

Mindful Urban Dwelling

care and conviviality as a means to community resilience and adaptation

Iosif Kesisoglou

August 2020

Title

Mindful urban dwelling: care and conviviality as a means to community resilience and adaptation

Author

Iosif Kesisoglou (*Joseph*)

4937600

Project

Master Graduation Project

August 2020, Delft

Programme

MSc Strategic Product Design

Faculty of Industrial Design Engineering

Delft University of Technology

Chair

Dr. Rebecca Price, Assistant Professor Transition Design

Department of Design Organisation, and Strategy

Mentor

Ir. Ehsan Baha, Lecturer, Researcher

Department of Design Organisation, and Strategy

Partnering organisation mentor

Michel Becks, Humanitarian Innovation Lead

Red Cross Netherlands



...labor of love in the service of being.

Tony Fry, 2003

Acknowledging people and environment

As every project I have undertaken, the result is always an amalgamation of exchanges with people and the environment surrounding me. I would like to thank everyone who knowingly or unknowingly helped me through my masters and this graduation project. More importantly, I would like to thank my family (mom, dad and brother), my partner, my friends, and Scala, our dog, for their unconditional support. I would also like to thank my supervisory team whom without, this project wouldn't be possible.

In regards to the environment, I would like to acknowledge the difficulty of doing a graduation project from a home lockdown. It will always be an unforgettable experience. The project of course had to adapt to the coronavirus reality. Resilience is ever more important, whether it's for ourselves or our communities.

Finally, I am very happy with where this project has taken me, and I hope it becomes a source of inspiration for others who stumble upon it. Perhaps I brought something new to the design discourse, perhaps not, nonetheless, I have changed towards a better self. This project has been truly a labor of love in the service of being.

Glossary

	Term	Description	Author
1	IFRC	International Federation of Red Cross and Red Crescent Societies	IFRC, (2020a)
2	ICRC	International Committee of the Red Cross	ICRC (2020b)
3	IPCC	Intergovernmental Panel on Climate Change	IPCC, 2020
4	UNFCCC	United Nations Framework Convention on Climate Change	UNFCCC, 2020
5	Resilience	The persistence of relationships within a system; a measure of the ability of systems to absorb changes of state variables, driving variables, and parameters, and still persist	Holling (1973)
6	Urban resilience	"the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events"	TNA (2012, p. 14)

Table of Contents

Acknowledgments	5
Glossary	6
Executive Summary	8
Chapter 1: Project	10
1.1 Project context	
1.2 Partnering organisation	
1.3 Making a brief	
1.4 Designer's identity	
1.5 Approach	
Chapter 2: Iteration A, Guardians of climate	28
2.1 Heatwaves Literature	
2.2 Envisioning equitable climate policy	
2.3 Early expression of the concept	
2.4 Conclusion	
Chapter 3: Iteration B, Is top-down enough?	40
3.1 International agreements and national policies	
3.2 Vision and Strategy	
3.3 Concept	
3.4 Conclusion	
Chapter 4: Iteration C, People make the city	50
4.1 Community resilience through participation	
4.2 Vision and Strategy	
4.3 Concept	
4.4 Conclusion	
Chapter 5: Iteration D, Mindful Urban Dwellers	62
5.1 Introduction	
5.2 On volunteering: A personal experience	
5.3 Commons, Care and Conviviality	
5.4 Strategy for the Red Cross Netherlands	
5.5 Prototype	
5.6 Conclusion	
Chapter 6: Conclusion	82
References	84
Appendices	92

Executive Summary

In the midst of climate change, a global pandemic, and a complex world, urban communities are in need for novel ways to adapt to the new climatic conditions.

Through a vision-driven iterative design process, I explored how community resilience can flourish, by focusing on human relationships. Focusing on the values of care and conviviality, the process of commoning, and the act of being mindful, I investigated how urban dwellers can contribute directly towards the wellbeing of their community.

A digital platform is proposed for the empowerment of urban dwellers, to address collectively, great challenges, as the heatwaves, through the proactive sharing of relevant information, and awareness of community needs. A prototype of the concept provided depth on the potential of commoning. A pilot is proposed in collaboration with the Netherlands Red Cross.

An extensive literature review was performed on the areas of heatwaves, urban heat islands, international environmental agreements, the impact thereof in national policy and local resources, participatory practices and the commons, volunteering, care and conviviality. A transition towards collective futures becomes a necessity in order to address the climate crisis, its effects on our communities and most importantly, personal and collective resilience and adaptation.

Chapter 1

Project

1.1 Project Context

I got involved in this project, through the partnership of the Netherlands Red Cross and Delft University of Technology, faculty of Industrial Design Engineering. The partnership is aiming at researching and designing novel approaches for the development of strategies to mitigate this extreme weather phenomenon. Several areas were identified as opportunities for design to innovative solutions addressing the city as a whole. I chose to address the area of policy-making and explored how proactivity can be designed, in order to increase preparedness before the crisis.

1.2 Partnering Organisation

The Red Cross* is one of the oldest humanitarian organisations, founded in 1863 in the backdrop of wars between the great powers of the European continent, with the intention of helping victims of those wars. Ever since, they have played a significant role in fostering humanitarian laws and practices for the aid of those in need, either natural or human-induced disasters [6]. The Red Cross has already been acknowledging the significance of addressing climate change, manifested through (a) the operation of the Climate Centre, (b) global campaigns on climate action, (c) publication of practical guides, (d) roundtable discussions on the impacts of climate change, (e) peer-reviewed academic research, as well as (f) their ambition to address the climate crisis, while aiming to be a more proactive organisation.

The Red Cross Netherlands has already initiated a collaboration with the Faculty of Industrial Design Engineering at TU Delft, through a series of design briefs with graduate design students and several graduation opportunities in order to explore the value of strategic design in humanitarian challenges. This project aims at complementing this effort by exploring the impacts of climate change and more specifically heatwaves, which are directly within the humanitarian scope of the Red Cross.

1.3 Making the Brief

Although there was a brief document outlining the challenge of the heatwaves and potential solution areas, The Netherlands Red Cross, did not have a specific issue to address. Therefore I decided to lead this design project, based on my personal concerns and aspirations. Observing how the worlds political and governmental institutions are failing to address the climate crisis in a meaningful way, which takes into account those already being impacted, while prepares for the imminent impacts, I decided to create a vision which led the design process [full brief in Appendix]. Since I hadn't received a tangible problem and owner thereof, I navigated the research field with several research questions on the nature of policy-making, international agreements, and the potential of affecting both from the bottom-up, through the process of commoning, and care for the community.

1.4 Designer's Identity

Introduction

In this section I will present literature, which encouraged me to approach this graduation project from a perspective of critique and reflection. I have been cultivating this perspective before joining the MSc Strategic Product Design programme. The body of literature presented below enabled me to connect again with a dormant part of my identity.

Although the ideas underlying my project are not new, neither mine, they can be framed as innovative. In my experience, innovation can mean different things to different people. Ideas used to construct the concept, such as the model of direct democracy [sidenote], could be perceived as radical to one who has never experienced non-representational forms of democracy.

Another idea reflected in my design is solidarity. The meaning of solidarity as imprinted in my understanding is the act of being supportive and empathetic towards someone's struggle. Being in solidarity with one's struggle does not necessitate a common lifestyle, culture, or ideology.

Personally solidarity as a value, was passed on by the political culture of the country I grew up, Greece. During my studies abroad in the United Kingdom and the Netherlands, both countries of similar modernity, I did not encounter this value as often.

Direct democracy and solidarity, based on my experience, can foster more humane communities of care, sense of ownership and belonging, which is the reason I am bringing in my project as design principles. Design principles mean, a set of boundaries within which I can navigate, discover, but also limit the seemingly infinite choices.

I wanted to make use of the affordances of this graduation project to express my concerns and dedicate this space into the development of an outcome I might not always have a similar opportunity to create. This sense of freedom led me to think beyond the immediate practical utility of the outcome, and engage deeply with some of the systemic challenges underlying the climate change hyperobject (Morton, 2013) and our collective struggle in addressing it meaningfully.

DIRECT DEMOCRACY

A model of democracy, where people through direct involvement, participate in policy decisions. Citizen's assembly or referenda are used in order to facilitate the involvement of all. Direct democracy is almost the opposite of representative democracies. (Britannica, 2020).

HYPEROBJECT

Used by Morton (2013) to describe objects which transcend spatial and temporal specificities, such as global warming, and radioactive plutonium. For Morton hyperobjects have the ability to surface the signs of ecological crisis.

One of this challenges for our cultures is time, its perception and ability to think beyond our own individual lifespan. Although we can learn from our ancestors, says Tyson Yunkaporta (2020) on indigenous thinking.

Design for meaning

Designing for meaning is a personally engaging process because it resonates with my lived experiences and societal aspirations (Baha et al., 2018; Verganti, 2016). The ultimate desire is to create meaning for others around me (Baha et al., 2012). Caring for people is the driving force.

Participating in a project of humanitarian value, surfaced the necessity of defining my identity, my values, aspirations and worldview. As a result, I had to confront the reality of living in a state of a confused personal identity and therefore an unstable designer's identity. The years preceding this masters programme, I have been oscillating between several states of seeing and accepting the world.

Becoming aware of designers identity

Very early in the programme, in fact the first week, I met Ehsan Baha, mentor of this graduation project, who was giving a workshop on defining Your Principles for Good Design to first year graduate design students. The workshop did not directly convinced me of the significance of the values elicited through my three examples of good design. The process of selecting products and services for the workshop was rushed, which made me feel, I had not put enough time to think through, what good design meant for me. Given the fact that it could have been a completely different selection of three products, I dismissed the findings as superficial. I struggled to understand their meaning for me, since they seemed too obvious. In retrospect, they couldn't be more accurate of my sensibilities and dispositions. Even though I was not convinced initially, I did attend some of Ehsan's extra-curricular evening meetings with other graduate students.

According to Baha, Dawdy, Sturkenboom, Price, and Snelders (2018) realising a radical innovation requires a designer with a vision and a strong personal worldview. Verganti (2016) describes the outcome of radical innovation as being formed by the individual's aspirations. The process of articulating my vision during this project, showed me

Your Principles for Good Design

The workshop took place in September 2018, as part of the course Manage Your Masters. The coordinator, Baha, S. E., asked participants to bring 3 examples of good design, printed on one A4 sheet. Participants engaged in short discussion in groups of 3 students. Each student explained to the other (speed date style), why they choose the examples. The student listening, took notes, which they then shared with the one presenting. Through this process of co-reflection, the student received a set of two responses including the emerging principles for each design.

that I had to stabilise my identity, in order to achieve my vision.

In order to do this, I did not have to go very far. Several key readings had already given shape to my worldview and a hazy vision. I needed the safe space to express my values and concerns. As per Baha et al. (2018) modern design practices often deny designer's identity, and thus, I traversed through the journey of the design process, in an authentic way, one which reflects my identity currently.

The role of design education in my designer's identity

Joining a formal design education programme, has been a great leap for myself, since I have been a self-taught design practitioner. Being self-taught meant for me acquiring only the knowledge and skills pertaining to my service offering towards various clients. I practiced visual design website design and development, and branding.

My designer's identity was mostly aligned with the perceived image of a skilled contemporary practitioner, bearing no weight of the history of formal design education or a dominant philosophy of a design school. I was drifting with trends of the market and

My core ambition was to practice a profession which gives me happiness and freedom. This can be seen as my 'life project' in Manzini's (2015) words.

Identity crisis

As Baha, Koch, Sturkenboom, Price, and Snelders (2020a) assert, a student can fall into an identity crisis, when confronted with the existing design school philosophy, approach or identity. This became clear, towards the end of the first academic year. I was in the midst of a tremendously stressful effort to complete successfully all academic duties in time, the beginning of an internship abroad, and the ongoing stress associated with impatience of seeing the result of my decisions.

The internship created the space where the practical application of my newly acquired competences, put me in a reflective mode and the search for meaning in my decision of studying design. During the internship I was in a position where the design approach ('design thinking') had a leading role, which meant I was both empowered

and humbled.

There were many learnings on the value of design in new business growth, the focus of my internship, but ultimately this experience was not enough for me to answer the questions Baha et al. (2020a) present, as whether am I a designer, what designer I wish to be and why?

Belonging

Six months later, while initiating this project, I looked no further for answering my questions, but the people who had given me the most significant perspectives on design for the course of my education. These people are the supervisory team of this graduation project. They have infused me with more excitement and encouragement about design within the first semester, than I did receive from all other interactions and courses during the next two semesters. I would say that through their workshops, lectures and personal discussions, they have constructed my good design education (Baha et al., 2020a).

It seemed to me that choosing the right educators, was the most meaningful choice in creating a space, where I can initiate to answer such questions, and as a result become the designer I wish to be. Being far less subscribed to the philosophy of this design school (TU Delft, Industrial Design Engineering), it was not a coincidence that I chose for my supervisory team, educators with backgrounds from other institutions, therefore creating a sense of belonging among them.

The following literature forms the guiding principles for my thinking and therefore designing. I have been inspired by them from the onset of this project. Their influence was not always apparent, although it surfaced eventually through the moments of reflection I subjected myself, in order to conclude, decide and summarise my work in this report.

An Other Economy [Fry, 2003]

One of the most significant texts I have read and consequently affected by it, was Tony Fry's (2003), *An Other Economy*. There are two reasons for this valuation, one being that he provides a new way of seeing and thinking, orienting and navigating the world (with climate change as the backdrop), and the other that he provides a

pragmatist view of paradigmatic shift from the existing economies and cultures to emergent ones, which see climate change existentially relevant and significant.

Fry (2003) sets the stage with a conception of the economy, as a dynamic process of exchanges of all kinds of energy, which we humans are also entangled in. This conception he calls the 'general economy'. He beautifully explains that exchanges are of part of the meaninglessness of being. Along those lines, Lynn Margulis (Feldman, 2017), evolutionary theorist and revolutionary biologist offers the meaning of life a process based on cells which intrinsically exchange matter between them.

Reflection

This offers a great deal of humility to myself as a human being and a design researcher. This humility slowly became a part of my thinking along the project.

Fry (2003) clearly demarcates the dominant notion of economy — the status quo — and the discourse maintaining it, as 'a restricted and abstracted process of usually monetary exchange, with intrinsic meaning'. He calls this concept 'restrictive economy' and brands it as blind towards the potentiality of alternative modes of being. The nature of the restrictive economy has colonised the meaning and essence of exchange by 'capital logic' — modes of commodification.

Marshal McLuhan (1968) has offered an excellent metaphor for media totalities, which I believe applies excellently here;

"One thing about which fish know exactly nothing is water, since they have no anti-environment which would enable them to perceive the element they live in." - Marshall McLuhan

Fry (2003) calls for a shift in the economic system, and culture to support it and co-produce it. He urges us to transition from a quantity-based economy, onto a quality-based economy. For him this is not simply ideological, but the 'imperative of the unsustainable'. His notion of unsustainable goes far beyond definitions on the consumption of non-renewable and harmful, to include inequity (as wealth distribution), injustice and the psychological well-being ('damaged

psyches'). All these points for Fry are signs for change.

Of particular interest for my project, is the moment where Fry attempts to make tangible the meaning of quality and defines it as performative and redirective. The performative quality in a new economy and culture addresses the characteristics of a product or service, it's well-intended ecological impact, and the ability to present improvements in culture, societies, families and the psychological well-being of individuals.

The most provocative and inspiring part of his narrative, is that for the existence of the quality-based economy, the status quo has to be challenged. Concepts such as the so called 'sustainable development' are thrown out of the window, and with it design's inherent service relationship. Through the words of Nelson and Stolterman (2012) he condemns the design practice's technological determinism and appropriation of emerging sciences. This critique has further guided me away from technological solutionism.

A very similar argument make Julier and Kimbell (2019) on the state of social design and its expansion, being also subordinate to the neoliberal mode, producing virtual solutions, abstracted from the reality of the social, lacking accountability, and reflexivity. They identify three opportunity areas for social design to develop a practice which does not perpetuate social inequalities.

Julier and Kimbell's publication not only empowered me but also helped me evaluate intuitively the 'appropriateness' relating to my design intervention, and know the real limits of design, especially when happening within an institution (Delft University of Technology), where I might not have a service relationship explicitly, but I have to deliver according to the faculty and definition of my programme based on the learning outcomes and final rubric.

Fry (2003) gives us a set of areas to act on through practical examples and pathfinding projects. Unlike the former authors which focus on the practice of social design, Fry extends these areas to design and architecture in a broader sense. He positions design as a potential agent of the ethical and of the future, with the capacity to serve sustainment, or a quality-based economy. These areas attempt to address the totality of the discipline's anthropocentric mode of see-

ing by including (i) “The Making of an Environment of Care”, (ii) “A Transformation of The Nature of Things”, (iii) “A Transformation of Being with Things”, and (iv) “Creating Major Changes in Modes of Dwelling”. Out of these four areas, my project is situated in the domains of new modes of dwelling and the creation of an environment of care.

