

Master of design for Emergent Futures  
Thesis 2021-2021

**Busisiwe  
Mgwenya**

MDEF  
2021-22



# Table of contents

Chapter 00- What is my fight

Chapter 01 - Research through design

Chapter 02- Design space based on AOWS

Chapter 03- First Interventions

Chapter 04- Reframing the project

Chapter 05- Term II Interventions

Chapter 06- Updated vision and identity

Chapter 07- Final Interventions

Chapter 08- Alternative Present

Chapter 09- Designing yourself out

Chapter 10- Final Reflection

Bibliography



**TERM I**

# Chapter 00

What is my fight?

## My vision and Identity

The MDEF programme has offered me a platform to map my strengths and my network to make an impactful contribution to the Weak Signals I care about. Representing my ideas, identity and fight in a design space has been a profoundly introspective journey, where I found myself shifting and growing in my ideas and who I want to be as a designer.

My vision as a designer is to advocate for social justice in urban spaces using digital frameworks and decentralized web systems as a tool for research and design. I want to find my place in understanding the connections and architectures of decentralised digital systems, machine learning models, conscious use of new technologies, learning creative coding and soft robotics for design interventions.

## Personal Development Plan : My purpose as a designer

- Situate myself in creative communities and find those to collaborative with
- Designing with a social body- escalating the scale of self into the fractals of a bigger community
- Dancing between the micro and macro as a delicate dance. Between the superficial and the layers of systems working ( work in a small community with a global mindset)

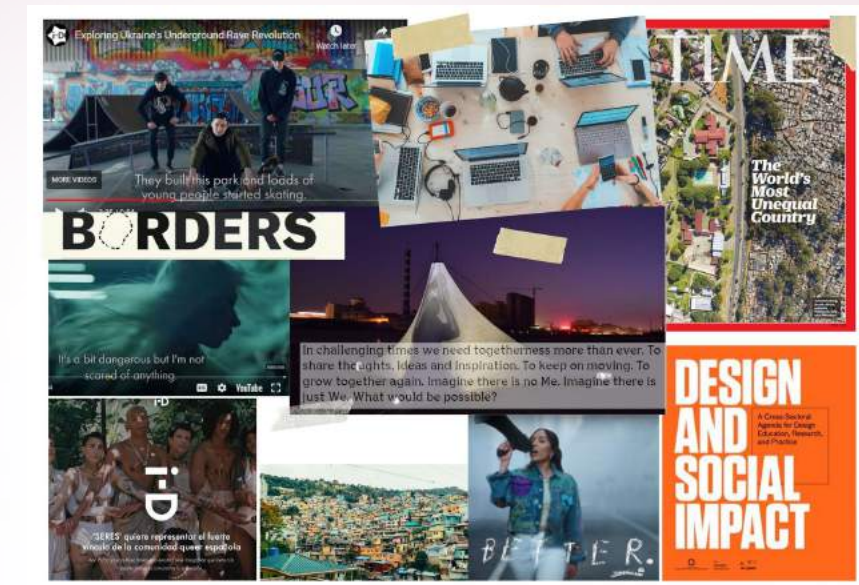
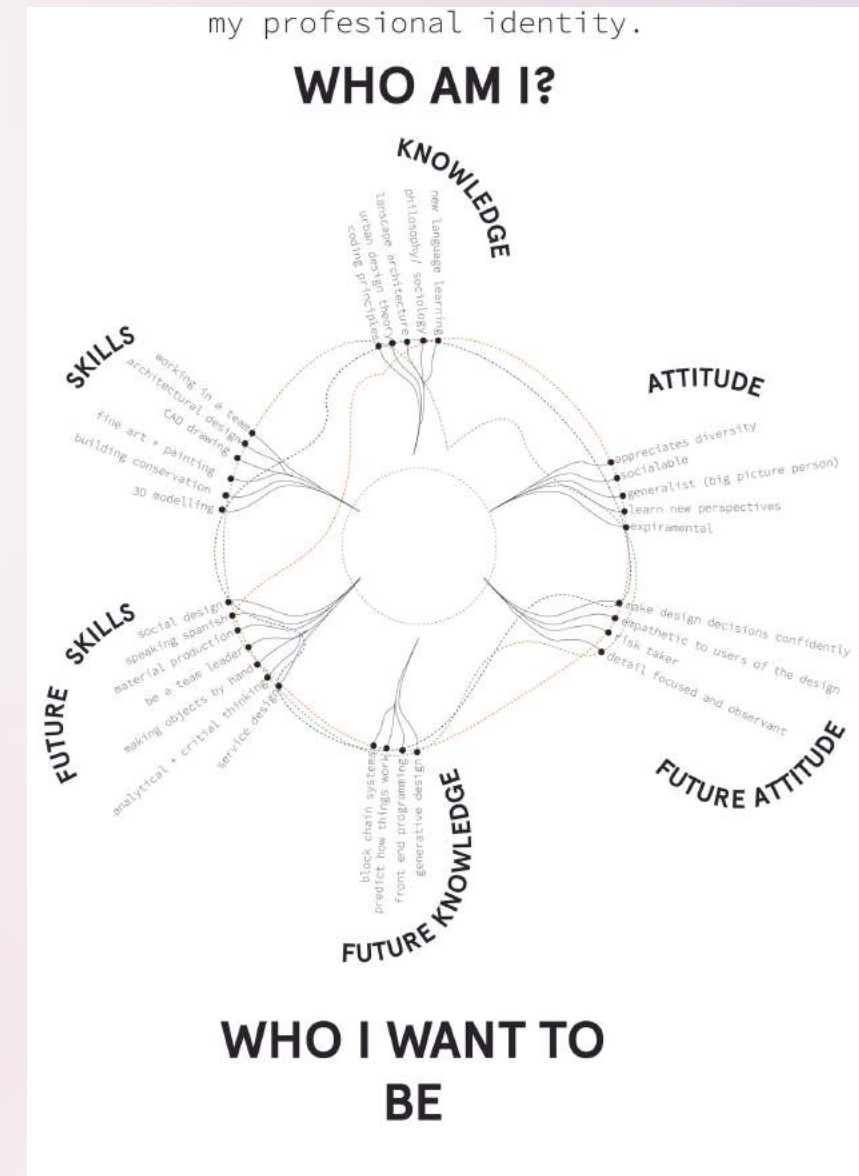
## Collaborative Plan : Ecosystem Mapping

Recapping from the Collaborative design interventions and community engagement, I began to Understand that collaborating with other communities and people affords me the opportunity to situate myself in the local community.

- Have an ecosystem mapping and understand who is already involved in my fight. Contact them and work with them
- Bring my enthusiasm, knowledge and skills in an existing yet unfamiliar ecosystem.
- Understand my purpose is not to reinvent something new

” my fight centers around fostering fairness, social justice and societal behaviour in the physical context of Barcelona.

”situate myself in the creative body”

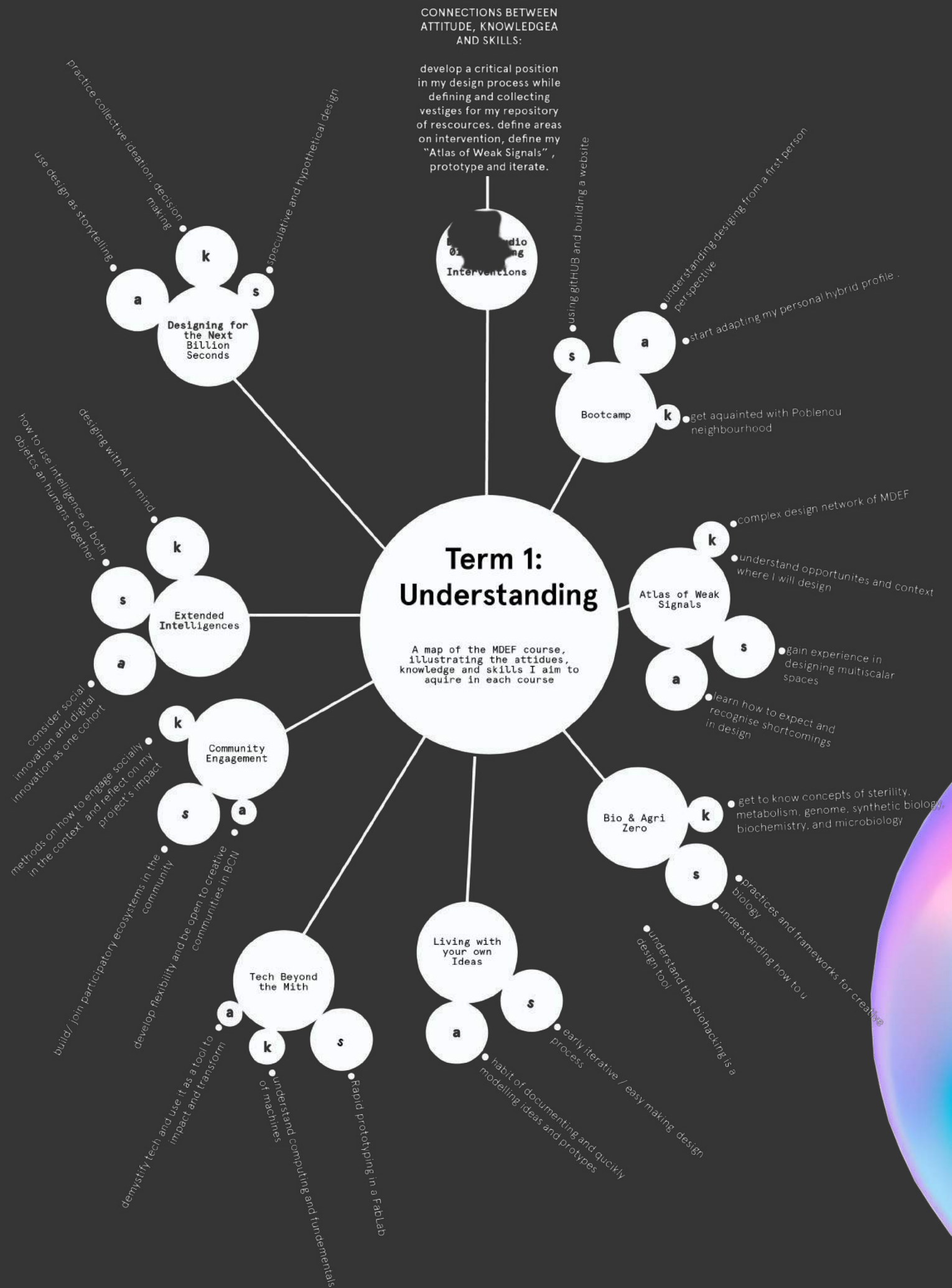
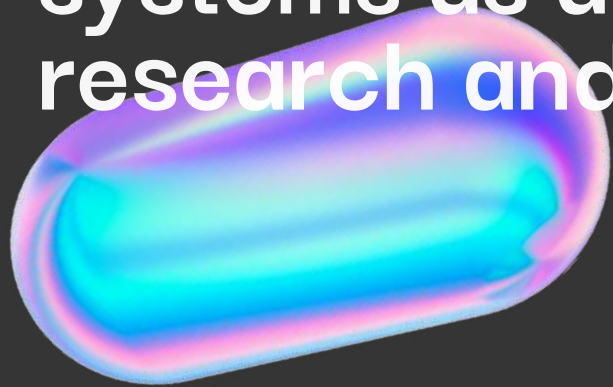




# Chapter 00

Term 1 Coursework Development Plan

“My vision as a designer is to advocate for social justice in urban spaces using digital frameworks and decentralized web systems as a tool for research and design.”





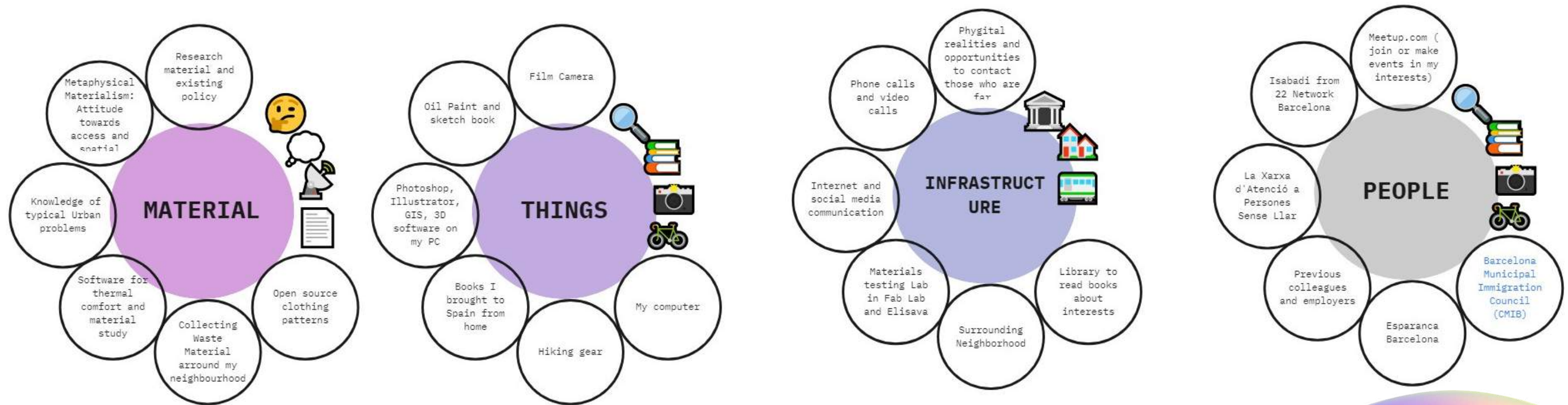
# Chapter 01

## Research through Design

### My Design Toolbox

What is in my disposal?

During the first term, my projects centered around urban/ city interventions especially in the frame of housing exclusion. I grouped my design tool box into 4 groups: Material, Things, People and Infrastructure. As this term progresses, I intend to add to my toolbox after connecting to the network of people already involved in what I am interested in, in the digital space/ community.





# Chapter 02

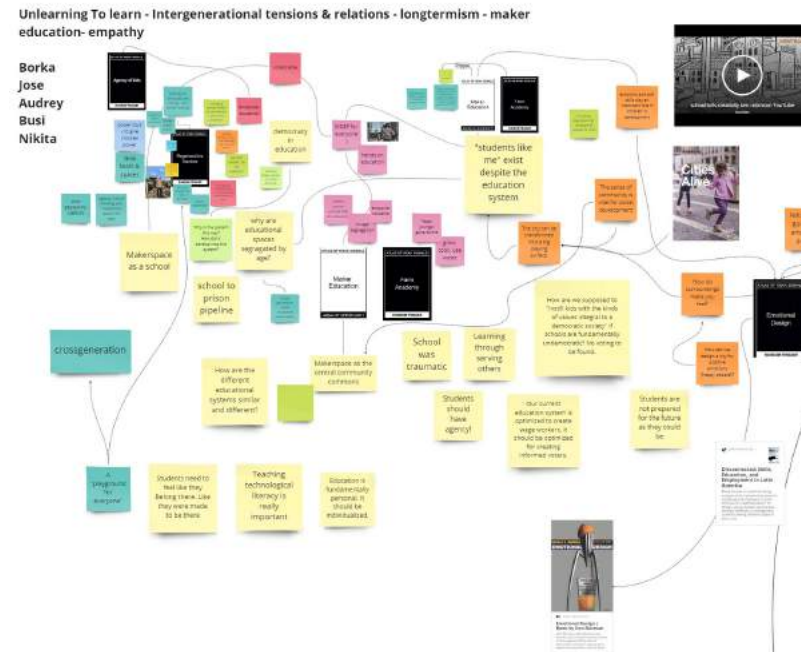
## Framing a collective Design Space Based on AoWS

### Unlearning to Learn Collective

Through the AoWS seminar, I was involved in the collective named "unlearning to Learn. Our first point of working together was creating a space of Mapping our individual interests in a matrix map in order to make meaningful connections for an intervention. Audrey is interested in biomaterial Education, Jose in emotions / food, Me in changing mindsets about housing exclusion / minorities, Borka in giving agency to children to make decisions in their neighbourhoods and Nikita in using urban infrastructure to alternatively learn.

