LIFE-CENTRED DESIGN

STIVEN KERESTEGIAN LINZ 2019

FRAMEWORK CO-DEVELOPED WITH: Copenhagen Institute of Interaction Design







STRATEGIC DESIGN -

BUSINESS VIABILE



PEOPLE + PLANET DESIRABLE

STRATEGIC DESIGN FOR INNOVATION

TECH

PRODUCT

Data Networks Connectivity

Aesthetics Form & Shape Usability



HUGE **OPPORTUNITY**

PEOPLE

Business M.

Mutual Value

Participation

2020













VERSATILITY



WASTE AVOIDANCE

4



DISASSEMBLY









CIRCULAR PACKAGING

0



patagonia













We're in business to save our home planet.

Land

Terrestrial ecosystems and land use, sustainable agriculture and food systems, mineral extraction, healthy forests, pollution, toxics and hazardous wastes*

Water

Freshwater/inland ecosystems, coastal and marine ecosystems, pollution, toxics and hazardous wastes*

Climate

Energy extraction, climate and atmosphere, renewable energy, transportation

States.



Environmental justice, civil democracy, sustainable communities and indigenous populations/communities

Biodiversity

Biodiversity and species preservation



Create a better quality of life for **the many people.**



ACCESSIBLE AFFORDABLE SUSTAINABLE



LOVE THE PROBLEM

GUIDE TO DESIGN FOR CIRCULARITY





Design & Quality IKEA of Sweden



DESIGNED FOR CARE AND REPAIR

DESIGNED FOR ADAPTABILITY AND UPGRADABILITY

DESIGNED FOR STANDARDIZATION AND COMPATABILITY

DESIGNED FOR DISASSEMBLY AND REASSEMBLY

DESIGNED FOR AN EMOTIONAL CONNECTION



WHAT IS LIFE-CENTRED DESIGN?

















Move away from binary thinking and absolute decision making ...

We are part of complex systems with scenarios for possible futures.

multifaceted impact and unpredictable



PARADIGM SHIFTS ARE NORMAL



Monocapitalism (financial)



Metabolism focused on growth

Santa Fe Institute



Focus on processing speed

PARADIGM SHIFT



Inspired by the inherent diversity and time-tested ingenuity of nature..

A life-centred approach adopts holistic perspectives in order to understand dynamic relationships across interdependent technological and living systems.





Life-centred design requires an expansion of our scope of responsibilities and ethical considerations for the longer term health of society, the economy, and not just people but our entire living planet.





Design needs to evolve beyond the current human (anthropocentric) approach to problem solving and include design thinking for:

Co-evolution Resilience Beyond Human Scale



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 design leverage co-evolutionary strategies to develop more adaptable and future-proof solutions?

INTERDEPENDENT MUTUALISM ADAPTABLE COLLABORATIVE



ISOLATED



INTEGRATED

TRANSPORTATION

AUTONOMOUS CAR

+ INDUSTRY

COMPANY

ISOLATED



POLICY

URBAN PLANNING

+ MARKETS

+ SYSTEMS



INTEGRATED

Adaptation with the environment

Finding your niche through competition

Cooperating for the health of the whole





Self Driving Car Companies like Zoox on CSPAN input on Federal Vehicle Policy to help shape future of Driving.

Companies building Autonomous Vehicle technologies have a complicated relationship with Policy + Regulations. Can these two entities create healthy pressures to coevolve?

In 2016 NHTSA created the Federal Automated Vehicles Policy and opened it up for commentary to collect feedback from both the public and the businesses and institutions.

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





Interaction designers work in systems. Most complex living or technological systems that are resilient are characterised by diversity.

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



- Resilient systems adapt to changing conditions and incorporate various strategies

MANY

FEW & **SIMILAR**

FRAGILE

RESILIENT :



FROM

MONO

CAPITALISM CULTURE

CENTRALISED

NETWORKS MANUFACTURING ENERGY GRIDS

UNICORNS

MONOPOLY



TO

MULTI

CAPITALISM CULTURE

DISTRIBUTED

NETWORKS MANUFACTURING ENERGY GRIDS

SEA HORSES

MANY WAYS / STYLES

Building regenerative capacity

Sensing emerging risks

Responding to disruption





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



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DESIGN FOR RESILIENCE DESIGN FOR RESILIENCE



Around the world, cities are adopting resilient transportation networks and services. How might diversity play in to city mobility?

In Shanghai the mobility takes shape in many forms. People can move around the city using subway connecting all of the city, bus system, roadway for cars as well as transportation network companies (TNC) such as Didi (Uber), electric scooters, dockless bikes accessed through QR Code using the phone. There are specified paths for running and biking and the streets are walkable through well-maintained sidewalks, safety in the evening and existence of parks and trees. In this way the city's mobility is quite resilient by providing a diversity of options for the people to seamlessly move using variety of methods, and having back up systems when one method is hacked or fails.

Hacked QR Code on dockless bikes does not mean the end of transport for a citizen as there are plenty of other options.

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**





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 of microorganisms to the macro-scale of climate change?

TIME. ECOSYSTEM BIOMES

- Interactions exist in the ecosystems of the planet across different macro and micro
- beyond what we sense today to increase visibility and impact from the micro-scale

MICROSPHERE MACROSPHERE





| | Micro | |
|---------|-----------|--|
| ECOLOGY | Organism | |
| UX | Feature | |
| TIME | Moment | |
| SPACE | House | |
| SOCIAL | Existence | |

| P | |
|-----------|-----------|
| Meso | Macro |
| Community | Biosphere |
| Product | Market |
| Journey | Lifespan |
| City | Region |
| Identity | Culture |

Zooming out to see the big picture Zooming in to discover the important details Looking far ahead to consider consequences

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.

SENA PARTAL





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 nonscientists 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

STUDENTS Lars Kaltenbach





EMBRACE A PARADIGM SHIFT

NARROW

LINEAR CAN WE MAKE IT?

BROAD

CYCLICAL

WSW SHOULD IT EXIST ?

POSSIBLE PURPOSEFUL



A FRAMEWORK FOR LIFE-CENTRED DESIGN



NAME:

COMPANY:



HIGH IMPACT HIGH EFFORT OPPORTUNITY

LOW IMPACT HIGH EFFORT OPPORTUNITY

EFFORT

INDUSTRY:

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What if we design for all life in our one planet.

THANK YOU STIVEN KERESTEGIAN