Within Fry’s description of the fourth and most important shift, how we dwell in our selves and in our communities, he talks of a new culture which needs to emerge in order to achieve the potential quality-based economy.

This is another point, which is significantly present in my final concept and design intervention. The creation of an environment of care through convivial tools has the potential to foster greater community resilience and adaptation.

Finally, as Fry (2003) responsively abstains from defining the moment where such culture and economy will emerge and displace the dominant one, he does invite us to reflect, debate, review and add detail to this proposition. My project is an attempt at showing how such alternative activities can look like within an economy of care. As per his words, a new culture will see climate change adaptation as a transformation to the status quo.

Design in the Age of Climate Change [Nardi, 2019]

I had the great opportunity to engage my thinking before the initiation of this project, when I read through, several times, Nardi’s (2019) paper on positioning design and designers in the age of climate change. This paper has been significant for my education connection between political economy, the practice of design and the ever growing challenge of climate change.

Bonnie Nardi takes us on a long trip down to the roots of all problems, capitalism, its agents and its inherent neoliberal ideology of infinite growth and pursuit of monetary profit. Through a plethora of works and authors, she makes the case for transitioning towards alternative modes of being, clearly leaving behind pseudo-alternatives such as envisioning a life outside of Earth, ideologies of techno-determinism, superficial proposals as circular economy and B-Corp certifications and the business-as-usual frameworks such as the United Nation’s 17

Sustainable Development Goals.

Very closely with Fry (2003), analysed earlier, she too calls for design and designers to be political, meaning engaging in issues emerging directly from the political economy, and strive for the majority of our work to be on addressing ecological destruction and social inequalities, caused by the existing global capitalist system of production and distribution of value.

Nardi (2019) walks us through the radical and fresh proposals of post-growth/degrowth politics, the negative dispositions of human nature towards becoming accustomed to greater consumption and accumulation of material wealth, as well as the interesting evolutionary trajectory of our species from reaction-based adaptation strategies to action-based, namely the 'active agent'.

Insight

The latter point is an interesting analogy for the articulation of my concept and strategy for the organisation of the Red Cross.

Ultimately, Nardi makes the point that for an alternative mode of being, certain choices have to be made voluntarily. Introducing values in our daily lives such as voluntary simplicity, care, community and equality can be the foundation of a new economy, post-capitalist according to Nardi (2019), or quality-based according to Fry (2003).

Pluralism in Design

I have described by now how the 'restricted economy' subordinates in a totalitarian manner all beings and exchanges of energy for its own metabolic processes (Fry, 2003), without caring for the perpetuation of the social injustice and environmental destruction it leaves behind (Nardi, 2019).

I have also explained how design practice is also subordinate to the 'capital logic', through its inherent service relationship with the neo-liberal condition (Fry, 2003; Julier & Kimbell, 2019), and how design education also serves the status quo, through the design school's philosophies and approaches adhering to respective geographically bound socio-political factors (Baha et al., 2020a). In their paper on

plurality in design, Baha, Snelders & Price (2020b) argue for the field's lack in debate, and therefore design's lack of pluralism.

In my opinion, design should not be seen as the only means to any ends, nonetheless it has to become more involved with the systemic challenges arising from the political economy (Nardi, 2019), due to the existential reasons brought forth by climate change. Meanwhile, it is imperative we designers, to see ourselves as political agents due to 'design's ontological power over material articulations' (Baha, Snelders & Price, 2020b). The authors urge us to take a stance against the crumbling democratic processes and use our skills to foster well-being.

Through the account of Manzini and Margolin (2017), they introduced me to the four ways design and democracy align. Of those ways, in brief, design of, for, in, and as democracy, two resonated deeply with me and became consciously and unconsciously principles for my final design. This was yet another way to evaluate 'appropriateness' of my design proposal.

In particular, the areas of designing in democracy; creating access and transparency in democratic institutions, and designing as democracy; using participation as a means for plurality, equity, and inclusivity (Manzini & Margolin; 2017), can both be reflected on my final concept and proposal.

Bioregioning

John Thackara is yet another author which has inspired me during the course of this project. He is also making the case for increased care towards the immediate environments which support our sustenance (Thackara, 2019) and shows us through examples how design can contribute to systemic changes, which reorient communities towards caring for their bioregion. He calls for the design of social infrastructures which can support our reconnection.

My concept and design have been directly influenced by the practical examples and areas for intervention. Thackara (2019) primarily focuses on the reconnection of the rural with the urban, but his case has inspired me into exploring what local wisdom could be in spaces, as the urban.

Urban living is highly abstracted from the means of sustenance, and therefore disconnected. The urban and rural terms are outdated and fictitious (Mabey, 1973; Koolhaas, 2020, p. 2). This is evident across cultures, by the omnipresent, semantic distinction of culture and nature. The disconnection did not happen now. In fact, Thackara is using Bellamy Foster's term 'metabolic rift', which describes a notion expressed in Karl Marx's *Capital*. Ultimately, Thackara is mostly worried for our loss of meaning and purpose, which is a significant concern for my project too.

He then promotes the re-introduction of nature within culture, as a healing process, based on a pluralist common focus on the bioregion, which transcends our differences. Several strategies for reconnection are suggested, such as the process of commoning, citizen participation in matters pertaining their place of residence, and use of digital technologies and networks to sufficiently connect people and process in new and healthier ways (Thackara, 2019).

Most importantly I feel that Thackara's (2019) paper on Bioregioning, has inspired me as a designer to know my value as a connective and creative agent within initiatives for improving urban health, as that our processes can bring diverse stakeholders together, through the creation of 'objects of shared value', which can build common understanding.

Other Inspirations

In addition to the elements mentioned above, there is a lengthy list of literature, which consciously and unconsciously baked certain ideas, approach and mindset into the fabric of my inspiration and realisation of my personal vision through the practice of design. I pay homage particularly to the following articles, for guiding me intellectually and politically. I am fully aware that most authors are white, male, educated, and writing from a Global North perspective, but nonetheless they consist of stories from worlds where ecology and culture have merged, while the economy serves that vision.

- Operating Manual for Spaceship Earth (1969), Buckminster Fuller
- Down to Earth: Politics in the New Climatic Regime (2017), Bruno Latour
- In Defense of Degrowth: Opinions and Manifestos (2018), Giorgos Kallis

- Various recorded lectures on Transition Design, Terry Irwin and Cameron Tonkinwise
- Lynn Margulis attitude, mindset, and her work on symbiosis and the Gaia hypothesis
- Remote lectures on Modernity and Coloniality of Ahmed Ansari running during the coronavirus pandemic.

1.5 Approach

As noted on the previous chapter, my position and perspective - my designer identity - is a significant guiding element throughout the project including the approach. Several texts will be presented from which I borrow elements to synthesise my approach.

Reflection

In retrospect, I would describe my approach closely resonating to the definition which Baha et al. (2018) provide, for a design process being informed and inspired by my life experiences, motivated by my worldview and definition of good. This approach is not newly acquired. As long as I can remember myself practicing design as a professional and student, I would always inform the process with personal experiences and interpretation of events and human behaviours. I am not aiming to undermine the value of the human-centred design, but as per Cross (2011), utilising my intuition and a general concern for ‘appropriateness’ as well as a degree of abductive reasoning (informing the process with lived experiences), are indispensable elements of my way of designing.

Irwin, Kossoff, and Tonkinwise (2015, p. 3) saw the need to reorient design towards societal change, by connecting it to long-term visions for sustainable futures. They contextualise their approach within ‘transitional times’ and assert that design should have a key role in the transition of societies to sustainable futures (Irwin et al., 2015, p. 4).

Sustainable futures may seem a relative term, and this becomes an opportunity to instil a desired meaning for the guidance of this project’s vision for a future. By defining the current and established ‘models of socio-natural life’ as destructive, Escobar, A. (2015, p. 13) calls for the creation and debate of narratives and strategies which can support society to transition away from.

Therefore, we understand that in order to define a desired future, we will have to do so in relation with an undesirable present. I conclude that a transition is the outcome of a set of activities, which can be designed and enacted. During the project’s progress you can ex-

perience some of the methods used, among them written scenarios, personas, customer journeys, systems and stakeholder mapping and prototyping to describe both the present and the future.

On this call for design to move away from perpetuating the present capitalist economies, Irwin et al. (2015, p. 3-4) propose a number of elements, framed as unique transition design skill sets. From these elements I subscribe to the orientation of design towards less anthropocentric modes of thinking, inclusive of natural and social ecosystems alike. Furthermore, I fully embrace the authors' view of the world as complex, dynamic and interconnected, and the positioning the design process as bottom-up, place-based, long-term, multi-scale and inclusive. This approach is indeed a challenge in itself, thus Irwin et al. (2015, p. 4) call for a greater diversity in designer's knowledge, which must emerge from disciplines beyond design.

My attempt to bring pluralism in my design, was to inform my process with knowledge from the sociology, economics, geography, media and communications, the arts among others. Finally, they place significant focus on the mindset and posture of the designer, which is addressed in the Designer's Identity section.

Similarly, along the lines of the transition design approach, Stewart Brand (2018) proposes the 'Pace Layering' concept as a model to describe the relationship between the components of a system, in order to reveal and explain the intrinsic resilience mechanism of dynamic systems. These components are represented as layers with different change-rates and scales of size, which justifies different sensitivities to shock absorption. Each layer is independent but also influences its closest layers.

"Fast learns, slow remembers. Fast proposes, slow disposes. Fast is discontinuous, slow is continuous. Fast and small instructs slow and big by accrued innovation and by occasional revolution. Slow and big controls small and fast by constraint and constancy. Fast gets all our attention, slow has all the power." - Brand, S. (2018)

This behaviour, as described by Brand (2018), is an important element when deciding where a design intervention should take place,

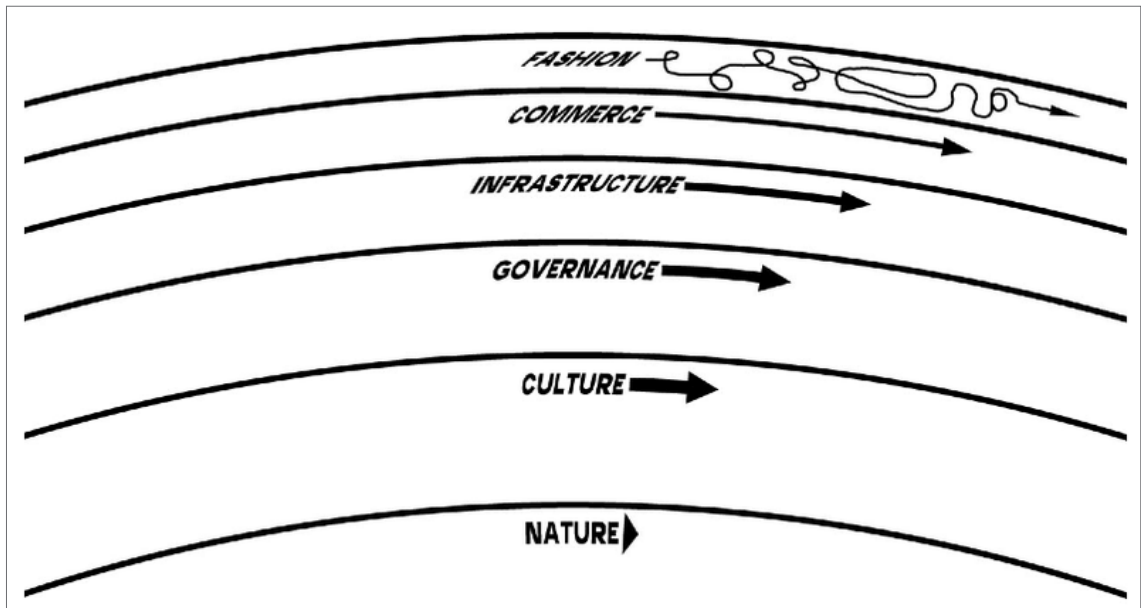


Figure 1. *The order of a healthy civilisation. The fast layers innovate; the slow layers stabilise. The whole combines learning with continuity. Brand, S. (2018)*

In conclusion, the literature presented becomes a lens, with which, it allows me to see and analyse holistically. Brand's work on pace layering offers a model for the world, perhaps a theory of change, while the emerging transition design work of Irwin, Kossoff, and Tonkinwise (2015) informed by diverse disciplines, guides and orients design and designers towards a socially meaningful change, without the inherent myopia of anthropocentrism (Feldman, 2017).

Chapter 2

Iteration A Guardians of the climate

Introduction

Following the formulation of the brief I decided to manifest my first vision which would be the guiding the design process. In order to make the vision concrete and be able to engage in dialogue with the participating organisation, I formulated a concept direction and a strategy to get to the desired vision. At this phase, the possibilities and directions are plenty, and abstract.

Reflection

In hindsight it was a rushed decision driven mostly by intuition, since the research phase had not started yet, but it resulted to concrete feedback and engagement from the participating organisation. Although I don't tend to appreciate moving into conclusions quickly, it has become apparent towards the end of this project, that creating a boundary object, an object where discussion can develop, the project moves faster towards a direction. The feedback I received from presenting a concept in the beginning, even if it was in-

complete and oblivious to the context of the Red Cross and climate change politics, was definitive for the pathway I chose to develop my final design.

Formulating the first vision, strategy and concept was not entirely disconnected from the project. I embarked on a short literature reading journey in order to understand the problems posed by heatwaves, as well as the potential of design and designers in making meaningful interventions in socio-technical systems as we saw in the literature review in the designer's identity section (Fry, 2003; Nardi, 2019; Thackara, 2019; Julier & Kimbell, 2019; Baha et al., 2020a).

2.1 Research

Introduction

During the first research phase I focused my efforts in understanding heatwaves, their relation with climate change, and their effects on people, especially within urban habitats. I also explored the future rise of heatwaves through different scenarios and the potential impacts on humanity. The insights of this phases shaped significantly my view of the greater challenge, and the state of the art in dealing with this extreme weather phenomenon.

2.1.1 Defining heatwaves and their effects in urban habitats

According to Robinson (2001, p. 763) a basic definition of a heatwave is defined as a period of unusually hot weather for a geographical area, as well as its associated effects to the area's population. Almost two decades ago, Robinson (2001, p. 762) identified a gap in defining the heatwave and postulated that global warming will be a catalyst for the increase of such meteorological events in terms of, "frequency, severity, duration and areal extent". Two decades later, there is more than adequate research on heatwave's adverse impacts on human health leading to discomfort, hospitalisation and even loss of life (Robinson, 2001; Giannopoulou et al., 2011; Pyrgou & Santamouris, 2018).

During the period of a heatwave within an urban environment, the phenomenon of Urban Heat Island (UHI) emerges, especially during summer seasons. A heat island is a measured temperature difference between the centre of a city and its suburbs (Santamouris, 2001). There are several factors leading to the UHI phenomenon, among them, higher building density, urban canyons, impervious surface areas such as pavements, streets and street networks, lack of green spaces and various forms of anthropogenic heat from buildings, vehicles, industrial and other human activity (Giannopoulou et al., 2011; Santamouris, 2013; Sharifi, 2019a, p. 171). The urban heat island is an extensively documented phenomenon and well associated with climate change according to Santamouris (2001).

Since, Robinson's (2001, p. 763) definition of the heatwave, there have been several significant events that caused discomfort, hospitalisation and loss of life, among them; the European heatwave in 2003, the Northern Hemisphere heatwaves in 2010 and the European heatwaves in June and July of 2019.

According to the World Meteorological Organization (WMO), a specialised United Nations agency, the European heatwave in 2003, resulted in the hottest summer in the region's history since 1540 (PreventionWeb, 2010). The final assessment of the heatwave indicates approximately 15,000 died in Paris alone (France being the hardest hit country), and a total exceeding 70,000 deaths across Europe during that summer (Robine, Cheung, Le Roy, Van Oyen, Griffiths, Michel, & Herrmann, 2008). The conclusive results reported in the study of Robine et al. (2008) come years later, mostly due to the differences in research methodologies. This points towards the relative nature of assessing causes of death, and in this case the definition of heatwaves by different authorities in different geographical regions. The various definitions of heatwaves by national meteorological organisations have been collected in order to highlight the differences (see Table 1).

It is interesting to note that following this devastating event, Stott, Stone and Allen (2004, p. 610) published a paper expressing their affirmation of human influence on such extreme weather events.