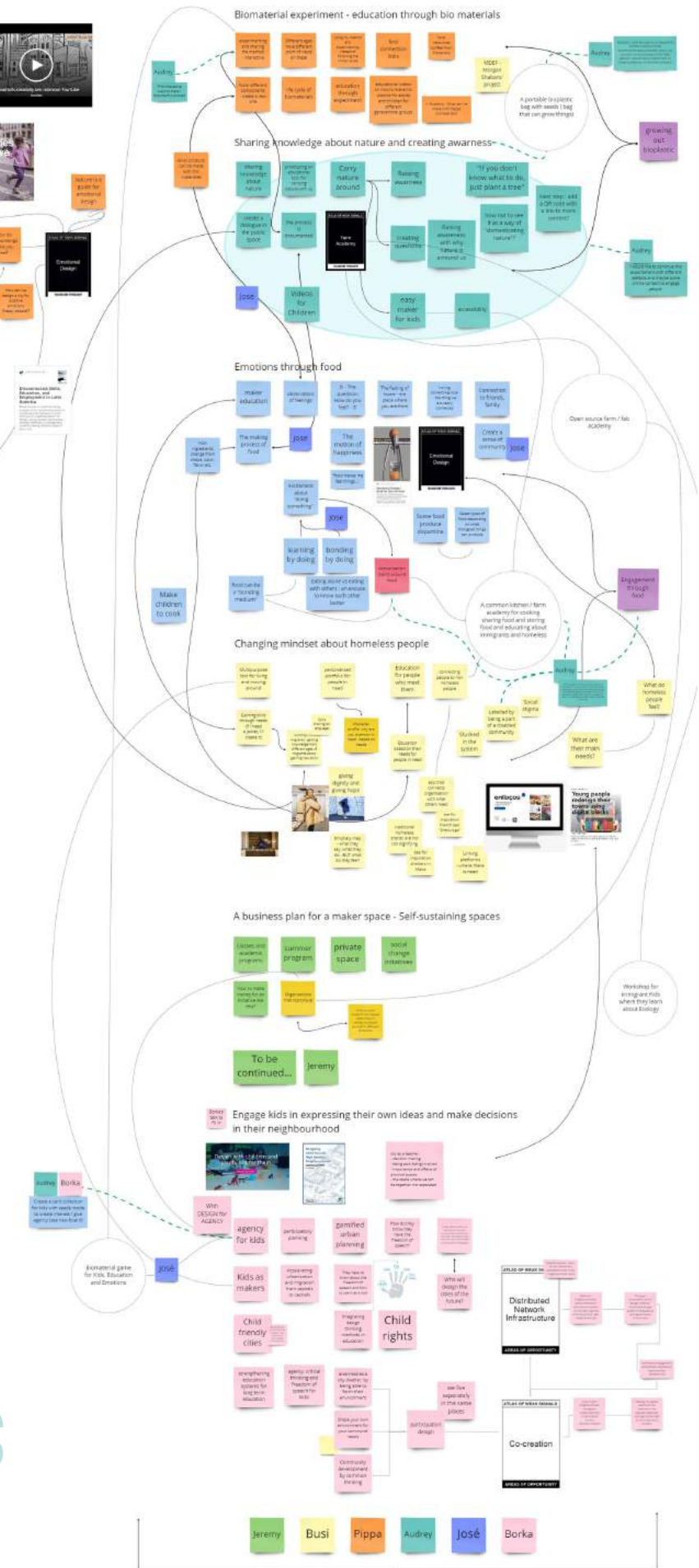
We began by first meeting and writing individual interests on the Miro Platform, where after design feedback we culminated to create a collective challenge. Finding and wording the challenge was not easy. Sometimes as a group we felt as though our interests were too different, yet we were encouraged to continue celebrating each other's differences and interests. I have interests in social engagement in tech as well as urbanism ideals and design for minorities, so I did not want this voice to be forgotten inside the group work.

### UNLEARNING TO LEARN



Trying to make sense of who we are, and not having a clear direction yet, we met to have a brainstorming session on the themes we want to tackle. After a successful session, we made progress coming up with a design challenge.

### This space is us



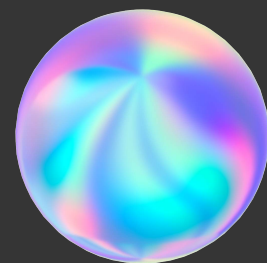
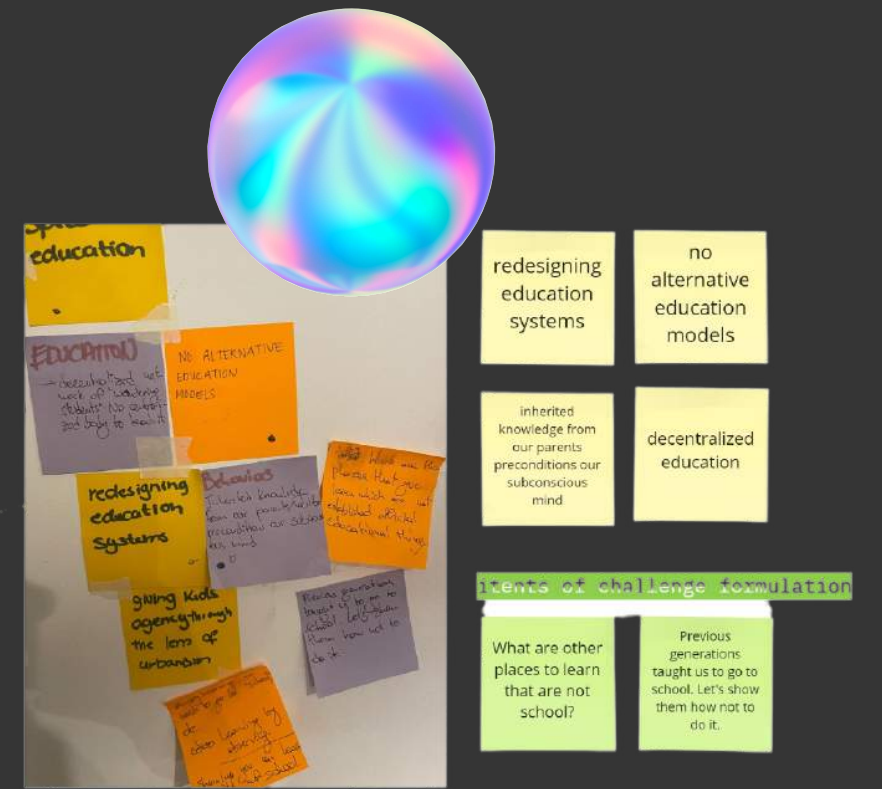
But where I am in this space?

this space is us  
this space is us



We studied in systems created by the needs of previous generations and led by them. Today's needs changed and the hierarchy in teaching and learning should change as well.

How can we change what we learn and how we learn it? How can we create new ways of learning, by raising our voice and showing our needs? **Also how can we be aware of those needs?**



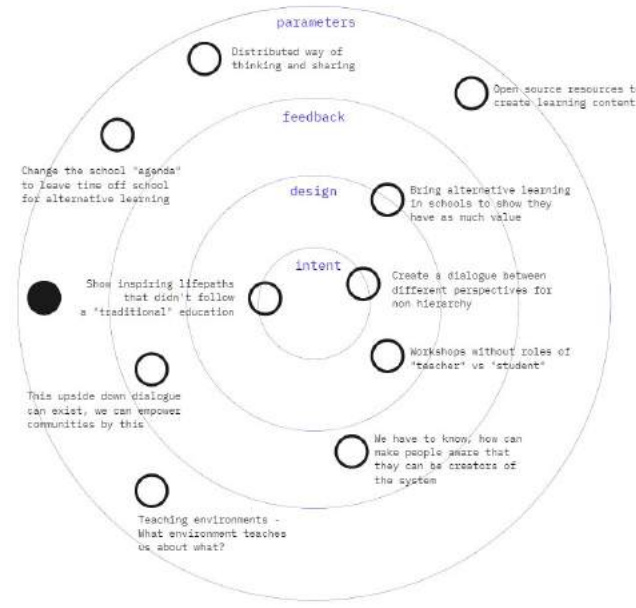
Framing a collective Design Space Based on AoWS



# 1 our challenge

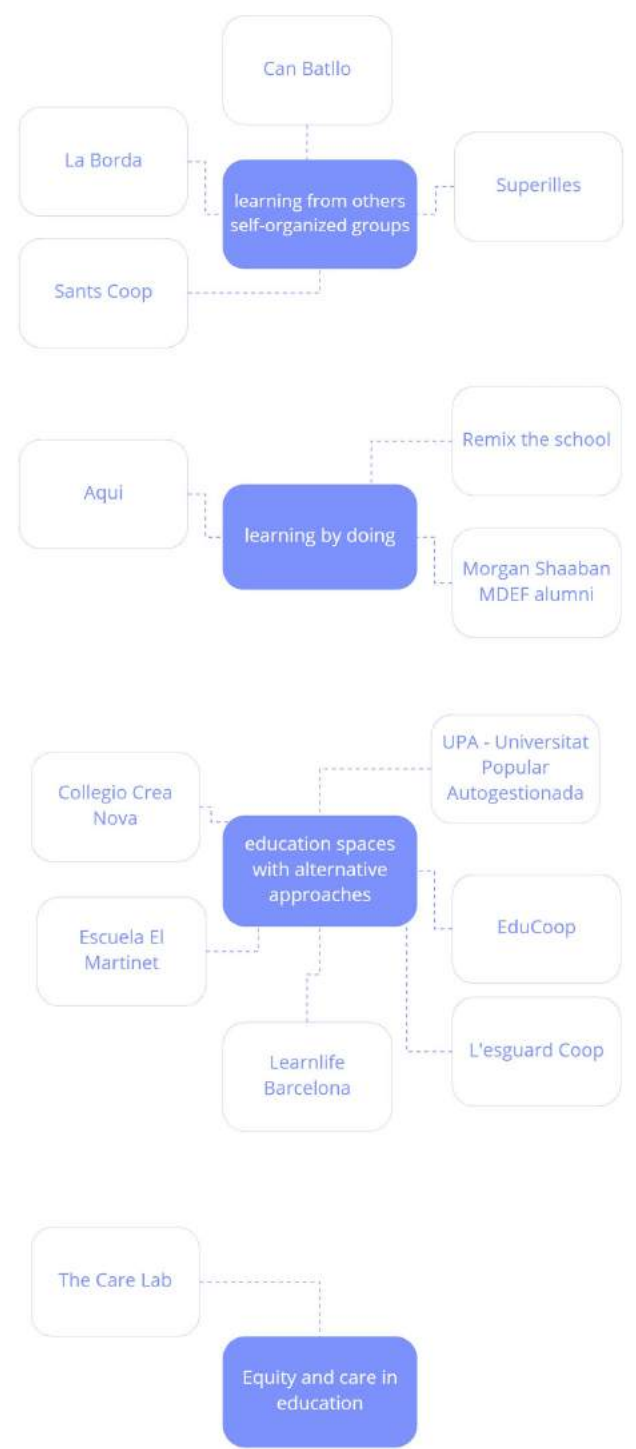


# 4 actions



actions or projects needed (by us or others) to "dissolve" our challenge + situate our intervention

# 2 local ecosystem



# 3 focus on relevant actors

note : we already started for Can Batllo, Makea tu vida and Aqui in the other Miro. Maybe some things can be reused!

<p><b>Creative community</b> <i>Make tu vida</i></p> <p><b>Contact</b></p> <p><b>Current situation</b></p> <p><b>Engagement &amp; Limits</b></p>	<p><b>Theory of change</b></p> <p><b>Design opportunities</b></p>
<p><b>Creative community</b> <i>Remix</i></p> <p><b>Contact</b></p> <p><b>Current situation</b></p> <p><b>Engagement &amp; Limits</b></p>	<p><b>Theory of change</b></p> <p><b>Design opportunities</b></p>
<p><b>Creative community</b> <i>See Borka</i></p> <p><b>Contact</b></p> <p><b>Current situation</b></p> <p><b>Engagement &amp; Limits</b></p>	<p><b>Theory of change</b></p> <p><b>Design opportunities</b></p>
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For our Unlearning to learn collectively, we made maps to know who we could draw inspiration from and work with in our ecosystem. We visited Merkel and Can Batllo and had a meeting with Clement from Aqui. My take away from the two meetings was that we should meet people where they are ( ask their specific needs ) and consider the impact we want to make with the intervention. Thus we furthermore divided our challenge into Input, output, outcomes (short term effect) and Impact ( long term effects)

## Framing a collective Design Space Based on AoWS



# Chapter 02

## Reflections on My Area of Interest

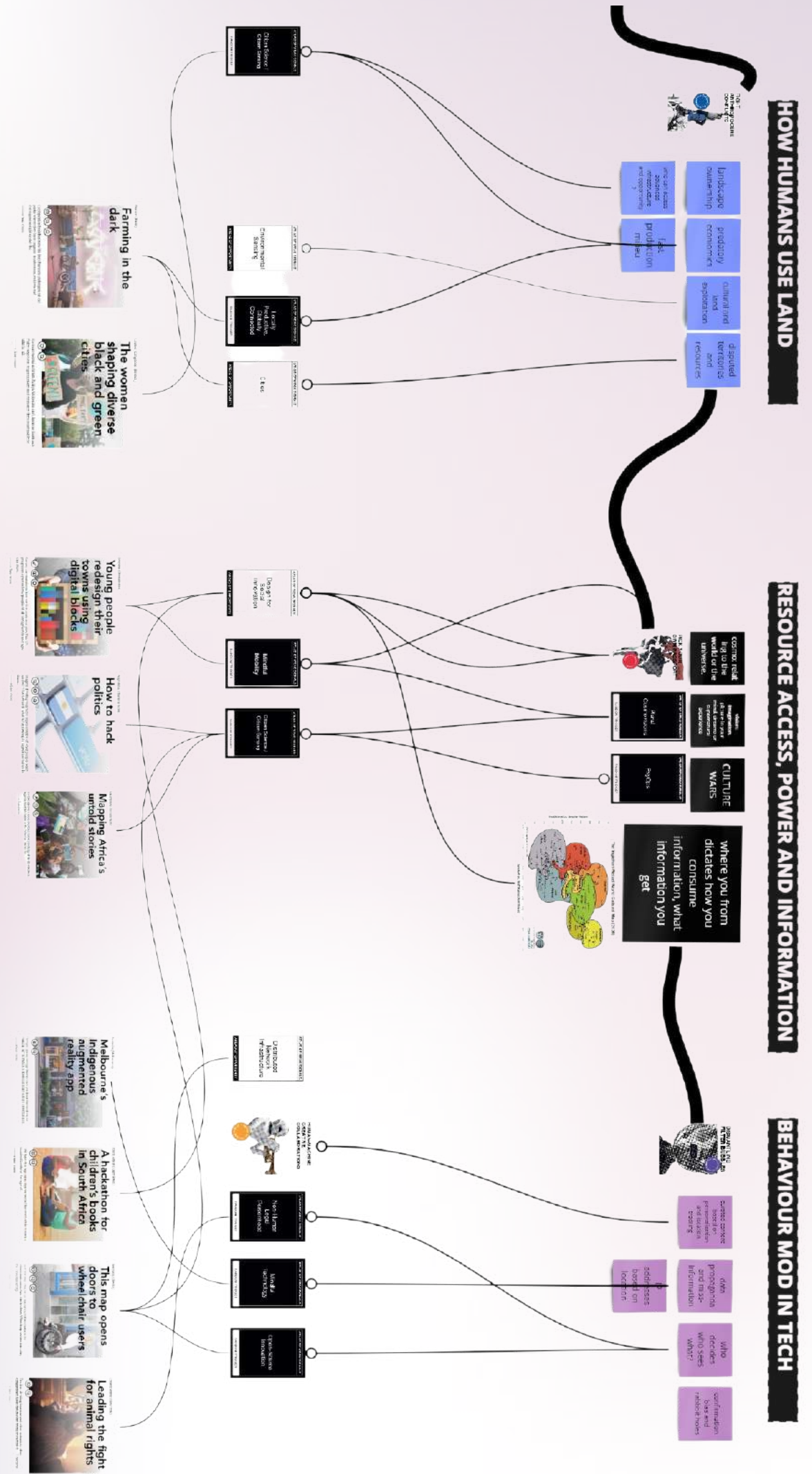
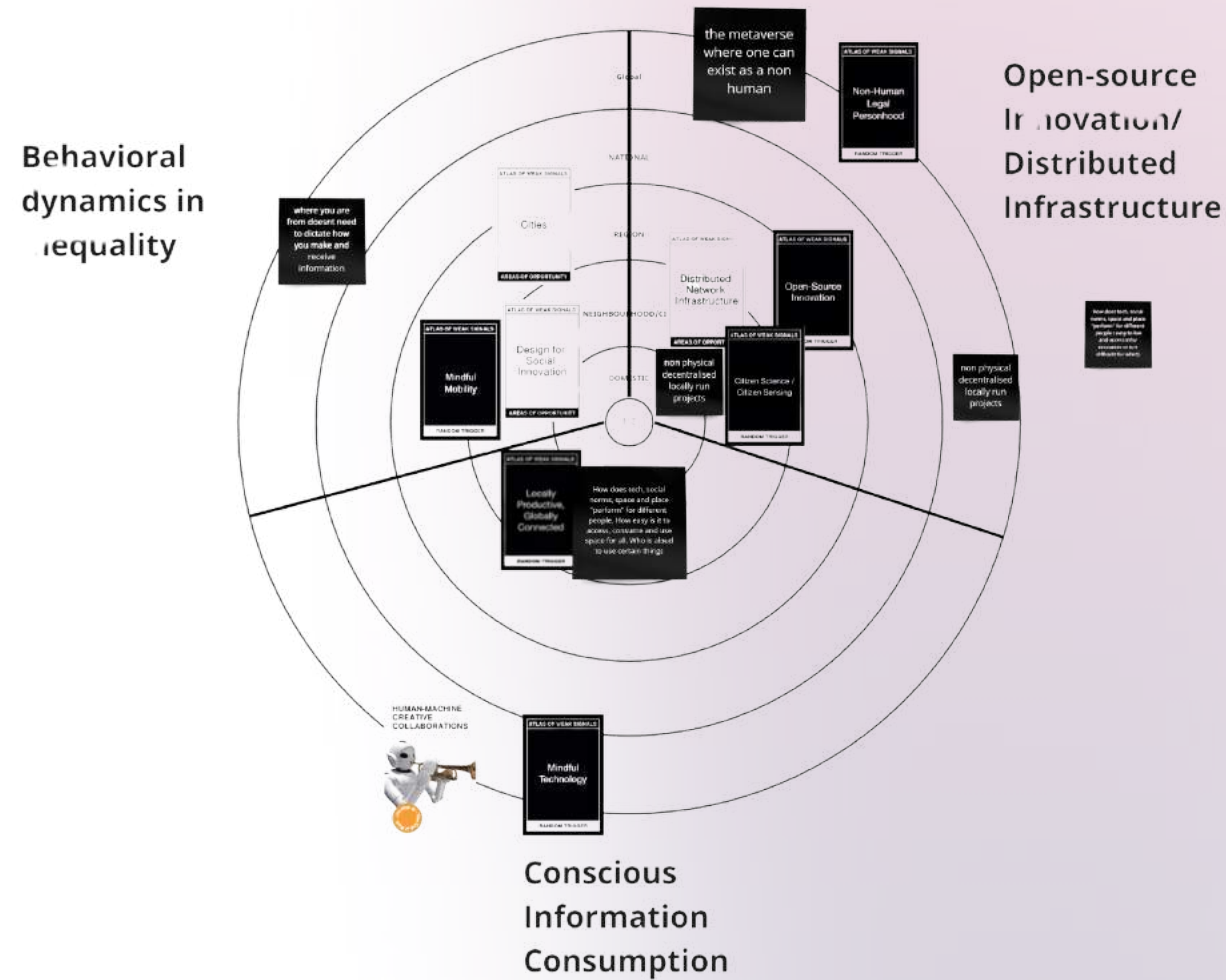
### How I have evolved:

In the beginning of MDEF journey, I was inspired by the ELISAVA Insights, my fight centered around fostering fairness, social justice and societal behaviour in the physical context of Barcelona.

