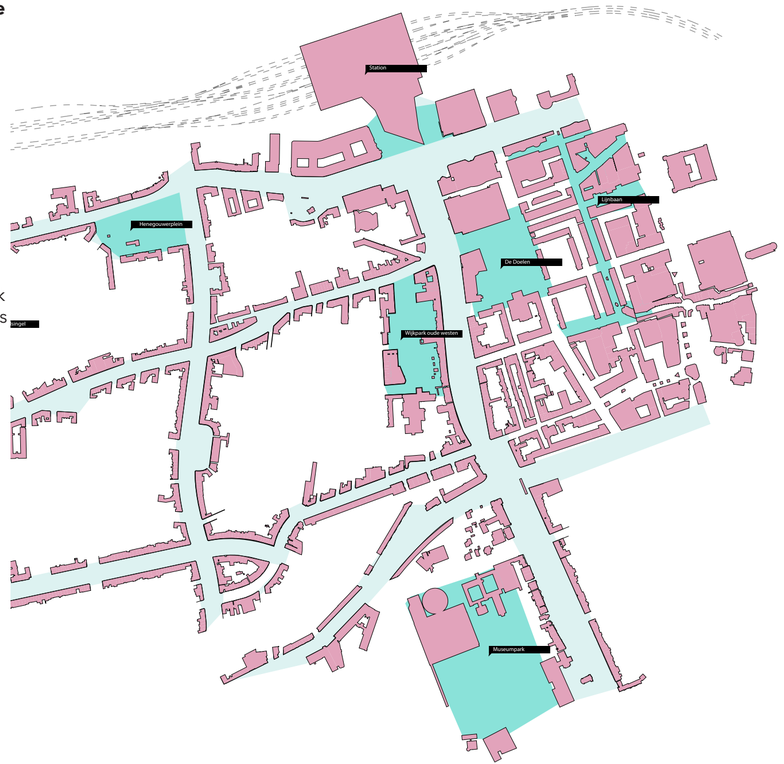
A neighborhood with a strong social structure
Because of its residents, het oude westen has a tradition of determining the development of their neighborhood themselves. in the 70's ‚Aktiegroep het oude westen has managed to stop the large-scale master plans for their neighborhood due to lengthy protests. The Aktiegroep received the Maaskant prize for this heroic actions.



District park het oude westen on the scale of the city

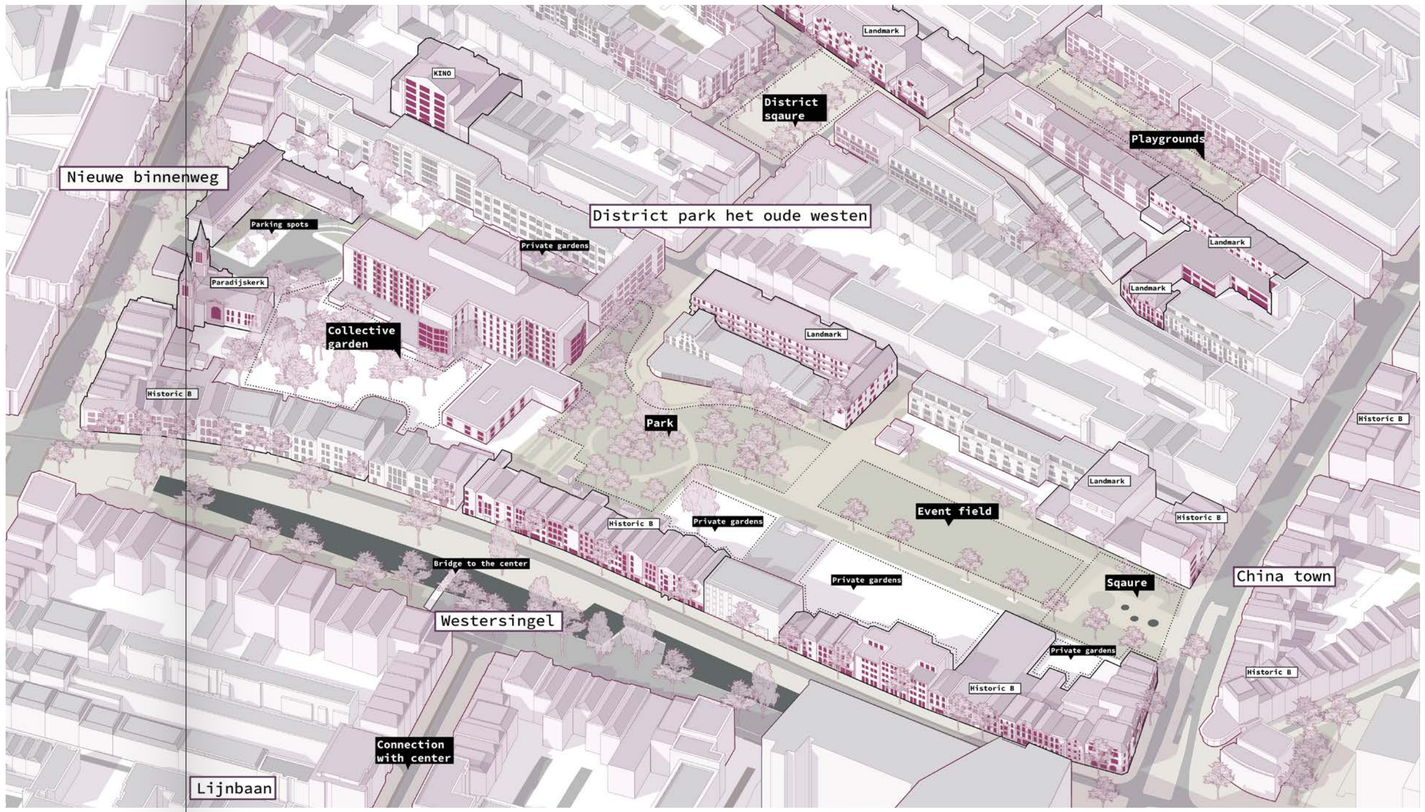
The neighborhood itself is quite introverted and plays no role at the city level. Perhaps that is why the social local structure is so strong. The neighborhood park is the link between the local closed neighborhood and the open city. Both local residents and city dwellers visit the park. Events often take place here from the neighborhood.

On a local scale the district park offers a strong social structure with a lot of local program surrounding the park. Also the park is home to many different temporary festivals and happenings, both on a local and city scale.



District park het oude westen as testing ground for Cyberpolis

The neighborhood park is used as the first place where the cyberpolis city can start. The park is publicly accessible and located along important urban streets such as the West Kruiskade and the new inner road. Within the neighborhood park there are several places and activities that are important for the neighborhood itself. For example, events often take place and there is a lot of program around the park. There is, for example, a petting zoo, a collective neighborhood garden and a sculpture route that runs through the park.



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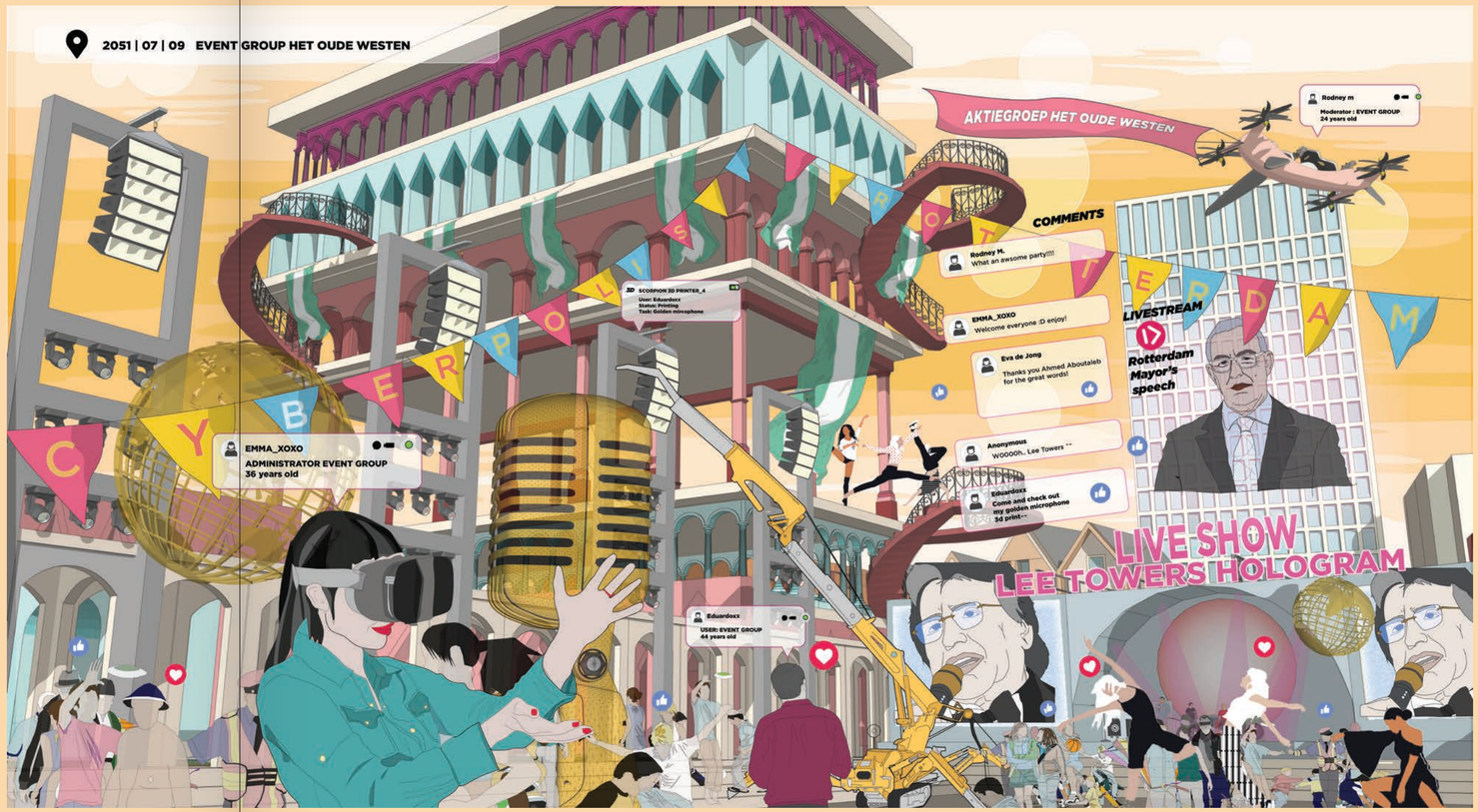
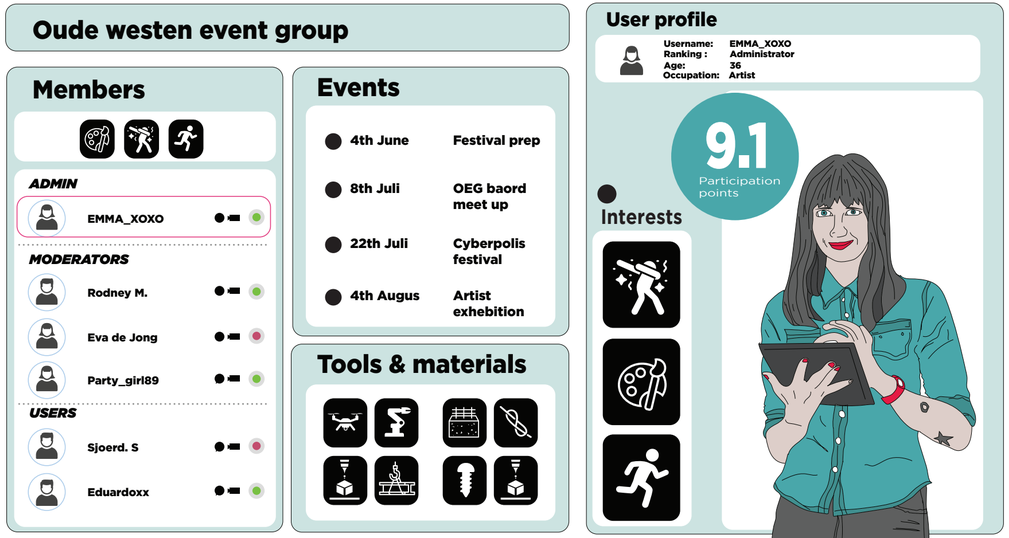
Emma
Event group het Oude Westen

Emma is the organizer of the Cyberpolis festival. A festival that was established 5 years ago and now takes place every year on the event square in the park. The festival symbolizes experimenting with the city, the townspeople and personal expression. Emma organized a live augmented reality speech hosted by the mayor. The visitors can react to this live stream. There is also a live holographic show from Lee Towers that can also be streamed at home from the couch. Local visual art and 3d printed sculpture artists pose and create their artworks live on location.