Similarly with the extreme events in 2003, the Northern Hemisphere

heatwaves in 2010, broke through heat records, this time in Moscow, where July became the warmest month ever recorded in the last 130 years (PreventionWeb, 2010). Large parts of Russia and eastern Europe witnessed a heatwave of greater severity when compared to 2003, according to evidence provided by Barriopedro, Fischer, Luterbacher, Trigo, García-Herrera (2011, p. 220). Barriopedro et al. (2011) call this type of events “Mega-heatwaves”, and they conclude that within the 2050 time horizon the probability of such events during the summer will increase by factors of greater magnitudes — from 5 to 10.

2.1.2 The future of heatwaves

While studying the change of climate is significant to understand our impact, it is also important we are attentive to predictions and future scenarios, in order to foresee the conditions our habitat will be exposed, and therefore risks and emerging needs for our communities.

Lelieveld, Proestos, Hadjinicolaou, Tanarhte, Tyrlis & Zittis (2016) expose us through different scenarios to the temperature changes in the Middle East and North African region across the 21st century, with likely increases of up to an additional 7°C by end of century (2081-2100). They stress the significance of the consequences to our societies and human health.

The author of the well-received essay at the New York Magazine, David Wallace-Wells (2017), has extended his initial scenarios into a book format in which he illustrates how scientific predictions might manifest in our daily lives (Wallace-Wells, 2019). Starting from the two degree (2°C) scenario (Field et al., 2014) he already tells us of how the increased frequency and intensity of heatwaves during summers will make our daily lives harder (Wallace-Wells, 2019, p. 12).

In fact, the study by Coffel, Horton, and Sherbinin (2017), warns us that by 2080 extreme temperature events could increase by a factor between 100 and 250, which will give way to a tenfold increase in deadly heatwaves. Wallace-Wells (2019) continues by describing all potential scenarios from the increase of temperature from 1.5°C degrees all the way to 7°C, which will render habitability of some areas difficult (Sherwood & Huber, 2010). By the point temperatures reach 11-12°C above pre-industrial levels, the majority of regions around the world could be rendered uninhabitable.

2.1.3 Conclusion

It becomes clear that extreme weather phenomena like heatwaves will likely become more intense and more frequent. Unfortunately our cities are not made for such new conditions, and even though technology is providing some solutions, it is not the only pathway to resilience and adaptation.

2.2 Vision and Strategy

2.2.1 Vision

My position in regards to national climate policy and international environmental agreements could be regarded as one of a spectator. As a citizen I feel disconnected from these decisions. I see myself positioned on the receiving end of these decisions. My only power is to vote for someone who pledges care and action towards the climate crisis.

Standing on the receiving end of a policy can be the result of several different type of a political regime, democratic or not. Equitable or inclusive representation is not always the case, even in democratic countries. Not everyone is included in the democratic process to begin with, for various different reasons (eg. immigrant, homeless, prisoner, minority population, youth).

We are of course faced with a significant threat — that of climate change, and being global, means it affects all communities. Socio-economic and geographic factors can become catalysts of the impacts of climate change. These factors can slow down or accelerate the rate of disasters related to climate as well as the ability of a community to bounce back out of a disaster, the ability of being resilient.

It becomes apparent to me — a human, citizen, student, designer, professional — that the processes we put in place to protect us from such threat, the agreements, policies and legislations, should be equitable and inclusive. At this point, I should stress again that equity and inclusivity cannot be taken for granted. That would simply be naive. The examples are endless. Just at the time of writing, humanity is experiencing — in the mainstream — the very real racial inequalities

(Wikipedia, 2020b) in the US, in the midst of the global COVID-19 pandemic (Wikipedia, 2020a).

Taking into account these deeply personal concerns, as well as the general sentiment of the global community situation (climate crisis, changing dynamics of international system, COVID-19, rise of populism/nationalism) I am convinced that the way out of the vicious cycle of climate change (Cook et al., 2016) (see figure #) is international cooperation and a consensus on the definition of our common challenges. It is my hope to inspire, and engage not only my partner organisation but anyone who purposefully or by chance encounters this project.

Vision statement

“Equitable climate policy and action”

In my experience the process of international agreements have produced very little results for the benefit of the people experiencing the impacts of climate change today. I want to underline the necessity for a collective mindset, one that leaves no one behind. Equitable policy stands for inclusivity and fair distribution of resources.

Reflection

This realisation set me on the journey of understanding the complexities of international agreements, policy making and the climate crisis. Some of the findings of this exploration can be found at the research section of the second iteration.

2.2.2 Strategy

Being significantly inspired by the initial research on the International Red Cross and Red Crescent Movement conducted before the formulation of the brief, I aspired that they can be the agent who brings this vision to reality.

The most important reason for taking this decision was their fundamental principles, “humanity, impartiality, neutrality, independence, voluntary service, unity, universality” (ICRC, 2020b). These principles have permitted the Red Cross to be present in almost every country in the world and trusted by many governments to operate inde-

pendently within their borders (ICRC, 2020b).

I believe the Red Cross, in terms of values and current ethics, is the most suited organisation to represent those, whose voices are not present on the decision making table of international environmental agreements.

Strategy Formulation

“Enable the International Red Cross and Red Crescent Movement to influence international climate policy informed by local knowledge and practices, by leveraging the connections and experiences of the National Societies.”

Besides the Red Cross’ fundamental principles, the Red Cross has been the initiator and significant contributor of the International Humanitarian Law (ICRC, 2020c). Inspired by the significance and universality of this achievement, I envisioned a future where the Red Cross could become the guardian of the climate. This reasoning primarily assumes the experience with international law can be considered a capability to leverage from.

Although this is a very abstract level for intervention, when compared to climate impact on daily life, I was inspired by the Red Cross’ reach and connections across the international system, *raison d’être* and commitment to humanity.

Finally, I believed the Red Cross can be a significant actor in maintaining climate justice due to their experience and research on climate change as a catalyst for conflict across different regions of the planet (ICRC, 2020a).

In conclusion, the strategic reasons for positioning the Red Cross in the place where they can be the guardians of a habitable climate are; (a) their unique international presence, the fundamental principles (especially neutrality and impartiality), their engagement with policy (international humanitarian law), and their awareness of the humanitarian impact of climate change.

2.3 Concept

In my initial research of the organisation of the Red Cross, I realised it is a highly complex structure with several different entities (Wikipedia, 2020c). The parts of the organisation closer to the ground, where disaster relief happens, are the National Societies. The National Societies are comprised by several professional staff and the volunteer base.

The first iteration of the concept put in the centre of attention, knowledge found within all National Societies. In this project I refer to this knowledge as local knowledge. The logical assumption is that National Societies hold cultural and situational information for the country and region they operate in. Based on this assumption, I aspired to centralise this body of knowledge in order to elevate it on higher organisational level, mentioned as ‘Tier’ in the concept visual.

I defined local knowledge as the following elements; community traditions, cultural dispositions and bioregional wisdom (Thackara, 2019), knowledge from previous responses to crises, knowledge existing with key stakeholders within local communities, and the current and previous policies enacted in the given region. See the *Table 1* for the intent of each knowledge type, and the responsible actors holding the knowledge.

Table 1. Knowledge types the reason for inclusion in the concept and the actors responsible for sourcing it

	Knowledge Type	Reason for including	Who provides this
1	community traditions and cultural dispositions	Knowing how people tend to think and act in normal and critical situations	Volunteers and staff
2	Bioregional wisdom (Thackara, 2019)	Knowledge of the sustaining ecosystem of the community	Multi-stakeholder effort (elders, environmental organisations/authorities)
3	knowledge from previous responses to crises	What did we do before, how did we do it, what was the result.	Multi-stakeholder effort (elders, environmental organisations/authorities)
4	knowledge from key local stakeholders	What knowledge can we leverage from other significant stakeholders (administration, university, social organisations, parish)	National Society
5	current and previous policies enacted in the region	Knowing the impact of a policy can help avoid mistakes and learn how to act in the future	National and local administration

The concept aims to collect and organise the knowledge types mentioned earlier in order to make them available across the Red Cross organisation, including the National Societies, the Federation, reference centres, the ICRC and other humanitarian partners. My assumption is that once the knowledge is collected, organised and available for discovery and analysis, it has the potential to become a shared resource, and an asset for influencing international climate agreements. It is important to point out at this point, I had not yet explored the domain of climate policy and international agreements. A diagram outlining the relations and exchanges my concept enables is illustrated at *Figure 2*

Concept Description

A digital platform for collecting, organising, analysing and sharing local knowledge from all National Societies, in order to exchange best practices among them and enrich policy adaptation in a manner adhering to the fundamental principles.

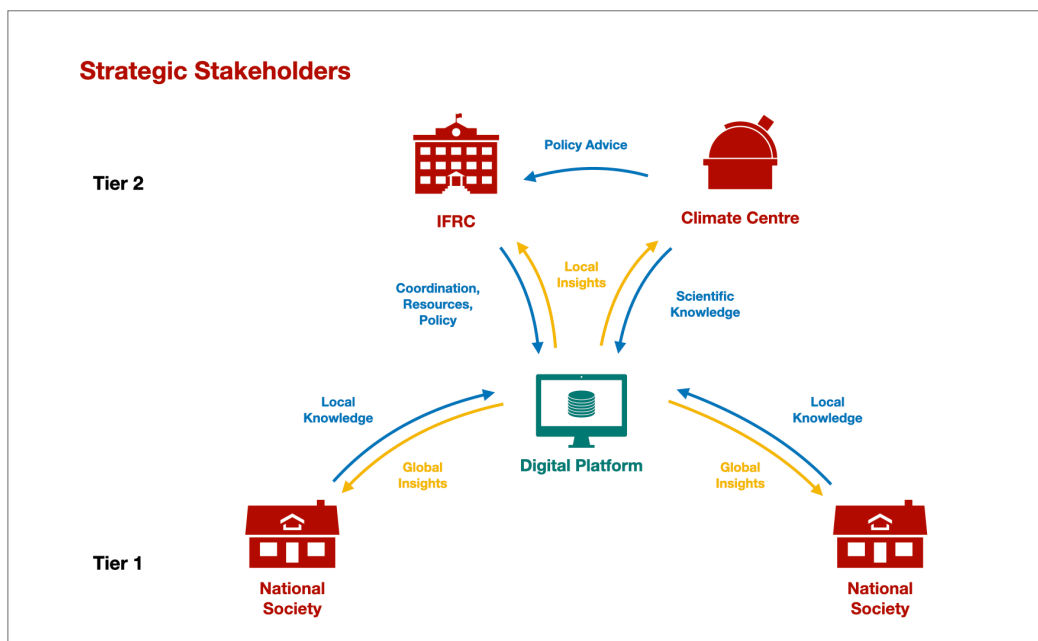


Figure 2. Concept diagram version 1



Figure 3. Stakeholder Mapping version 1

In regards to the value flow shown of the concept diagram (see *Figure 2*), National Societies can benefit under this concept by being on the receiving end of knowledge produced at a higher organisational level, such as the IFRC (International Federation of Red Cross and Red Crescent Societies) and reference centres such as the Climate Centre.

2.4 Conclusion

The concept is a bold move to envision change within an organisation, and the international system, but is based on several assumptions which meant that its validity is challenged both from the perspective of the Red Cross capabilities, existing modes of operation and relations. Upon reflecting on the first iteration with my supervisory team, I conclude that the first iteration presents an abstract idea through the seemingly visible parts of the organisation. These parts, become the infrastructure, or the backbone or the iterations to follow.

Due to the abstract nature of my proposal, I was guided within a co-reflection session, to clarify my assumptions and make the operations of the concept explicit. The following questions were asked by my supervisory team in regards to my concept and thinking.

Table 2. Questions raised during 1st iteration feedback session

	Questions
1	How can we speak on behalf of these communities?§
2	How policy be built bottom-up?
3	How field stories can help be brought on the decision making table of climate policy?
4	Why knowledge sharing is important for this concept?
5	How this concept can address more specifically heatwaves?
6	Where is the government in this concept?
7	How can you as a designer shape policy?

These questions significantly steered my attention to areas which needed more research in order to narrow down the scope, reduce the assumptions, and communicate the value of the concept better. The questions also helped me zoom-in closer and make my concept more specific to the heatwave challenge, by describing who it affects, when and how.

Consequently, I created a new iteration of the stakeholder map to reflect the presence of government, local administration and the citizens in the envisioned concept.

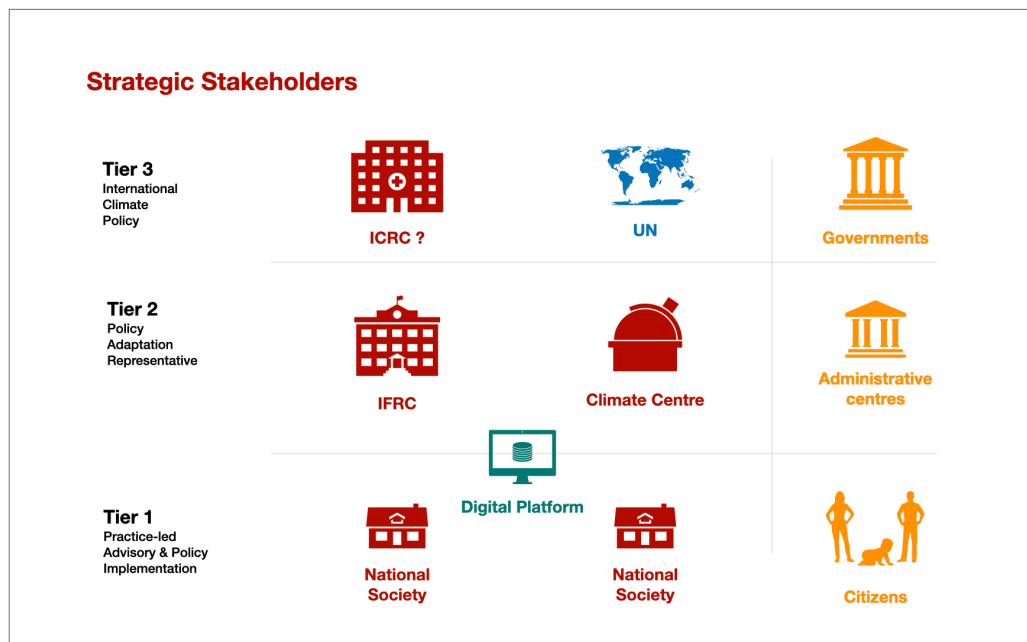


Figure 4. Stakeholder Mapping version 2

I decided to continue researching the nature of international environmental agreements, why they have been yielded unsatisfactory results (Roberts, 2019), and how they affect national climate policies. I also decided to explore how the policy-making process works, and if design can play a role, in regards to participatory practices.

Chapter 3

Iteration B

Is top-down enough?

Introduction

Advancing from the first iteration to the second, proved to be a rather challenging act, primarily due to the unknown nature of the operation of the Red Cross and the lack of understanding of international relations. Significant amount of my time and energy was consumed in understanding both entities. This approach gave me insight in their structures, and their challenges, aiming at reducing my naivety stemming from oversimplification, technological determinism (solutionism) and the seemingly boundless optimism embedded in the practice of design.

3.1 Research

Introduction

During this iteration I wanted to give answers to some of the questions raised in the previous iteration (see Table ##), with particular curiosity and interest in the questions Q2 (How policy be built bottom-up?) and Q3 (How field stories can help be brought on the decision making table of climate policy?).

Both questions contained a lot of unknown knowledge, thus I decided to deconstruct them first. In the case of Q2, building policy bottom-up would require to understand the reasons for which policy is not being created in this way, and the process of policy-making. This led me to explore policy-making processes and policy analysis as well as how international agreements can affect thereof.

Looking deeper in Q3, I discovered the meaning of evidence-based policy and its process. I also explored an area of design which I was not aware, the policy design, or more generally, practicing design within a public organisation.

Reflection

Admittedly, this iteration steered me away from the main focus, and after experiencing fatigue from the information overload of exploring completely new disciplines, I decided it was time to guide myself back to focus. I managed to do this through designing and of course the invaluable guidance of my team. My quest for exploring and understanding the system as a whole, undeniably leads off course, given the amount of time available.

3.1.1 International Agreements and National Policies

Engaging with literature on international environmental agreements and the policy making process was a significant step towards comprehending the systemic forces at play, in regards to solutions for climate change and its effects. The driving question for this exploration was how such agreements and subsequent national policies address the effects of climate change, such as heatwaves, in a local level.

There are several ways nations respond to the challenges posed by climate change. On a higher governance level, the policy-making process is used (evidence-based policy-making) to frame and direct decision-making and legislation towards the desired goal.

How international agreements work?

In regards to international agreements I was expecting a complex to comprehend discourse, but in the following publication offered a surprisingly simple description of how international agreements work. It's an interest oriented negotiation, where success is subject to buy-in from as the political parties involved in the agreement (O'Brien & Gowan 2012, p. 3). The architecture of an agreement can of course affect the success, but ultimately it is a multi-stakeholder agreement. Consent is yielded through negotiation.