Being exposed to the seminars this term ( Tech beyond the Myth in particular ), I have found myself evolving and being drawn to ideas of AI ethics, system designing and conscious consumption of information in the tech space. I have always been drawn to advocating against societal ills and self organised decentralised planning- especially in urbanism, now I have further evolved my focus from the urban space to the digital space. In this, I call myself an "digital urbanist" .

### Multiscalar design Space and State of The Art

Through the multiscalar map, I came to create an introspective work starting from ego outward to ecosystem. I was challenged to understand who is already working on what I care about and think about what is already emerging. I came to learn I am not alone in my speculations and that it is important to reach out to other actors, acting locally with a global, emerging perspective.

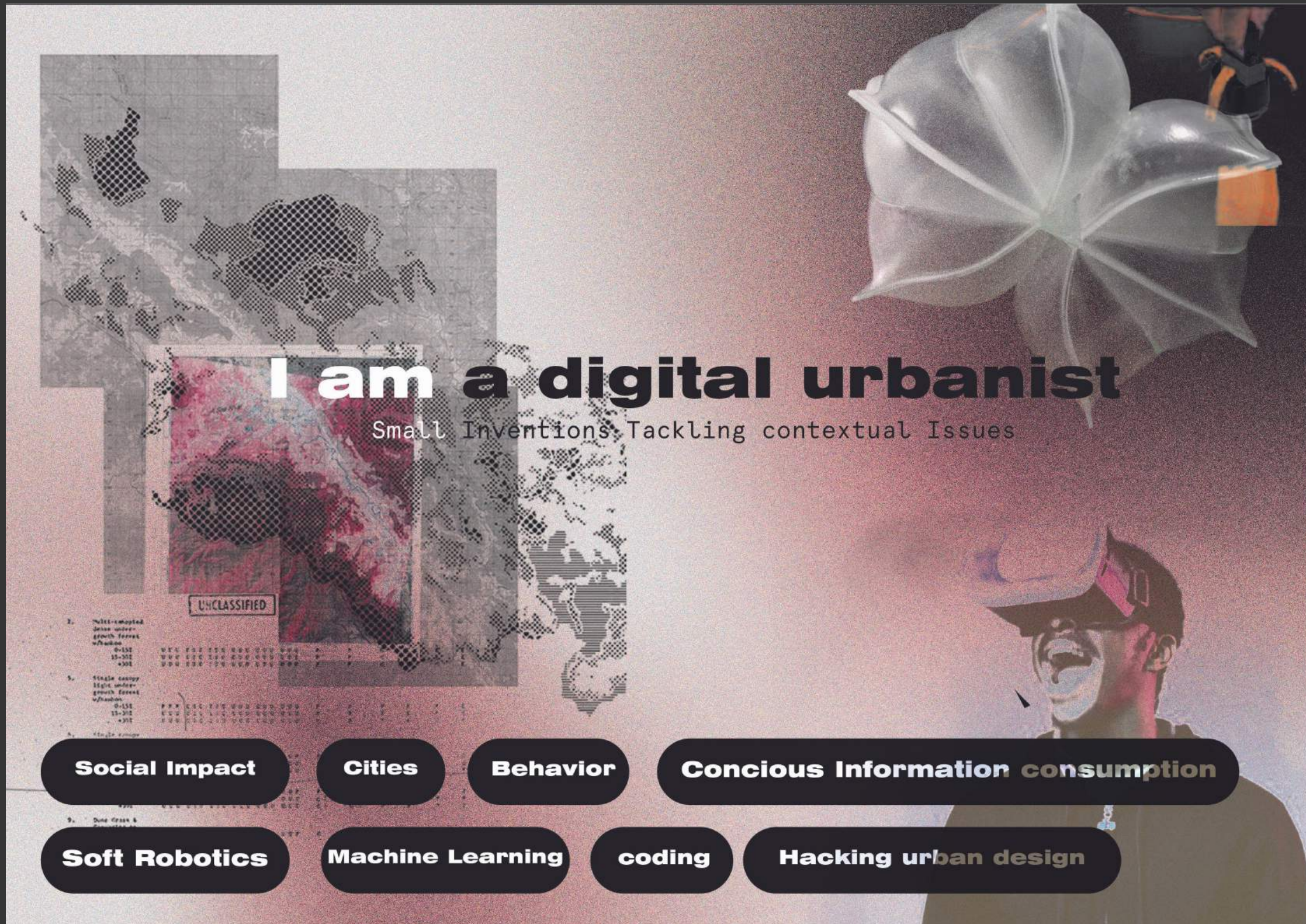


ASSEMBLAGE OF MY AREAS OF INTERESTS CONNECTED TO MY CHOSEN WEAK SIGNALS



# Chapter 02

Reflections on My Area of Interest - My new Fight



**I am a digital urbanist**  
Small Inventions Tackling contextual Issues

**Social Impact**   **Cities**   **Behavior**   **Conscious Information consumption**

**Soft Robotics**   **Machine Learning**   **coding**   **Hacking urban design**

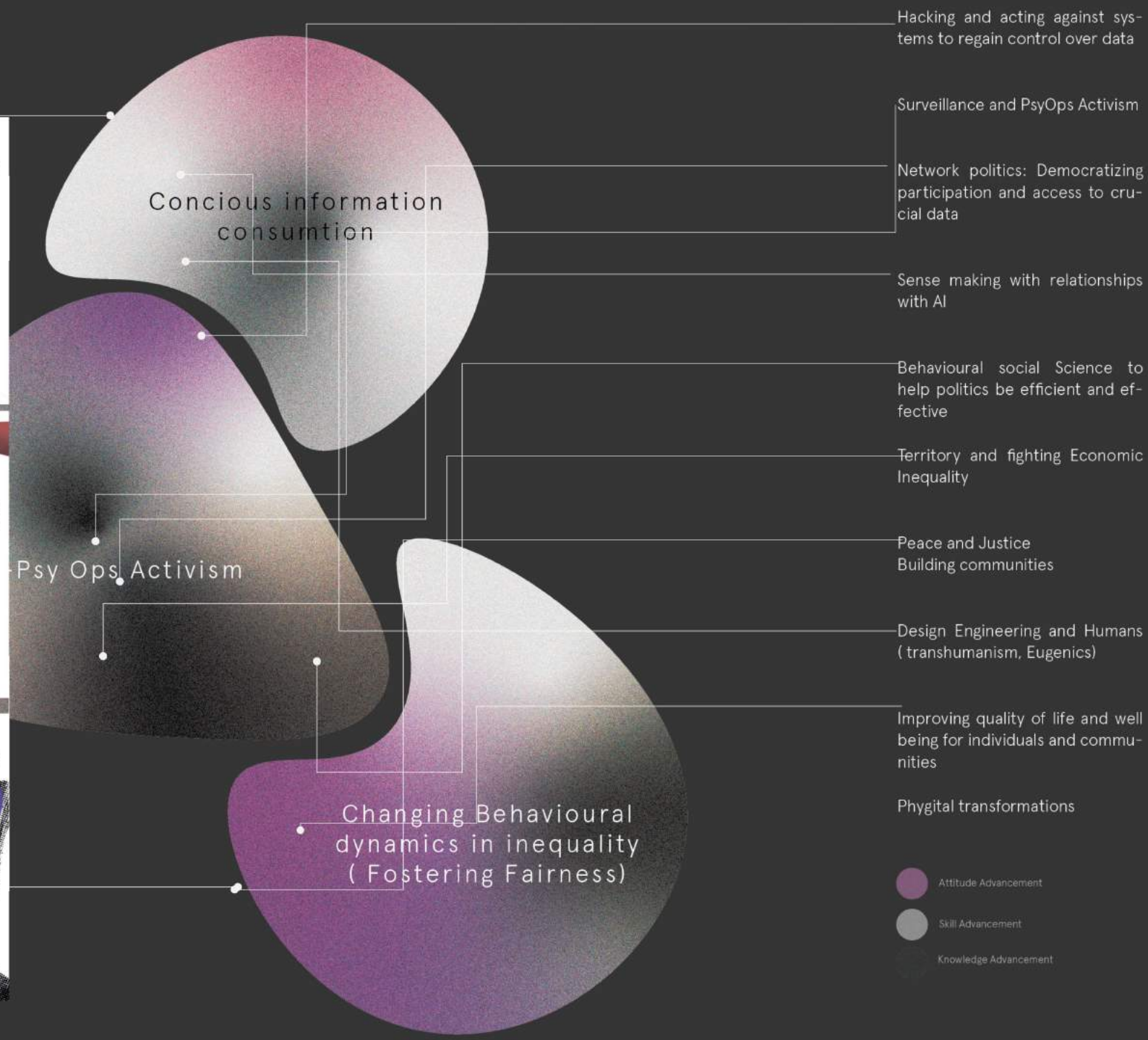
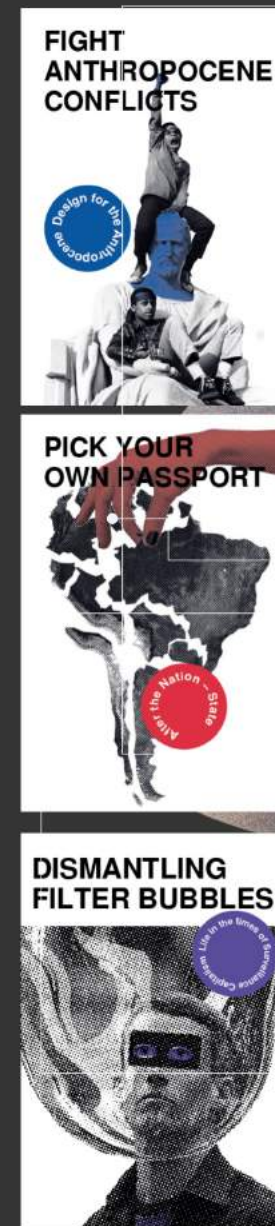


# Chapter 02

## Reflections on My Area of Interest

Although my fight has developed further from physical urbanism notions to creative digital tech, I still lean to the same key words and connections I was inspired by from ELISAVA HIMTS Research clusters. Some points I resonate with are shown on the left.

I classified the phrases into 3 main categories on interests that became the antithesis and solutions to my chosen weak signals where my interventions were focused

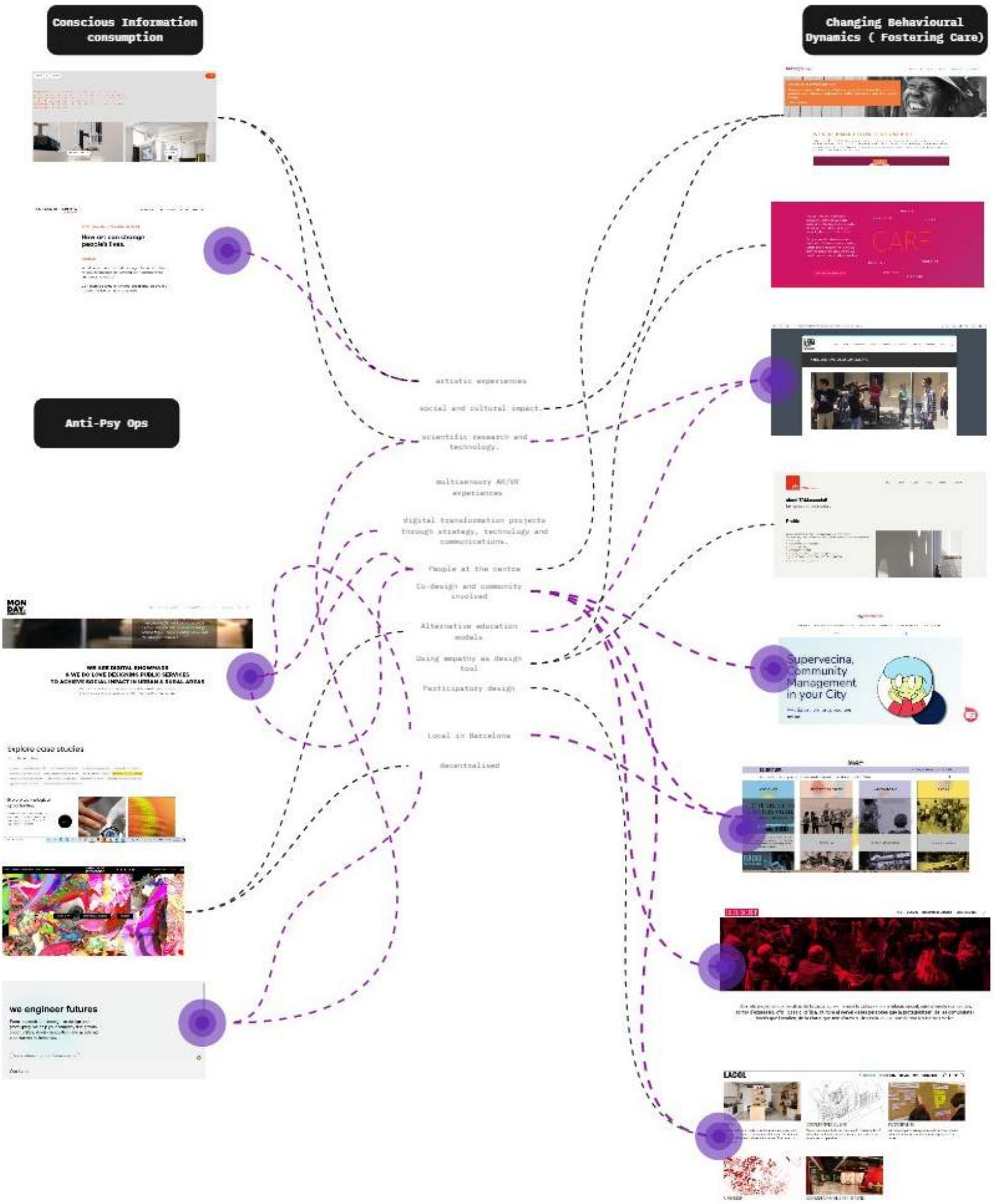


MAKING MEANING!

Connecting keywords into solution statements from my chosen Weak Signals



# Who is doing it now?



“Changing Behavioural dynamics in inequality.

Open source Innovation / Distributed infrastructure.

Conscious information technology consumption”



# Chapter 03

## First Interventions

### Project 1: Enllaços

Prototyping through design- During the Design studio week in October, we were tasked to do a prototyping intervention. I combined role 3 and role 4 namely research archetype and using mapping as a research enquiry.

Navigating trying to understand the housing exclusion situation in Barcelona, I used mapping as a form of speculation where the nodes of homelessness inside a 1km radius. After volunteering at Esperanca Barcelona as a tool for understanding the needs of homeless people, I drew a map of where people resided who dealt with housing exclusion and realised that those at risk Those at risk don't just need shelter, but dignity, information and integration support.