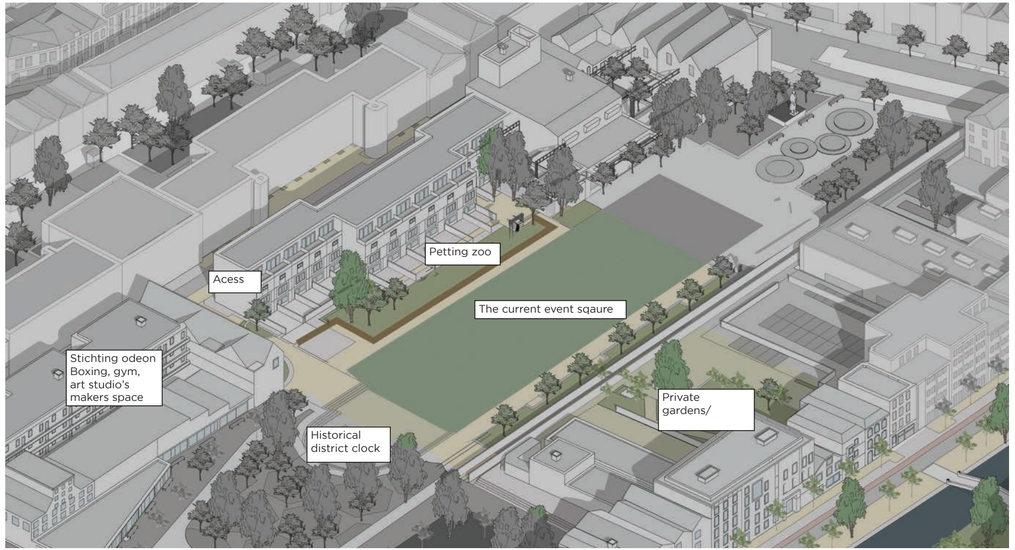


Emma and the event group het oude westen
Emma is the administrator of the Oude Westen event group. She is 36 years old and has lived in the Old West of Rotterdam for 10 years now. She came to Rotterdam as a student and has lived nearby ever since. At the art academy she specialized in the visual arts and she has also managed to make it her profession. She is very social and knows almost everyone around. She is always engaged and has the highest number of participation points of any Cyberpolitan.

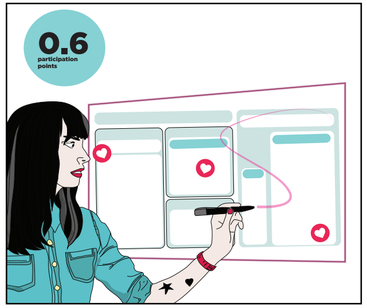
Event group het oude westen is one of the three communities that were the first to start on the Cyberpolis platform. The group consists mainly of local artists, sport athletes, musicians and other performers. Their common goal is to organize events and activities and their group is specialized in visual arts, 3d prints (sculptures) and making temporary structures for festivities.



The event square
The event square is an existing place in the neighborhood park. Every now and then events are organized for the neighborhood and the city. It is open and accessible to everyone, but when there is no event, little happens. It is an empty green lawn surrounded by fences and backsides of neigborhood dwellings.

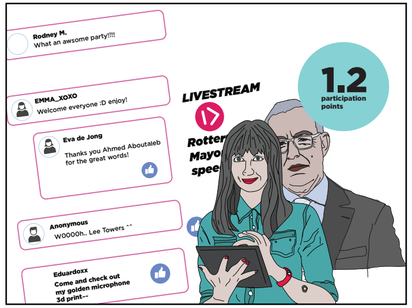


Emma is always participating



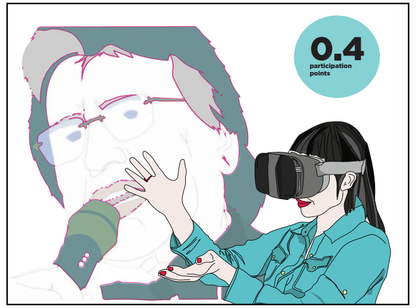
Cyberpolis interface

Emma has been involved with Cyberpolis since its the beginning and helped design a user-friendly interface



The Mayor's involvment

She is one of the leaders of the new city and knows how take part in politics and be a representative for the new generation of city makers.



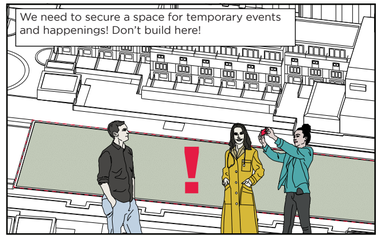
Organizing events

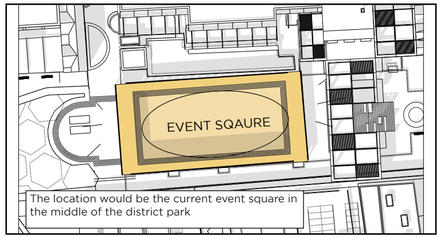
She finds joy in organizing events and bringing people together.

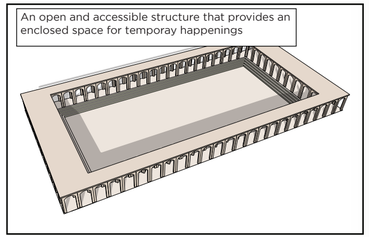
The administrator
All this has resulted in Emma having the most participation points of any Cyberpolitan. She is a highly valued member and has therefore became the administrator of her community. As the administrator, Emma determines the rank within the group and is responsible for her community. She decides on new ideas from her community and is the person of contact.

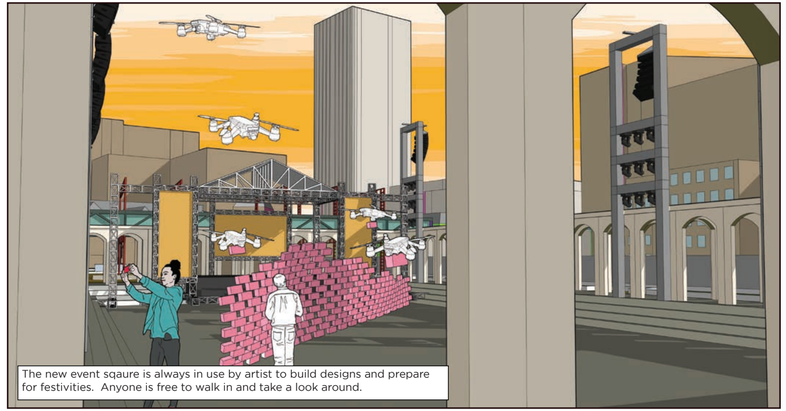
2027

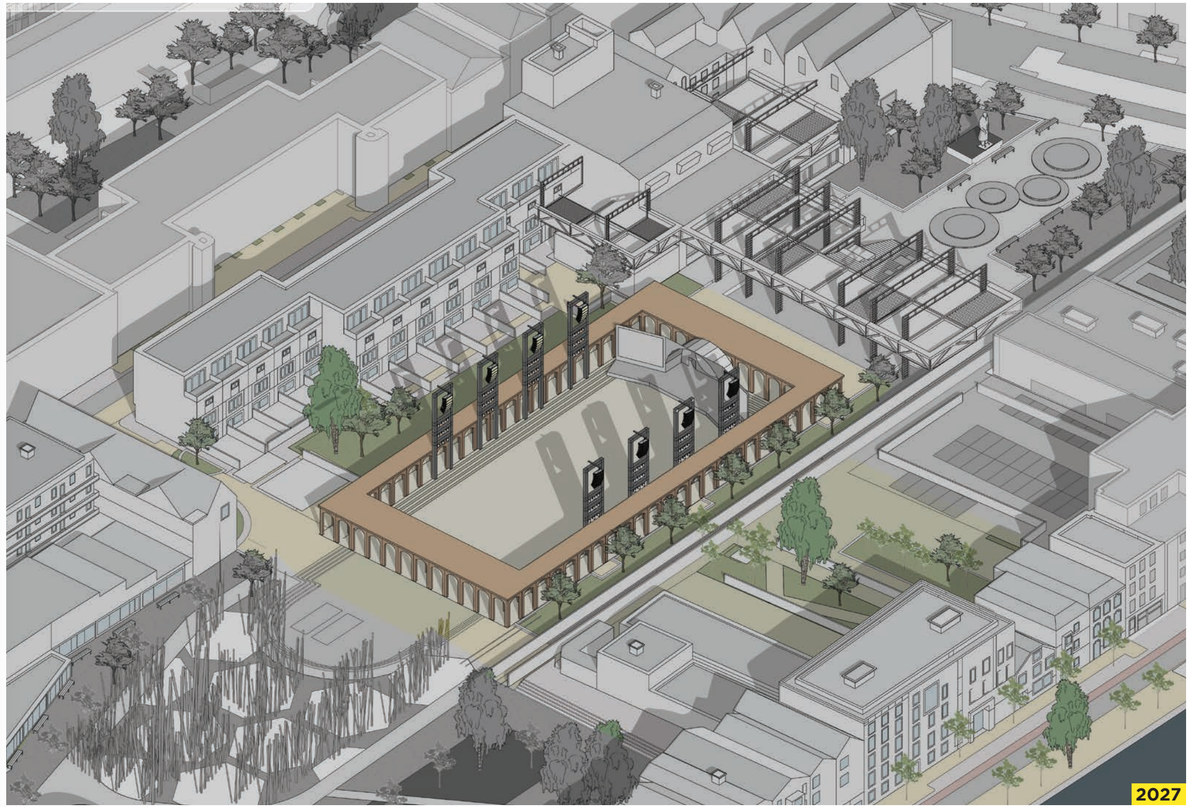
the event group was the first to devise an intervention to secure the event space from other developments.











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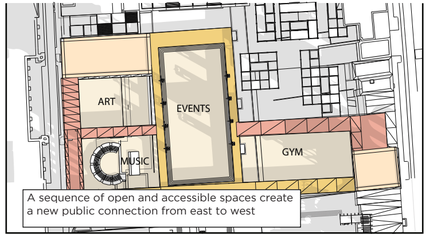
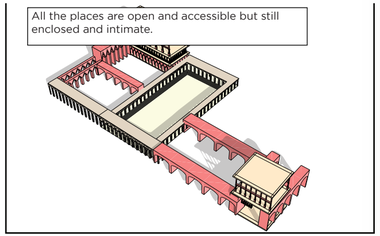
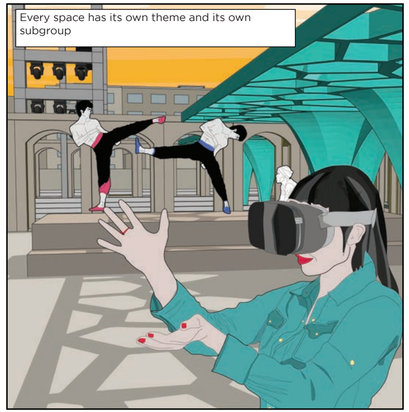
The free space is such a success that it has attracted other artists and subgroups.

A sequence of free space claimed by athletes, artists and performers







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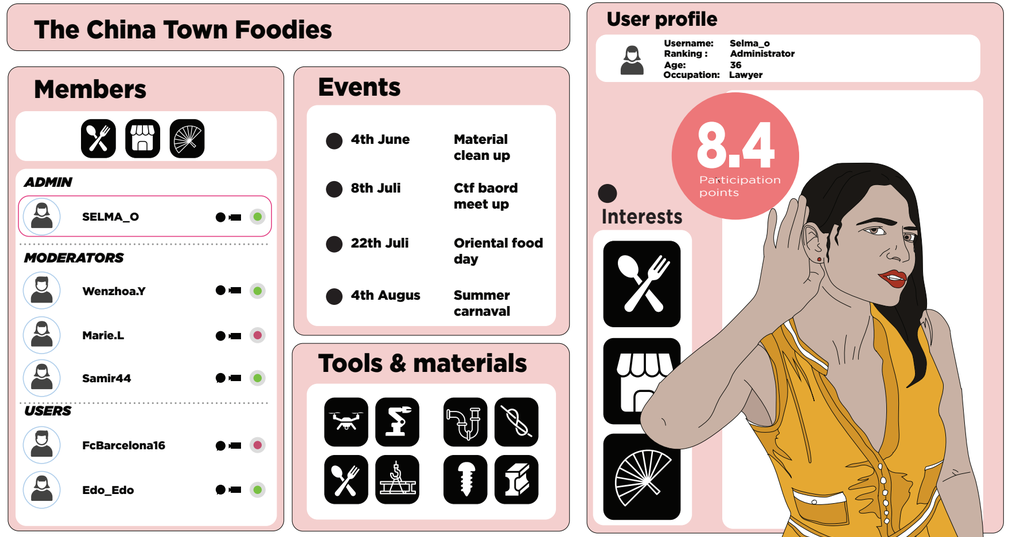
Selma
The China town Foodies

