

WHAT IS LIFE-CENTRED DESIGN?

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CIID

FRAMING PREREAD

FRAMING AND PREREAD

We are part of a complex system - moving away from binary thinking of right wrong white black and absolute decision making to complex multifaceted impacts and unpredictable consequences and scenarios for the future.

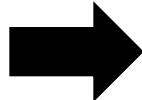
FRAMING AND PREREAD

FROM: "the possible"

How Might We...?

Can we make it?

- Desirable (Love)
- Viable (Money)
- Feasible (Power)



TO: "the purposeful"

Why Should We...?

Why should it exist?

- Integrative (Fit)
- Adaptive (Evolve)
- Regenerative (Renew)

PARADIGM SHIFT ARE A NORMAL PHENOMENON IN EVOLUTION



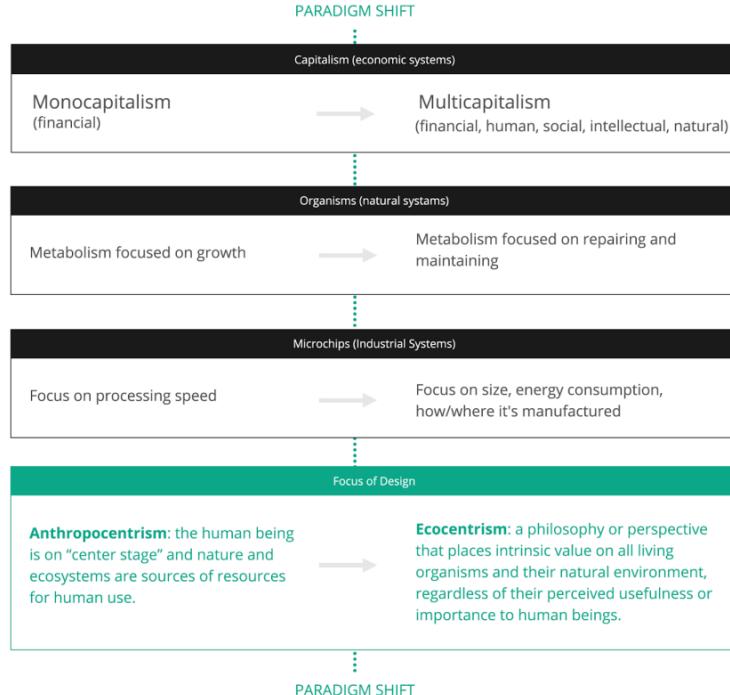
Integrated Reporting



Santa Fe Institute



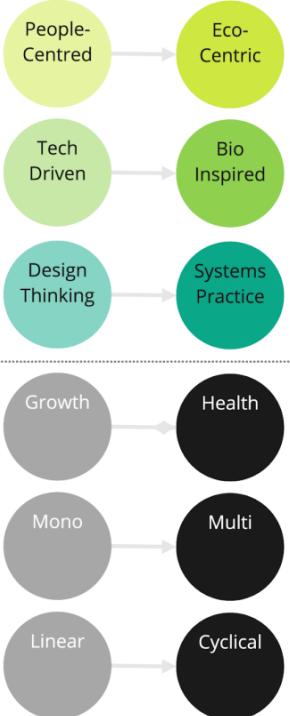
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FRAMING AND PREREAD

Shift in focus and methodology for design

Characteristics of a life-centric approach



WHAT IS LIFE-CENTRED DESIGN?

FIRST DRAFT - JULY 2018

A life-centred approach adopts holistic perspectives in order to observe dynamic relationships across interdependent and complex technological and living systems. It is inspired by the inherent diversity, ingenuity and time-tested wisdom of nature.

A life-centred design approach requires an expansion of our scope of responsibilities and ethical considerations with regard to the longer term health of society, the economy, and our planet.

As a practice, design needs to evolve beyond a human (anthropocentric) approach to problem solving and start cultivating new sensibilities that empower us to design for co-evolution, resilience and scale in synergy.

CO-EVOLUTION

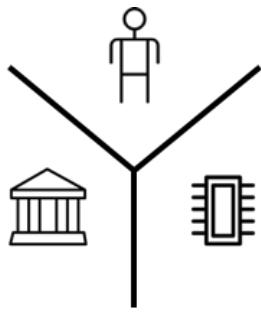
DESIGN FOR CO-EVOLUTION

Interactions are designed for specific context and environments. Co-evolution is a symbiotic exchange of ideas, materials, and interactions for mutual benefit. Complex systems encourage cooperative competition and reciprocal interactions that synergistically define new evolutionary pathways.