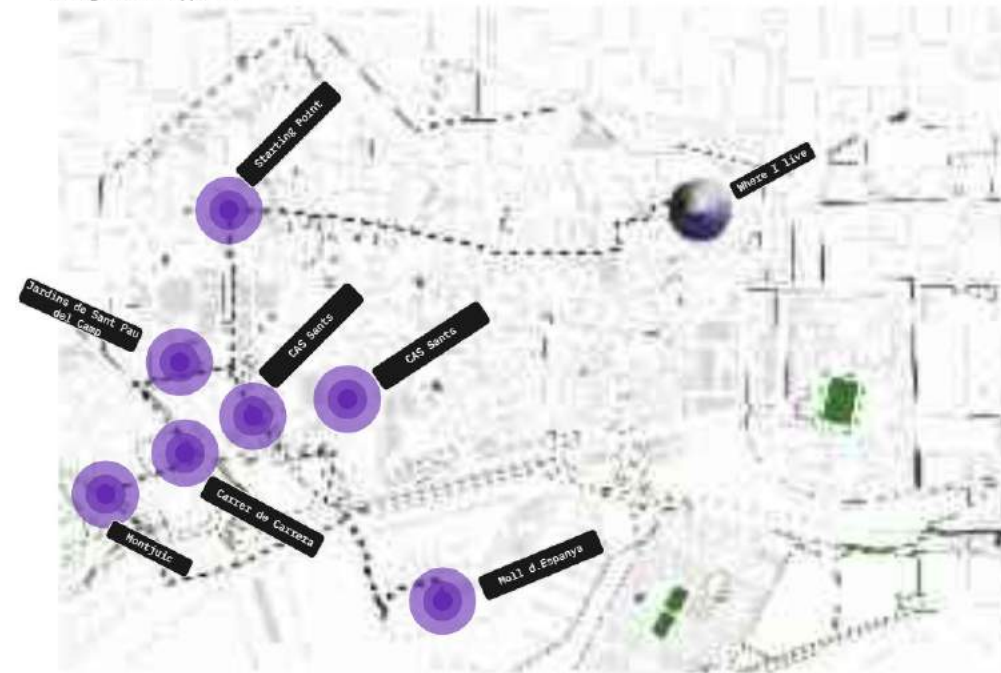
Outcomes:

After the experiment, I created 2 scenario characters inspired from people I met during volunteering, eventually creating a prototype website/ network where people could connect to receive the help they need in a housing exclusion situation.



### WHERE DO PEOPLE TAKE REFUGE? what do they really need?

Hypothesis: Placelessness fosters areas of refuge. Those at risk don't just need shelter, but dignity, information and integration support.



### WHO I MET: Character profiling

ROLE 3: RESEARCH ARCHETYP



My Name is Ralph.

I am 55 years old and have been living in Barcelona for over 20 years working as a shop keeper. But I am originally from Algeria. I used to live in Italy and I speak Moroccan, Algerian, Italian, French, Spanish and Arabic. Its been tough finding a job after COVID-19 pandemic, and I as an immigrant with no visa finding a viable housing is difficult due to my immigrant status and unemployment. Today I will be sleeping at Montjuic street near integration z



My Name is Flor.

I am 25 year female old and migrated to Barcelona from a nearby town for work. Currently I am unemployed, regularly rely on the methadone clinic for addiction support and occupy an empty building with others similar to my situation. Finding a decent place to stay as a woman is tough. Easy access to information about visa, clothes, food, shelter and other addiction facilities would ease my transition process.

Refuge or immigration support

Mental health support

Addiction support

Eligible for temporary accommodation

Info where to get a job

Emergency solution: clothes and blankets

Emergency solution: In need of food and clothes

Youth centre for those at risk

Youth centre for those at risk



# Chapter 03

First Interventions

## Project 2: Accessible Imaginations

For the project of my second design intervention, I explored the accessibility of the city of Barcelona where I did not use stairs and escalators for a day. In the series I scanned myself in moments of arrival during my walk in the city where I encountered stairs I could not use. Storing the 3D models imagining design possibilities for these spaces.

Outcomes:

A series of 3D scans and models through my walk in Barcelona to understand possible future interventions for access.



# Chapter 03

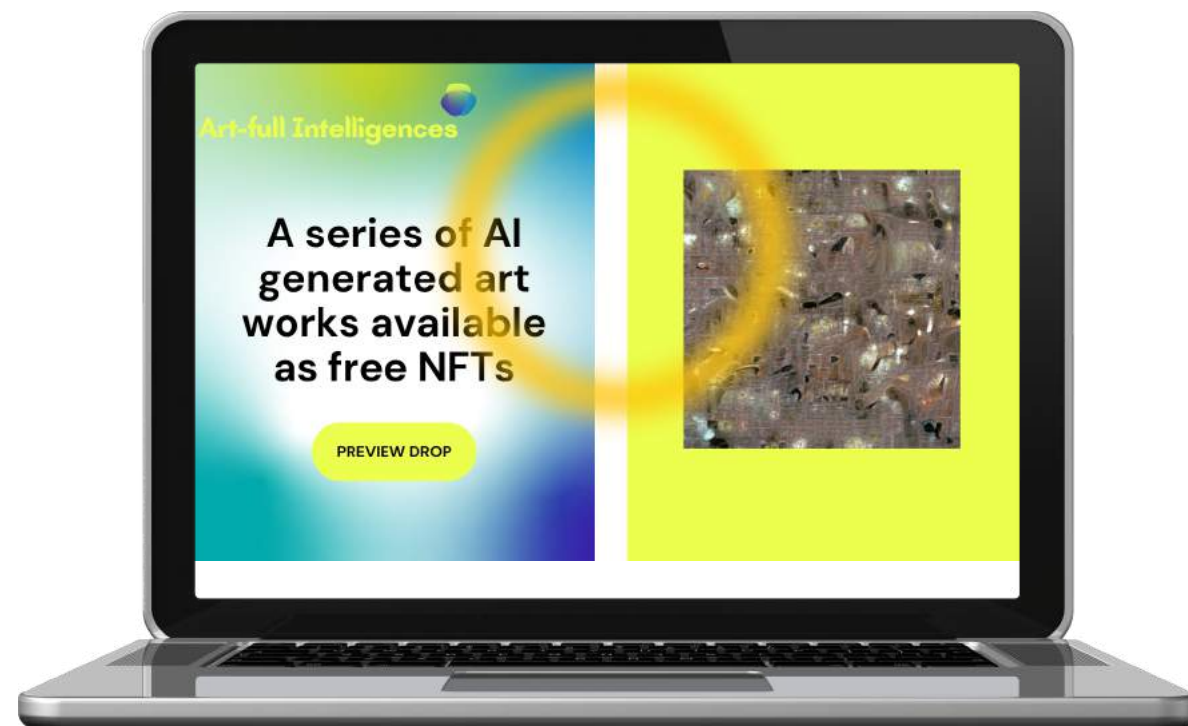
First Interventions

## Project 3: Art-full intelligences

For the project of my second design intervention, I explored the accessibility of the city of Barcelona where I did not use stairs and escalators for a day. In the series I scanned myself in moments of arrival during my walk in the city where I encountered stairs I could not use. Storing the 3D models imagining design possibilities for these spaces.

Outcomes:

A series of 3D scans and models through my walk in Barcelona to understand possible future interventions for access.



### Taste of Sunshine

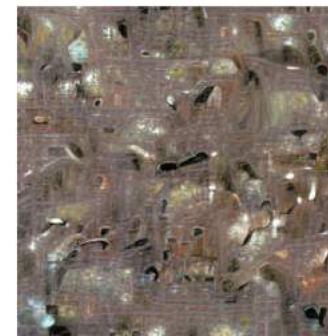


Preview here

Text prompt: Taste of Sunshine using VQGAN and CLIP AI

ADD TO CART

### Spirit in the Sky



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Text prompt: Spirit in the Sky using VQGAN and CLIP AI

ADD TO CART

### Almost Usless Machines



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Text prompt: Almost Usless Machines using VQGAN and CLIP AI

ADD TO CART

### No Planet B



Preview here

Text prompt: No Planet B using VQGAN and CLIP AI

ADD TO CART



# Chapter 03

First Interventions

## Project 4: Collective Design Intervention

For the project of my second design intervention, I explored the accessibility of the city of Barcelona where I did not use stairs and escalators for a day. In the series I scanned myself in moments of arrival during my walk in the city where I encountered stairs I could not use. Storing the 3D models imagining design possibilities for these spaces.

Outcomes:

A series of 3D scans and models through my walk in Barcelona to understand possible future interventions for access.



**TERM II**



“

**Each time I wake up, and function in my habits and context, I perpetuate and function in the systems I am fighting for or against. Am I living my fight?**

”



# Chapter 04 Reframing The Project

Reflection as a design

Tool

The first week being back from winter holiday, whilst also writing my thesis draft, has sparked a lot of motivation for reflection in the projects I did in the first term, and also the interests I express this term, and after the first design studio and Future talks, I am moved to purposefully impact in my local community, and embrace the complexities. When I think of how this visually looks, I think of a systemic galaxy group functioning in various scales inside out, and outside in.

“

**In honouring what I chose as my fight, I am wondering how I can embody these systems in myself, in first person. I am in perfect capacity in making new forms of living, by living as an example. I am an agent of change.**

02

”



Reflection is a way to make implicit knowledge explicit, a way to help us make decisions. This is based on what has been happening, as said by Donald Schon. Knowing in action is the way we deploy our action, our tacit knowledge is embedded in our actions.

The conversations with the situation and the results you get, are what the situation is reflecting from you. But as you change the situation, the situation also changes you. Reflection is reaching a higher level of extraction.

### 1. Asking 5 Why's

- Why did we create a workshop as a collective intervention and how can I move away from a workshop format?
- Why did I move from volunteering to digital interfaces? Is this my growth?
- Why was it difficult to find participants for the workshops?
- Why am I situated here? How can I be more involved in a small team that is impactful and long lasting past a one day workshop that is out of context?
- Why am I here? What is the next shift from global thinking to a personal project?

### 2. What if? What are alternative ways / wish I did differently?

What if I amalgamated volunteering and digital interfaces, how does this look?

What if I involve myself as the subject of my designs, mixing the personal with my design practice?

### 3. What are my takeaways from term I

Reaching out to organizations and people already involved in "my fight" or with similar interests is a huge leap to understand what I am exploring and start asking the right questions. This example is from after our visit in Can Batllo and meeting with Clement from Aqui

Sharing your ideas, realistically where they are, is powerful, I saw this from design dialogues. Even just sharing creates a platform to reflect, and talk to other like minded people, create networks etc

Unlearn a lot what I learnt in design school (such as comparing yourself, competitiveness)

Never do anything alone (work with others and collaborate with classmates and outside of IAAC)

WHY AM I A  
DESIGNER FOR

Tap into the potential  
of new approaches  
Help, give platform + meaning  
to new ideas.

Belief  
New id  
deserve  
platform  
be that  
Exp  
Affe  
and  
Fire.

Be advocate  
for those wh  
heard

### 3. What are my takeaways from term I ( Continued...)

Document for yourself and others - be open and show your mistakes, your thoughts and weaknesses. Communicate your process

Learn to redefine failure, rethink what perfect means- when you see the pictures you see the perfect. Don't let a sense of perfection hinder the development of the project. This can lead with procrastination, go with what you have. There is no failure as we are exploring possibilities. Think about the references you are using to judge yourself , they can be fading or harmful. What are my strengths? When you are exploring something new, you need to reassess your reference point of movement, its not always good or bad. How have I learnt?



## The Hero's Journey: Some things to remember for Term II

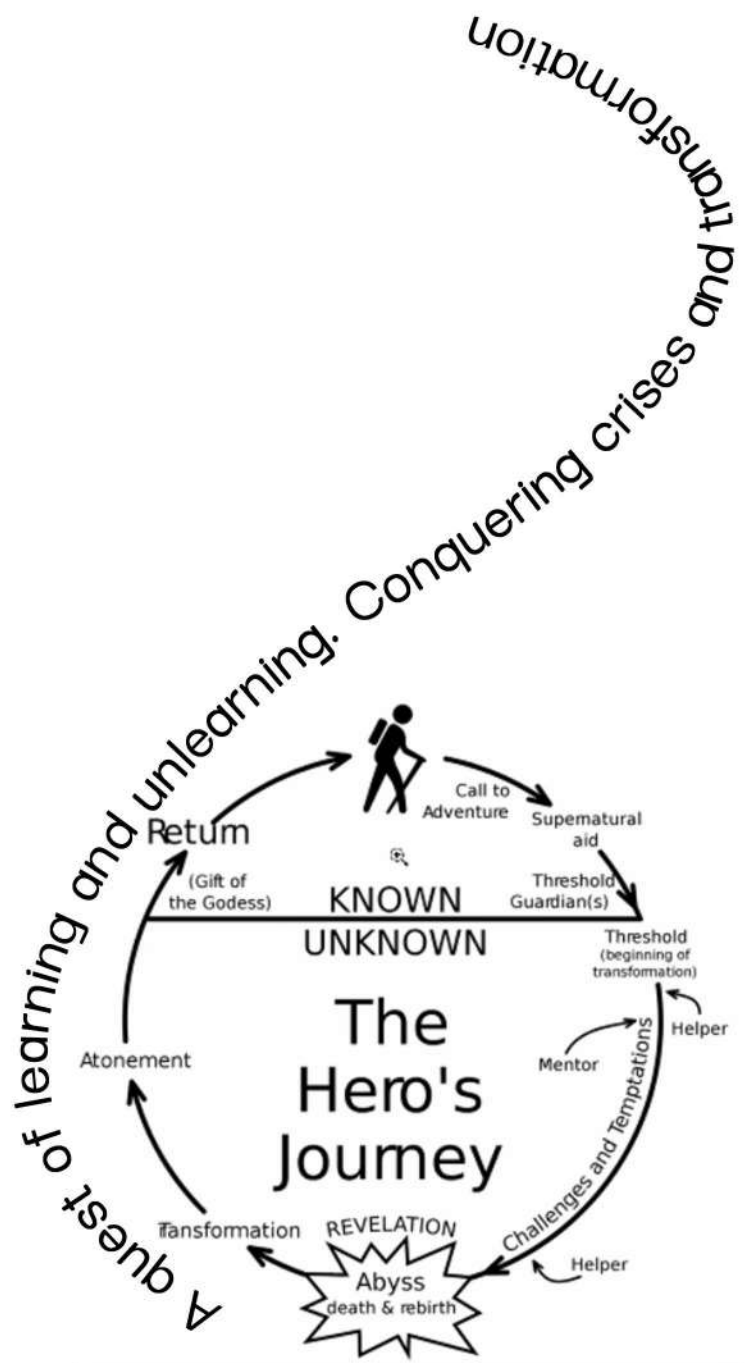
- Getting lost is a way of building a new geography to build a new vocabulary, getting geographical referencing, and the capacity to navigate using intuition.

- Rather than designing from top up, Took time to let the design reveal itself by interacting with other people who are interested in the topic and designing within.

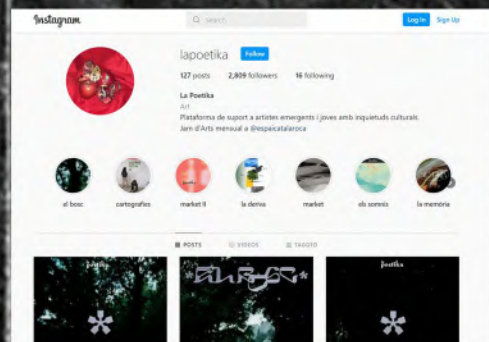
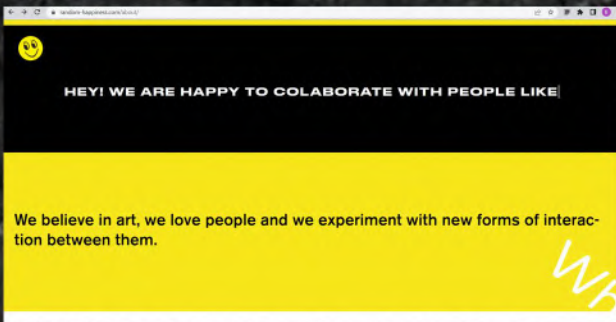
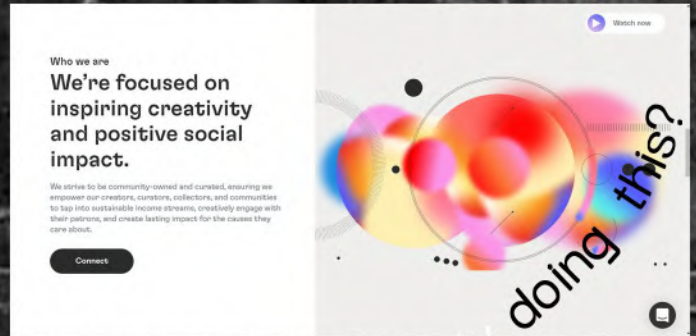
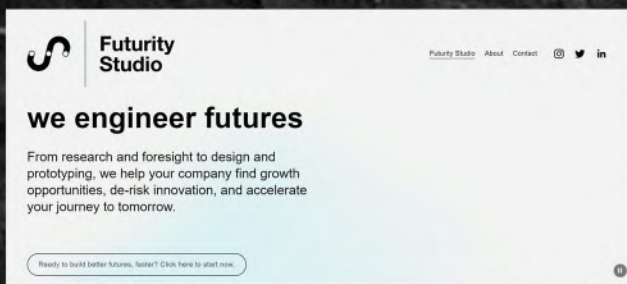
- Share a rough process, something in the works, or pictures of the process step, by step, rather than waiting to show a finished polished product

- Sharing ideas and working with others is valuable, embracing differences and complexities becomes more holistic.

- Have a global mindset with a local action- impactful locally.