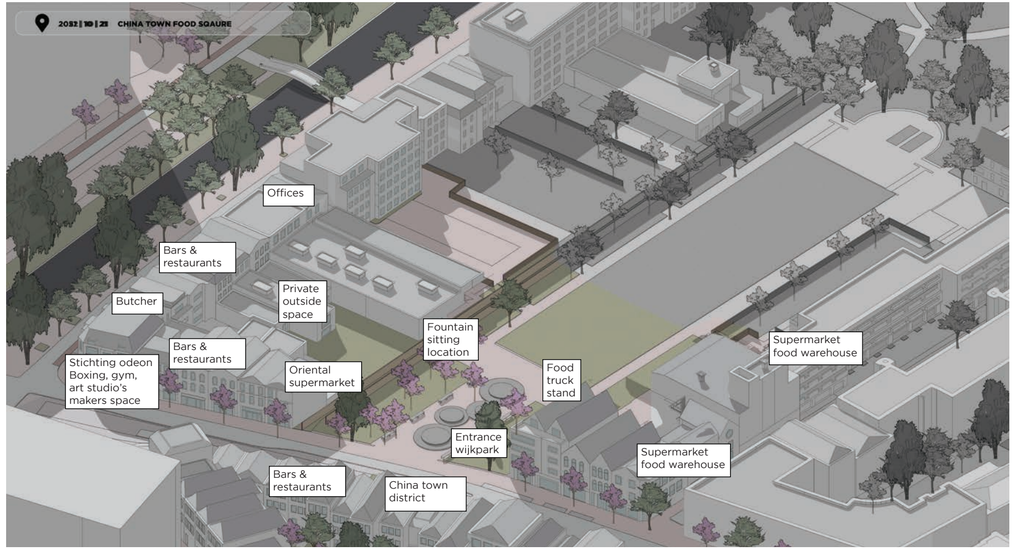
Selma is checking whether the evening at the Food Square is going well. Every Tuesday evening is oriental food night in Cyberpolis. People from all over the city can then come to the neighborhood park to try different dishes from local restaurants and bars from the china town district. The food square became a cluster of oriental restaurants with many colors, flavors and smells. People can sit around the fountain to have something to eat, or they can get their food delivered at home via the delivery drones.

Selma and the China Town Foodies
Selma is the administrator of the china town foodies collective. She is 36 years old and has lived in the Old West all her life. She used to work in her father's Turkish restaurant when she was young. Now she has a busy life and is a lawyer by profession. Yet she misses the hospitality life and she is very involved with the local entrepreneurs from the china town district. She has a heart for the neighborhood and would like to enhance the multicultural character with all kinds of colors, smells and tastes.

The China town foodies
This is a collective with mainly small local entrepreneurs of restaurants, supermarkets, bars and other food related businesses. Together they form the basis of the collective and represent a strong identity for the china town district. Many of the group's users are people who enjoy good food and visit here often.

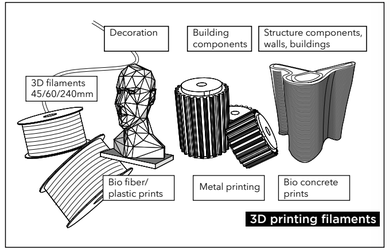


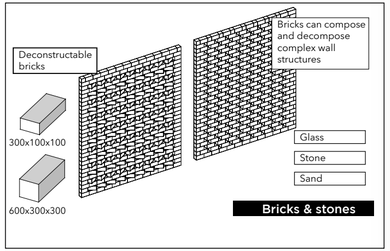
The Food square
The food square is the existing square that is also the entrance to the neighborhood park. It is located on the West kruiskade in the china town district. Currently it is a quiet place and people mainly come there to have lunch with a local specialty around the fountain.

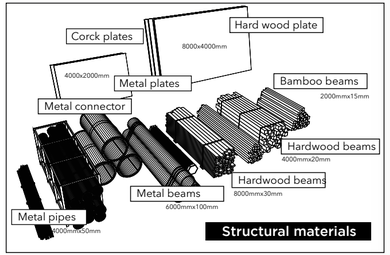


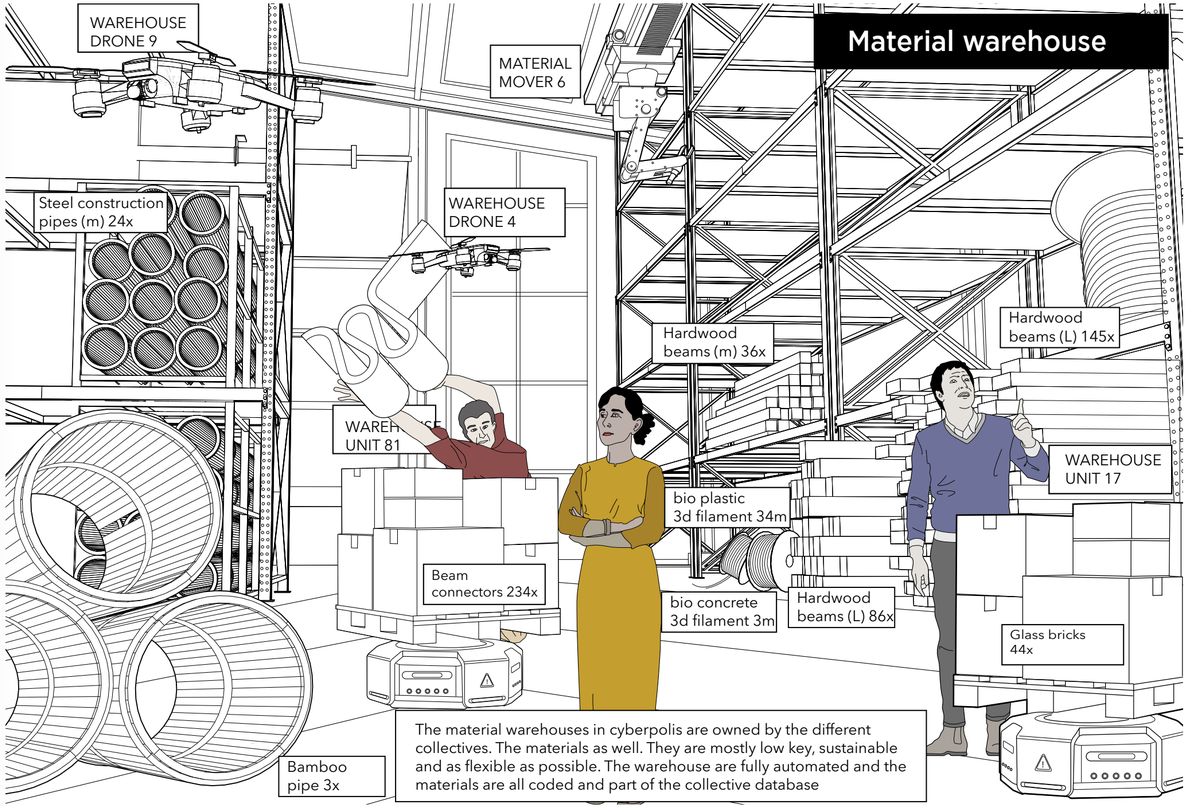
The material warehouse
Selma is the first person to set up the material warehouse for the district park. The various collectives of the neighborhood park can store their own collective materials here. They can use these materials to create and build their architectural typologies. The warehouse is fully automated and all materials are in a database so everyone knows who uses them and when.

Because the materials are bought by the communities themselves, they are often low key and flexible so that they can be reused. The communities determine the materials that fit the collectives. In general, a number of types can be distinguished, including construction materials, bricks and stack elements and shape-free materials for printing.

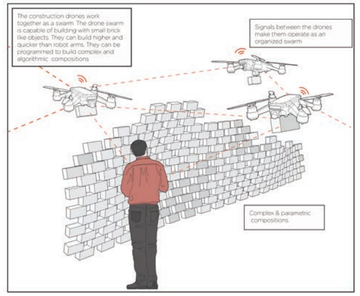






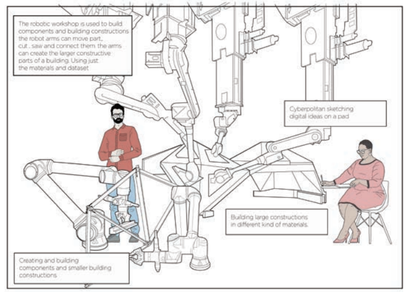


Workshops



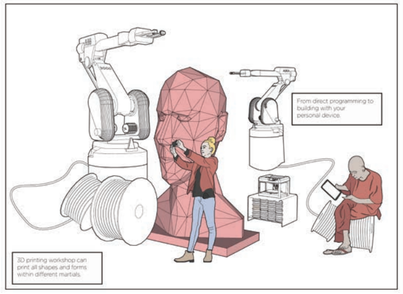
Drone swarm constructing

The construction drones work together as a swarm and are capable of building with small brick like objects. They can build higher and quicker than robotic arms and can be programmed to build complex and algorithmic compositions



Robotics

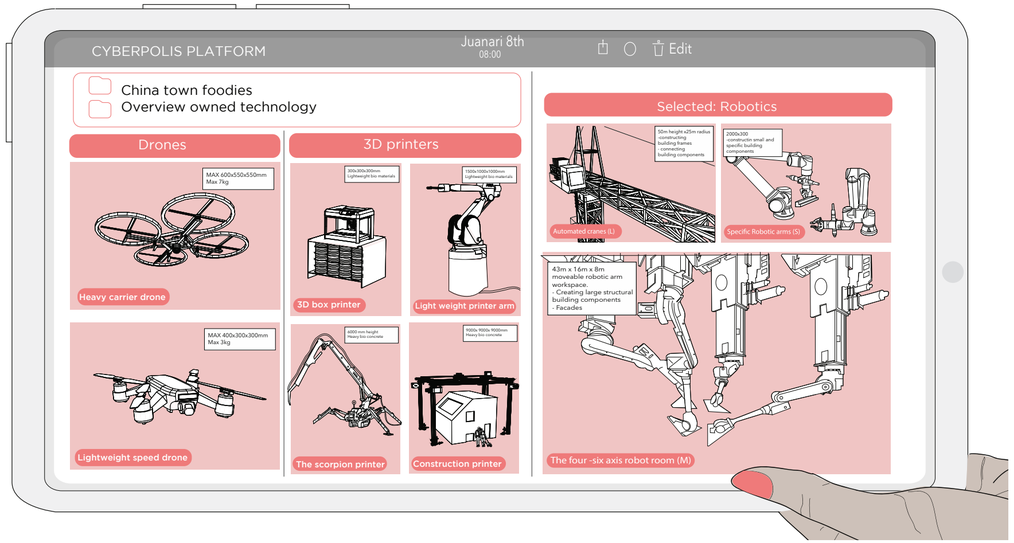
The robotic workshop is used to build components and building constructions. The robot arms can move parts, cut, saw and connect. The arms can create larger constructive parts of a building. Using the materials and blue print of the design.



3D printing

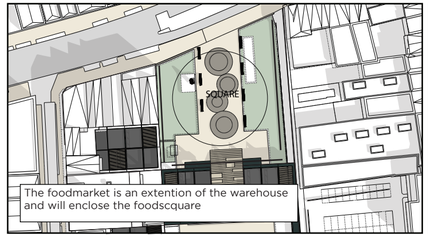
The 3d printer workshop can be used for personal or for collective uses. The printers are small medium sized and mostly used use light weight materials in all shapes and colors. Everyone can sketch and program ideas and get the printers to build it

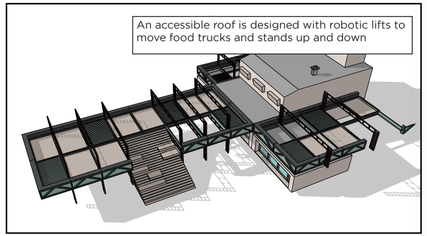
Collectively owned technology
In Cyberpolis, the digital communities own the technology. In this way the users themselves can use their technology for collective goals. This means that the technology determines what their living environment looks like. When a robot arm has a maximum span of, for example, 3 meters, it cannot be built larger than this.