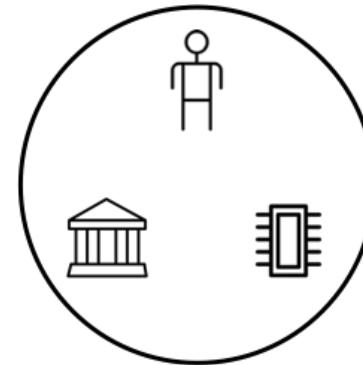
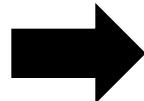
How can designers leverage co-evolutionary strategies to develop more adaptable and future-proof solutions?

SYMBIOSIS MUTUALISM INTERDEPENDENT ADAPTABLE COLLABORATIVE

DESIGN FOR **CO-EVOLUTION**



ISOLATED

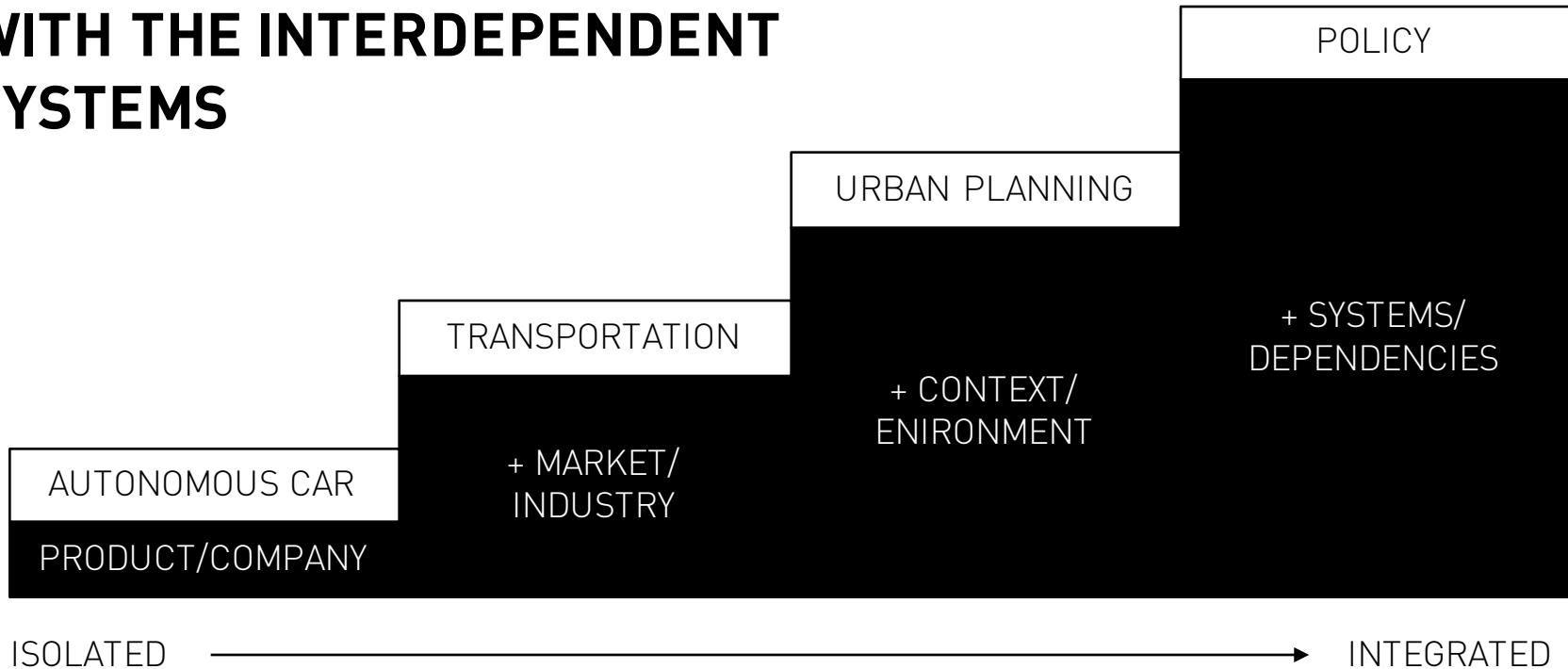


INTEGRATED

REFERENCE: AUTONOMOUS VEHICLES

STEP UP THE INTEGRATION LADDER IN ORDER TO CO-EVOLVE WITH THE INTERDEPENDENT SYSTEMS

DESIGN FOR **CO-EVOLUTION**



DESIGN FOR **CO-EVOLUTION**

Designing for co-evolution means...

Adaptation in relationship to the environment.

Finding your niche through competition.

Cooperation for the health of the whole.