A society in which consensus is reached across levels of governance in domestic politics, can have greater success in passing the results of an international agreement through their people (O'Brien & Gowan 2012, p. 4). This means that political culture and social dispositions highly affect how a state behaves in such agreements. Social groups of all kinds can act as pressure forces towards shaping opinion (O'Brien & Gowan 2012, p. 4). O'Brien and Gowan (2012) conclude that international policy responses, have very little impact on the grand challenge of reducing emissions. My conclusion is that international agreements cannot be the only point of action.

Cross-scale Institutional Linkages

An other issue with top-down approaches to solving challenges, and managing resources is the destruction of local ecologies and interactions. Increased state intervention in local resource management, for the purposes of commodification, efficiencies attained through centralisation and commitments to international agreements, can lead to local ecosystem destruction writes Berkes (2002).

Through a series of concrete examples Berkes (2002) shows that not only peoples' means to sustenance, local systems of knowledge and governance can be significantly affected. From a systems theory perspective, the local self-organisation process gets disrupted (Berkes, 2002). Finally, Berkes (2002) points us towards modernisation, global economic development and western science as destructive drivers of local ecosystems.

The examples of fishing practices, such as centralised decision-making in formed Soviet Union, shifts in systems of knowledge in the Canadian Arctic (from "aboriginal management systems" to western science), and the case of nationalising the forests of Nepal gave way

to misuse and abuse of, a free-for-all, open-access regime (Berkes, 2002).

In conclusion Berkes (2002) provides a concrete case, where bottom-up approach to resource management and commoning is of clear benefit. Therefore, by abduction I see clearly that the reduction of all modes of life to fit certain patterns, as economic development and western science can lead to new challenges.

Case: Dutch climate policy

In order to identify the nature of an actual policy, based on the learnings from the literature review on international environmental agreements and their influence on national policy, I located an official document from the Dutch government and visually analysed it to see how the policy relates with international agreements. The document described the government's vision on climate action. The visual demonstrates the relation with three major international agreements; 1992 UN Framework Convention on Climate Change, 1997 Kyoto Protocol, and 2015 Paris Agreement. This document also clearly illustrates the top-down influence of international agreements on national policy.

As I stated earlier in the insights from Berkes (2002), the top-down influence or local resources can have negative effects for the community.

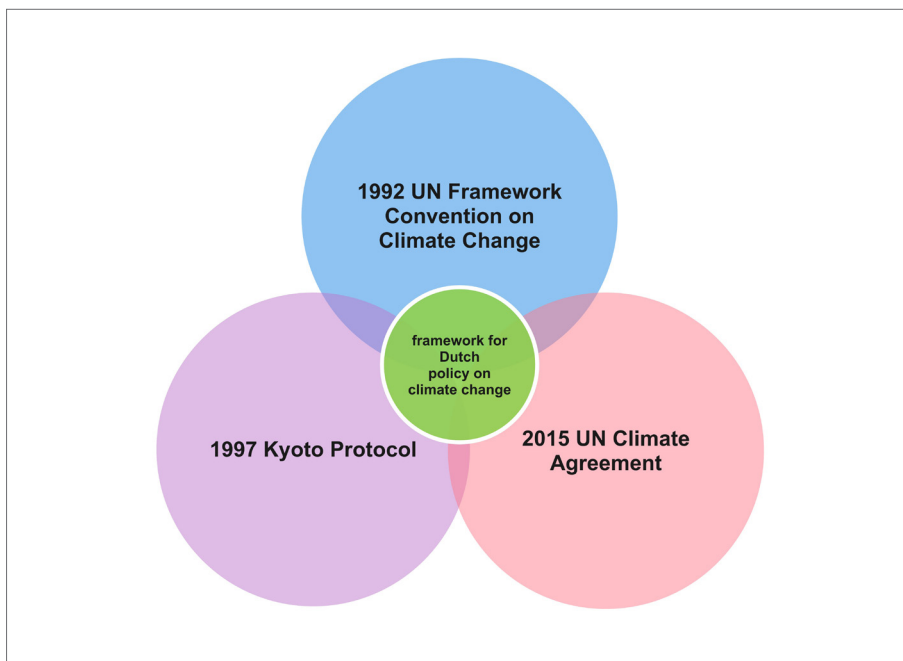


Figure 5. Visual analysis of document outlining the Dutch policy on climate change, used to classify the nature of climate policy in the Netherlands

Design and Policy

Holierhoek and Price (2019) present through the cases of two prominent design labs associated with governments the value of design in policy, specifically in mitigating wicked problems. Key elements in addressing wicked problems are a non-linear approach with a multi-disciplinary team, including designers, aligned on the same goal.

Policies often don't end up as planned due to the big gap between their initial intent and the people and processes involved in implementing the policy. On the journey from planning to implementation, write Holierhoek and Price (2019), there are leakages due to the numerous touchpoint, most of which are equipped with single bodies of knowledge, thus not comprehensive enough.

Another reason wicked problems sustain within policy, is the paradox of public organisations who are setup to maintain stability over change (Holierhoek & Price, 2019). Finally, the authors point out that the human-centred approach of design can allow for culturally relevant decisions, which means the intent of the policy can be closer with the resulting impact, thus reducing the gap in between.

Is the Paris Agreement all we need?

Being overwhelmed by the enormous undertaking of the Paris Agreement, and the fact that has not yielded the expected results, and currently under risk of braking down (Roberts, 2019), I decided to look into it further. One of the most significant reasons for the alleged break down is the recent departure of the US from the Paris Agreement, undoing the work of the previous administration (Irfan, 2019).

The Trump-led US policy decision to withdraw from the Paris Agreement, is not though the only reason for a breakdown of an international agreement. According to Sacks (2019) paper on the likely pathways or breakdown or breakup of the agreement, he clearly points towards the inability of many nations to catch up with their voluntary pledges for carbon emissions reduction. He continues with a critique on the architecture of the international agreement, which is based on peer pressure to yield the voluntary pledges, meaning they are not binding in a legal sense.

Roberts (2019), who interviewed Sacks on the matter following his publication (Sacks, 2019), concludes that the Paris agreement in itself

is not the culprit, since it is only a reflection of national wills, instead of concrete commitment, and therefore it is impossible to generate willingness, where there is none to begin with.

Several years before Sacks' paper, Keohane and Victor (2016), named the newly initiated Paris Agreement, a shallow coordination attempt, while they called for a deeper cooperation. They claimed that the effectiveness of our joint actions on climate change are bound by our understanding of the climate change problem, as well as the different national policy attitudes.

Climate as Commons

One of the most important findings coming out of my quest for understanding, is the conception of the safe climate being a public good, a global commons (Roberts, 2016; Keohane & Victor, 2016). I will keep the term commons, since it implies a shared resource, rather than a state owned commodity. Different governments have different policies. Care towards public goods is bound in a government's willingness to provide. In the absence of an authority write Keohane & Victor (2016) can lead to a lack of provision.

Therefore, it becomes apparent that expecting governments to take climate seriously, is letting its safety indefensible from unwilling and uninterested individuals, political parties, governing institutions. I conclude that we should take the care for the environment including the climate in our hands.

3.2 Vision and Strategy

Following the research phase for this iteration and integrating the feedback from my supervisory team, I realised that my vision statement was too broad and abstract. In order to make it relevant and explicit to the Red Cross, I re-evaluated both the vision and the strategy.

3.2.1 Vision

The new vision statement sought to align the vision with the Red Cross in order to become more explicit and raise the probability of an internal alignment, at the end of my project.

Vision Statement

Enable the International Red Cross and Red Crescent Movement to steer international climate change policy towards equitable outcomes.

The new statement when compared with the first iteration makes a leap from the abstract and general equitable attribute of climate policy and climate action into a specific duty of a specific actor, the Red Cross Red Crescent Movement. I reframe the word equitable into equitable outcomes in order to highlight the urgency for concrete results — outcomes, rather than words. The word towards, acknowledges the constant journey to “completing” the goal of something being equitable, since it’s a relative term, with a subjective valuation. I am using the verb steer in order to make the point that the current vehicle (international agreements) is not moving towards a direction which is desirable buy the people they represent, and more importantly the people it is already affecting. Finally, the verb steer, seeks to declare a leading and facilitating role for the Movement, while maintaining the neutrality and impartiality principles Red Cross operates in.

The reframing of the vision and consequently the strategy and concepts, was significantly helped by the mapping of Red Cross actors against levels of social organisation (see *figure 6*).

Table 3. Comparing the two vision statements.

Vision 1st Iteration	Vision 2nd Iteration
Equitable climate policy and action	Enable the International Red Cross and Red Crescent Movement to steer international climate change policy towards equitable outcomes.

3.2.2 Strategy

Since the vision has become more explicit, it allowed for a new interpretation of how to reach it – the strategy. I reformulated the strategy to also reflect the specificity of the vision and allow in its own right to be interpreted well, so as concept directions can emerge.

The new strategy formulation adjusted the terms local knowledge and practices into community experiences. This move allows for a further narrowing experiences was an important step in zooming my concept in on the affects of climate change on a given local population. The actor responsible for identifying, collecting and enriching these stories into narratives I define as the respective National Societies.

Strategy Formulation

“The vision can be achieved by introducing on the policy-making table a cohesive body of community experiences and how they are affected already by climate change. The identification, collection and enrichment of these narratives can be facilitated by The National Societies.”

A significant artefact which helped with the reformulation of the vision and the strategy was the Red Cross Actors Map (see figure ##), which allowed me to match the societal levels where the organisation operates against the influence and reach of local, regional, national, and international organisations.

Table 4. Comparing the two strategy statements.

Strategy 1st Iteration	Strategy 2nd Iteration
Enable the International Red Cross and Red Crescent Movement to influence international climate policy informed by local knowledge and practices, by leveraging the connections and experiences of the National Societies.	The vision can be achieved by introducing on the policy-making table a cohesive body of community experiences and how they are affected already by climate change. The identification, collection and enrichment of these narratives can be facilitated by The National Societies.

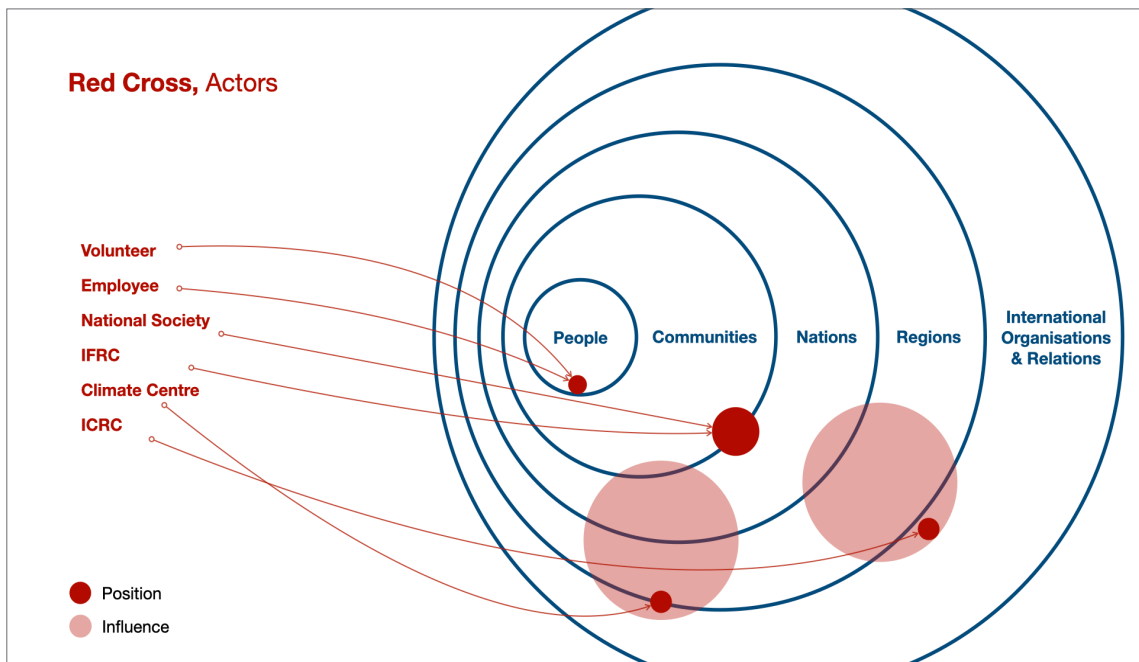


Figure 6. Red Cross Actors Map.

3.3 Concept

Finally, the concept reimaged the first iteration of the digital platform, into a social platform. The semantic difference between these words seeks to highlight the architecture of the platform, and also narrow down on what type of platform. Social platform stands for social network, similar to Facebook, Twitter or Instagram. This platform will provide similar functionality for citizens to share their daily experiences with the Red Cross. The Red Cross takes these stories and introduces them to policy-makers who use them to empathise with the citizens, and therefore create policies which respond to these real life cases.

3.4 Conclusion

The concept has made progress, but arguably uneven across its parts. The type of knowledge to be collected has been narrowed down, although it lacks narrowing down to a specific demographic, at a specific situation (urban heatwave), as well as when during that situation it will contribute (before, during, after).

During the co-reflection session with my supervisory team, I realised I had performed already great amounts of research, and it was time to make more designs. My coach and mentor, Ehsan Baha, advocated for the research-thought-design approach. I had not yet dared to design anything beyond the expression of the concept, in the fear of ex-

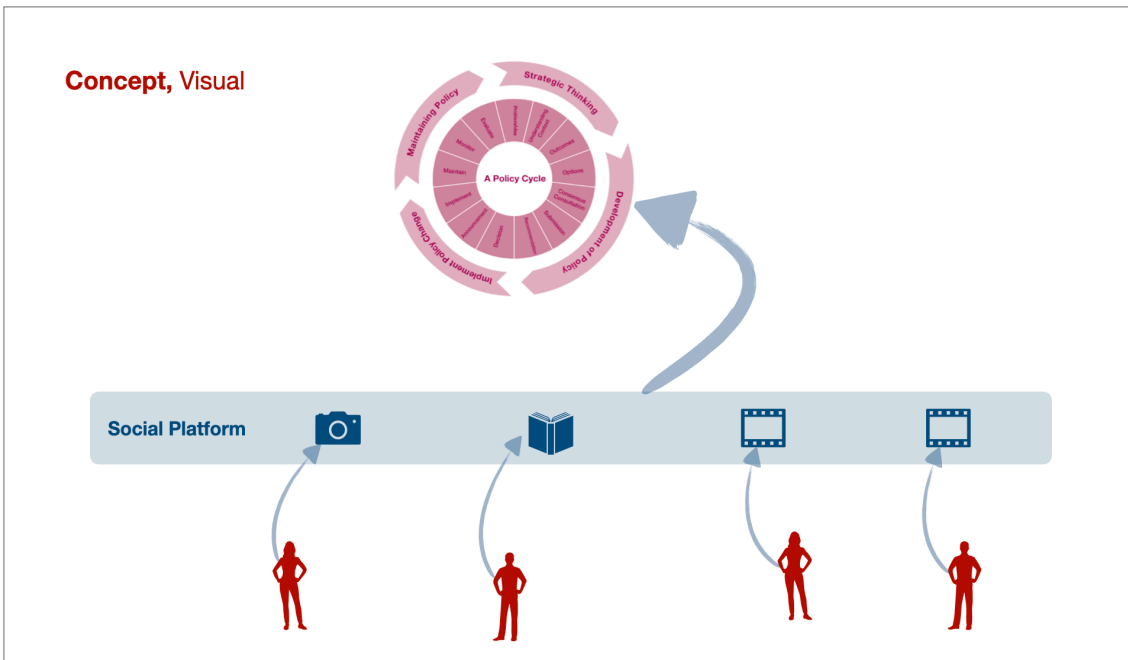


Figure 7. Concept Visual, Iteration 2.

pressing something inaccurate and wildly naive. Avoiding designing, kept my work at an abstract level, which meant that my colleagues and supervisors had open and different interpretations during our meetings.

I was suggested to look into the methods of building scenarios, storyboard and journeys in order to flesh out the specifics of how the platform actually helps someone before, during or after a heatwave. The seemingly endless array of design choices, gets reduced, with the help of the medium of storytelling, which forces me to select a protagonist, their life, an event and its impact.

Chapter 4

Iteration C

People make the city

Introduction

The third iteration of the project, was setup in order to make more explicit the goals and the means of the final design. I have concluded that local action from inside-out, and bottom-up is a necessity for creating climate resilient communities, especially in regards to heat-waves. The lack of willing states ready to address the climate challenges, leaves no room, but to consider what people can do themselves in their daily lives to strengthen their wellbeing and that of their communities.