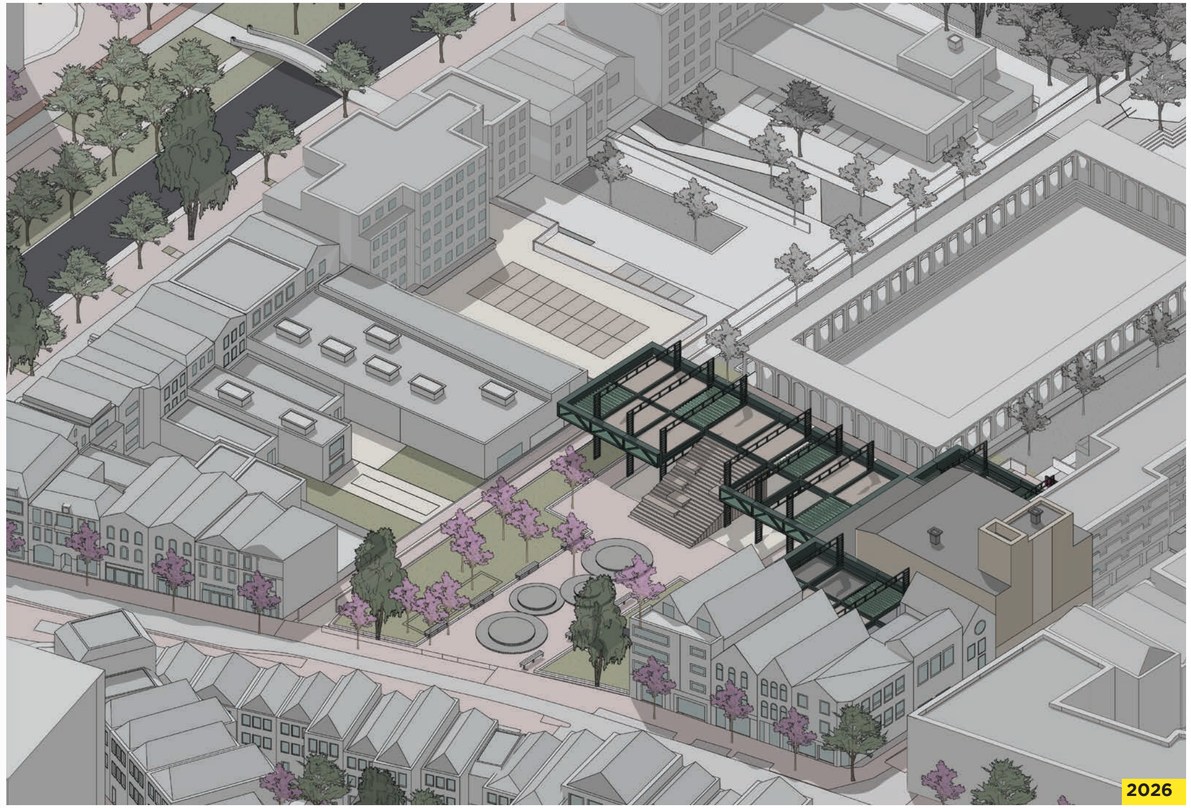


2026

The owner of the warehouse has decided to create a covered food market on the foodsqaure.

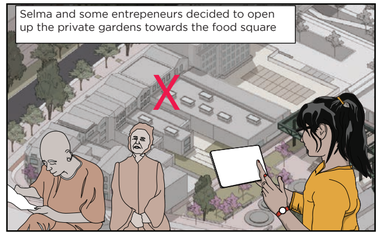


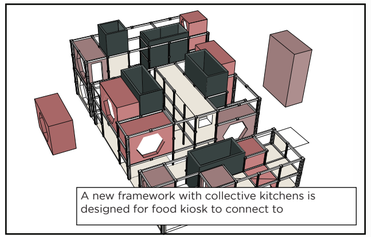




2041

the food square is popular and also attracts other food-oriented restaurants and entrepreneurs. New restaurant typologies emerge around shared kitchen structures.





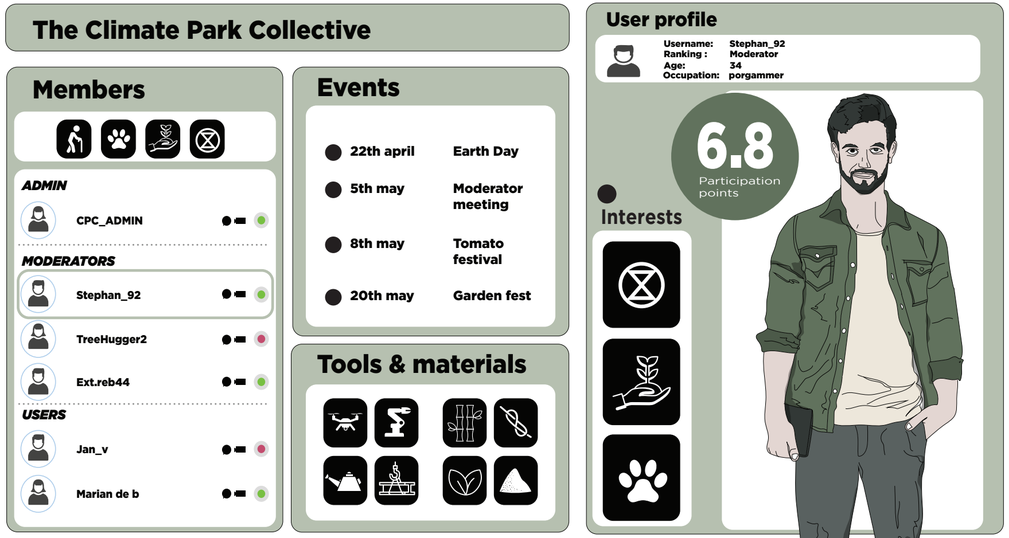
4

Stephan
The Climate Park Collective

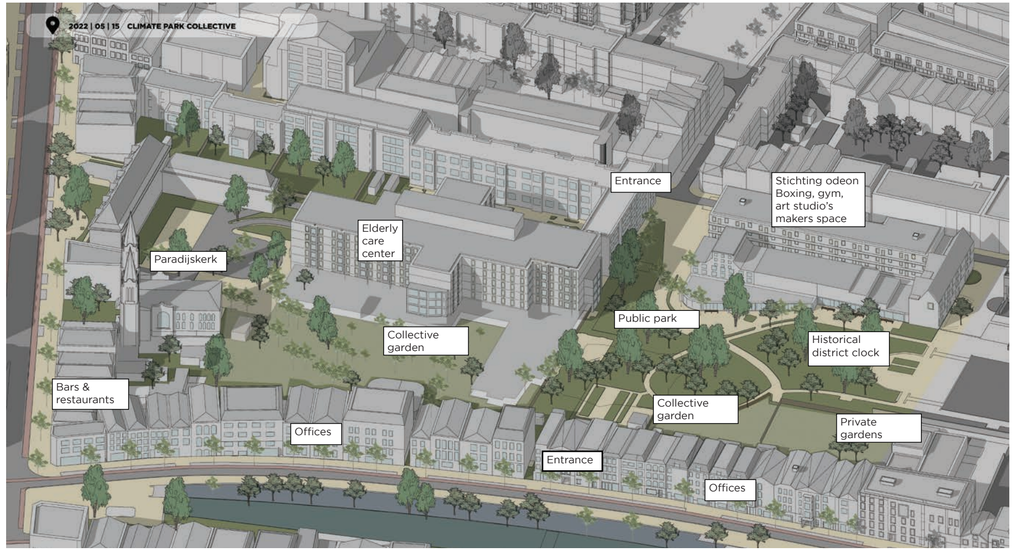
The climate park collective in the district is the fastest growing community. A green place so close to the central station in the heart of the city. The park and its buildings are designed as natural as possible and the activities are all about sustainability, carbon neutrality and circularity. Food is produced for the neighborhood and for the food district. The materials for the collectives such as bamboo and wood are produced locally in the park. And the (robotic) animals have just as many rights as humans.

Stephan and the Climate park collective
Stephan is 34 years old and is the moderator of the climate park collective. He is actually from The Hague, but when he heard about the collective he chose to move to Rotterdam. He loves nature and wants to leave as little footprint as possible. That is why life in the climate park suits him perfectly. He is very good at programming and coding, which is why he is a huge asset to the community. He is always working on new designs that make the world a bit more sustainable and natural.

The climate park collective
The collective consists of a huge number of people who want the best for nature in our cities and therefore the climate park. It mainly consists of environmentalists, but also the residents of and around the park such as the elderly from the nursing home. Even the animals within the park get a voice here. Rules are to only build with biobased materials.

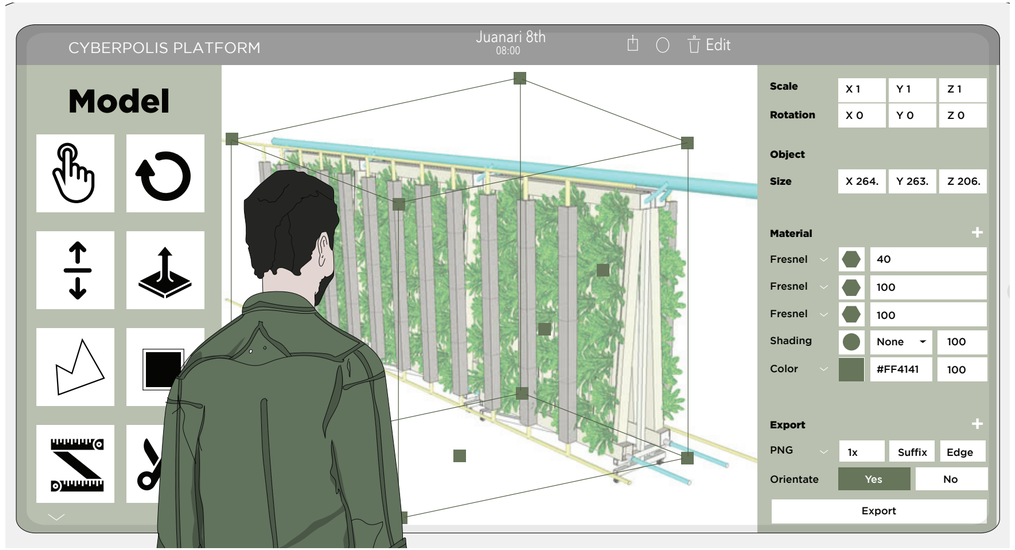


The climate park
The climate park,currently also is a park. However, there is little to do and the park is surrounded by local dwellings , gardens and empty buildings. There is, however, a collective garden of concerned residents and the elderly care center is located next to it.



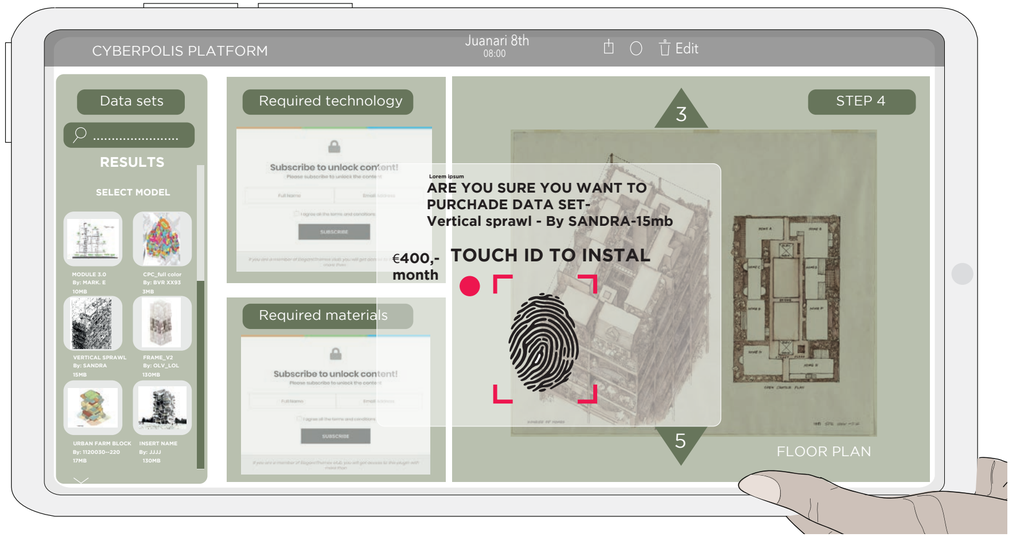
Designing

Stephan is a programmer by profession and always busy designing for his collective. Digital technology and user friendly interfaces, enables him and many others to realize his own thoughts and to contribute ideas about the development of the city. The citizens as architect of its environment.



Blue prints and datasets

When all the cyberpolitans are developers and generating ideas about and for the city... a lot will be generated
The platform offers a database as part of the sdk (system development kit) for the city. The ideas can be uploaded as datasets (blueprints, guides, needed tools, needed materials etc)

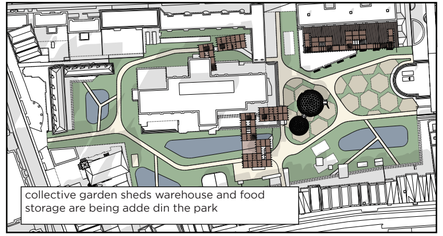


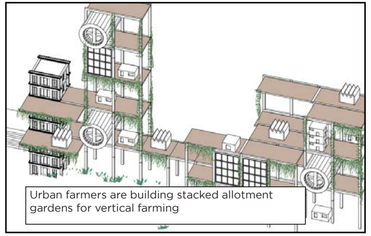
2027

The collective decided to open up all the fences and create one green climate adaptive public park

2038

Urban dwellers, and farmers from all over the netherlands want to come and join the climate park collective. A green way of living in the heart of Rotterdam!