RESILIENCE

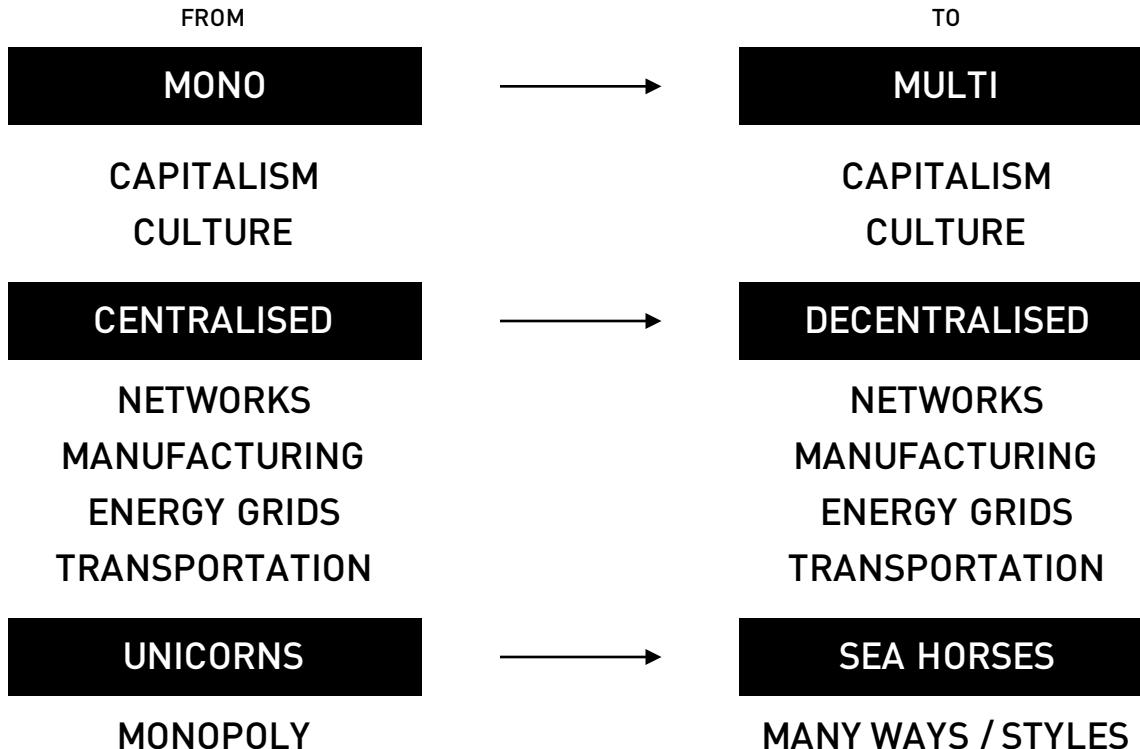
DESIGN FOR RESILIENCE

Great design considers systems. Most complex living or technological systems that are resilient are characterized by diversity. Resilient systems adapt to changing conditions and incorporate various strategies and styles as an integral part of a stronger, healthier whole.

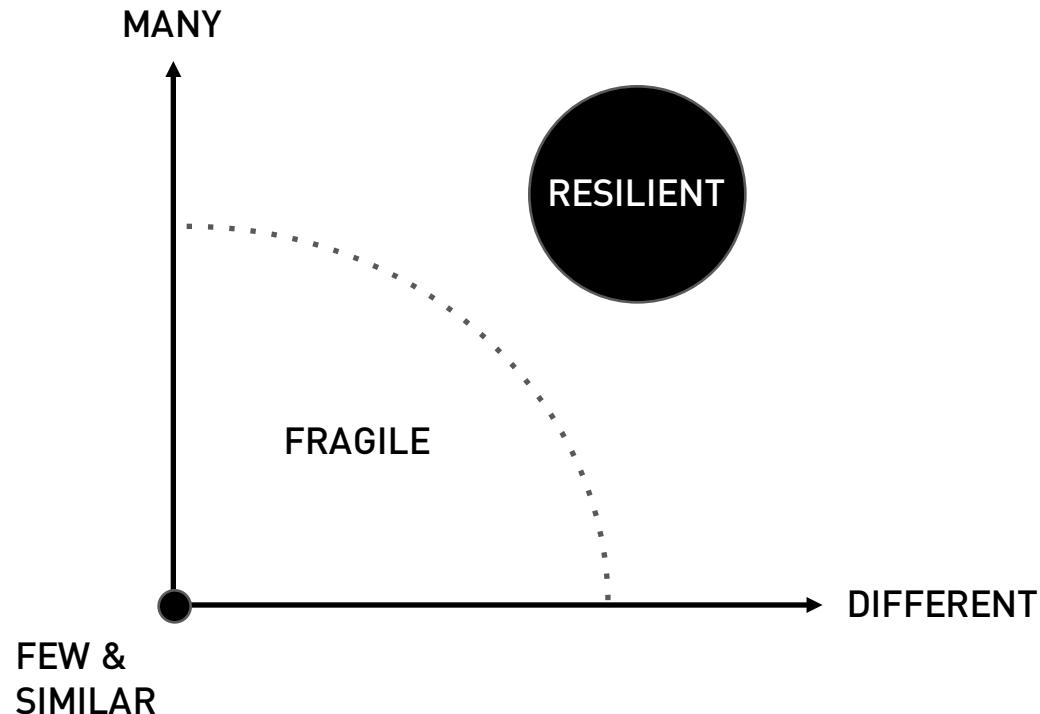
How can we design solutions to sustain continuous change and adapt to increasing complexity across society, economy and planet?