In this iteration I am scoping down to the nature of volunteerism, and the role of a volunteer can be within their community. The Red Cross and Red Crescent Societies globally have over 14 million active volunteers (IFRC, 2020a), which collectively are responsible for over 90 percent of all humanitarian work being done by the Red Cross (American Red Cross, 2020). The reason being that the volunteer can become an active agent within their communities. A volunteer in my interpretation can be seen as a beacon of care and good.

This iteration intends to show how we can reach the vision of creat-

ing localised impact in partnership with communities, and transform the organisation into a distributed, self-driven and self-managed form. This is a sought after transformation of the Red Cross, defined in their Strategy for 2030 (International Federation of Red Cross and Red Crescent Societies, 2018).

4.1 Research

During this iteration I engaged with research in the fields of community resilience, citizen participation, the commons and public services.

4.1.1 Community Resilience

A classic definition of resilience has survived to this day from Holling (1973), as being the ability of a system to maintain its identity, thus remain resilient, after an external shock. Holling (1973) associates the structure of a system and relationships inside it as relevant to resilience. The Resilience Alliance (2010), offers a definition which out more focus on the notion of change. They add to the previous definition that resilience of a system is the ability to undergo change, and retain its characteristics. This additional definition eludes to the notion of adaptation, meaning the ability to continue the process of life, within a new environment, or one with new characteristics.

Baek, Meroni and Manzini (2015) put the focus of resilience on communities of people, and through the definition of Holling (1973), directly address the significance of social relationships and relational structure of communities. Through applicable technical systems, they assert that community resilience can be addressed (Baek et al., 2015).

As a conclusion I derive that social relationships are significant element to concentrate my design activity.

4.1.2 Citizen Participation

Norris and McLean (2011) write on the current challenges in citizen participation in local problems as well as how these challenges might be addressed through a case study. The authors of the RSA report Civic Commons: a model for social action, depart from the premise that the potential in citizen participation is not only under-utilised, but in fact mostly used in bringing the voice of the citizen in the decision-making phase. An example is the public services participatory

design practices, which have emerged in the UK after the introduction of the 'Duty to Involve' policy in 2009. Instead, they argue the citizens should be the owners of the change they want to see within their communities. Furthermore they stress that citizens should be enabled and empowered to take action (Norris & McLean, 2011, p. 3).

Citizen participation and action present us with opportunities ranging from impacting directly the local habitat, making policy interventions successful, and inspiring more citizens to get involved. Most importantly for the scope of my project, Norris' and McLean's (2011) report points us towards evidence presented in the 2020 Public Services Trust's (2010a) report, which citizen participation increases the probability of policy interventions becoming successful.

Participation according to Norris & McLean (2011, p. 4) can be designed, while the desirability, in the British context, is not only present, but significant according to the 2020 Public Services Trust's (2010b). Norris & McLean (2011, p. 4) take their premise a step further by proposing a set of principles informed by different disciplines, academic literature review, a case study in a community, and personal experiences, for the operation of what they call Civic Commons. They express their ambition for these principles to become transferable to other initiatives wishing to empower citizens [see appendix #].

Finally, the authors urge for a change in the way citizen participation takes place, from a top-down consultative approach to a citizen-led activities, which has the potential for creating new citizen wisdom. Such activities for Norris and McLean (2011) can foster transitions from the current models of participation and therefore society, towards a desired future society, the construction of a 'common good'. They call the space in-between the 'social aspiration gap'.

Conclusion

It is in this space where my project sees opportunities to propose a future vision which is bottom-up, citizen-led, inclusive, for all matters pertaining to local habitats, and most importantly the critical challenges communities will be facing as we transition through new climate regimes. I want to draw inspiration particularly from principles 2, 3, 4, 5, 6 [see Appendix for full list].

Examples on citizen participation

Participatory City London, UK

Participatory City Foundation, through their platform and project Every One Every Day, work directly with hundreds of people from the communities of Barking and Dagenham on neighbourhood projects, which foster new relationships, give rise to new ideas and activities. They also involve local businesses that want to participate and have call for researchers to create new knowledge and tools through a transdisciplinary approach (Participatory City, 2020). Based on the premise that people lead busy lives, but have the desire to participate in common activities, they aim to design such activities in a way that they can be inclusive and beneficial for all members, while adding value to their communities (Participatory City, 2020).



Figure 8. Every One Every Day Project, Participatory City (2020)

Participatory urban design, Johannesburg, South Africa

UN Habitat in collaboration with Ericsson, as their technology partner, worked on a pilot of a technologically enabled participatory urban design. Using Minecraft, a video game, as the open design studio, participants submitted designs which they could experience in real time, augmented on the actual urban environments through a tablet. Such visualisation technologies present a unique opportunity to involve and engage citizens in the process of making the city together. The technology can also be used to visualised new developments, before they are built, in order to open a public dialogue and understand the impacts on local communities (Nyberg, Sapsford Newman, & Westerberg, 2019).



Figure 9. Concept visualisation, Nyberg et al. (2019, p. 45)

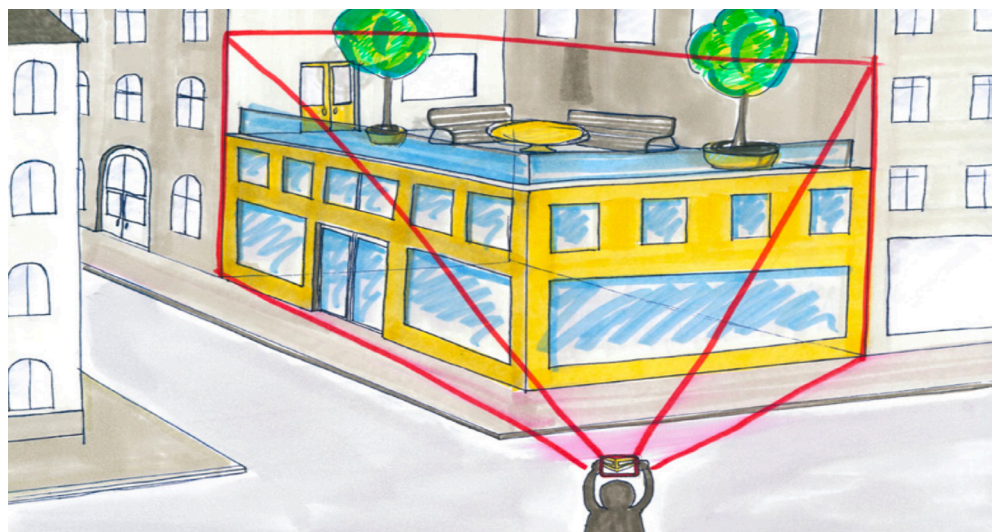


Figure 10. Early concept sketch, Nyberg et al. (2019 p. 44)

4.2 Vision and Strategy

During the second iteration I understood that international agreements and national policies expressions of national will and politics of their time. It became apparent that attempting to design interventions which directly affect those decisions cannot be within my scope, and possibly cannot be affected directly. This realisation paved the way for scoping directly on the ‘ground’, and design for impact at this level.

The exploration during this iteration, gave me insights on the meaning of citizen participation, and the creation and maintenance of commons. Connecting again with Keohane and Victor (2016) in saying that a “safe climate is a public good”, I wanted to set as protagonists the citizens themselves.

Vision Statement

A society where people care for their community’s wellbeing by actively participating in the making of their habitat.

The newly created vision helped me formulate a title, which meant that I have finally explicitly created a design strategy. I will try to demonstrate this through the recent publication (Luca, 2020) who has provided me with the most accessible definition for strategy;

“A strategy describes how the ends (goals) will be achieved by the means (resources).”

Table 5. Comparing the two vision statements, 2nd and 3rd.

Vision 2nd Iteration	Vision 3rd Iteration
Enable the International Red Cross and Red Crescent Movement to steer international climate change policy towards equitable outcomes.	A society where people care for their community's wellbeing by actively participating in the making of their habitat.

Based on this definition of strategy, below is how the provisional title for this project reflects the means and the ends.

Citizen participation through digital platforms, as a means to heatwave resilience and adaptation of urban habitats.

Ends (goals):

Heatwave resilience and adaptation of urban habitats

Means (resources):

Citizen participation through digital platforms (the latter being the technology)

The title in itself describes the concept (What), the strategy (How), and associates with climate change being the reason (Why).

4.3 Concept

The concept was created through different iterations of written scenarios and storyboards of the typical characters occupying the daily life at the city of Delft. These scenarios and storyboards gave way to the visualisation of the actual product. The product is an online platform for enabling Red Cross volunteers to contribute to their community by making suggestions, discussing ideas, deliberating in public for the betterment of their community. Significant focus of the platform is on the heatwave aspect, thus the scenarios mostly illustrate this.

The characters chosen, range from the older generation of residents who belong in a vulnerable group, to the younger members of the community who are technology-savvy, deeply interested in climate action and are self-driven.

Methods used to design the concept

I made use of several methods typical to service and experience design, in order to visualise the final design. I started experimenting with written scenarios in order to blend my research insights into a coherent story. While writing the story, I realised that I had already expanded on my character, and thus made use of a persona to accumulate all her details. I turned my scenario into a storyboard in

order to provide visual cues of the product and the user interaction. Storyboards allow for a quick but contextual reading of the situation.

4.3.2 Prototype Plan for visualising the design

Following a co-reflection meeting with my supervisory team, we decided that a prototype would greatly benefit the project. We decided to dedicate two weeks on this phase. The following list is the plan I developed and presented to the team.

1. Find people willing to participate in a service prototype (preferably RC volunteers)
2. Ask them to create a temporary (private) Instagram account, or offer one
3. Ask them to walk around the city of Delft during a warm day
4. Post a photo or story with any annotations and a description text of what they would change in that image/space
5. Add a specific hashtag ie. #delftlivewell to aggregate the posts
6. Ask them a few questions at the end about their experience.

The idea was appreciated, and I continued with detailing the prototyping activities, recruit participants and amend the plan to fit the time limits.

4.4 Conclusion

The third iteration provided the necessary ingredients which the concept is based on. These ingredients are the participatory practices in an urban environment and the notion of community resilience. Increased resilience becomes now the explicit goal of this project. A community which can bounce back from an unfortunate event, a crisis, is one which can survive and live well. The process of designing and making the concept tangible helped me scope in a certain group of individuals, as the agents of good, the community activists, those who push everyone towards participation and care for the wellbeing of the community. These people identify with these characteristics already, meaning there is no onboarding involved in regards to caring for others. They are inherently altruistic. These people will require support in order to lead their community to better futures. The platform I am proposing gives them tools to do so. Finally, I am proposing that the Red Cross should pilot this project with young volunteers, in order to learn more about this local community-based

approach, and gain learnings on what tools exactly need to be built, in the context of a case study of a community of their choice. Due to the coronavirus constraints I have focused the concept on the city of Delft, which allowed me to gain from my personal daily observations and discussions with neighbours and friends.

Upon reflecting my supervisory team, we decided it was significant to offer more depth for my proposal, by initiating a prototyping phase. The next iteration, is focusing on learning from the prototyping activities, several co-reflection sessions with colleagues in order to socialise the design and an expansion on the theoretical definitions of underlying values, and emergent new values learn through the process. These values are care, conviviality, the process of commoning, the state of being mindful and the the meaning of voluntary labour based on a personal experience.

Figure 13. Citizen participation platform early sketches.

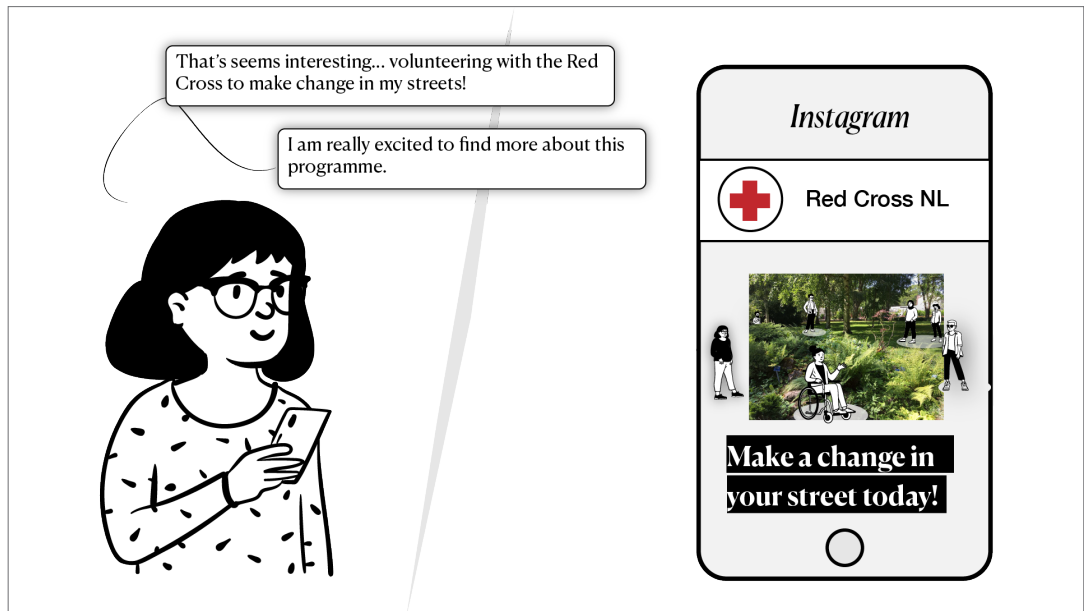


Figure 13. Participation platform, sonboarding.

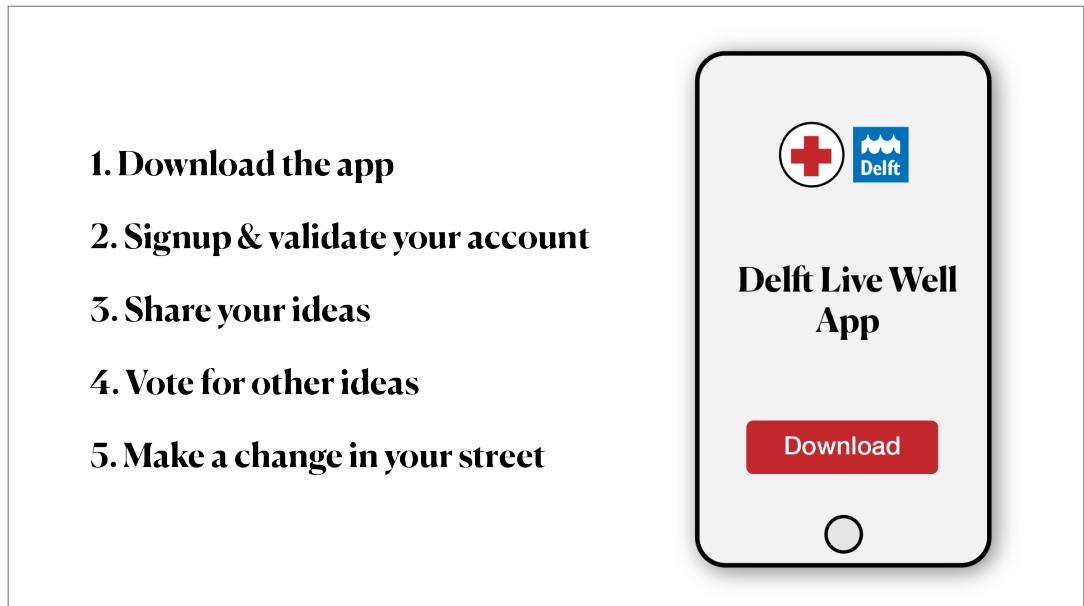


Figure 14. Participation platform, briefing.

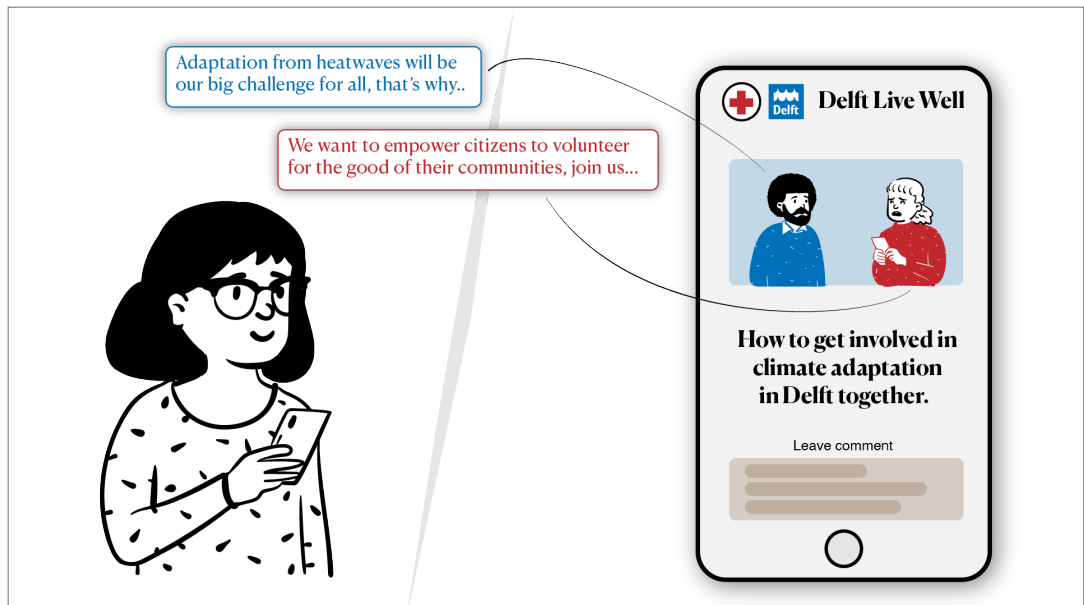




Figure 15. Participation platform, IdeaBox prompt.