# Movements I look up to studios /people



Compare myself with others | who is already doing this?  
Who inspires me? who should I contact?



# Chapter 5: TERM II

## Interventions

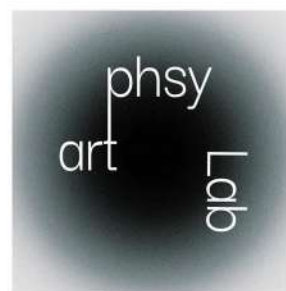
### a. Interventions and projects from this Term

**Rethinking the technological landscape: A communal digital art platform for artistic collaboration and agency.**

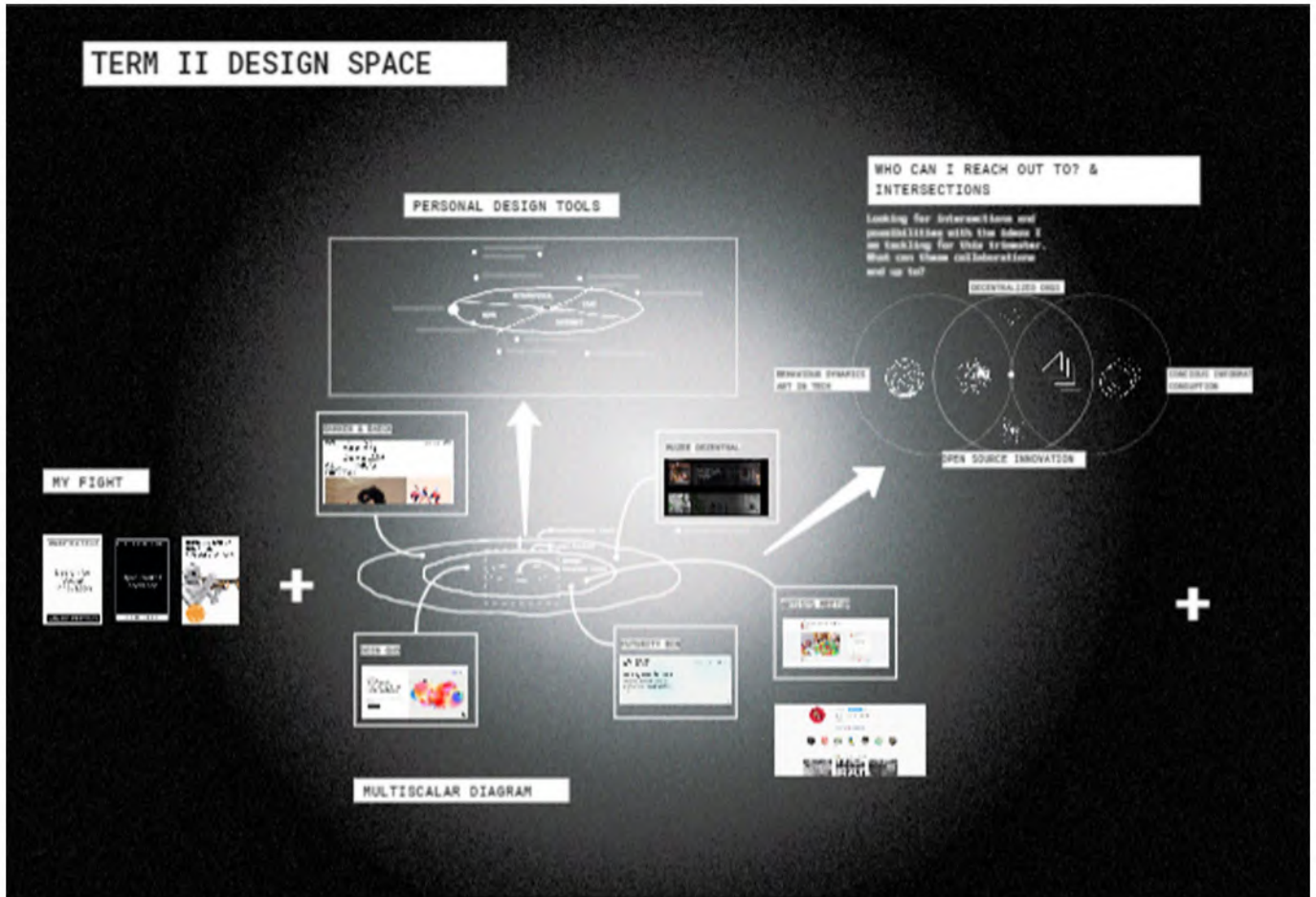
In the beginning of the term, my main goals and idea was to create a platform using Web 3.0 tech, implementing decentralised networks to be accessed and used by everyday artists and creatives. I took some influence and ideas from Muzee Decentral and DoinGud, who are both involved in the NFT and blockchain space in art, but somehow my ideas in conscious info + tech in thinking about sustainability of NFTs conflicted with some the framework and practices of both these organisations. I was moved by the presentation during our Design studio, imagining the value and natures existing in current NFT minting to be focused not on individuals but on abundant community thinking. In this I thought of Pshy\_Art Lab.

Pshy\_Art Lab

Pshy\_Art Lab is a collaborative digital art platform that fulfils the imagination of a locally run but metaphysical art gallery and design research centre. We promote ethical distribution of digital art and value training in art, blockchain and the sharing of meaningful stories. This laboratory aims to explore a decentralised web platform curated and owned by the artists it exhibits. Imagine a place that promotes learning, strengths and creates a reality where future artists celebrate artistic expression as they wish. Phsy is a call to the portmanteau: "phygital". A concept that refers to the navigation between the existence between the digital and the physical word. In this space we navigate in the possibilities of reality and the metaphysical, what art can be.



# Term II Design Space



“

**My design space is like a systemic galaxy group functioning in various scales looking inside out, and outside in.**

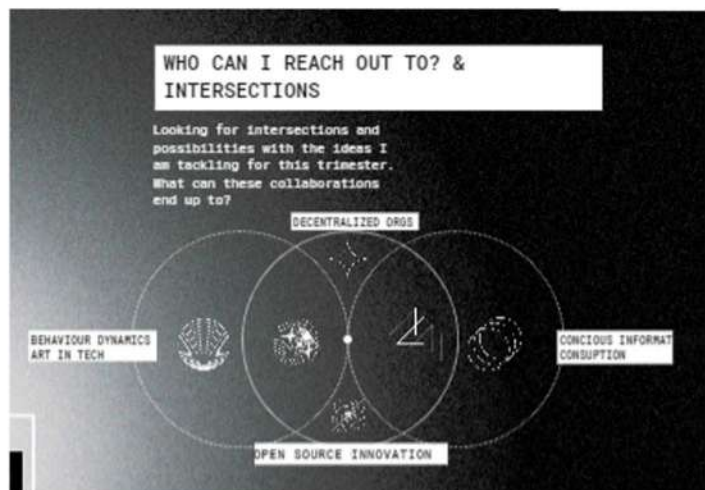
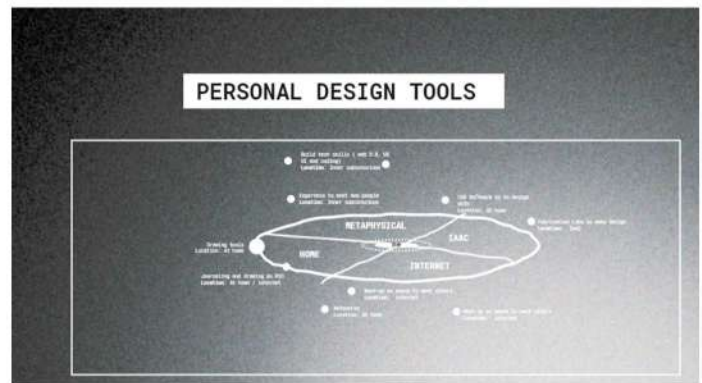
”



## b. Bettering the Multiscalar diagram: My Personal Tools

The rendition of my term II design space, centred around pruning and bettering my multiscalar diagram. Drawing back to the reflections beginning of the term, I separated my available toolset for this term into four categories: Internet, metaphysical, IAAC and my home. From there, I further delved into the systems and tools available at hand

But, I continued to draw this matrix in a bigger system: personal tools, Local context and international context. This diagram helped me understand who I can start reaching out to, and collaborating with.



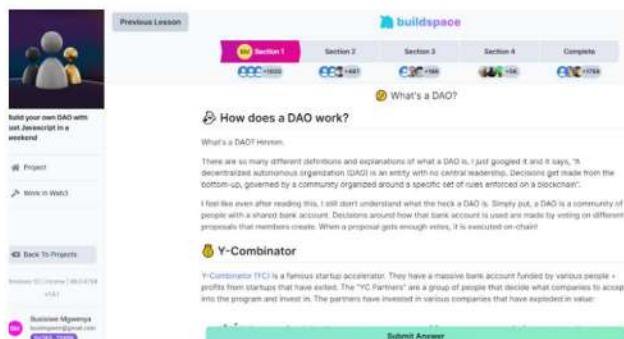
## Launching the Pshy\_Art Lab

### Learning How to create DAO using Buildspace

Here I am continuously learning how to form a self governing online platform. Decisions get made from the bottom-up, governed by a community organized around a specific set of rules enforced on a blockchain.

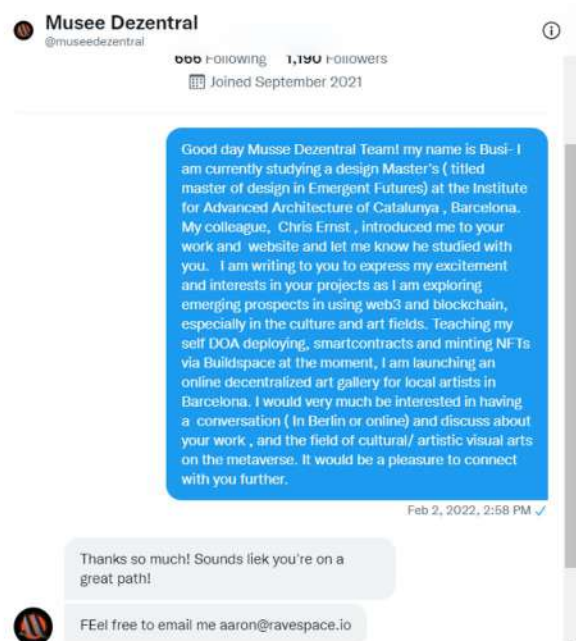
### Reaching out to existing DAOs and asking for advice, mentorship or chatting about this new platform

Firstly I reached out to Muzee Dezentral and also, I am also part of the Discord on Buildspace if I have any questions on how to get help in running things online. For the next iteration I would like the 3D space to be live online, yet for now it will be an online platform for talking and sharing.



Reaching out to artist, creatives that I know that will have the first exhibitions inside the digital gallery

I asked friends and classmates to contribute their stories and art that will be showcased in the DAO. I helped launch NFT art for a friend as well, showcased it on social media platforms and will have their own website at the end of March. In the next iteration, I would like to have a round table discussion together with the artist to understand how we can spread knowledge about self governance in the internet, the usage of NFT art. 27th of March, I am joining a drawing class on Meet up, and will reach out to artists from Hanger and Fabra i Coats for possible collaborations and just asking their needs as artists.





## Creating Phygital Spaces for meeting

Modeling a preliminary model of the gallery exhibiting art from artists and classmates so far. I also started a Discord and simple webpage where I can give a call to action for artists to join, and a place to share ideas and discuss. Here you can see the living and Phsy\_Art Lab which is a living project that will be expanded and continuously changing.

## How can Rethinking my psyche in how I work, how can I be aware of my responsibility, working in Pshy\_Art Lab

After seeing the ice-berg paradigm, I reflected my ideations to rethink the technology

How can I build aDeconstructing the networks of NFTs and blockchains where the systems benefit the whole , rather than individuals

Build my systems with an abundance paradigm, rather than ownership and individual expression.

Instead of perpetuity of individual, what about re-thinking in terms of collective.



## How can I embrace the socio-technical, systemic approach?

- Working with nuance and incorporating non human actors ( in my case, things
- When I create things, I should consider that I create the politics of things, enacted and becoming actors of the systems I create.

- Creating Imaginations and taking into account things that are alive and have agency that are non-human.

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# Responsible Research Innovation Framework

What Alternative present am I creating with Phsy\_Art Lab

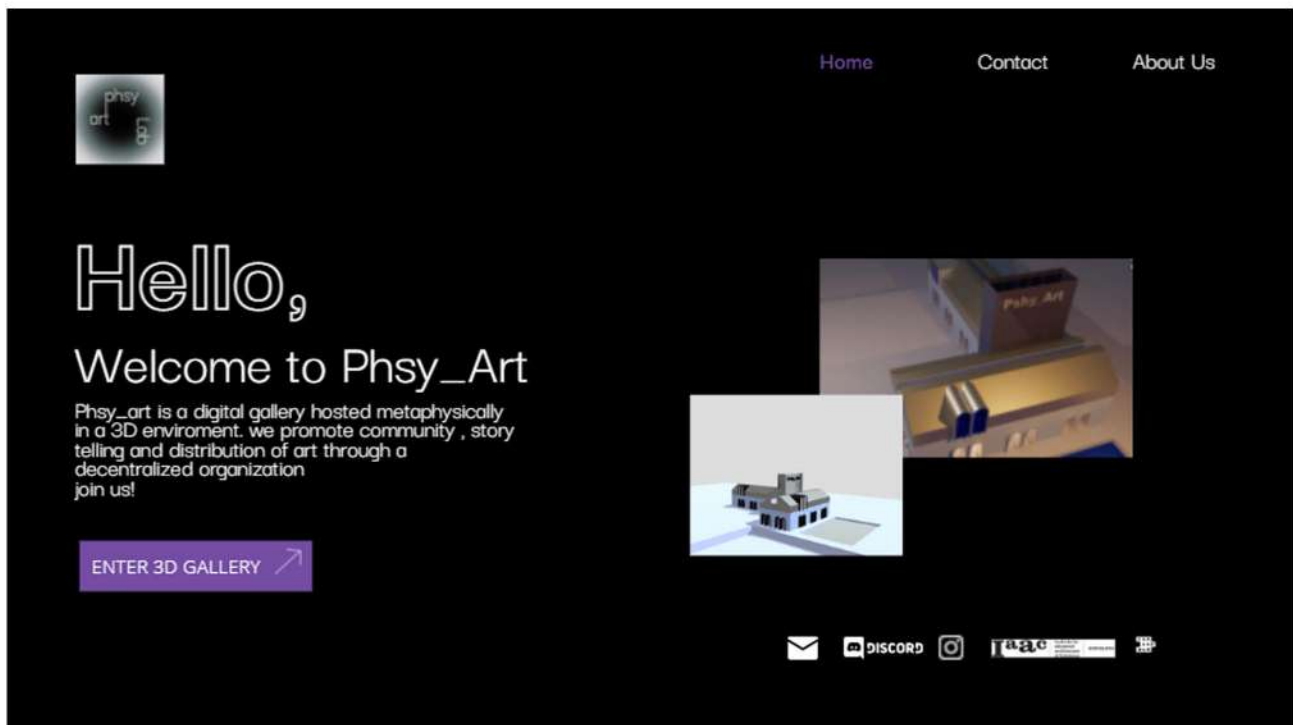


### Applying The Responsible Research Innovation Framework

Applying the RRIF from Sergio Uerena, this is how I plan to Integrate my responsibilities in rethinking the technological landscape, going beyond just a workshop. I will apply the Socio- technical innovation Framework, to anticipate ideas and collaborations from a bottom up approach in a question answer format. Coming from the design studio, what I took away is the RRIF will help build my design practice beyond the Master, and a framework for the future of designing. Building in an ethos centred in an ongoing process, and working in a community.

### Designing for Responsiveness a reflection

For this intervention I focused on the responsiveness factor of the through the RI Tool, using the two guiding questions below followed by responsibility that I aim to apply in this intervention and further iterations.



**Q1: How do I Create a Resilient, Adaptable Research Innovation System? Am I committed enough to my project? What assumptions, values and interests underpin my project, what extent do I have to reflect on them?**

Resilience is usually associated with natural hazards, yet it commonly denotes the capacity to "bounce back" from disruptions.