DIVERSITY PLURALITY DECENTRALIZED REDUNDANCY ENDURANCE

DESIGN FOR RESILIENCE



DESIGN FOR **RESILIENCE**



DESIGN FOR RESILIENCE

Designing for resilience means...

Building regenerative capacity.

Sensing emerging risks.

Responding to disruption.

**BEYOND HUMAN
SCALE**

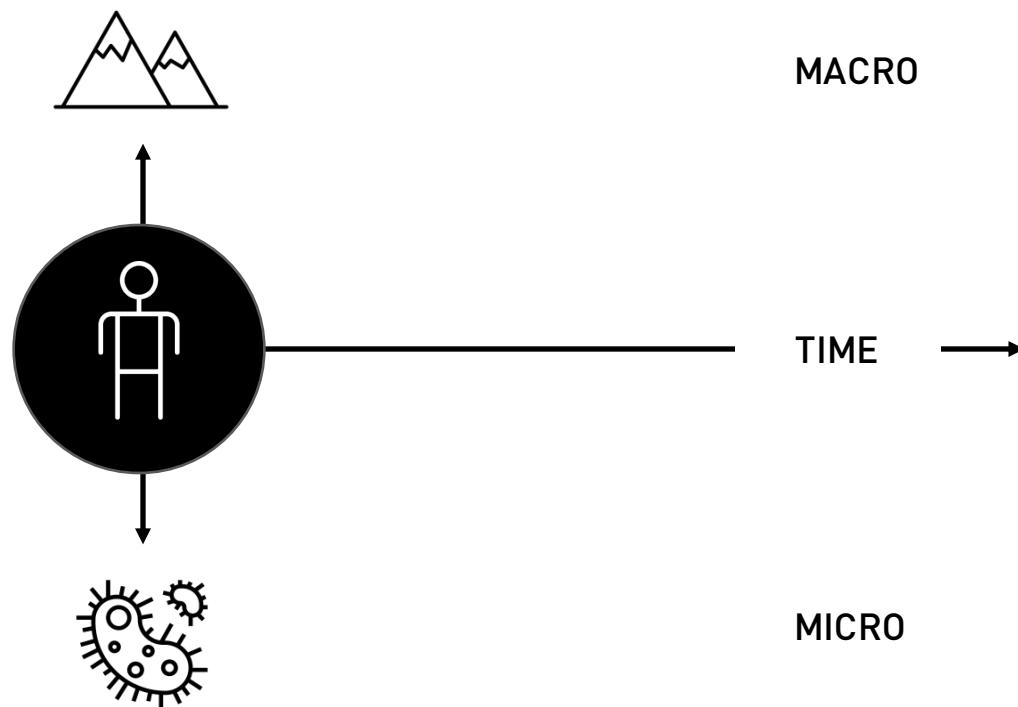
DESIGN BEYOND HUMAN SCALE

Interactions exist in the ecosystems of the planet across different macro and micro scales. Designing for these scales asks us to observe and understand these previously invisible systems and their interconnectivity.

How can design embrace complexity and expand the scope of consideration beyond what we sense today to increase visibility and impact from the micro-scale of microorganisms to the macro-scale of climate change?

TIME HABITAT ECOSYSTEMS BIOMES MICROSPHERE MACROSPHERE

DESIGN BEYOND HUMAN SCALE



DESIGN BEYOND HUMAN SCALE



	Micro	Meso	Macro
ECOLOGY	Organism	Community	Biosphere
UX	Feature	Product	Market
TIME	Moment	Journey	Lifespan
SPACE	House	City	Region
SOCIAL	Gesture	Identity	Culture
?			