Figure 16. Participation platform, Design Your Idea.

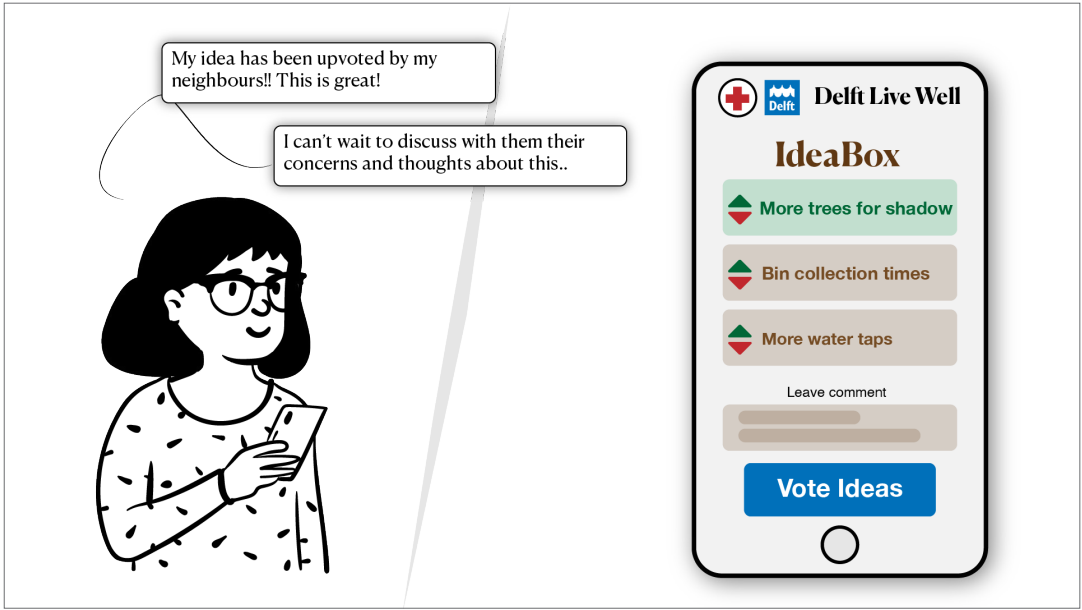


Figure 17. Participation platform, Vote for Ideas.

Chapter 4

Iteration D

Mindful

Urban Dwellers

5.1 Introduction

The fourth and final iteration on my design process, was originally setup to provide depth and some validation to my concept, by way of prototyping. The prototyping process is towards the end of this chapter, since I found significant to present first the ethical underpinnings for this project. The values of care, conviviality and commoning have been discussed earlier in this report, but only became apparent that they lacked appropriate introduction. Before doing so, I will hopefully inspire you with a personal experience on volunteering, an experience impacted my self and thinking. It also became apparent towards the end of this project, that the personal experience on volunteering has been unconsciously driving my work. Actively reflecting along the course of this project, offered me insights and understandings of myself, my value and my identity.

5.2 On volunteering, a personal experience

Almost 5 years ago, during the seemingly endless immigration flows to Europe, along with a group of close friends we decided we had to witness the situation in the borders of Greece. The sensationalism of events experienced through mass media, and the representation of the people struggling for what

we, Europeans, consider fundamental human rights, a high standard of living, and a welfare state, was alienating our view of those people. The act of traveling to the island of Lesbos, served two purposes. Firstly, to experience in person — unmediated — the events unfolding daily in Lesbos. Secondly, to put our privilege in the service of those in need, directly and unmediated, something we called, the act of being in solidarity with one's struggle.

At the time, there were millions of people fleeing their home as a result of war in Syria among other places, as well as any other inhumane condition pushing people to emigrate. There are many terms to describe these people politically, one is refugee, the other is immigrant. The former means that one is able to claim political asylum in the country they arrive, while the latter perpetuates one's struggle.

Our daily acts of solidarity in the Platanos camp, discriminated against no person, and offered in solidarity, aid during the time people arrived at the coast. We helped people off the boats, we rescued from the sea, we offered a fresh pair of clothing, a warm meal, water, and basic information for the continuation of their journey. Occasionally, when the numbers of people were low, and they were waiting for the UNHCR's bus transfer to the registration point, we had the chance to engage in a conversation and exchange a few words.

The total of one month I resided in the north coast of Lesbos, I cannot claim I learnt more about them nor the local community of Sykamimia village. It is important to state, that I was an external agent, one that sought good and fairness, but nonetheless completely oblivious to the local politics, the international plans among the Greek state, Turkish state, the EU, the UN, the local communities, and the endless streams of NGOs.

The essence of participating in the camp of Platanos, the focus of this story, is the means utilised to achieve an end. Being a grassroots initiative, anyone was free to participate, free to choose how they volunteer their time and spirit, and at the end of the day, have a voice in the open assembly, which collectively mandated our daily actions, and reflected on the issues at hand. The camp was self-organised and self-managed.

Funding was crowdsourced, and supplies were donated from individuals across Greece. Even the transportation of clothing, blankets and food was a donation from logistics companies. Housing and storage was also given free of charge. An anecdote says that Platanos, especially during the first months of operations, was providing more crucial and significant aid than the combined efforts of the dozens of NGOs operating on the north coast of Lesbos. I bear no facts on this claim, but certain events we experienced, make me confident of that accuracy of the anecdote. The primary difference between mediated and unmediated aid, is the ability to personally experience and shape the ethics of voluntary humanitarian action.

The point I am trying to make though this story is the enormous gap between being told which

task to perform, in essence how to be a humanitarian in practice, and defining it collectively in practice. I joined the Platanos camp twice, the first in October 2015 and the second in January 2016, and both times I was free to pursue the tasks that fulfilled my vision on being in solidarity with another human, I was free to co-define, and co-produce the aid being given, in solidarity. There were limits and rules, but they were also co-defined and co-produced.

Solidarity can be defined as the feeling of unity among people with mutual interest and pursuits, and the support towards those being challenged. We never asked anyone's interests and pursuits, we took for granted, they were struggling for humanity in their lives. Five years after, and while the immigration flows continue, it is worth asking ourselves, whether they can find such humanity in Europe.

Reflecting upon my experience in Lesvos, I understood that having the freedom to take initiative, choose the daily tasks to work on, as well as contribute to the long-term goals of the camp, created a sense of belonging and ownership of the organisation. I felt empowered to have been able to provide humanitarian aid, dictated by my values and ethics. I believe this became the reason why Platanos camp became extremely popular and engaged individuals for a very long-term. There are of course other cultural reasons which contribute greatly to the success of a grassroots project in Greece.

5.2.1 Definitions on the voluntary

I wanted to explore further in the definitions of volunteering. Firstly, because my concept is now directly addressing the Red Cross volunteer base, and secondly because I always seemed to make a distinction between the grassroots actions in solidarity, and actions facilitated through a structured environment of a humanitarian organisation or any NGO of that kind.

This distinction became mine, through the grassroots environment I was part of. Although I always struggled to see the difference. Ultimately, I place the difference in the perspective one has whilst providing humanitarian aid, and the structure they operate from. Being part of a grassroots movement, meant there was no hierarchy, everyone is equal and decisions are made with collective consensus.

Based on the definitions on the table below, I find that my experience is much closer to voluntarism, while the existing Red Cross volunteers is closer aligned with the term volunteering.

Volunteering at the Red Cross

Further analysis of a recent report on digital volunteering, reveals that within the Red Cross and Red Crescent societies, volunteers are seen as receivers of tasks, which they follow, so as they remain engaged with the work of the Red Cross. This quote below, verbatim

Table 6. Comparison of definitions on voluntary action.

Term	Voluntarism (action)	Volunteering	Who we are, IFRC	What we do, IFRC
Author	Wikipedia, 2020d	Wikipedia, 2020e	IFRC, 2020b	IFRC, 2020a
Definition	“Voluntarism, sometimes referred to as voluntary action, is the principle that individuals are free to choose goals and how to achieve them within the bounds of certain societal and cultural constraints, as opposed to actions that are coerced or predetermined.”	“Volunteering is generally considered an altruistic activity where an individual or group freely gives time “to benefit another person, group or organization”. Volunteering is also renowned for skill development and is often intended to promote goodness or to improve human quality of life. Volunteering may have positive benefits for the volunteer as well as for the person or community served.”	“Our strength is in our volunteer network, our community-based expertise and our ability to give a global voice to vulnerable people.”	“Volunteers have been the backbone of our Movement since its birth in 1863. Today, as ever they are central to all activities of the Red Cross and Red Crescent, contributing to the success of our National Societies and assisting millions of vulnerable people in times of greatest need.”

from the report, stands in great contradiction with the definition of voluntarism. It is perhaps closer to the term volunteering, but I also see a profound association with ‘capital logic’ most importantly the service relationship (Fry, 2003). According to the definition of volunteering and the quote from the report, people freely give give their time to the Red Cross organisation, which then gets allocated to the needs of the organisation.

“Social interaction is an important part of motivating volunteers but sending meaningful tasks to the Digital Volunteers is also important to keep them engaged.” (Griffith et al., 2020, p. 6)

This is very similar with the model of representative (indirect) democracy, the opposite of which I have briefly explained earlier (direct democracy). In this model, people are represented by elected officials, through the casting of their vote. Casting your vote, means you give away (donate) your democratic representation to someone else. Similarly, in the Red Cross organisational model, volunteers cast or donate their time, which is converted into action, based on the agenda.

5.3 Learning from the Commons, Care and Con-

viviality

5.3.1 Commons

The concept of commoning, which is the social process of making the commons, meaning shared resources and modes of governance, which are self-managed and responsibility is distributed across those making the commons (Helfrich & Bollier, 2015). In order to turn any resource into commons, care is required by the community — the act of taking care of something (Helfrich & Bollier, 2015).

I would like to re-iterate the central point of Roberts' (2016) article on the discord around climate change [see third chapter, research on international agreements]. He positioned the climate as global commons. This implies that climate is not just present, but affects and is affected by our activities. Therefore if we care about our well-being, we should care collectively about a safe climate. The moment we care collectively, and act towards its safety, the climate will slowly transition into becoming a global commons.

Helfrich and Bollier (2015) add that commons as a means for governance is the institutions and rules collectively agreed upon to enable a fair usage of the shared resources. The danger, Deriu (2015), warns us is that institutions as they grow, shift gradually away from their original purpose. I conclude that a collective governance of the commons, has the potential to remain proactive and agile because it is shaped by pluralism, a diverse body of actors, who all act as a distributed sensing network for the ever-changing environment.

Commoning as a strategy for social cohesion and reconnection with our environment is put forth by Thackara (2019) through examples of local knowledge creation, stated throughout this project as local wisdom. The essence of my concept is to facilitate a shared resource, locally created, which fosters local wisdom and supports the flourishing of relationships.

5.3.2 Care

Care is an interesting term. It's pervasive (eg. child care, healthcare, skincare) and rather common at all cultures I have interacted with. During the months of the COVID-19 pandemic (Wikipedia, 2020a; WHO, 2020), we have come to regard care highly. Care has left the elusive background and, now occupies in trepidation the foreground.

A brief search online of the word care [see image ##], is all it takes to engage at yet another point with the reality of the pandemic. At the time of writing, we are still in the colloquially known as corona time. This is a unique moment. It might become an inflection point, it might as well only remain as a memory we all talk about in social gatherings. It will surely though incubate a new wave of individuals who embody not only learnings, but a new mindset and posture towards being human.

A nanoscopic infectious agent has paralysed a large part of human activity, and offered us a new way of seeing. Some people always saw beyond the 'restricted economy' (Fry, 2003), and today many more can envision alternative economies and modes of being and dwelling. I will therefore say that the coronavirus prototyped potential futures. As a boundary object it affected all human life on the planet. Such futures are not necessarily desirable. Many rushed to talk of the return to normality, or to suggest the arrival of a 'new normal'. This is an attempt to remain comforted, instead of daring to see beyond the existing. That would be meaningful innovation. Business as usual, can only get us this far.

Care is the "process of protecting someone of something and providing what they need" according to Cambridge dictionary (2020a). Similarly, but far more appropriately, D'Alisa, Deriu and Demaria (2015) have defined care as "the daily action performed by human beings for their welfare and for the welfare of their community." They continue by defining community as those in proximity from each other, and this is also the way I decide to frame the meaning of community in my project. D'Alisa et. al. (2015) present through a feminist economics frame, how unpaid work pertaining to care has been undervalued, along with the subjects who perform it. Care has a significant role in society, and that is the support of psychological, physical and relational integrity for all humans.

I would like to bring the aforementioned meaning of care as a key principle in my concept. It's part of the solution. People have to care for each other. When they do care for each other, they create strong selves and strong relations. Strong relations foster resilience from any given crisis. Care should be distributed across all humans, not provided as a service by the state. Care is the reason to be together and not apart.

5.3.3 Conviviality

Conviviality is beautiful term I don't encounter daily. According to Cambridge dictionary (2020b) it is "the quality of being friendly and making people feel happy and welcome". In my project, conviviality, along with care, is an important principle, which lends its meaning from Ivan Illich's definition. Deriu (2015) describes Illich's conviviality as "a society in which modern tools are used by everyone in an integrated and shared manner, without reliance on a body of specialists who control said instruments."

Such tools should allow people to be autonomous, meaning having the ability to produce independent of market relations (Deriu, 2015). Illich separates tools as 'inherently destructive' on the one hand, and convivial on the other hand. Some tools perpetuate inequalities and undesirable conditions, while other foster creativity, freedom and ultimately autonomy (Deriu, 2015). Illich's framing is clearly around the industrial. Schultz (2018, p. 79) speaks of technological agency from the modernity and coloniality frame, which allows us to address certain tools/technologies as modernising and colonising. Schultz (2018, p. 79) notes a movement towards delinking ones' self from culturally destructive forces. Engen et al. (2016) have shown how machines are increasingly taking active role in our society through our communication networks. To conclude, both scholars describe how tools and technologies can be destructive, and direct us in new pathways for social wellbeing.

Taking this definition forward, I wish to embody it my final design. The "solution" can take many forms, but it should adhere to principles. Similar with the Red Cross' operating principles, I design using a set of personal interpretations of good and ethical.

5.4 Strategy for the Red Cross Netherlands

Introduction

I have been struggling with the meaning of the word strategy for quite some time. This is the last attempt at formulating a good strategy for my partnering organisation. Arguably, I might have a new understanding of the word, the more I put it in practice. I will do my best to be brief.

Vision statement

“Communities resilient from external shocks, such as heatwaves, through an increased level of care and convivial tools which enable strong relationships. The mindful dweller is the agent of wellbeing”

In order to reach this vision, I have formulated a strategy for the Red Cross to become part of this new world, therefore remain relevant to younger generations, in a never-changing world. The strategy is comprised of three key areas; people, partnerships and technology. The essence of these three areas, where they meet, is the mindset [see diagram #].

People

At the heart of this strategy is the people. I want to put great emphasis at the development of a diverse volunteer base. Young people are spearheading today climate action and the exposure of inequalities. Young people are digitally literate, they can pass on their knowledge to the older volunteers within the Red Cross. In return, the older volunteers, can teach the young ones about the values of humanitarian aid.