5

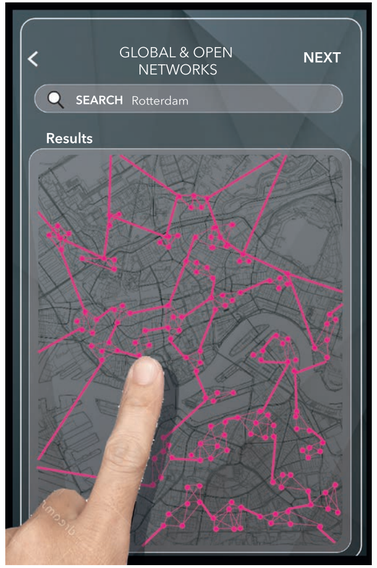
A future under construction

Cyberpolis is a city that is on the rise, but it has the potential to develop into a new model that is slowly taking over more and more parts of the city. It starts as a seed that grows into a flower and then pollinates other places. A module for the city. You can choose not to participate and not to be a user, but when cyberpolis advances further you will notice that it is a lack that others determine how the city looks like.

Local places in the city

On a local scale the ecosystems are responsible for their own collectively owned land. They decide how they want to live , what the public space should look like and how other people will experience their urban scape.

Mostly collectives based on the same kind of people sharing the same interest are using the digital technology to shape their own daily life invironment.

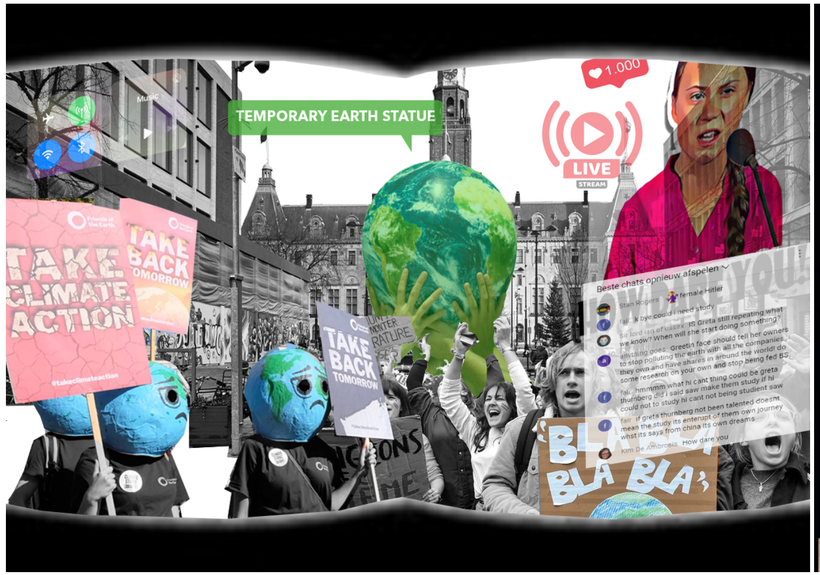


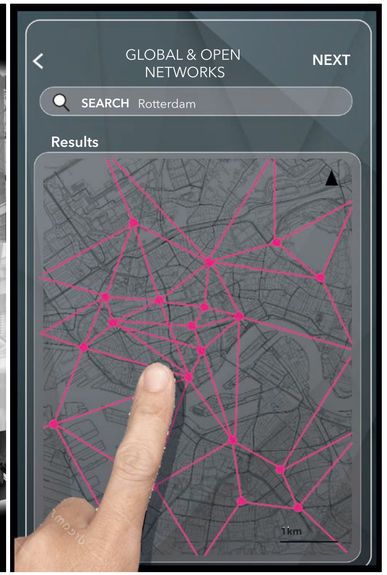
Temporary events on the most public places in the city

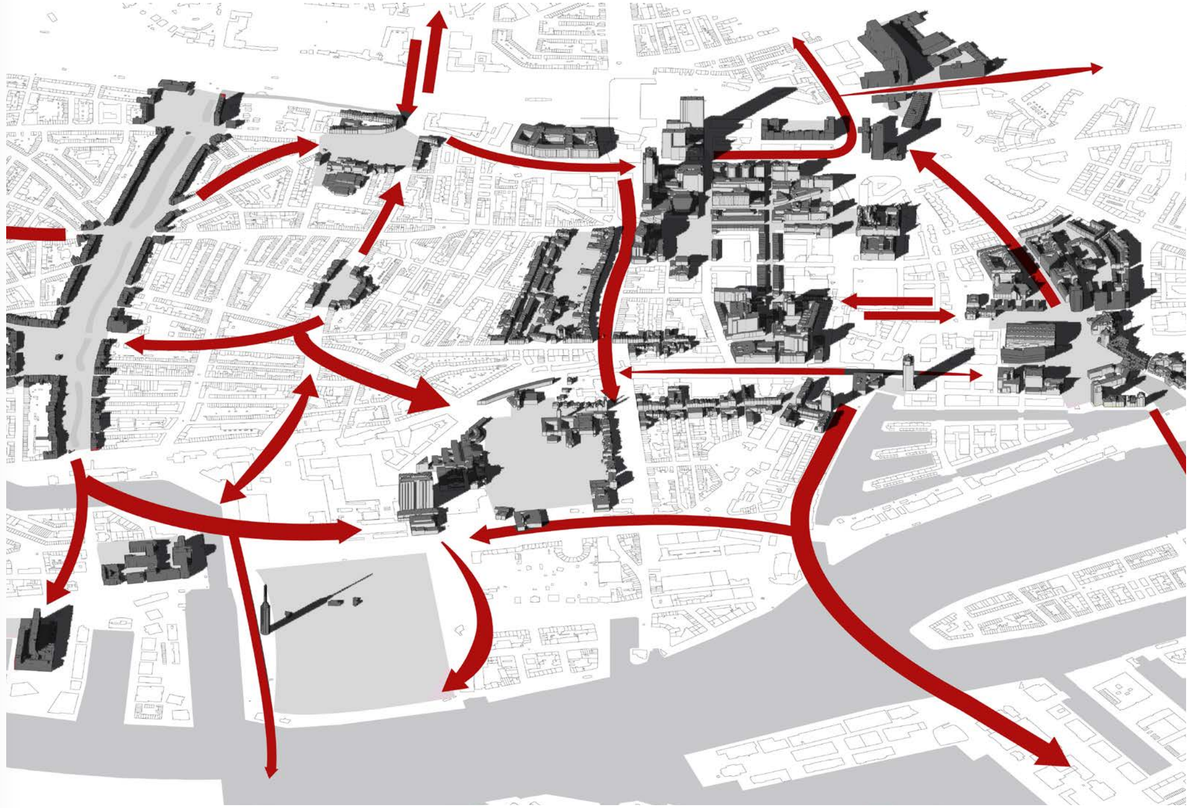
Cyberpolis also works on a global scale And is visible in the city scale in general.
This means that all the collectives within the city are are forming a collective together and

claiming a part of the city scape.
This will happen at the most public and well known domains within the city

those collectives on city/global scale are mostly formed around temporary events/ and happenings such as protests, festivals, and celabrations .The digital technology is being used to transform those public city scapes to be the perfect setting for their event.



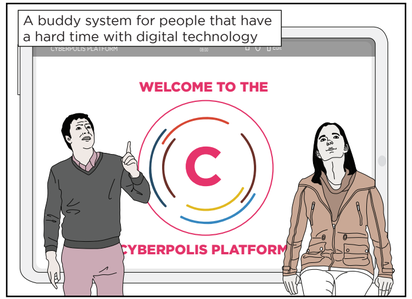


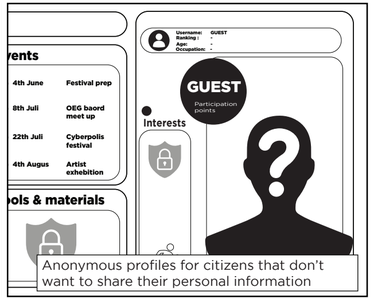


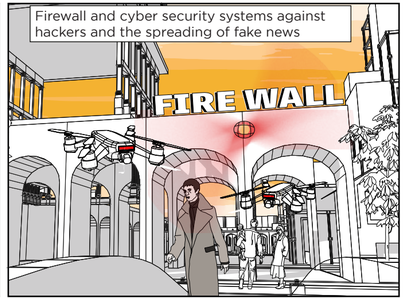
An optimistic future in progress

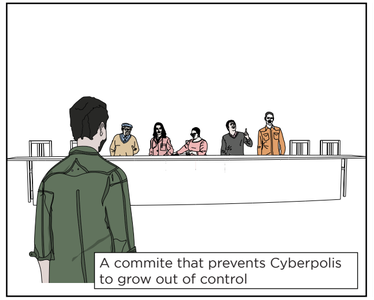
Cyberpolis is not a perfect city and has its flaws. It is a prototype for a new way of making a city that, by trial and error, has the potential to grow into a global way for bottum up development in addition to the kind of city that we know already.

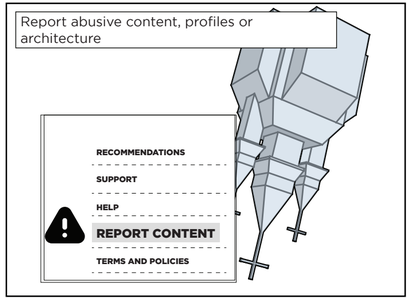
potential dangers and counter solutions

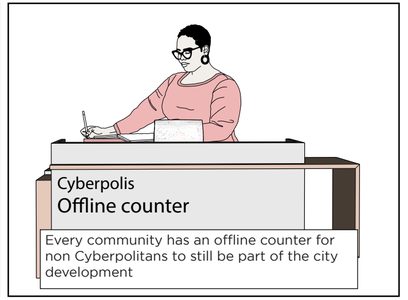


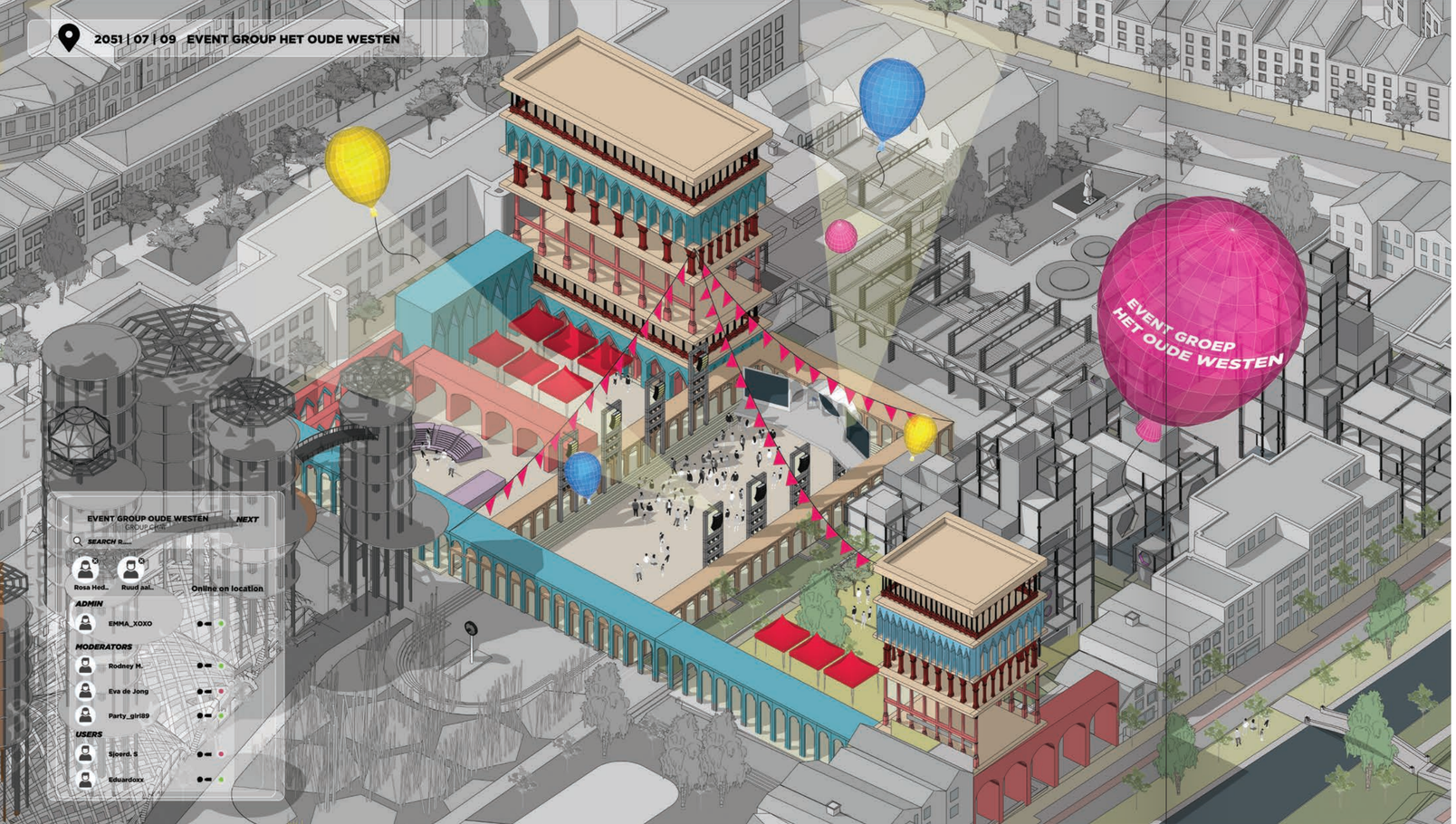












A CITY OF EXPERIMENT

A CITY OF EXPRESSION

A CITY OF COLLECTIVE VALUES

A CITY BY AND FOR ITS CITIZENS

Appendix

In this document you will find my plan and schedule for my proposed graduation assignment. A digital city for a global community.