DESIGN BEYOND HUMAN SCALE

Designing for scale means...

Zooming out to see the big picture.

Zooming in to discover the important details.

Looking far ahead to consider consequences.

EXAMPLE PROJECTS

Projects > 2017 > Courses > Final Projects > Projects > Machine Ethics Toolkit

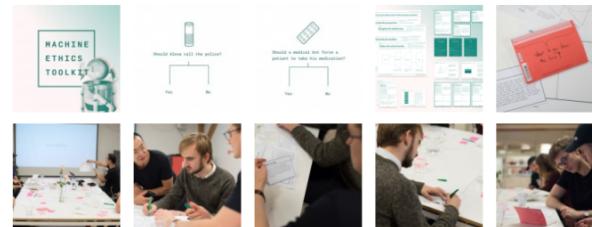
MACHINE ETHICS TOOLKIT

Machine Ethics Toolkit is a DIY workshop for artificial intelligence and machine learning companies. Machine ethics is concerned with what machine intelligence should do when presented with ethical scenarios. With this toolkit, you can facilitate a workshop to learn philosophical moral theories and an ethical decision-making framework. This toolkit aims to encourage companies to integrate ethical considerations into their workflow and think critically about their work.

For more information and to download the toolkit, go to
www.machineethicstoolkit.com

STUDENTS

James Zhou



Projects > 2017 > Courses > Final Projects > Projects > **blue+**

BLUE+

In the year 2014, the Chinese government started implementing a social credit score system for its people. The idea behind China's social credit score system is that small nudges and the ability to compare oneself to others is a more effective tool in changing peoples behavior than strict rules or policy. And while the Chinese model is widely criticized as an Orwellian nightmare, problems like global warming or resource shortages might call for drastic measures in the future. *BLUE+* is a critical design project that explores the possibility of a social credit score system in Europe. It consists of two parts:

The first part deals with the system itself using the classic service design approach. What would be the touch points? How would it likely be implemented? How would it have to be presented for society to accept it? The second part then flips the table and asks: what might be the objects, tools or artifacts that would help an individual navigate, maybe even cheat a system like that? What are the unofficial solutions?

THE SYSTEM

BLUE is a scoring system that keeps track of peoples efforts to live a healthy and sustainable lifestyle. Every citizen has a score that can be increased by performing certain actions like recycling trash, buying local products or taking the bike instead of the car. *BLUE* keeps track of those actions automatically. It does so by combining existing infrastructure. Smart security cameras and biometric sensors can track outside activities, mobile payment systems can be used to collect information about spending behaviors and smart home appliances can send data about water and electricity consumption. The *BLUE* website and the *BLUE* app shows the personal score as well as how well it compares to the rest of society.

STUDENTS
BENEDICT HUEBENER



Projects > 2017 > Courses > Final Projects > Projects > GrOWN - Grow your own

GROWN – GROW YOUR OWN

The more distanced we are from where and how our food is produced, the less we think about how it is grown, and the way it tastes. This distance is both physical and emotional and results in a loss of knowledge, decreased awareness and sense of community.

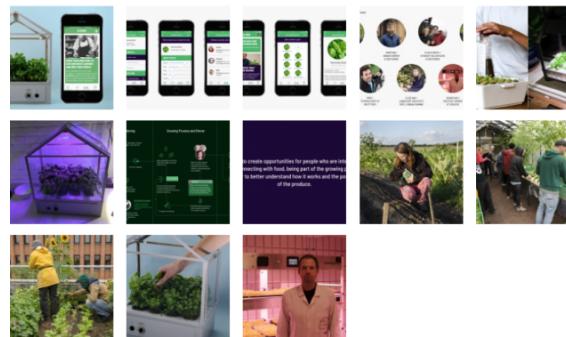
For a generation of connected urbanites, their status in life is no longer just defined by the expensive watch they wear, but by the food choices they make and awareness of their impact. Food has increasingly become a lifestyle and source of connection. And a part of the story we tell about ourselves and each other.

GrOWN is an automated and climate controlled greenhouse for your home. With GrOWN you have the opportunity to playfully connect with your food, through growing your own greens, and sharing this experience with friends and other members of the GrOWN community.

Well known chefs partner with us as our Taste Leaders and design dishes around each ingredient that you can grow in your GrOWN greenhouse. A wide variety of herbs, lettuces, leafy greens, root vegetables and even some fruits can be grown in the greenhouse, which is based on hydroponic growing technology.

You control your unit through the GrOWN app that you install on your smart device. Here you keep track of what you are growing and have the possibility to modify the growing conditions in order to customise your crops. It works by influencing the plants climate, so they express different phenotypic results such as varying size, texture, color, flavour and more.