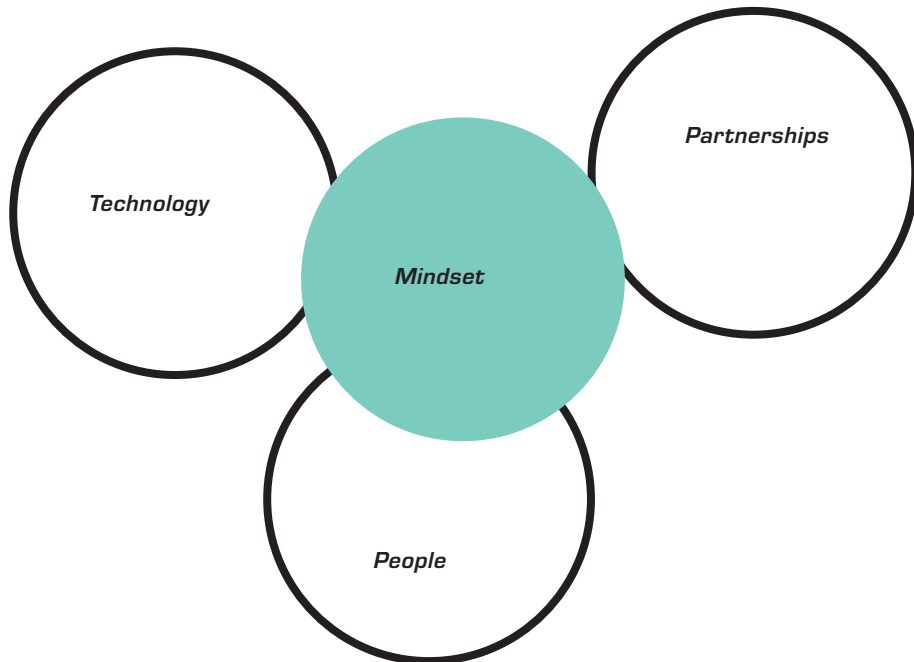


Figure 18. Red Cross Strategy Visual Diagram.

This project can be piloted directly with existing young volunteers. If the project is to scale, the Red Cross can address young activists who are not necessarily registered members, but have the intrinsic motivations needed to lead community-based projects.

Partnerships

Collaborations are very important. In order to bring this project to life, many stakeholders should willingly collaborate in order to foster plurality and inclusivity in the implementation of community-based initiatives. In the context of a city, I envision the active involvement of the city council, local businesses, and organisations which deal with the commons.

Technology

Technology is surely an enabler, but not the only way to address social challenges. Tools should be convivial, as Illich (1973) described. Technology has agency, and for this reason the Red Cross should be critical. The platform I am proposing, involves a great deal of technology which affects the privacy of people, and access to a democratic process. It cannot possibly be made and maintained by agents with opposite interests. Beyond my proposal, there are many ways to bring the values of care, conviviality, commoning and being mindful in a community. I have only provided one way (digital platform) as inspiration.

Mindset

The mindset is what's needed in order to achieve this strategy. It's the mindset which can lead to all other areas. In my vision, the Red Cross should be willing to cede control, if they want people to thrive based on their intrinsic motivations. The donation of time to the organisation is not enough. People should be enabled to make good actions, and handle their community crises in an autonomous attitude. Everyone requires external help once in a while, but it will be far more fruitful, if we thought people how to proactively address their challenges, instead of prescribe them solutions.

5.5. Prototype

Introduction

The purpose of a fourth iteration is to provide depth on my vision and design intervention. The goal is to make the concept more tangible for myself and the partnering organisation. A prototype proposed to my supervisory committee, which led me to create a prototype which would help me give form on the output, outcome and

potential impacts (IDEO.org, 2020) of the digital platform. The prototype process and results are described below.

The first iteration of my prototype was concerned with simulating the experience of the platform as closely as possible, with a quick and cheap approach. These two criteria, point immediately towards a low-fidelity object, but do not necessarily mandate that the service experience should also be of low resolution.

Technological Feasibility

Several potential features of the platform, have been inspired by existing digital and social media and the creative tools they provide to their users. The best examples, chosen through my own experience with them, are the Instagram Stories feature, and the WhatsApp image editing and annotation tools, available when a user wants to upload and share an image with another user.

These two examples of media technologies, became not only an inspiration, but a proof of technological feasibility for my concept. When validating an idea there are two approaches, one being of high-hurdle for a potential user/customer to engage, and the opposite, making it very easy to interact and engage in a longer term (Learning Loop, 2020).

Prototype feedback

During a feedback session with my supervisory team, I was advised to attempt at prototyping both parts of my plan, the first being the experience/enacting of the service, while the second was to ask the participants to speak of their experience. Other prototyping ideas, which did not take place due to limited time, were a role-play of the service and a treasure-hunt type of prototype.

Co-reflection as a method to validate the concept and prototype

Throughout the prototyping phase I co-reflected with other designers. I always started by pitching my concept, then gave them time to respond, and after they responded, I discussed with them and gave them more details of my concept through visuals and dialogue.

Co-reflection #1

The first co-reflection was significant in deciding what the purpose

Sidenote Impact ladder (IDEO.org, 2020) The explainer video walks us through a theory of change modelling process, outlining the structure of their logic model, comprised of Inputs (people, material, resources), Outputs (components of solution and experience), Outcomes (transitional steps which will lead to change), and Impact (the long-term change one wishes to accomplish). It's worth noting here that IDEO's model is one of many. Similarly there is the Why, How, What model I am using across my design process, and the Systems Practice (TOG, 2016) model for capturing strategic intent.

of the prototype would be. Typically a prototype is used to validate assumptions, make the conceptual, tangible, but also inspire. I decided that I would not use this prototype to validate all assumptions regarding my concept [see list of assumptions]. This session also helped me to clarify in my communications explicitly the focus of the concept. It was not apparent that the audience were the youth volunteers of the Red Cross Netherlands, and therefore I needed to address this during my pitch. Finally, the point of reaching the volunteers was raised. In regards to piloting the concept internally, I will explain in the strategy section how to reach the appropriate volunteers. In regards, scaling the concept outside of Red Cross I will provide recommendations on how to do so.

Fundamental Assumptions

- Do people care about the commons?
- Do people care about each other?
- Are people willing to volunteer their time?



Figure 19. Prototype Open Call #1



Figure 20. Prototype Open Call #2

Boundary Object

I did not want explicitly to validate assumptions of my concept, but learn the participants' perception of the experience they would go through. In order to lower the hurdles for participation, I let them use any social media platform they were already familiar with. For example, by using Instagram Stories, it is possible to share stories with annotations, directly with me personally. This means the participants' work remained private, and therefore led to an easy acceptance rate. Similarly, using WhatsApp means that all communications are private.

Prototype Communication

In addition to recruiting directly participants, I decided to make a parallel, open call for participation using my personal Instagram account. This approach led to the design of a series of Instagram Stories, communicating the call for participation and guidelines. Out of the total reach of 163 user accounts, 3 people replied with an interest to know more information, and 1 person wanted to volunteer their time for participating in the prototype. In total, I only received two complete participations. Complete, is defined by their active engagement with all activities of the prototype. All participants have given

Boundary Object A boundary object as defined in the design discourse is an abstract or concrete object, which according to Mark, Lytinen, and Bergman (2007), have the following features: (i, ii) the potential to communicate a common representation, the potential for modifying and legitimising design knowledge, (iii) the potential to arouse interest and follow-up action. The term originated in sociology by Star and Griesemer (1989).



Figure 21. Prototype Open Call #3



Figure 22. Prototype Open Call #4

consent for their visual media and textual responses to be published in this report.

Prototype Activities

The first activity the participants had to undergo, was a walk around their neighbourhood or frequently visited area of their city. I purposefully let the participants choose themselves their walk, and encourage them to not plan it.

This approach is influenced by the *dérive*, a revolutionary strategy, developed by Guy Debord in the book "Theory of the *Dérive*" (Debord, 1956). *Dérive* is part of 'psychogeography', an alternative and experiential study of urban environments. Debord defines psycho-geography as "the study of the precise laws and specific effects of the geographical environment, consciously organised or not, on the emotions and behaviour of individuals." (Bauder & Engel-Di Mauro, 2008, p. 23).

This approach is also inspired by my frequent and intentional observations of the spaces I inhabit long or short periods of time. Space has a significant affect on my personal experience and therefore, I assume that this is an unconscious strategy for analysing space, with the goal of learning about myself and the people who have developed said space.

Documenting the walk

During this walk participants were asked to use their personal smart-phone device, to document the surrounding environment, focusing at anything attracting their attention. It can be from the elements usually found in public spaces, and the state they find the space upon their arrival. I asked them to look carefully, and think of opportunities for improvement, and challenges pertaining to access, safety, aesthetics, culture.

My purpose here was to lead my participants in the act of purposefully experiencing through observation a situation, an object or the greater environment they find themselves in. Limiting their walk to known places, which they experience daily or frequently in their lives, allowed me to push them towards experiencing the same space in a new and possibly mindful attitude.

In contrast with Debord's psychogeography, where participants are encouraged to explore the potentially unexplored, through the swift passage across different spaces (Knabb, 1958) — *dérive*, I attempted to unlock alternative readings of the known space through new ways of seeing. These new ways are empowered through a new lens. This lens is one that provides the participant the ability to slow down time, and observe at a different pace the explored space.

Theory

In this manner, I suggest that the space in itself becomes new, since the experience the participant is going through is new in herself.

There are some common points between Debord's psychogeography, and the mindful walk concept presented here through the prototyping activities. These common points are; the explicit focus on urban environments, the invitation for a reading of the environment devoid of the usual patterns of dwelling in the city (eg. socialising, commuting, shopping), and the freedom to be experiencing the moment, through mindful observation and documentation.

Co-reflection #2 and #3

While waiting for the participants to respond, I arranged two additional co-reflection sessions. The second pointed to very similar concerns with the first, where my colleague pointed out the loose focus, audience, and the lack of a clear process to onboard, engage, guide, and retain users on the platform. Some of these points will be addressed at the strategy section of the fourth iteration.

For the third co-reflection session, I decided to walk with a colleague also working on the topic of heatwaves with the Red Cross Netherlands. By discussing while talking a walk in the city of Delft, I aimed at stimulating our discussions through the tangible elements of the built environment. Since, I did not have the digital prototype ready, I used instead the environment, which is indispensable part of my vision and concept.

Our discussion yielded a validation of my fundamental assumptions, and the concerns around my concept, due to people's busy lives. In fact this very true, all people have their own problems to worry, why

Photo elicitation I used this method because it allowed me to explore latent thoughts and emotions associated with the participants' perspective during the walk (Bigante, 2011). According to the definition of the method given by Bigante (2011, p. 2), I used the 'native image making technique', which means that images are produced by the participants themselves, instead of being provided by the researcher. Visual media produced by the participants allow me to create rich understanding on the participants' experience of the world (Mannay, 2013, p. 136).

take on more? My response to this point, is that I envision communities where people contribute actively towards the health and prosperity of those. I aim to reduce and hopefully remove the service relationships among humans.

Prototype Learnings

Upon receiving the participants' responses, I analysed briefly the subjects they decided to document [see table ##], along with textual and visual comments placed on the image, and followed-up with a personalised questionnaire, in which I included two types of questions, the first eliciting contextual information from their walk, while the second, attempted to elicit new information through their photographs. This method is called photo-elicitation, a type of interview used in visual sociology (Clark-Ibáñez, 2004).

The participants' responses revealed that they were becoming more tuned to their environments during the activity. When asked how this activity made them feel, the participants express the qualities of being, relaxed and awake, attentive to their environment and conscious of their thoughts [see *Table 7*].

Freedom over Limits

I did not define limits of time and distance for this activity, which also meant that participants were free to decide how long or far they

Table 7. Prototype participants' responses on their feelings during the activity

Question Q1	How can we speak on behalf of these communities?§
Response P1	How policy be built bottom-up?
Response P2	How field stories can help be brought on the decision making table of climate policy?

would go. The first participant walked for approximately one hour, while the second, approximately 30 minutes. One participant decided to document and express their suggestions directly on the moment, while the other first took the photographs, and on a later time, used the annotation tools to show their point.

Insight

These learnings tell me that the expression of this concept through a mobile application will be advantageous in regards to engagement, but should also let people save their work and

come back, import visual media directly from their mobile phones. In this occasion, notifications can help the users to remember to complete their work.

Although, I communicated with the participants the greater theme of this project, urban heatwaves, I did not limit their field of view, and let them free to document literally any subject they found important. This approach generated several ideas [see table 7], which most can and should be affected by residents.

Learning

I will conclude that there is willingness for change and participation, but a lack of social infrastructure, to discuss and co-create local challenges.



Figure 23. Prototype Response, Participant P1

It is evident from the first participant (P1) reactions on the follow-up questions using the photo-elicitation method [see table #], that they have a vision for their neighbourhood, they have the willingness to contribute, and recognise that major changes in the city are hard to come by, due to the complexity in multi-stakeholder collaborations. These points show me that it is likely that involvement in the commons and public space co-creation is a hard choice to make, since it is easier to let those already responsible (eg. local authority, state) to deal with the design and development of those spaces.

Insights

Very interesting insights emerged from the follow-up questions with the second participant (P2), during the remote photo-elicitation interview. While the participant expressed a suggestion, and their willingness to participate to some extent [see table 9], they also added that they would

Table 8. Participant's (P1) responses using the photo-elicitation method (remote)

	Question	Response
1	Would you be willing to participate in the making of one of these suggestions/interventions if this was possible, and which one?	I think it requires help from many actors working together to reach the goal. I would like to participate in the initiative that aims to turn the main square into a park. [see Image 23]
2	You reimagined the main Delft square as a park. What do you mean the area divides?	As in it's not inviting enough to stay there, people just walk in and walk out. There's no sense of permanence in this main square. It should bring people together and not just work as a passerby's walkway.

like to see more flowers in their streets, and compared their area (suburbs of Delft) with the city centre. Their statement [see table 9] exposed how the participant is seeing their neighbourhood as less tended by the Delft Gemeente (local council), when compared with the city centre. The potential for residents to contribute here becomes greater in the parts of the city without significant attention.

Table 9. Participant's (P2) responses using the photo-elicitation method (remote)

	Question	Response
1	Would you be willing to participate in the making of one of these suggestions/interventions if this was possible, and which one?	Partly. I have noticed that there should be more traffic lights since the transportation there [a junction in Delft, where bike traffic intersect with car traffic, see image ##] is quite a mess. But I also had new finding and ideas during the walk. For instance, I came up the idea that there could be more flowers along the road.
2	You added flowers on this example as well as the one with the bird/play area, why do you want more flowers in the public space?	Well I think Delft has good relationship with the nature. And the Netherlands is famous for flowers. So I think it would be nice to strengthen this impression...and they did a great job in the city center, but they still need to do something for other areas in the city. Otherwise I just have the feeling like "is this area abandoned?"



Figure 24. Prototype Response, Participant P2

Table 10. Emerging themes from participants' visual media responses

	Themes	Participant
1	Recognise and reward socially and ecologically responsible local businesses	P1
2	Introduce art in public spaces	P1
3	Urban greening	P1, P2
4	Clean public spaces	P1, P2
5	Alternative tours of the city (eg. gratify tour)	P1
6	Rules for brand aesthetics for local businesses	P1
7	Make use of alternative material flows (recycling, upcycling) for the creation of unique public furniture	P1
8	Utilise unused spaces	P1
9	Highlight healthy options for eating	P1
10	More spaces for play	P2
11	Greater accessibility for all residents on street level	P1
12	Clear signage and sufficient information in changes taking place in the city	P2
13	Highlight prominently elements of local history and art	P1
14	Provide greater access to historical monuments	P1
15	Encouragement of closer relations among neighbours	P1

Conclusion

In hindsight, even though prototyping an experience is ambiguous, I am very excited with how it evolved and the learnings it helped me receive. The process of communicating with participants, surfaced the final form of the prototype. For every communication, I received the learnings, incorporated them, and amended my guidelines.

The process of bringing the concept in the public realm, did not only co-created the prototype, but gave it direction. The most significant element coming out of this phase was the association of the term mindful with the activity I had prescribed to the participants.

I also learned through the co-reflection sessions, that I was deeply involved with this concept, since I was asking the participants to perform activities, similar to my personal behaviour in public space. This concept is a deeply personal reflection of my wishes and desires for a world where we inhabit in harmony with each other and our environment.

There are some points to address if this project is to go a step further. Some of the interest in participating with my prototype was due to existing relations. I expect a more challenging process to pilot and scale this project, but perhaps a suggestion is to start with your immediate family, friends and neighbours. The people we care the most are going to respond, and hopefully start a virtuoso circle of passing on such behaviour to their loved ones.

If I were to start tomorrow working at the Red Cross on this project, I would start with triggering some reactions with internal communications (eg. newsletters, flyers), and direct recruitment of young volunteers. I would further prototype the service experience in a very low-fidelity manner, since designing and developing a mobile application is a significant investment. Frankly no one needs yet another app. I would use all these learnings to iterate and re-orient the project in a direction which makes more sense for the environment it lives in.

Chapter 6

Conclusion

It's important to mention again the limited nature of the field research due to the coronavirus restrictions. While the number of participants in the prototyping phase was low, the results are of great significance. I hope that the prototype can serve as an inspiration to the Red Cross for taking on this project further. Suggestions on the immediate next steps can be found in the conclusion of the last iteration.