The assignment will be an experiment that implements certain chosen systems from the digital world in our physical reality, to design an alternative future city that embraces those digital technologies and uses them to facilitate an open digital society as part of our cities.

personal fascination

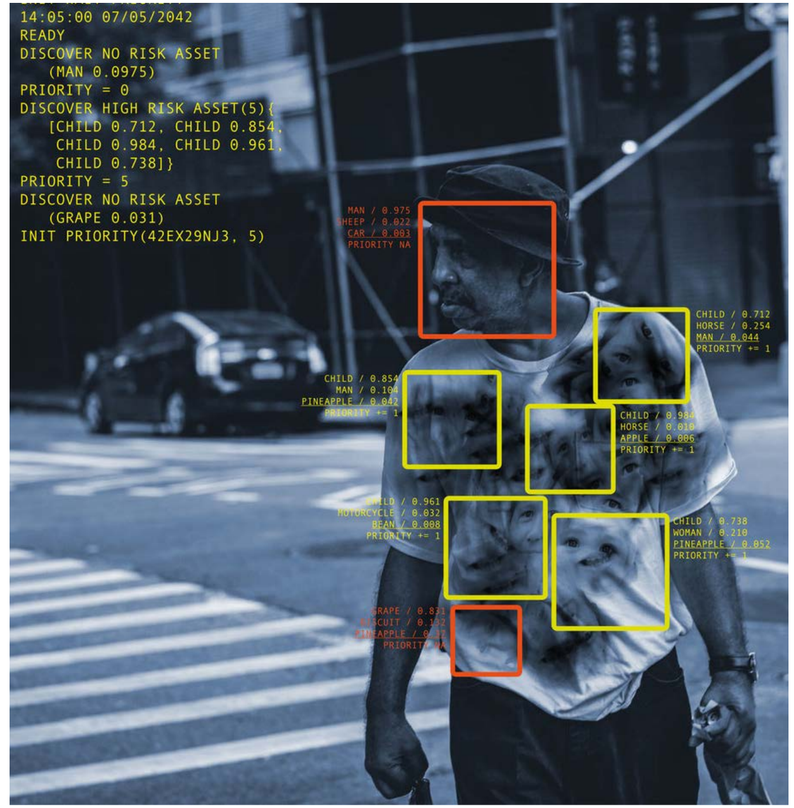
The digital city as a graduation project comes from a fascination I have for the digital world or cyberspace. I see the digital world as a hyper global world existing as a parallel to our physical reality. One where we form a global society, mostly without any geographic or political restrictions. Created and maintained by the community, the market and the individual. This digital society consists of an infinite number of communities with their own cultures, subcultures and movements that have all become part of our daily identity today. The digital society sometimes also knows how to give a better reflection on our physical reality. For example, under-represented groups in society can find each other digitally and initiate a movement to fight for change #BlackLivesMatter

When I think of a digital city, I think of a city that houses a much more open,global and digital society that allows them to shape and change our physical reality.

personal frustration

In recent years, many attempts have been made to bring the physical and digital worlds closer together. Plenty smart city concepts are being introduced, the government is becoming increasingly digital and the market is putting pressure on our public space with digital concepts. In my opinion we are using the wrong motives while working on the digital cities. Technology is used in an sectoral manner to make certain systems smarter or more efficient. The government and the market benefit from this, while these smart systems try to take all spontaneity out of our living environment.

who owns the (digital) city?
The city does not belong to the government or the market, but is the living environment of the resident and user ... a digital city should be as well!



social urgency

It seemed that the digital revolution caused more individualism and decreasing communities. That however didn't happen or is at least partially true. The digital world actually developed to allow individuals to form or be part of communities and express themselves on a global matter, without the limits of physical borders. Apart from a local or national identity, people gained a global identity. The global society makes it possible for individuals to be part of communities based on personal interests and ideals that became part of our everyday life.

Furthermore, the original intentions of digital world, is one that is largely created and shaped by the community itself. A system with more freedom, influence and responsibility for the user himself. A system that suits our times well and from which our physical world could possibly learn a thing or two.

spatial urgency

We live in a special time with a number of major challenges that come our way or already play among us. On a global scale, we must be able to respond to the climate crisis, the corona crisis and the emerging automation of our jobs. At a national level, we want to build a million homes and social equality seem to be under considerable pressure. Many of these challenges come together in our physical living environment. To tackle these challenges, major changes are needed, both within our economic and political system, but also in the way we organize our space.

Meanwhile, the digital revolution has brought us enormous changes towards a more global society that can no longer be ignored in our daily lives.
 Only our physical living environment does not seem to embrace this revolution yet. That seems a huge loss, because the digital society and its underlaying systems can offer enormous opportunities to help us with major issues such as housing construction, a healthier society, social equality or the climate challenge. When we embrace the digital revolution in our physical living environment, we can consider the digital as a new layer of the city, design it integrally and use it to improve our cities.

a critical attitude

It would be naive to think that the systems in the digital world are simply better than in our physical reality and thus improve our cities just like that. I want to learn from the digital world, but I have to do it with a critical attitude. Which systems can we learn from? And which ones not?

For example; the digital society has far fewer geopolitical boundaries, but perhaps there are other boundaries between communities to be discovered ? What kind of exclusion takes place in the digital world?

Furthermore, the original ideal of the digital world is that the digital society shapes this world itself. But is that still the case? Don't these community-enabling platform companies have a total monopoly by now?

Also privacy must also be considered. Many of the systems from the digital world are only made possible when data is collected from the user ... are these the systems that we want imply in our city?

assignment

My assignment
is to design and shape a digital city. Or rather a digital layer for the city. The term itself has no actual meaning and therefore I use it as a concept title. Personally, I see the assignment as an experiment, where I will implement certain chosen systems from the digital world in our physcial reality, to design an alternative future city that embraces certain digital technologies and uses them for an open digital society as part of our cities.

The goal
is to use and embrace the logic of the digital world in our living environment to see what we can learn from it. For example:

- are there systems conceivable where the citizen or communities have more influence or responsibility in our cities?

- how can we use these digital systems to give our cities and living environment an impulse?

- Can we use these digital systems to make our cities more spontaneous, instead of smart?

An existing city
as starting point for experiment. So no tabula rasa. I intend to tackle one urban task (probably the densification task) using design principles from the digital world.

Through research by design and speculative design,
I want to look at how digital systems could change our cities so "digital ecosystems" or the digital society can land in and shape our existing cities. The research tries to understand the digital world and to grasp the differences with the physical living environment to see what systems are needed to provide for an open digital society. The proposed research result is a palette of different digital ecosystems that can be translated into design principles for the physical city. By means of speculative design I want to arrive at a prototype for a new digital layer in the city.

Design question

How can we, based on the lessons we learn from digital world... arrive at an alternative future for our cities, in which we integrally design a digital layer in our living environment...that is focused on a more open, global and digital society... allowing them more influence in shaping and maintaining our physcal environment?

Assesment criterea

GENERAL (academy)

01. Research and analysis
Defines a research question. Investigates and analyzes systematically and chooses suitable methods and sources for this. Interprets the research tools and methods used, and the research results. Makes connections between different aspects of the research. Reflects on the research and its relevance.

02. Spatial design
Is able to Formulate a spatial problem definition based on an assignment.
Translates starting points and preconditions into a spatial design.
Applies appropriate design techniques and appropriate design tools.
Switches between different design domains and scales.

03. Communicating:
Can present ideas and plans in a clear manner for different target groups
chosing the right methods and techniques (visual verbal and written).
Can record verbal and non-verbal signals and processing

04. Environmental orientation:
Identifies relevant environmental factors from the spatial and social context. Detects and integrates environmental factors study and / or research. Embeds the spatial design in a spatial and social context. Is aware of current developments inside and outside the field.

05. Organize and management:
Organizes and directs personal and professional development.
Controls the work process through reflection, planning and self-management.
Realizes, applies and manages relevant strategies and working methods. Works
result-oriented together with experts and other involved parties.
Identifies opportunities and possibilities for existing and new ones developments and manage accordingly.

06. Reflection:
Applies professional knowledge and underlying principles. Reflects on its own
production, positioning and role in professional practice. Substantiates one
judgment or conclusion with relevant arguments.

SPECIFIC (self-formulated criterea)

01. Storytelling
- The story as a red line through the process
- Distinguished main and side issues
- Use design tools to tell a story
- Explain a clear and stimulating way of the project

02. Raising awareness
- Defining a clear urgency
- Illuminate and visualize existing developments
- Risks and opportunities
- translating findings into advice

03. Through the scales:
- Integral project
- Storyline
- Future perspectives
- Spatial design
- Location specific design

FROM CIAM TO CYBERSPACE

“The Community” might be the most frequently used term over the last 50 years of Architectural and Urban discourse. For decades, rhetoric invoking “the community” has endowed even the most mediocre designs with an aura of good intentions (and thus implicitly condemned designers who decline use of the word). The community has served as a legitimization for anything from Team X to New Urbanism, from Pendrecht to Celebration, from Aldo and Eyck to Larry Beasley…

But what is “the community”? At one time the notion seemed straightforward, defined through spatial proximity in an orderly progression of scales: the neighborhood < the city < the nation. Then, Globalization turned everything upside down. The population of certain cities now exceeds that of entire nations, the economy of corporations that of a small continent. Communities appear to no longer be defined by territory, but by economic interdependence.

To what extent has “the community” turned its back on the community? More and more its formation seems to rely on exclusion and voluntary isolation. In the United States, the public sector has relegated the management of cities to Disney. Communism (the only ideology to elevate “the community” to a global political doctrine) spanned a third of the globe, yet currently it is the exclusive property of insular states like North Korea. Religion, the cement that held society together, is increasingly a means to secede from a society no longer under its spell. Sects build consensus on a shared rejection of everything which refuses to conform to their singular spiritual truths. Others find their glue through silence and mystery: Scientology; Freemasons; the Cosa Nostra, with the Omerta as the ultimate form of bonding, stemming from the joint knowledge of that which cannot be said…

Is the internet a last refuge? Rebirth of the community under the guise of anonymity, defined through shared interest and pursuits… built on taste, sexual preferences, shared secrets..? Facebook offers a million of new best friends; Adult Friend Finder offers ample suggestions what to do with them… Does the future of the community equal a mass orgy with the unacquainted?

Reinier de Graaf, Laura Baird

ESSENCE

1

GLOBAL MOVEMENTS & COMMUNITIES | LEARNING FROM DIGITAL SOCIETY

https://www.archdaily.com/377566/strelka-talks-architecture-and-community-reinier-de-graaf

From CIAM to cyberspace is an article that displays the result of a design studio at the Berlage institute. I watched an interview with Reinier de Graaf concluding the outcome.

The community is a very often used topic among designers. We always try to design for communities or want them to be formed inhabbting our designs. A community however is not one to be forced or or shaped just by close proximity. The communities today are mostly based on common ideology and/or critisism on reality. They seperate themselfs from society by extreme thoughts or gated settlements.

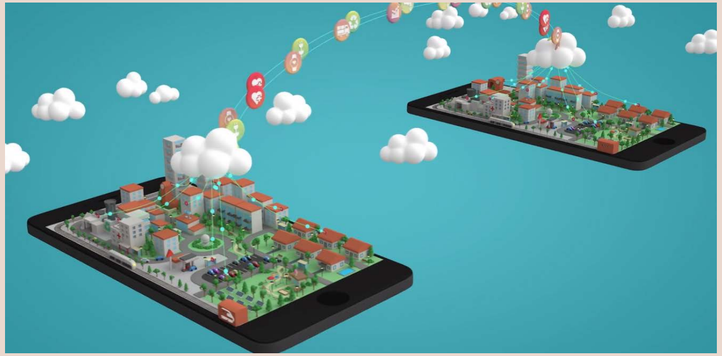
It seemed that the digital revolution caused more individualism and decreasing communities. That however didn’t seem to be true. The digital world actually allows individuals to form communities and express themselfs on a global matter, without the limits of physcal borders. Apart from a local or national identity, people gained a global identity. The global society forms communities based on personal interests and ideals, which are accessible for all. The digital society even offers reflection on our current realities by starting global movements like: Black lifes matter or occupy. The digital world offers a better reflection of society than our current reality.