STUDENTS
CHRISTOPHER BOGÁR



EXAMPLE CIID STUDENT PROJECT

DESIGN FOR CO-EVOLUTION

Projects > 2017 > Courses > Final Projects > Projects > **HOOKED**

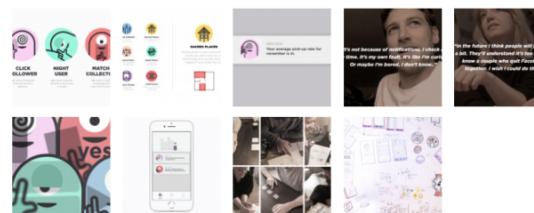
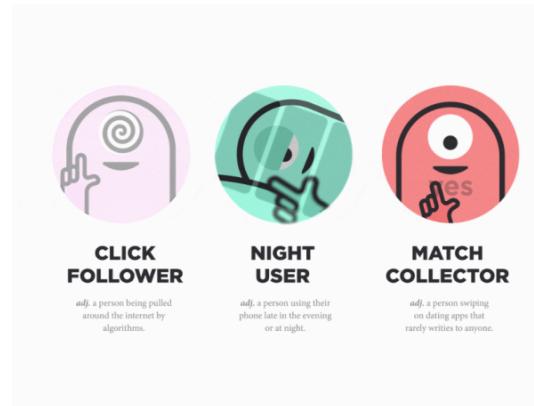
HOOKED

Hooked is an app that provokes you to reflect on the time you spend on your smartphone.

Rather than just collecting data of your usage, *Hooked* takes a more active role and identifies patterns in your behavior. *Hooked* then presents these patterns to you in a way that provokes reflection and supports talking about them with friends. *Hooked* also asks you to briefly evaluate the time you spend on different activities to get to know you and to provide you with richer statistics, combining the actual time spent with your values.

The second layer of *Hooked* consists of a set of tools to support changing your habits. These so called *detoxes* use methods that today are used to hijack our attention in order to make it more compelling to take back control over it.

STUDENTS
ISAK FROSTA



Projects > 2016 > Courses > Final Projects > Projects > Alter

ALTER

Another perspective on Algorithmic Filtering of Facebook

In a Nutshell

Alter is a plug-in for Facebook that enables Facebook users to understand the effects of behind-the-scenes algorithms that customise their personal News feeds.

Research

The initial goal of the research was to understand the user policies of digital communication services, to enable people to discuss wider outcomes of their actions in the digital world, and to think about terminologies like 'user-friendliness' with its positive and negative meanings.

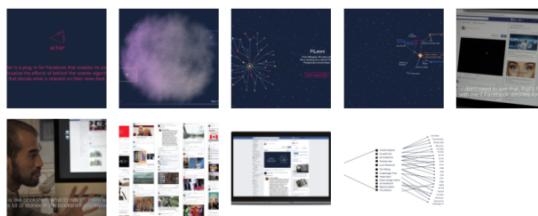
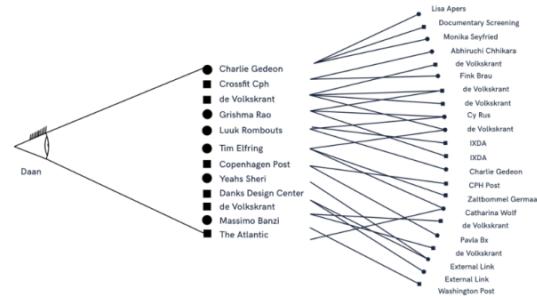
Interviews conducted about digital communication habits with both users and experts almost always ended up being about Facebook's News feed. Users often defined 'scrolling' as a toxic habit while the experts stated the risks behind the predictive algorithms and filtering of the News feed. After combining the interviews with the insights from the desk research, some questions that may direct the concept appeared: What happens if we change the content where people look everyday, their News feed? What if we show to people each others content? Would that be thought-provoking?

For more details, please see the project's [research blog](#).

Concept

Alter emerged as a means to discuss the effects of the tailored information flow of Facebook, that leaves less room for the chance encounters that bring different opinions, insights and learnings.

STUDENTS
SENA PARTAL



Projects > 2017 > Courses > Final Projects > Projects > [Ashena](#)

ASHENA

Problem Definition

What would happen if one day you have to leave your home city for a completely new place without any track record of your past? What if you don't have any national or international identity documents with you? How can you find a job when you don't have a certificate, resume, recommendations or any documents showing your education, past experience, or even how trustworthy you are?