Promote easy access to the DOA for everyone

Expand communication and collaboration, creating network,

Take into account potential vulnerabilities and take action to ask for help to improve systems, ways of working and collaborating

Building social connectedness, creating regular involvement and

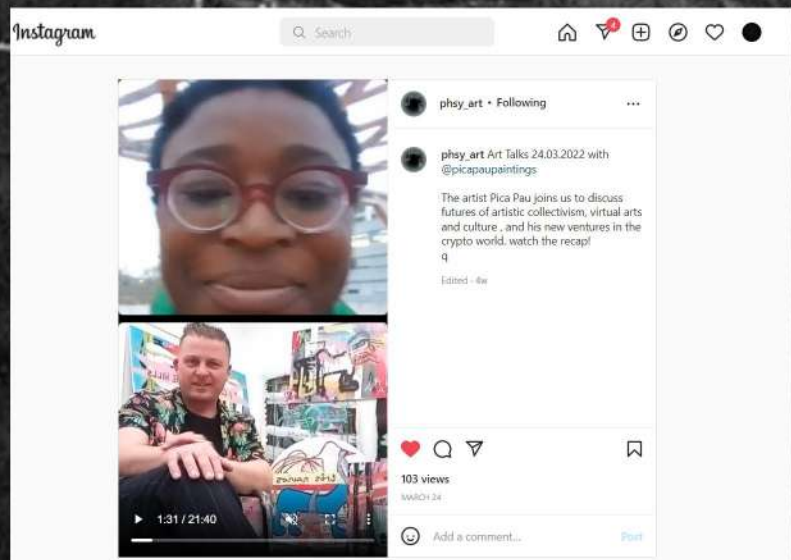
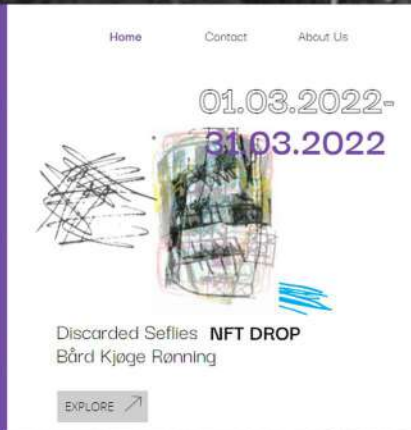
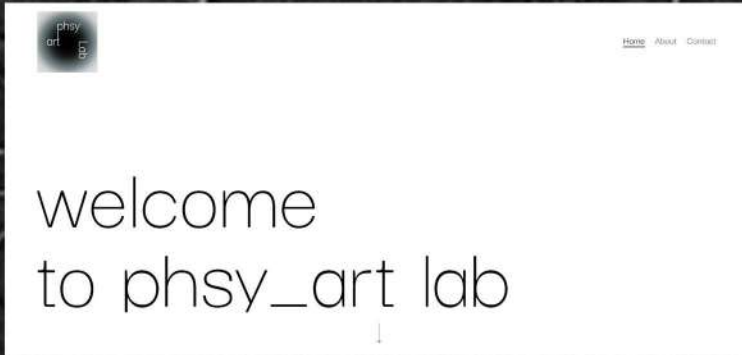
**Q2: How do I foster a digital // online platform that fosters diversity?**

Reach out to at risk communities and artists within Barcelona

Be mindful in including minorities in artists, storytellers and members of the community.



# Project Pictures





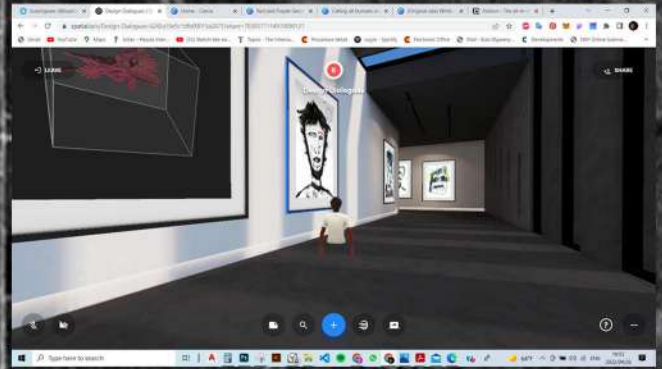
## Reflection on Design Dialogue Day

My Design dialogues project was showcasing art projects that command both physical and digital existence, we question ideas of art ownership, ethics of decentralization and futures of collaboration and community in a phygital movement we are creating together. The first iteration was the beginnings of creating a manifesto and ideating what a digital art gallery would look like.

For My exhibition, I received feedback that the VR headset was difficult to navigate at first, but very immersive and "another world" once inside. It was successful provocation on the meaning of art, ownership rights to platforms like Meta and also how we can make such systems open source for artists. These are the questions I hope to move forward towards Term III:

Write a manifesto of phygital with other artists. What does a a second iteration look like of the art residency?

Which network, or people can I ask for help in making a space that is owned, run and maintained by artists. I would like to learn how to use a AR viewer using JS.





# Chapter 6: Updated Vision and Identity

## Future Talks Reflections

### My Vision and Identity

In term II, I centred my design identity and vision around the connections between architectures and decentralised systems, asking myself where can the connections be in a field I know well and one I am getting to know. Throughout the technology track of the master's program in Term I, I was profoundly influenced in learning creative coding, multimedia and alternative user experience. My vision and identity has not changed since then, yet fluctuated and evolved.

The key words of the type of my identity is a creative technologist specialising in community and care in both digital and physical realities: a meta reality I call phygital. With this, my updated vision is to function as a design researcher and work with organisations, creatives, content creators, and entrepreneurs to make impactful frameworks, stories and products commanding spaces in the physical and digital.

Future Talks Reflections: Storytelling and living your research ( autoethnography as a design research tool)

I drew influence from Stephany Hanky and Laura from Future Talks and Making Sense and Meaning seminars to further evolve my existing identity. From this, my design identity is navigating storytelling and living your research as a means of navigating this phygital design practice.

"Living your research creates meaning." Through this quote, I drew understanding and inspiration for how I would like to design. Laura Forlano explains design through autoethnography, encouraging us to deepen in context and community.

Seeing examples she made of navigating and designing for herself as a "human cyborg" ( a diabetic navigating tech designed for her lifestyle) it was evident that designing for ourselves fosters meaningful positionality. Additionally to Lauran Forlona, I was also inspired and Audrey Desjardins. She introduced the use of autoethnography right in the beginning of the semester

Following below are some notes and main takeaways of the 2 talks that influenced me by both speakers. I will note how I applied them to my design practice, drawing facts, feelings, findings and futures. ( The F's of reviewing by the University of Edinburgh)

## **Audrey Desjardins - The practice of first person perspective research**

### **Facts: What is Autoethnography?**

It is a Computation with physical forms and interfaces (interaction design) using design to interrogate systems - designing to articulate questions to propose alternatives.

A social science branch using first person methods, designing for yourself drawing design research drawing on extensive genuine usage.

Acknowledges and accommodates emotions and researcher's influence, not hiding the researcher's bias not assuming it doesn't exist. Our objectivity becomes a design tool, embodying meanings, use and even politics to the artefacts we design for ourselves

### **What are tools for autoethnography for designers?**

Tools should pool apart and create a thick personal and interpersonal experiences

Fairness can also link to ethics, we make assumptions as designers, and with autoethnography we give way to understand what works and what does not through your own usage.



## **Futures: How does Autoethnographic design look like?**

Applying this in my MDEF journey and my personal design process, Audrey helped us understand this has to have the genuine needs to design it for yourself, process of methodological approach thinking what data can I collect? - IT IS A SLOW ONGOING PROCESS, where you have a dance between the object shaping you and you shaping the object. Consistently working, growing uniqueness. Thinking about the dance between designing for specific people and embracing complexity, constantly adapting and growing.

Here are tools to document autoethnography:

DIY Tutorials

Photos of the build

Timelapse videos

A diary

Notes with documenting the on-going

## **Findings: Research through Design : How to archive and document RtD**

The act of research in comparing and contrasting research done on yourself with others

Archive of details to make sense of the utility you have.

Through Social Media

Unstaged photos, take many many photos

Taking Notes and listing helps with debugging so you know exactly what's going on

A legend / diary that you make that's fun and easy

Internet of things, multiple roles and reporting

Retrospective accounts

## **Feelings: How I would like to apply autoethnography to my design practise:**

Check in with yourself and others

Set a time-frame but also be flexible (things happen)

Commit to documenting, choose a form you enjoy, and find a way for dialogical exchange (what do you keep personal, what do you share)

You will wear many hats,

Find co-conspirators and talk to others

Our bodies are our research instruments (positionality, etc)

## Laura Forlano: Posthumanism and Living your research

### Fact: What is the Theory of AI and posthumanism?

Posthumanism is the school of philosophy that investigates and redefines the term "human". The philosophy takes into account the current epoch where biology, politics and creative enquiry of what it is to embody humanity. Embodiment in an age with cybernetics, the internet age questions what it means to be. Posthumanism is a new attitude that looks past dualism, calling for humans to rethink the impacts of the anthropocene but also new cartographies of power relations and emerging orders and ways of co-existing with technology or nature.

Some books and text that I looked into that helped me better understand post humanism.

## Findings: Reframing what it means to be a cyborg

What stood out to me about Laura's design practise is that she used her "disability" and disadvantage as a research tool. Keeping track of how the medicine and insulin shots technologies worked for her, helped her make a detailed collection of information ideals and experience that she could use to design artefacts for herself. Her insulin tech on her body rendered her a sort of cyborg and post-human.

Laura's ideals on posthumanism made me think about rethinking and negotiating what it means to be "human", rethinking systems and technologies dehumanise, such as bias and prejudices.

## Futures: More than the Human:

Redefining systems and hierarchical design thinking, Laura gave alternative practices of what it could look like to design as a post human.





**TERM III**

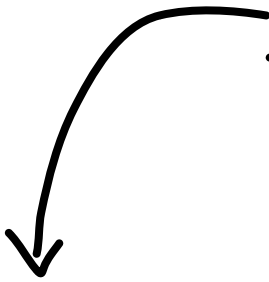
# Chapter 8: Alternative presents

Triggering tomorrow' tomorrow.

”

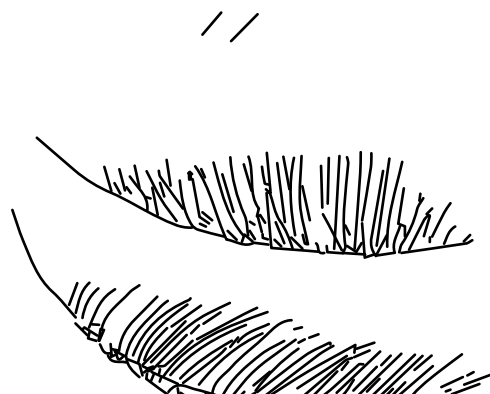
linking to my previous interests last semester on blockchain systems, I grew a further interest on environmentally ethical crypto currencies that can be used as alternative crypto and value sharing. Through the sessions in MDEF of Collective Intelligence. I realized that crypto currencies first began as a new paradigm shift in sharing value.

”



**A future of Farming crypto, not Mining.**

is be possible to use simulated 3D trees as a new form of value for reforestation?





# Chapter 7: Final Intervention

## Framing the first Design for Term III: Using Digital Art for ecosystems Literacy

Would I do differently in Term III

I do not want to be afraid that I am not as tech savvy as I hoped, instead I want to genuinely reach out to existing people to collaborate, to ask for help ( coding and sharing ) and join existing platforms. I hope to not be afraid to contact Catalan speaking platforms and show up as I am ready to learn and work.

I hope to manage my time well. My mental health was not best the previous term, but now I hope to prioritize efficiently and execute tasks in timely manner while also embracing and enjoying the process. I also want to try ask for more help, knock on many doors as possible to collaborate for MDEF Fest. This term I want to learn Java script, UX design principles and interaction design, but also working in existing communities that have the same interests as me

After the Trip to Mallorca, I was radically influenced and moved by how current systems removed me and those around me from knowledge about food systems, biodiversity and ecology. Visiting a permaculture farm where we ate the food being grown in the land, woke me up to a reality that current food systems discourage this connection to the ecology of food.

What is botany? Can virtual technologies be used to spread ecosystem education and fund nurseries and silver agriculture?

VIBOLI started as a personal pursuit to better understand biodiversity and foodsystems, fixing disconnections of the ecological world. The ongoing project is an exploration and research project on how to connect the worlds of decentralized blockchain, digital arts, community and education systems about ecology. The result is a research project, the building of a virtual botanical library and a community building this together.

I was perplexed and shocked how removed I was from ecology and natural systems. Through this visit, I wanted to explore how we can create links through digital art ( using touch designer in my case) , working within a community and education systems about ecology.

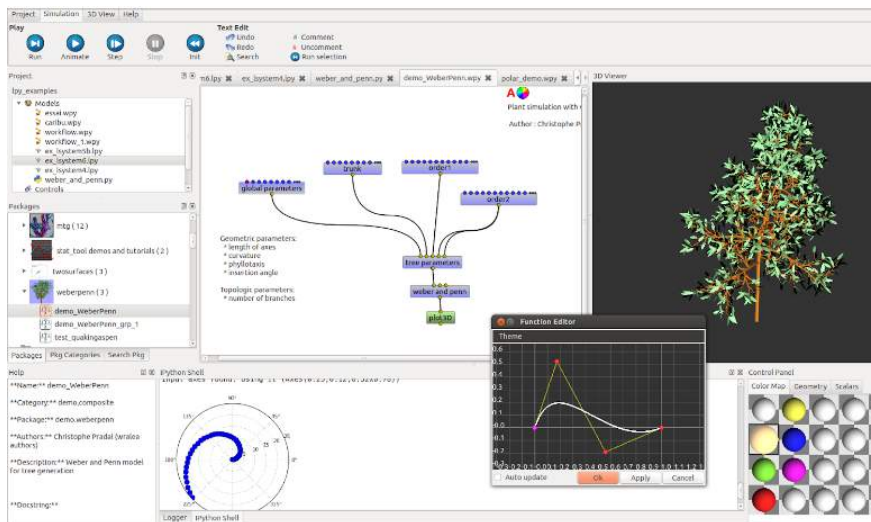
# VI.BO.LI A virtual botanical Library: an on going ecosystem and community

1. Procedural Plants: Using L-systems and UNITY to Make digital, ethical 3D Model trees as tokens

The database: Who I contacted for help / collaboration

Through design reviews and talking to Jonathan from ROMI, I was introduced to a database of 80 species of plants, shrubs and trees that can be used for simulation and literacy when they grown, height, and seasons of fruiting.

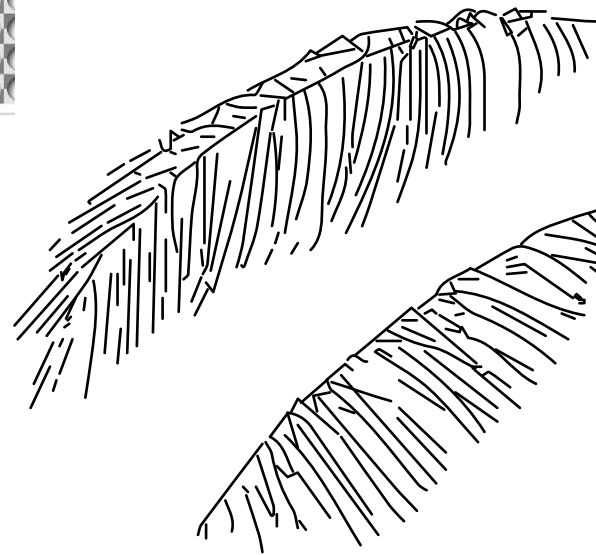
Additionally Igor Borboza has a database of 300 species to be drawn / simulated in the later stages of the project. There is a wide variety to choose from and begin from, so for now I decided to install and learn the virtual simulations I will be using



Examples of models created with L-Py. Images credits: C. Godin, J. Chopard, F. Boudon. Models credits: C. Godin, F. Boudon, F. Normand, I. Grechi, E. Costes, M. Bezis, Y. Caraglio et al.

Screenshot of Openlea, a python based model using L-systems for modeling tree growth

L-systems were conceived as a mathematical framework for modeling growth of plants. L-Py is a simulation software that mixes L-systems construction with the Python high-level modeling language.





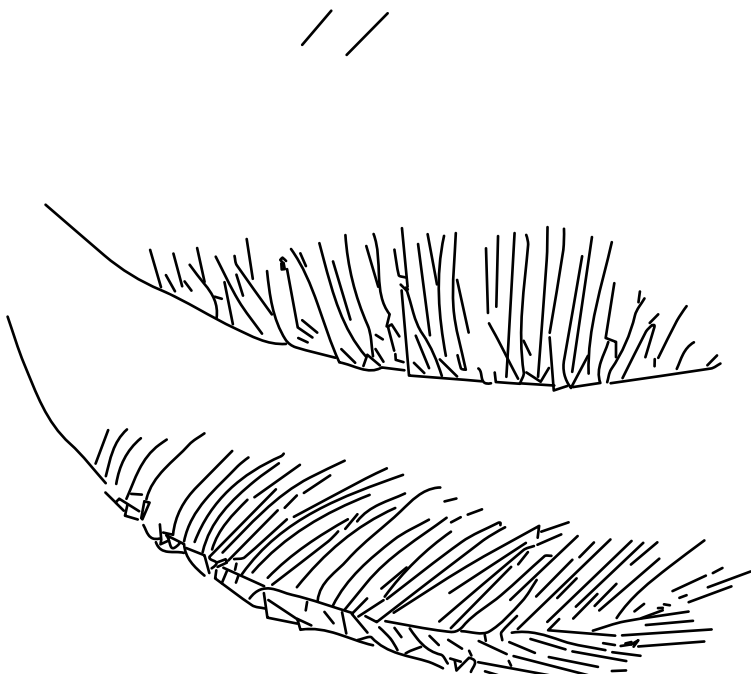
## Who has done this before?

Finding Example projects and research

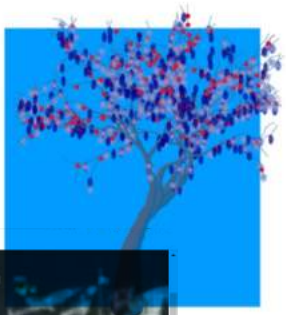
1- <https://www.hassellstudio.com/conversation/sowing-virtual-seeds>  
A landscape architecture firm with inhouse m developed tools for rapid prototyping of plant design. The software gives visual feedback and allows monitoring and development of botanical layout

2- <http://virtualplants.github.io/index.html> OpenAlea is an open source project for plant enthusiasts and researchers. OpenAlea includes modules to analyse, visualize and model the functioning and growth of plant architecture.