The City as a platform

What is the future role of city governments? As digital technologies are changing the way we interact with each other, cities have to undergo a transition as well. Tomorrow's government is not merely a centralised, rule-driven body, but enables and facilitates citizen-led innovation through an open ecosystem, called 'city as a platform'. We often expect our governments to do things, but we should also think of the government as a platform that lets things happen. That's the transition we are currently undergoing under the sophisticated name of 'City as a Platform'. Thanks to the omnipresent connectivity through Internet, smartphones and other sources of data, the "smartest" city is the city which knows how to leverage these digital networks in the most intelligent ways....

This digital transformation has also its implications for the governance of cities. Aspen Institute puts it powerfully: "Urban dwellers now live their lives in all sorts of hyper-connected virtual spaces, pulsating with real-time information, intelligent devices, remote-access databases and participatory crowdsourcing." Governments start to realise that expertise is not centralized, but distributed amongst all the eyes of the city. Governance is not just about getting most of the votes during elections and assigning tasks to bureaucracies. It is also about efficiently collecting and curating information, coming from citizens and other data points, in order to enrich the decision-making process.

Indeed, civic crowdsourcing (or 'citizensourcing') is drastically changing the relationship between cities and their citizens. In the traditional governance system, every citizen has a single vote every X years. Today, using digital technologies, it is much easier to voice your opinion as a citizen.



2

CONCEPT

THE CITY AS A PLATFORM

https://www.smartcitiesdive.com/ex/sustainablecitiescollective/city-platform-how-it-changes-governance/1207636/

The city as a platform is an interesting concept because it tries to make the physical environment work more like the system of the digital world. It's about a new role for the government ... as a platform that let things happen. A shift in which residents and the market have more direct influence on the living environment. Made possible by technology and digital systems.

Concepts like these is what im striving for as outcome of my research. Working with a speculative concept like an umbrella over my project will give me a scope for design principles.

reflectie op onze huidige systemen, waar nieuwe bewegingen ontstaan vanuit de mensen zelf. Het vormt gemeenschappen op basis van interesses en idealen en maakt deze uiterst toegankelijk. Ook kunnen deze digitale bewegingen of communities een stempel drukken op de fysieke leefomgeving.

3

PROCES

Future Thieving 1 / 2 SPECULATIVE DESIGN

1 . https://uxdesign.cc/stealing-from-the-future-with-speculative-design-e769059b6689communities

2. https://uxdesign.cc/future-thieving-2-speculative-design-methods-tools-45b655096d95

The reason I chose these articles, is because they can guide me through a speculative design process. I want to you use speculative design as a method to provocate and open debate. Therefor I want to work on a possible/ plausible future where a digital city (layer) can inhabit global communities, movements and identity.

Future Thieving #1—Stealing from the future with speculative design

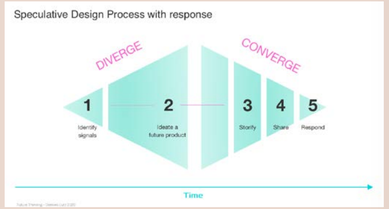
Speculative Design combines Design Thinking methods with the story-telling and future-world-building techniques of speculative fiction to produce prototypes of future products or experiences. These fantastic artifacts may be in the form of a physical or digital product, video, documentary, book, manual, website, sculpture or something else. Their purpose is to generate discussion, debate, and awareness beyond projected or plausible futures, so that designers, companies, and the public not only live more aware of how their actions contribute to manifesting and hindering the future, but so they also begin to imagine and articulate their preferred futures. Speculative Design is not predicting or problem-solving, it is reframing our perspective of the future to reveal alternate possible futures and unseen trajectories of cultural, technological, environmental, socio-political trends. Unlike the data-informed systematic inquiry of Future Research which attempts to nail down possible and probable futures, Future Studies is 'more intuitive, less disciplined, and less data-oriented' and therefore takes the process beyond the expected and commercial.

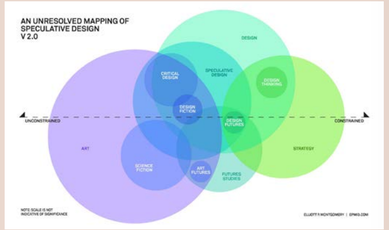
"The future doesn't just happen. We are building it, and we are building it all the time." — Hannah Fry.

Future Thieving #2—Speculative design methods and tools

The Future Timeline is a fascinating, resource-packed website collating predictions for the next two centuries and beyond, including data and technology trends, articles on emerging technology, and much more. Created by London-based writer and futurist, William James Fox, and updated

regularly since 2008, The Future Timeline began as a small and quirky website showcasing a brief list of future predictions. Insightful and provocative, the idea attracted many fans and contributors over the years, growing into a vast, community-based project of futurology enthusiasts from all over the world.
You can use the Future Timeline as a resource for speculative design projects to generate ideas about the year or technology you are designing for..





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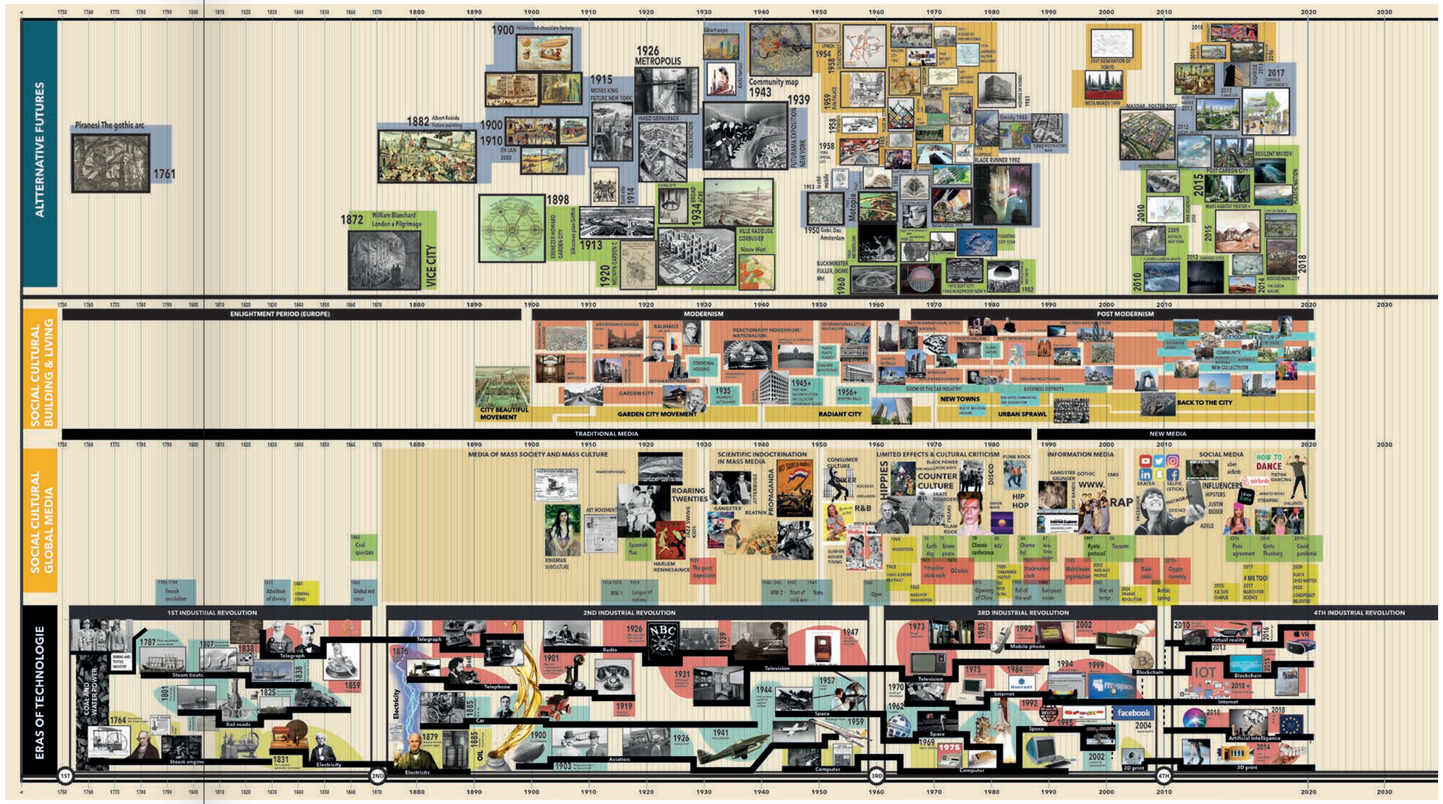
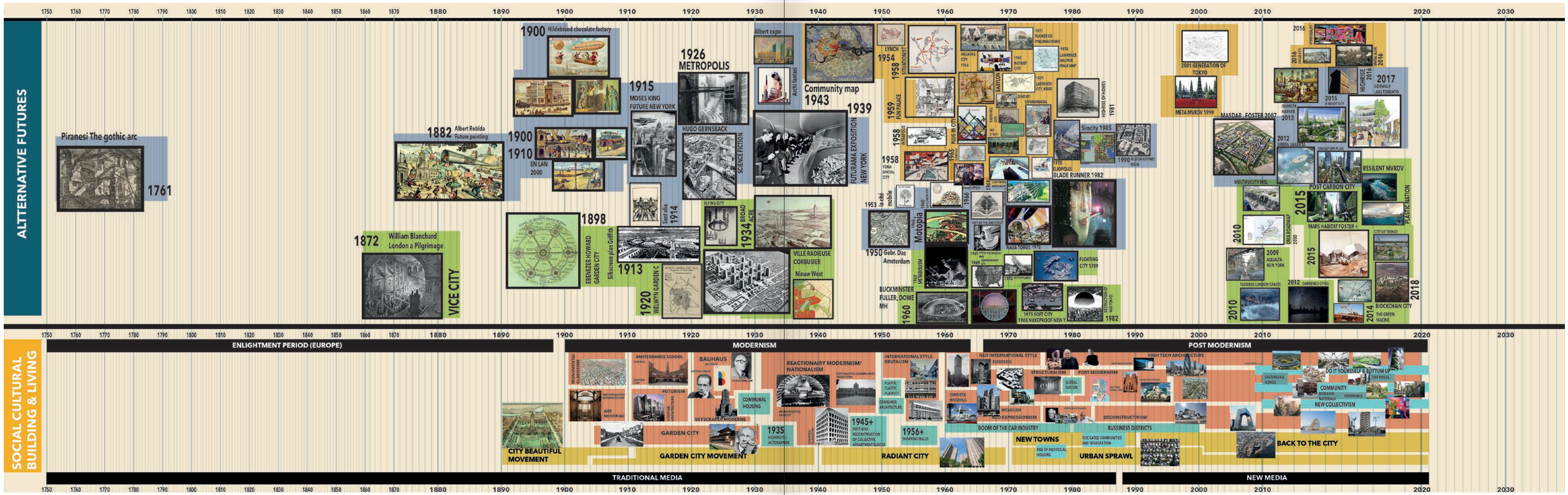
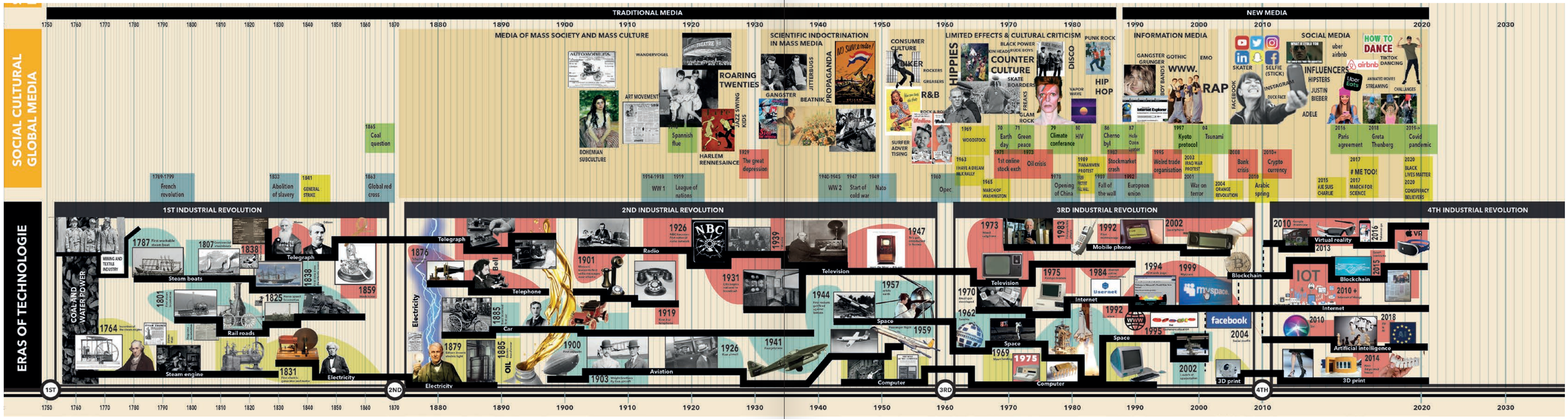


Alternative futures and reality



Era's of technology & Mass culture



Towards a new era

The 4th industrial revoluition
Cyber physical systems & automation of everything

The Fourth Industrial Revolution (or Industry 4.0) is the ongoing automation of traditional manufacturing and industrial practices, using modern smart technology. Large-scale machine-to-machine communication (M2M) and the internet of things (IoT) are integrated for increased automation, improved communication and self-monitoring, and production of smart machines that can analyze and diagnose issues without the need for human intervention.