The conflicts in several countries of the world burn on for an average of 37 years, meaning many people have been seeking asylum for an average of 10 years. Before re-settling in a new host country, a refugee can accrue a gap in education, work experience, or even social relations causing malicious effects for both refugees and the host country.

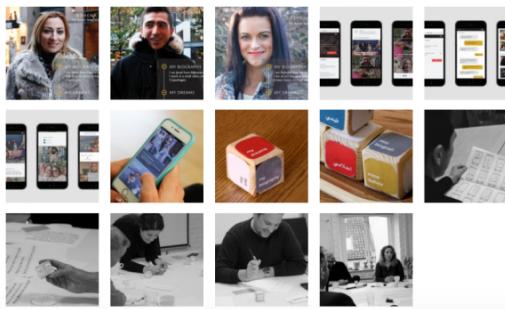
Empowering refugees with economic independence is one of the best ways to integrate newcomers into the ecosystem. Welcoming them into the fold of a new society, whilst acknowledging the culture and traditions left behind, is a challenge and opportunity that is recognised by a number of NGOs, who have developed sustainable integration strategies.

This project addresses how to integrate entrepreneurial refugees in to society – optimising mutual benefits for both parties.

What is Ashena?

Having a job is instrumental to feeling integrated in to society. Ashena enables refugees to better integrate by helping them convey their skills and experiences to audiences of like-minded local businesses. The service shifts the emphasis from a receiver-giver dynamic (state support and volunteering), to a professional network of entrepreneurs who want to share their skills, expertise and shared dreams.

STUDENTS
SOMAYEH RANJBAR



Projects > 2015 > Courses > Final Projects > Projects > Refugee Text Service

REFUGEE TEXT SERVICE

A Digital Information Service for Refugees in North-Western Europe

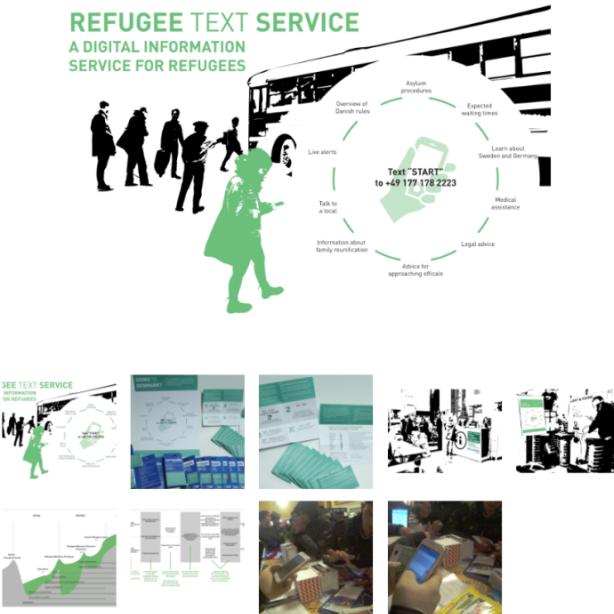
Aimed at refugees coming to Germany, Denmark and Scandinavia, the Refugee Text Service fills the information void created by an ever-changing political landscape. It provides refugees with access to information about who they can talk to, who they can trust, and what their options are, depending on their situation. The content is provided and updated by NGOs and volunteer organisations as well as a variety of experts in Denmark, Sweden and Germany.

The service is introduced to refugees before they reach Denmark – distributed by volunteers, NGOs, sim card providers and through social media. It is accessed via SMS, allowing any refugee with a phone to get verified and updated information directly to their handset. It also provides contacts for experts and locals willing to assist individuals in need.

For more information or for contact, ksolvag@gmail.com

STUDENTS

Kåre Magnus Sand Solvåg



Projects > 2015 > Courses > Final Projects > Projects > Isomer

ISOMER

Isomer is a web based platform that brings together designers, engineers and makers. The goal is to create open source alternatives to everyday things that are better in form and function, and are extremely durable.

This is achieved by letting people use their preferred tools and workflows – facilitating a good design process. The platform provides a framework for the various tasks in the process such as research, brainstorming, CAD modeling and electrical design, and acts as a hub between various external services.

There is an emphasis on modular design so that individual parts of the products can be replaced or upgraded, and also reused in future products.

Sign up for early access at isomer.cc or check out the latest developments at akshayverma.net.

STUDENTS

Akshay Verma



Projects > 2016 > Courses > Final Projects > Projects > [kitchen.bio](#)

KITCHEN.BIO

Abstract

kitchen.bio is an educational prototyping tool for synthetic biology. A software enables non-scientists to plan their own genetically modified organisms and gives step-by-step instructions on how to engineer them in the lab. Connected hardware makes it easy to grow and monitor the modified organisms.