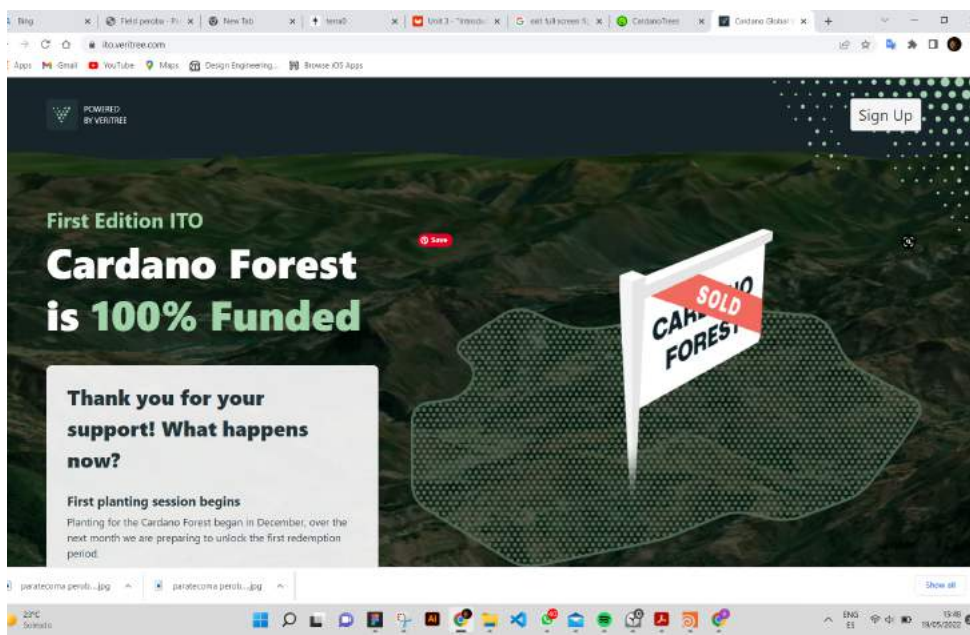
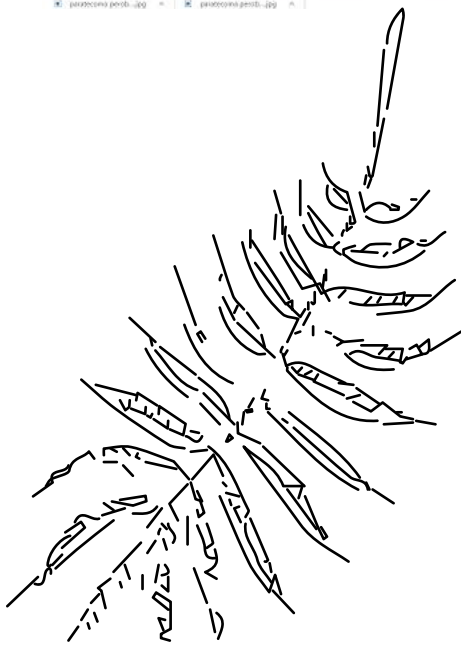
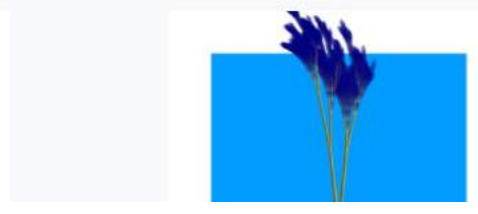
3- <https://team.inria.fr/virtualplants/software/>  
Understanding L-py <https://lpy.readthedocs.io/en/latest/index.html>  
an integrated visual development environment has been developed that facilitates the creation of plant models. In particular, easy to use optimization tools have been integrated.



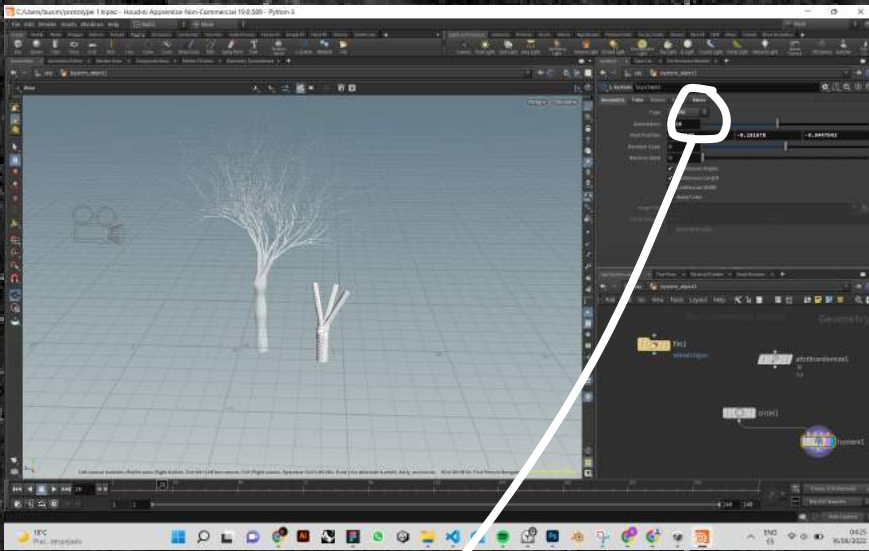
Who has done this before?



Beta

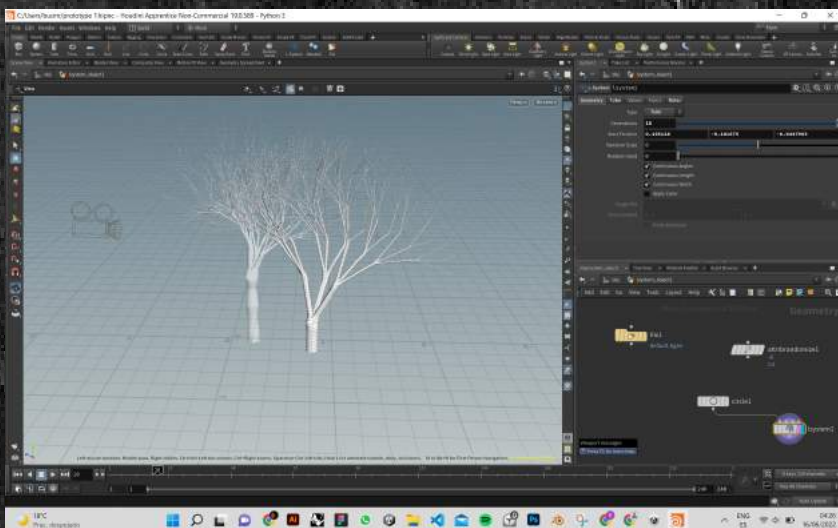
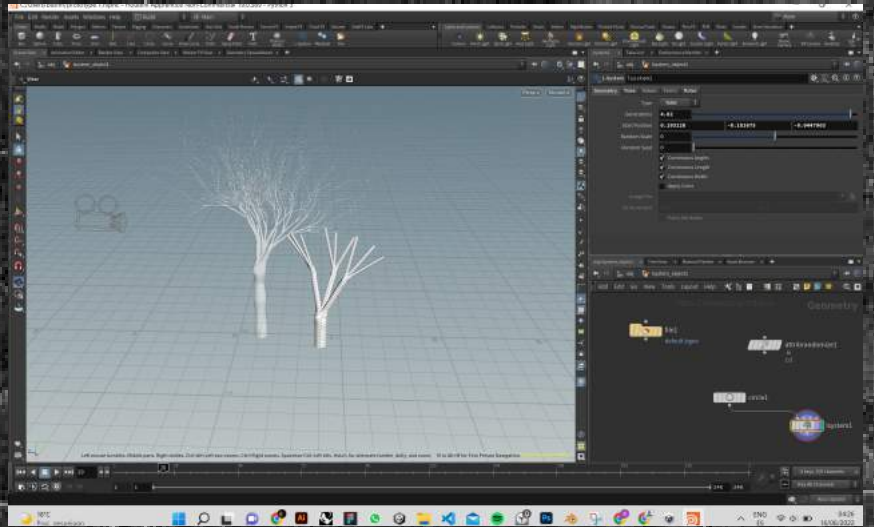


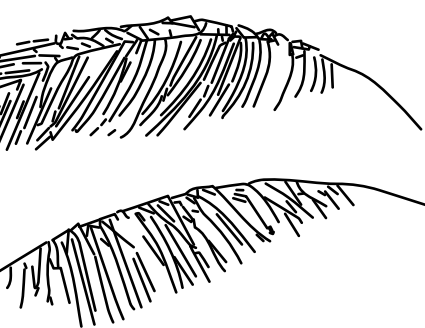




Realising that L-py is a big learning curve, I decided to turn to Houdini, a node based 3D modelling environment that also uses L-systems as a way to model trees

Houdini uses a generations slider to make mathematical pattern of L-systems and create a fractal pattern of how the branches grow. Certain rules are assigned to determine how the tree branches grow, which I followed to model each tree species





//

## The next ideology of a decentralized system

### Proof of work vs proof of stake

Understanding that most crypto is mined through powerful computers using a lot of energy to run blockchain systems, I kept in mind that it would be more ethical to use concepts such as proof of space "farming" processes rather than proof of work approach used by bitcoin.

Proof of work is a form of cryptographic proof in which one party proves to others that a certain amount of a specific computational effort has been expended. Verifiers can subsequently confirm this expenditure with minimal effort on their part.

Proof of stake protocols are a class of consensus mechanisms for blockchains that work by selecting validators in proportion to their quantity of holdings in the associated cryptocurrency. This is done to avoid the computational cost of proof of work schemes

Can community and knowledge sharing also form part of this value? I further imagined that VIBOLI, in connection of being a platform to know trees and ecological efforts in a virtual space, can also be a new mechanism of trust and community with people who have the same interests and values. This kind of ideology and community practice has the power to revolutionize how we fund reforestation. To further understand the potentiality of this, I contacted Igor Borboza, who is in the process of applying for funding for a reforestation project in Guanabara bay, Brazil, also interested in funding nurseries, land owners and that project through NFTs.

The seminars on the ideology of Ethereum, helped me question how the futures of crypto currencies could look like as a value system. In most monetary systems, the middle focus is a top down government system of ownership and distribution, such as traditional banks. But how can we take advantage and also question cryptography, a means of sending and receiving information as a self governing encoded way of value sharing? What if planting trees was a means of creating value ?



## Triggering tomorrow' tomorrow.

”

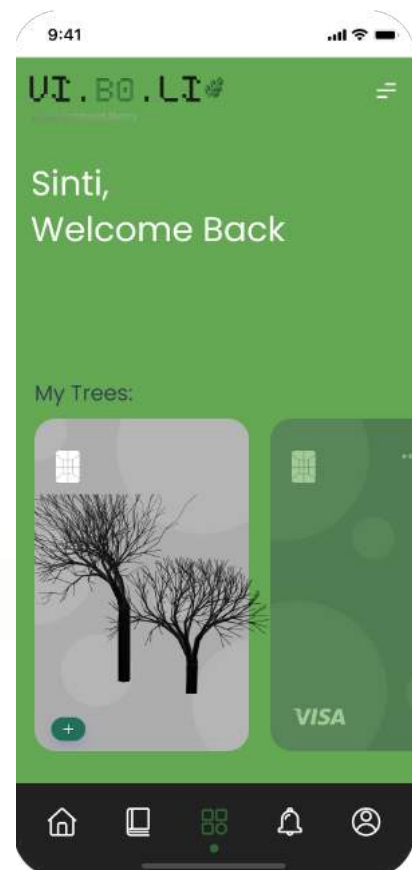
The alternative, is that whilst being a library to understand and learn about ecosystems, VIBOLI could extend into a new economy of things, a DAO with these integral values:

- Moderation
- Governance
- Conversation
- Identity

”

# A new ideology

rethinking sharing, community and value



# Storyboard scenario:



Hello! 🌱

my name is Sinti. I am a 28 year software developer from Colombia but I am currently living in Barcelona. I have started learning about in crypto currencies to broaden my money portfolio , but I feel like the world of crypto mining does not align with my values of being aware of my actions towards the enviroment crises. I wonder if there is a community or coin that takes into account the ecological world and also the world of alternative currencies.



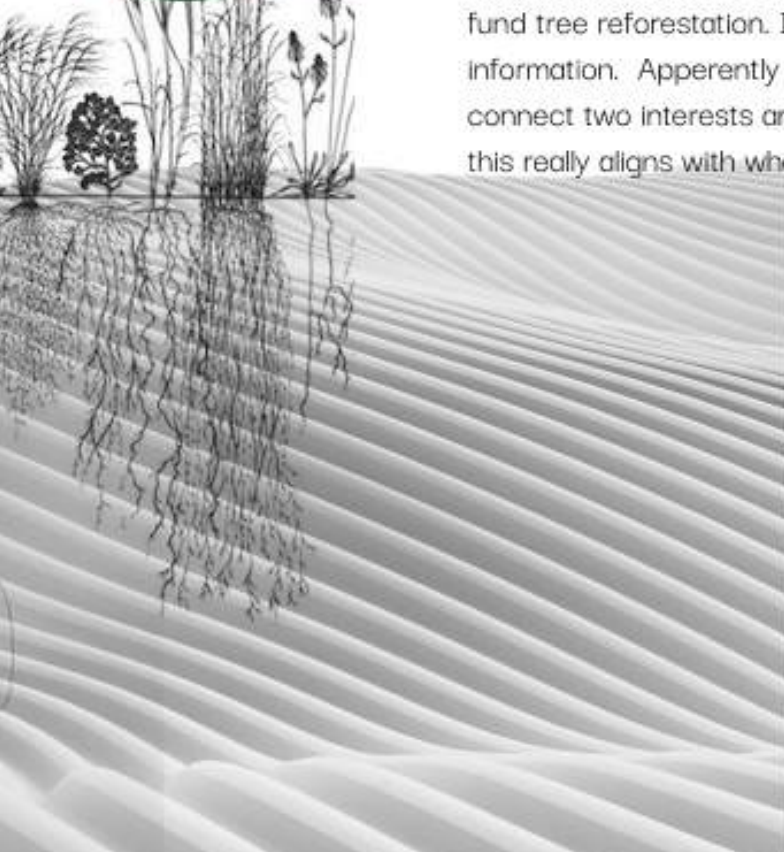
Sinti, while taking a walk sees an advertisement of an event showcasing VIBOLI as a new token. She has heard about tokens at work and the news, but she's interested in this one that grows trees. She scans the QR code to attend this event.



I signed up!