Leading technologies

The internet of things | Exchanging data between "things" (devices , objects and systems). with the internet of things regular daily objects become their own entity on the internet, allowing them to communicate with persons and other objects and make autonimous dicisions.

Artificial intelligence | AI describes computers that can "think" like humans. They can recognize complex patterns, process information, draw conclusions, and make recommendations.

Blockchain | Blockchain is a secure, decentralized, and transparent way of recording and sharing data, with no need to rely on third-party intermediaries. including making supply chains traceable, securing sensitive medical data anonymously, and combating voter fraud.

Faster computer processing | New computational technologies are making computers smarter. They enable computers to process vast amounts of data faster than ever before, while the advent of the cloud has allowed businesses to safely store and access their information from anywhere with internet access.

Virtual reality and augmented reality | What's the difference? VR offers immersive digital experiences (using a VR headset) that simulate the real world, while augmented reality (AR) merges the digital and physical worlds.

Everything renewable | From energy to materials, everything would be registered in a database and allowing it to be renewed.

Robotics | Robotics refers to the design, manufacture, and use of robots for personal and commercial use. While we're yet to see robot assistants in every home, technological advances have made robots increasingly complex and sophisticated. They are used in fields as wide-ranging as manufacturing, health and safety, and human assistance.

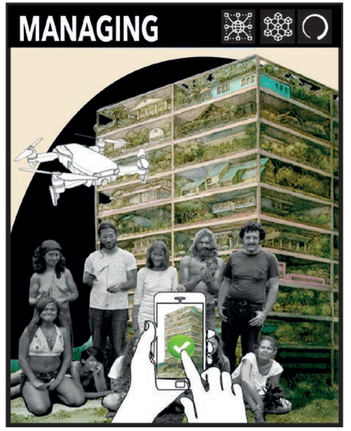
3D printing | 3D printing allows manufacturing businesses to print their own parts, with less tooling, at a lower cost, and faster than via traditional processes. Plus, designs can be customized to ensure a perfect fit.

Possibilities

This toolkit allows us to build and shape our own city.
It is about the merging of physical and digital space.

Leading technologies are 3d printing, robotics and renewable materials.

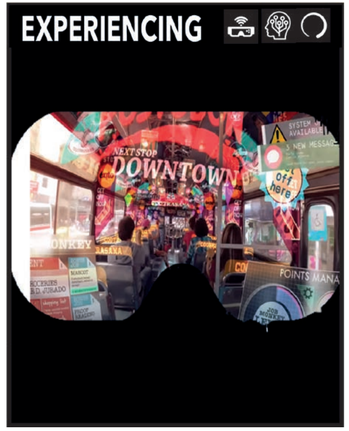
- Quick way of building because of flexible systems and materials
- 3D print any color and shape you want
- Can be build and designed by anyone that can control the technology



This toolkit makes it possible to disrupt the way cities are organized.

Leading technologies are the blockchain, internet of things and fast computing

- Allows communities to be self organizing using the blockchain technology. This can conclude into a different role for the government.
- Smart objects connected to the internet can provide services



The toolkit of experience is a merging between the digital, physical and biologicalspace

Leading technologies are virtual reality, artificial intelligence and fast computing

- This toolkit allows the society to experience the city in a total different way.
- An extra layer of information, leisure, communication can be added to the city
- People can add this information, experiences themselves

Different types of alternative futures

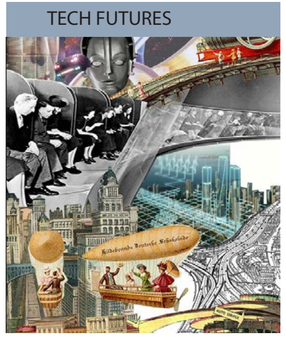
Lines of thought

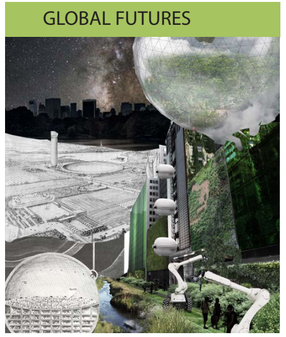
- What will the digital city look like?
this question can be awnsered only if we decide on how we are going to use the new technology to shape our cities.

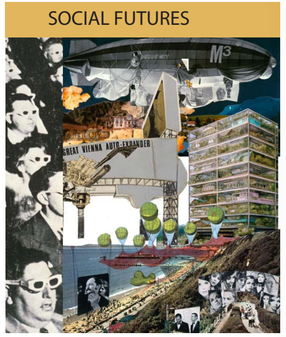
- Futurist decide the future!
- How did people speculate in the past?
different era's of speculation
different types of speculation

What defines our era?
Green and smart cities

What about the people???







Tech futures

Technology has a vital role

Focussed on a series of systems, networks and processes instead of the life as part of the city

Tech optimism, after the invtention of new technologies. Mostly about the elements of the city : mobility, buildings, services

City as a machine
These alternative futures are often based on new (disruptive) technology that are envisioned to totally change the way we live and organize our cities. Often these futures are not made by architects or urbanists, but are part of a lobby campain or science fiction story.

- Either utopian or dystopian

Disrupting the city
The city as a machine is about understanding and organizing the city by using the newest and most high tech.. technology. These futures are very common
these days and are called the smart cities

- Efficiency
- Smart

Global futures

Climate tech futures are optimistic about our living environment. The focus is to create a better an more healthy living environment by organizing our cities in different ways

- Very high tech future
- Smart cities that are climate driving
- Change in the way we live (compact, green)

The escapist futures are dystopian futures that are often radical alternatives to way we used to organize our cities now. It speculates on a future moments where we have to leave our current cities and live in a new way in a different place.

- Very high tech futures
- Radical different form of organisation
- Different location of the city

The post doomsday futures are often made to create more awareness of how we deal with our climate. These alternative futures show us how we should live with the consequences

- Shows in a confronting way how the city changes at eye level.
- The organisation of the city dissapear, while social structures stay

Social futures

- Contrast with the technological futures
- Mostly bottum up organization

The city isnt a technocratic object, but the city is a cluster of people, experiences , senses and culture

Different ways of living is perhaps the most radical intention of the social futures. It is about finding new forms of housing that reflects the modern society. It often
makes use of new technologies and materials.

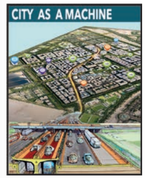
Key words are : Mass culture, sub culture, cullective

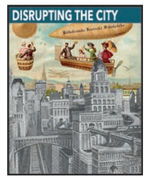
The new ways of living often form a radical clash with the excisting city.

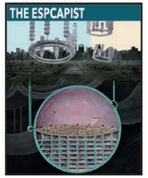
A city is a combination of all different kinds of events, moments or happenings. Therefor a city should also be designed to fascilitate those events.

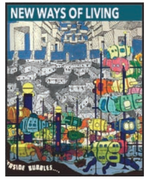
Key words: creativity, spontanianity, bottum up and leisre and technological

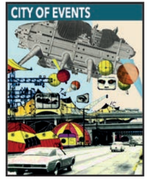
- Flexible punlic and private space
- People design theiyr own spaces
- Could change any time

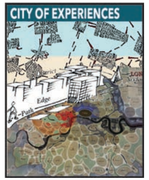












Mass culture

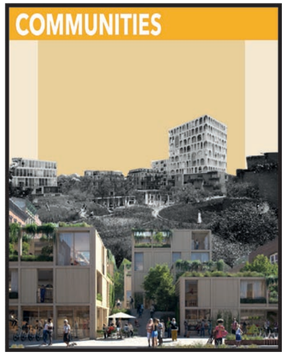
- If the society is the main actor in a social driven future.. what defines our current society?

- Research what defines our era on social cultural aspects

- How do we like to live?
- How do we (mass) communicate?

Since a few decades mass society is moving back towards the cities. This means people will live in a compact way much closer together. The indivual era of the urban sprawls is ending and the trend is that society is moving more towards collectivism

- New relations between public, private and private space (collective spaces)
- Public space as most important
- Forced interaction with neighbours



There is a big trend of introduding the community in cities. Mostly the communities aren't very outspoken or different from the rest of society. They contain of groups of people (mostly families) that like to live in a safe more closed of environment

- Mostly sharing different kind of fascilities
- Collective space as most important one
- Collective area's are mostly closed of from the public space

Since the bank crisis of 2008 a bottum up movement in the cities has started. Inhabitants of the city are making theyr own plans as individual or collective.

- Either public or private
- Temporary places of experiment

- low key materials
- Expressive architecture

New media made it possible for the society to very quickly start new movements, gather people and take over the city as we know it.

- Riots, Marches, protests or festivities
- Mostly taking place at main infrastructure/ squares or parks
- Self organizing society creating quick hierarchies with leaders and listereners. Also the physical gath-erings are organized like this
- Focussed on icons, statues, symbology

New media made it possible for everyone in society to reach an audience. This means everyone can express themselfs in a public (digital) domain.

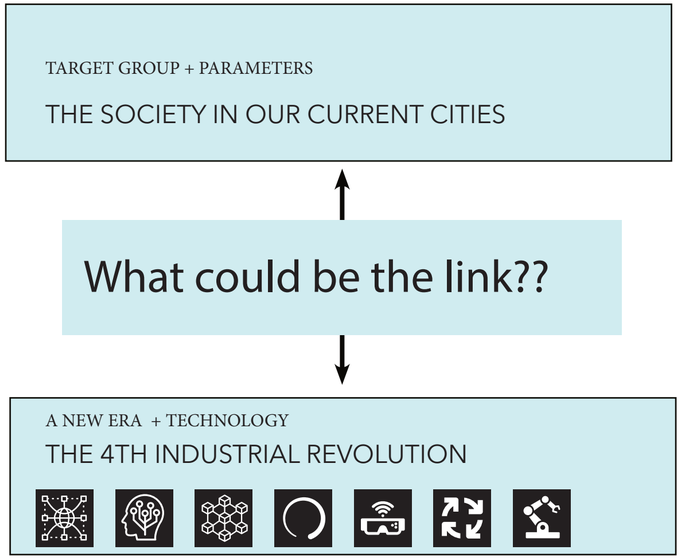
- Influencers make the rules (more followers means more influence)
- Extreme flexible and adapting public domain .. since # trending is always changing
- Some trends stay for years, some for just an hour

Platforms could be the link to make the (new) technologies accessible and usable for and by the residents and users of the city.

Platforms are the preconditions under which a technology is created, but nowadays there is also a trend where technologies are making the platforms.

These are often social platforms that a user community develops. A type of platform that you see more and more often and where the boundary between producer and user is increasingly blurred. In this way, technology is made increasingly accessible to "ordinary people" and society is also gaining more and more control over determining the underlying infrastructure of rules, business models and standards.

ALTERNATIVE FUTURES



INGREDIENTS PLATFORMS

Individuals can join global and open platforms that are provided by the global **market**.

+Very high tech
+ Accessible for everyone
+ Fast spreading of information

- Data collecting (privacy)
- Extreme Advertisement
- Monopoly by big companies
- Fake news

Communities can join global and closed platforms that are provided by the global **market**.

+ Safe environment (privacy)
+ Communities of same interests spread over the city
+ Niche market

- Bubble living
- Adverstisement
- Monopoly within niche
-

Individuals can join local and open platforms that are provided by the local government or the local neighbourhood

+ Bottum up
+ Accessible for everyone
+ No market/ advertising

- Goverment data collecting
- Low tech
-

Communities can join local and closed platforms that are provided by closed of communities

+ Safest data environment (privacy)
+ No advertising (market)
+ Living in communities sharing the same location

- Segegration
- Low tech
- Gated communities
- Slow data sharing