Motivation

New technologies for synthetic biology will change our environment and even ourselves in the coming years. kitchen.bio aims to open up the tools and the knowledge about genetic modification to a wider public, so that we can have a more objective discussion about opportunities and risks.

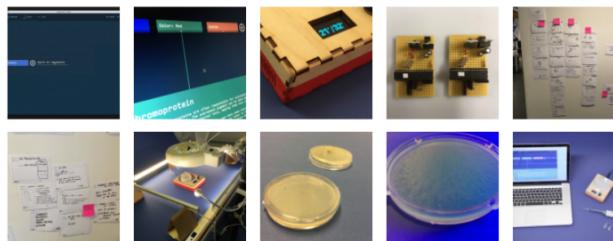
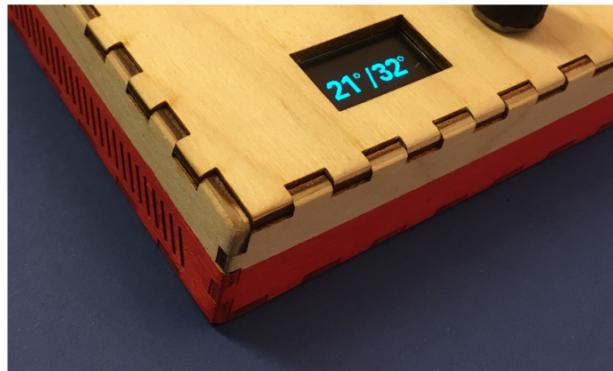
Research & Design

The main research objective was to figure out what problems non-scientists have when they try to get involved in synthetic biology. More than eight different interviews with experts and potential users led to three opportunity areas:

1. Accessible *tools* for synthetic biology are missing
2. The *knowledge*, which is often hidden in scientific texts, is hard to come by
3. The *legal* situation is often not clear

STUDENTS

Lars Kaltenbach



Projects > 2016 > Courses > As We May Sense > Projects > Sask - Self Awareness Sensory Kit

SASK – SELF AWARENESS SENSORY KIT

Sask is a kit you can use to become more self aware and to see yourself from a different perspective, thus increasing your capacity for introspection. It contains an adventure for each of our main 5 senses.

1. The third eye (See)

Use this supercharged backpack and goggles to view yourself from a third person's view. This helps you discover yourself in a new light and observe your body as it navigates through life in real time.

2. Microphone Pill (Hear)

This pill contains a microphone that allows you to hear your insides as it travels through your digestive system. It connects to your phone via bluetooth. The pillbox includes 4 pills to allow you to experience it multiple times. You can hear a recorded experiment here: link

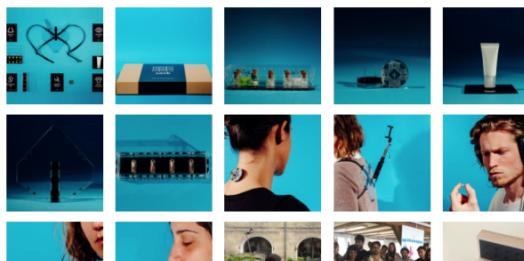
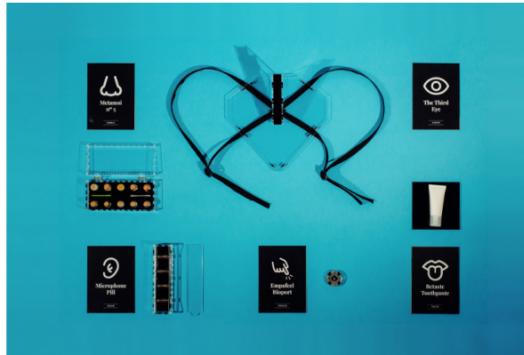
3. Metamoi nº5 (Smell)

Scents affect states of mind, which can also be detected by other humans – even though the conscious realization often isn't made. With this in mind the team created Metamoi nº5, a scent crate that comes with two different kits:

- The first contains 5 pre-bottled scents (focus, relax, sexy, awake and confidence) to change your current state of mind. Just sniff the desired one and enjoy.
- The second one contains 5 empty vials with a preparation of scent alcohol, collection tissues and labels, to help you collect the scents you want to project. You'll need to enter the state of mind that you want to store, use the collection tissue to wipe your face and axilla area and then drop the collection tissue on one of the vials and wait for it to dissolve. After a while it's ready and you can take it with you and sniff the desired scent before needing that state of mind.

STUDENTS

Inês Araújo
Luuk Rombouts
Mary Mikhail
Sena Partal



WHAT IS LIFE-CENTRED DESIGN?

Questions?

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