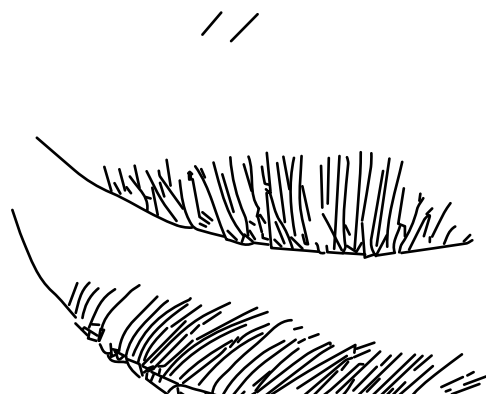
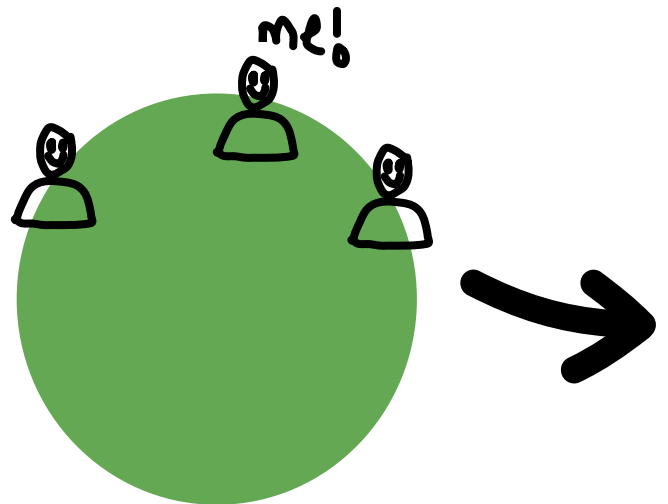
I attended this cool 3D Virtual Reality exhibition, learning about endangered tree species all the way back home! The platform has an organisation where I can adopt a virtual tree, watch it grow and also fund tree reforestation. It was so cool, I signed up to receive more information. Apparently they need python coders, so it was cool to connect two interests and skills. I am curious if I can work with them as this really aligns with what I care about



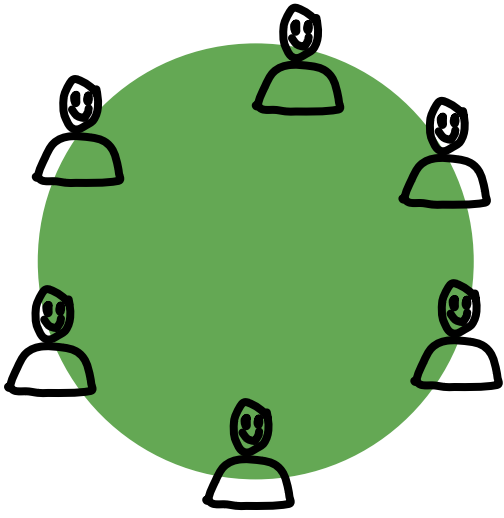
# Chapter 9: Scalability, designing yourself out

## From Small Ecosystem to global DAO

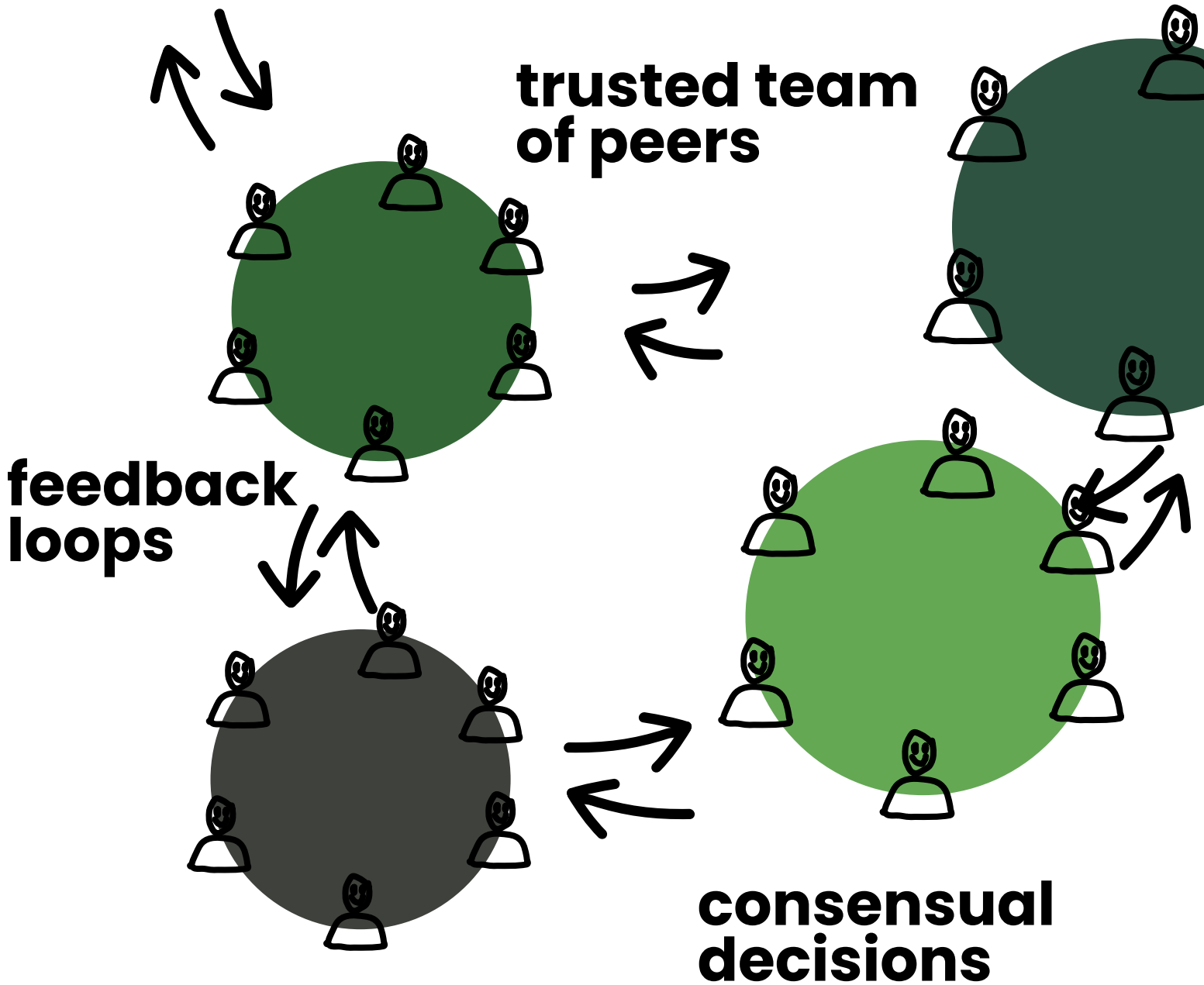
I hope to start my VIBOLI vision as a small use case, where coders, forestry specialists, artists and students can join build the community together. As the project has such a huge scope a voting system and consensus system called the Circle Method will be implemented to vote up or down assignments to be collectively done. New members of the community gain a membership token, and by taking part in the collective decision making, token value increases, where also its value and payout is collectively decided.







Even though I won't be personally handling all the decision making, I would like to hope that the most important ideas to keep as a vision would be a manifesto and the framework which the organization would operate in: A sociocracy



# A sociocracy

# VIBOLI as a Sociocracy ( Accountability and sustainability)

According to Ted Rau, Sociocracy is a governance system best suited for organizations that want to self-govern based on the values of equality. People refer to sociocracy as Dynamic Self-Governance or simply Dynamic Governance.

Keeping in mind the Responsible research Innovation framework, and drawing Inspiration from the book Many Voices One Song: Shared Power with Sociocracy by Jerry Koch-Gonzalez, Ted J. Rau, The applied format of VOBOLI would be an online and physical sociocracy.

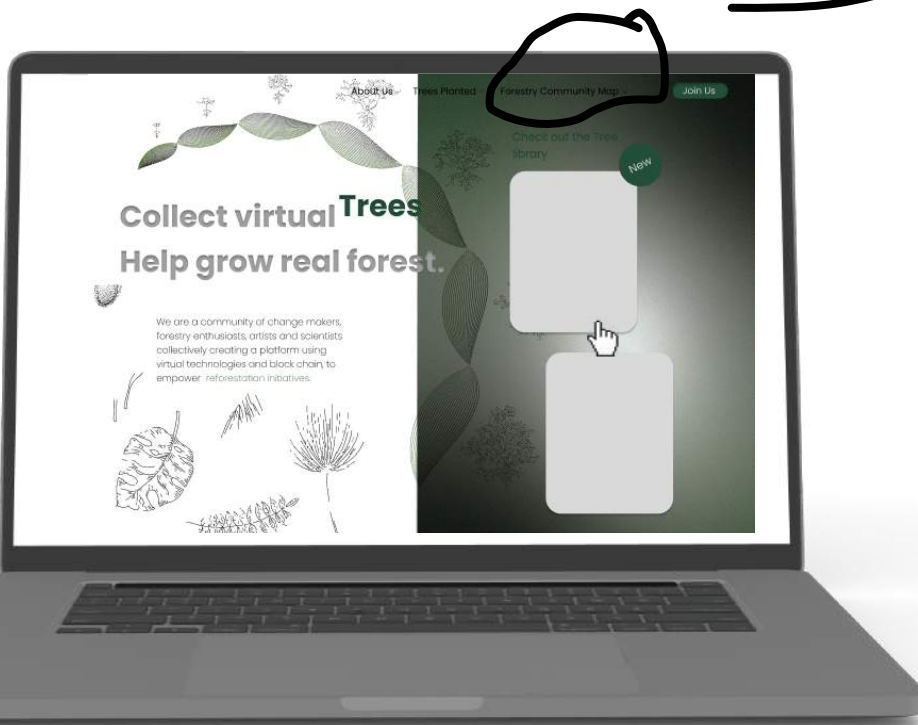
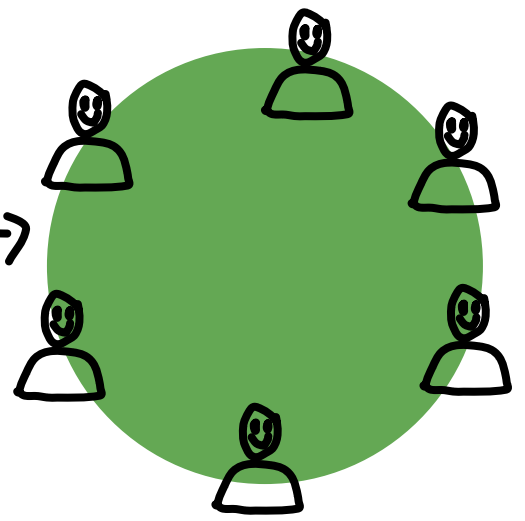
The vision of the VIBOLI project is that would it to scale as a Decentralized organization eventually. Drawing inspiration from the conversations with AKASHA foundation, I learnt the possibilities and potentials of open source DAOs, with values intrinsically being to contribute to environmental efforts. In this, I hope to start my VIBOLI vision as a small use case, where coders, forestry specialists, artists and students can join build the community together. As the project has such a huge scope a voting system and consensus system called the Circle Method will be implemented to vote up or down assignments to be collectively done. New members of the community gain a membership token, and by taking part in the collective decision making, token value increases, where also its value and payout is collectively decided.



Operating principles and scaling up:

Using the **circle method**, the first step would be to engage with the stakeholder mapping (see image below) and create a small fist user case ecosystem.

Using Egalitarian values, the system would grow by voting on decisions and awarding those who are active in discussing the timeline of future efforts. Awards can come in form of tokens, where By voting users get to decide the payout.



# Scalability timeline

## Timeline



### Research of existing ecosystems

Collaboration with forestry specialist for ecosystem database and trees to be simulated.

June 2022

### Co-designing a community

Sessions to write a manifesto, first round of proposals, starting a treasury and governance with coders, artists, futurists and people interested in ecosystem literacy.



September 2022

### Developing and simulating trees and our own DOA

After starting the community, we can start development of virtual development tools for growing virtual trees, ( currently using L-Py and Touchdesigner) One could invest in a seed of a virtual tree, which represents the reforestation of a physical tree in our researched ecosystem. The simulated tree can show the life cycle, carbon footprint and other important data of the real tree

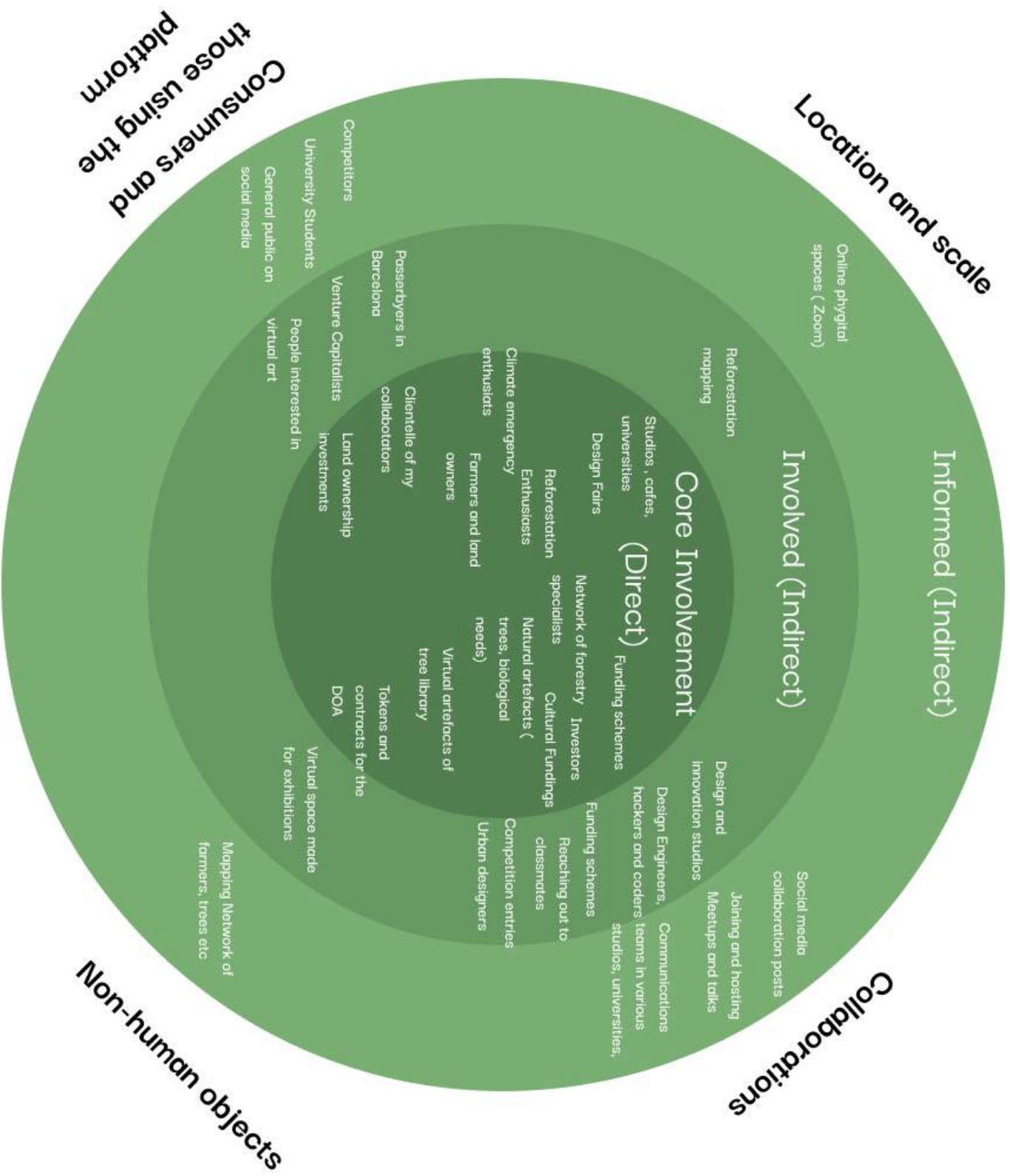
December 2022

Further prototyping, making the library opensource





# Stakeholder Mapping



# Chapter 10: Final Reflection

Coming out of MDEF, Mariana assured us that we will come from a rich learning experience, even though we are in different topics and journeys.

Within the eb and flows What is the latents parts of me that is a potential for myself that I fished this term. Going inward into the core of myself.

MDEF is about building my life and patterns, not a final project that should be handed in. MDEF Fest is about having solid ground about carrying on what I can carry on with

Vikrant: Maybe more magic lies in the journey towards the 'figuring out' rather than the figuring out itself.

Paula: I want to stop being in my head and do mor things with my hands. Thoughts and feelings of just going for it instead of overthinking.

How is my design space molding even past MDEF, what do I look forward towards MDEFest?

Realising the connections between collaboration, community, tech and using new media as a tool for this ideas

It has always been inside me. From trying to understand how websites work as a child, and also working in urbanism yet also having interests in taking advantage of emerging web technologies.

Using the 3 months to create a groundwork for post MDEF

Refurbishing energy and understanding what matters, time management and focusing on whats important, also prioritizing mental health

MDEFest is not the END

Its about showing each others spirit and projects. MDEFest is place for community and collaboration.



# MDEFest Event Poster

## YOU ARE INVITED:

DATE: 20 JUNE 2022 OPENING EVENT  
LOCATION: SOFT, CARRER BAILEN 11, BARCELONA  
HOURS: 7PM-8PM MONDAY  
7PM-8PM TUESDAY  
7PM-8PM WEDNESDAY  
7PM-8PM THURSDAY  
7PM-8PM FRIDAY

## VIRTUAL BOTANICAL LIBRARY UI BB LI

# A VIRTUAL REALITY TREE EXHIBITION

Imagine fostering a virtual tree as an and watching it grow, better its ecosystem virtually and in reality. VIBOLI in collaboration with SOFT is a master's project part of the Master of Design for Emergent Futures at IAAC ( Institute for Advanced Architecture of Catalonia) You are invited to Visit the virtual space, enter the immersive exploration and meet the on going virtual botanical library of various endangered trees, and their potential as NFTs to fund reforestation efforts currently in Guanabara bay, Brazil. Learn, question, explore.

20 JUNE 2022-  
24 JUNE 2022



X

collaboration with:



# MDEFest planning questions

Audience capture or measurement?: Signing up a visiting log book

Process details: I am working with Magda. I can keep track with the calendar and how I can plug in their work into mine. I would also like to talk to the other artists, ask what kind of people they are expecting to come to the event.

Invite special guests or stakeholders

Classmates, My social media, open call, my lecturers, similar studios, talks with Magda about the participants of other artists

How will you balance physical and digital events?

Will you do any PR - posters

Submit a poster today for Magda, and to send

What equipment do you need?

I want to use computers to render, but also OCULUS to try out the VR, and getting familiar with UNITY

Do you need a personal data release form?

Have you considered people with limited mobility or access requirements?

How will you document the event for your learning path/portfolio? Do you need help?

Tatiana will help take pictures

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# Master of design for Emergent Futures Thesis 2021-2021

About me: My name is Busisiwe Mgwenya, But you can call me Busi.

This is my thesis during the Master of design for Emergent Futures at IAAC, Barcelona

My design practise centers around web3 and emerging future design solutions. I have a background in architecture, but I am currently pursuing projects in open source Innovation, decentralized infrastructure, behavioural dynamics in tech and conscious information technology consumption. I possess sound skills in graphic presentation techniques, 3D Modelling, stakeholder engagement, and a background in fine arts. Currently I am learning web3 development, and alternative UI/UX interfaces. I always strive to learn new design techniques and platforms!

MDEF  
2021-22