In regards to the the design process, I must stress the challenging act of producing a brief from scratch, without a given problem by a client or a partnering organisation. This became an opportunity for me to project my personal concerns and aspirations for humanity. This meant that the entire process was led by my authentic way of researching, and designing.

Having to confront my identity as a designer was a significant leap forward, in order to achieve this outcome. I conclude that any vision-driven, meaning-changing design project will question a designer's identity once engaged in the process. Although this is challenging, it is significant for a meaningful outcome to be. A project like this one, requires one to take a stance, being neutral is not an option.

I hope that my extensive research on the designer identity can contribute to the discipline, and that it builds towards the required mindset and posture (Irwin et al., 2015), if design and designers are to address deeply complex social challenges.

Fry's (2003) words summarise very well the mindset, which I believe is needed for such work, "the task should be performed as labour of love, in the service of being".

I would have done many things differently if I had the chance to start all over again, but I would have certainly remained within the same subject and with the same team.

References

- 2020 Public Services Trust. (2010). *From social security to social productivity: a vision for 2020 public services* (Final report of the Commission on 2020 Public Services) Retrieved from Public Services Trust website: http://www.2020publicservicestrust.org/downloads/2_From_social_security_to_social_productivity.pdf
- American Red Cross. (2020) *Become a Volunteer*. <https://www.redcross.org/volunteer/become-a-volunteer.html>
- Baha, S. E., Dawdy, G., Sturkenboom, N., Price, R., & Snelders, D. (2018). *Good Design-Driven Innovation*. In C. Storni, K. Leahy, M. McMahon, P. Lloyd, & E. Bohemia (Eds.), *Proceedings of DRS 2018* (pp. 98-111). (Proceedings of DRS; Vol. 5). London: Design Research Society. <https://doi.org/10.21606/dma.2017.648>
- Baha, S. E., Koch, M., Sturkenboom, N., Price, R. A., & Snelders, H. M. J. J. (2020a). *Why Am I Studying Design*. DRS 2020. doi: 10.21606/drs.2020.386
- Baha, S. E., Lu, Y., Brombacher, A., & van Mensvoort, K. (2012). *Most Advanced Yet Acceptable, but don't forget*. DS 71: Proceedings of NordDesign 2012, the 9th NordDesign conference, Aarlborg University, Denmark. 22-24.08. 2012.
- Baha, S. E., Snelders, H. M. J. J., & Price, R. A. (2020). *Designers' Identity Work as a Foundation for Pluralism in Design*. Manuscript Submitted for publication to the Cumulus Roma Conference – Design Culture(s) (Cumulus Roma 2020), 16-19 June 2020, Sapienza University of Rome, Rome, Italy.
- Baek, J. S., Meroni, A., & Manzini, E. (2015). *A socio-technical approach to design for community resilience: A framework for analysis and design goal forming*. *Design Studies*, 40, 60-84. <https://doi.org/10.1016/j.destud.2015.06.004>
- Barriopedro, D., Fischer, E. M., Luterbacher, J., Trigo, R. M., & García-Herrera, R. (2011). *The Hot Summer of 2010: Redrawing the Temperature Record Map of Europe*. *Science*, 332(6026), 220-224.
- Berkes, F. (2002). *Cross-scale institutional linkages: perspectives from the bottom up*. In Ostrom, E., Dietz, T., Dolšák, N., Stern, C. P., Stonich, S., and Weber U. E. (Eds.), *The Drama of the Commons*. (pp. 293-321). The National Academies Press. <https://doi.org/doi:10.17226/10287>
- Bignante, E. (2010). *The use of photo-elicitation in field research. Exploring Maasai representations and use of natural resources*. *EchoGeo*(11), 1-20. <http://journals.openedition.org/echogeo/11622>
- Brand, S. (2018). *Pace Layering: How Complex Systems Learn and Keep Learning*. *Journal of Design and Science*. doi:10.21428/7f2e5fo8
- Care. (2020, August 17). In Cambridge Dictionary. <https://dictionary.cambridge.org/dictionary/english/care>
- Clark-Ibáñez, M. (2004). *Framing the Social World With Photo-Elicitation Interviews*. *American Behavioral Scientist*, 47(12), 1507-1527. <https://doi.org/10.1177/0002764204266236>
- Coffel, E. D., Horton, R. M., & de Sherbinin, A. (2017). *Temperature and humidity based projections of a rapid rise in global heat stress exposure during the 21st century*. *Environmental Research Letters*, 13(1), 014001. doi:10.1088/1748-9326/aaa00e

- Connor, R. (2020, March 31). *Antarctica experiences first known heat wave*. Deutsche Welle. Retrieved from <https://www.dw.com/en/antarctica-experiences-first-known-heat-wave/a-52963959>
- Conviviality. (2020b, August 17) In Cambridge Dictionary. <https://dictionary.cambridge.org/dictionary/english/conviviality>
- Cook, J., Oreskes, N., Doran, P. T., Anderegg, W. R. L., Verheggen, B., Maibach, E. W., Carlton, J. S., Lewandowsky, S., Skuce, A. G., Green, S. A., Nuccitelli, D., Jacobs, P., Richardson, M., Winkler, B., Painting, R., & Rice, K. (2016). *Consensus on consensus: a synthesis of consensus estimates on human-caused global warming*. *Environmental Research Letters*, 11(4), 048002. <https://doi.org/10.1088/1748-9326/11/4/048002>
- COVID-19 pandemic. (2020a, August 19). In Wikipedia. https://en.wikipedia.org/wiki/COVID-19_pandemic
- Cross, N. (2011). *Design thinking: Understanding how designers think and work*.
- D'Alisa, G., Demaria, F., & Kallis, G. (2014). *Degrowth: a vocabulary for a new era*. Routledge.
- D'Alisa, G., Deriu, M., & Demaria, F. (2015). Care. In D'Alisa G., Demaria F., and Kallis G. (Eds.), *Degrowth: A Vocabulary for a New Era*. (pp. 75-78). Routledge.
- Debord, G. (2008). *Introduction to a Critique of Urban Geography*. In Bauder H. and Engel-Di Mauro, S. (Eds.), *Critical geographies: A collection of readings*. (pp. 23-27). Praxis ePress.
- Deriu, M. (2015). *Conviviality*. In D'Alisa G., Demaria F., and Kallis G. (Eds.), *Degrowth: A Vocabulary for a New Era*. (pp. 75-78). Routledge.
- Direct Democracy. (2020, August 21). In Britannica. <https://www.britannica.com/topic/direct-democracy>
- Engen, V., Pickering, J. B., & Walland, P. (2016). *Machine Agency in Human-Machine Networks; Impacts and Trust Implications*. In M. Kurosu, *Human-Computer Interaction. Novel User Experiences Cham*. https://doi.org/10.1007/978-3-319-39513-5_9
- Field, C.B., V.R. Barros, K.J. Mach, M.D. Mastrandrea, M. van Aalst, W.N. Adger, D.J. Arent, J. Barnett, R. Betts, T.E. Bilir, J. Birkmann, J. Carmin, D.D. Chadee, A.J. Challinor, M. Chatterjee, W. Cramer, D.J. Davidson, Y.O. Estrada, J.-P. Gattuso, Y. Hijioka, O. Hoegh-Guldberg, H.Q. Huang, G.E. Insarov, R.N. Jones, R.S. Kovats, P. Romero-Lankao, J.N. Larsen, I.J. Losada, J.A. Marengo, R.F. McLean, L.O. Mearns, R. Mechler, J.F. Morton, I. Niang, T. Oki, J.M. Olwoch, M. Opondo, E.S. Poloczanska, H.-O. Pörtner, M.H. Redster, A. Reisinger, A. Revi, D.N. Schmidt, M.R. Shaw, W. Solecki, D.A. Stone, J.M.R. Stone, K.M. Strzepek, A.G. Suarez, P. Tschakert, R. Valentini, S. Vicuña, A. Villamizar, K.E. Vincent, R. Warren, L.L. White, T.J. Wilbanks, P.P. Wong, and G.W. Yohe, (2014) Technical summary. In Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (Eds.). *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press.
- George Floyd protests. (2020b, August 19) In Wikipedia. https://en.wikipedia.org/wiki/George_Floyd_protests
- Giannopoulou, K., Livada, I., Santamouris, M., Saliari, M., Assimakopoulos, M., & Caouris, Y. G. (2011). *On the characteristics of the summer urban heat island in Athens, Greece*. *Sustainable Cities and*

Society, 1(1), 16-28.

Government of the Netherlands. (2020). *Dutch vision on global climate action*. <https://www.government.nl/topics/climate-change/dutch-vision-on-global-climate-action>

Griffith, M., Leson, H., O'Donnell, I., Fernandez, L. & Dulloo, A. (2020). *Digital Volunteering Insights (IFRC Digital Consultations - Digital Volunteering Insights)*. IFRC. <https://media.ifrc.org/ifrc/wp-content/uploads/sites/5/2020/06/IFRC-Digital-Consultations-digital-volunteering-final.pdf>

Helfrich, S., & Bollier, D. (2015). *Commons*. In D'Alisa G., Demaria F., and Kallis G. (Eds.), *Degrowth: A Vocabulary for a New Era*. (pp. 75-78). Routledge.

Holierhoek, S. E., & Price, R. A. (2019). *The Role of Design in Policy Making*. Conference Proceedings of the Academy for Design Innovation Management, 2(1), 999–1012. <https://doi.org/10.33114/adim.2019.06.313>

Holling, C. S. (1973). *Resilience and Stability of Ecological Systems*. Annual Review of Ecology and Systematics, 4(1), 1-23. <https://doi.org/10.1146/annurev.es.04.110173.000245>

ICRC. (2020a). *Climate change and conflict*. <https://www.icrc.org/en/what-we-do/climate-change-conflict>

ICRC. (2020b). *Fundamental Principles*. <https://www.icrc.org/en/fundamental-principles>

ICRC. (2020c). *The Geneva Conventions and their Commentaries*. <https://www.icrc.org/en/war-and-law/treaties-customary-law/geneva-conventions>

IDEO.org. (2020, June 22). *Theory of Change - Design Kit* [Video]. Vimeo. <https://vimeo.com/431614951>

IFRC (2018). *Strategy 2030 - Platform for change: global reach, local action*. <https://future-rcrc.com/wp-content/uploads/2020/01/S2030-EN.pdf>

IFRC. (2020a). *Volunteers*. <https://media.ifrc.org/ifrc/what-we-do/volunteers/>

IFRC. (2020b). *Who we are*. <https://www.ifrc.org/en/who-we-are/>

International Federation of Red Cross and Red Crescent Societies (2020). *Ambitions to address the climate crisis International Red Cross Red Crescent Movement*. Retrieved from IFRC website: <https://media.ifrc.org/ifrc/wp-content/uploads/sites/5/2020/02/Movement-Climate-Ambitions-2020-final.pdf>

International Red Cross and Red Crescent Movement. (2020c, August 19). In Wikipedia. https://en.wikipedia.org/wiki/International_Red_Cross_and_Red_Crescent_Movement

Irfan, U. (2019, November 4). *The United States has filed the official paperwork to withdraw from the Paris Climate Agreement*. Vox. Retrieved from <https://www.vox.com/energy-and-environment/2019/11/4/20948612/paris-climate-agreement-withdrawal-trump-exit>

Irwin, T., Kossoff, G., & Tonkinwise, C. (2015). *Transition Design Provocation*. Design Philosophy Papers, 13(1), 3-11.

John Feldman. (2017, March). *Symbiotic Earth: How Lynn Margulis rocked the boat and started a scientific revolution* (2017) [Video]. Hummingbird Films. <https://hummingbirdfilms.com/symbioticearth/>

- Keohane, R. O., & Victor, D. G. (2016). *Cooperation and discord in global climate policy*. *Nature Climate Change*, 6(6), 570-575.
- Knabb, K (1958). *Situationist international texts: Definitions*. Situationist International Online. <https://www.cddc.vt.edu/sionline/si/definitions.html>
- Koolhaas, R. (2020). *Countryside A Report* (1st ed.). Taschen.
- Learning Loop (2020). *High Hurdle*. <http://learningloop.io/plays/high-hurdle>
- Lelieveld, J., Proestos, Y., Hadjinicolaou, P., Tanarhte, M., Tyrlis, E., & Zittis, G. (2016). *Strongly increasing heat extremes in the Middle East and North Africa (MENA) in the 21st century*. *Climatic Change*, 137(1-2), 245-260.
- Mabey, R., & Sinclair, I. (1973). *The unofficial countryside*. Collins London.
- Magra, I., Peltier, E., Méheut, C. (2019, July 25). *A Heat Wave Bakes Europe, Where Air-Conditioning Is Scarce*. The New York Times. Retrieved from <https://www.nytimes.com/2019/07/25/world/europe/heatwave-record-temperatures.html>
- Mannay, D. (2013). 'Who put that on there ... why why why?' *Power games and participatory techniques of visual data production*. *Visual Studies*, 28(2), 136-146. <https://doi.org/10.1080/1472586X.2013.801635>
- Manzini, E. (2015). *Design, when everybody designs: An introduction to design for social innovation*. MIT press.
- Margolin, V., & Manzini, E. (2017). *Democracy and Design Platform*.
- Mark, G., Lyytinen, K., & Bergman, M. (2007). *Boundary objects in design: An ecological view of design artifacts*. *Journal of the Association for Information Systems*, 8(11), 34. <https://doi.org/10.17705/ijais.00144>
- McLuhan, M., Fiore, Q., & Agel, J. (1968). *War and peace in the global village* (Vol. 127). Bantam Books New York.
- Morton, T. (2013). *Hyperobjects: Philosophy and Ecology after the End of the World*. U of Minnesota Press.
- Norris, E. & McLean, S. (2011). *The civic commons: A model for social action* (RSA Projects) Retrieved from RSA website: <https://www.thersa.org/globalassets/pdfs/blogs/rsa-civic-commons-final.pdf>
- Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). *Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness*. *American Journal of Community Psychology*, 41(1-2), 127-150.
- Nyberg, M., Sapsford Newman, C., & Westerberg, P. (2019). *Mixed reality for public participation in urban and public space design. Towards a new way of crowdsourcing more inclusive smart cities*. United Nations Human Settlements Programme (UN-Habitat). https://unhabitat.org/sites/default/files/2019/06/mixed_reality_2019_o.pdf
- O'Brien, E., & Gowan, R. (2012). *What makes international agreements work: defining factors for success*. (Research reports and studies). Retrieved from ODI website: <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7839.pdf>

- Parko Navarinou. (2020a). *Parko After* [Photograph]. https://parkingparko.espivblogs.net/files/2011/02/parko_12_05_0111.jpg
- Parko Navarinou. (2020b). *Parko Design Sketch* [Photograph]. <https://parkingparko.espivblogs.net/files/2018/11/%CE%B9%CE%BC%CE%B3.jpg>
- Parko Navarinou. (2020). *Parko Navarinou: A brief history*. <https://parkingparko.espivblogs.net/english/parko-navarinou-a-brief-history/>
- Participatory City. (2020). *People working together in a garden* [Photograph]. https://images.squarespace-cdn.com/content/v1/55cdc310e4boff3ccdc21c1c/1540043548702-MVLVW-88GRL5UWNMU2IGN/ke17ZwdGBTo dd18pDm48kK6oW-ob1oA2Fm-j4E_9NQB7gQa3H-78H3Yotxjaiv_ofDoOvxcdMmMKkDsyUqMSsMWxHk725yiiHCCLfrh8O1z4YTzHvnKhyp-6Da-NYroOW3ZGjoBKyzazqku8oC789lokD6Ec8Uq9YczfrzwR7e2Mh5VMMOxnTbph8FXiclivDQnof69TlCeEorAhj6HUpXkw/IMG_2026.jpg
- PreventionWeb. (2010, August 11). *WMO: Unprecedented sequence of extreme weather events*. [Web log post]. Retrieved from <https://www.preventionweb.net/news/view/14970>
- Pyrgou, A., & Santamouris, M. (2018). *Increasing probability of heat-related mortality in a Mediterranean city due to urban warming*. *International journal of environmental research and public health*, 15(8), 1571.
- Roberts, D. (2016, May 26). *The argument for incrementalism in international climate negotiations*. *Vox*. Retrieved from <https://www.vox.com/2016/5/26/11766252/international-climate-incrementalism>
- Roberts, D. (2019, November 5). *The Paris climate agreement is at risk of falling apart in the 2020s*. *Vox*. Retrieved from <https://www.vox.com/energy-and-environment/2019/11/5/20947289/paris-climate-agreement-2020s-breakdown-trump>
- Robine, J.-M., Cheung, S. L. K., Le Roy, S., Van Oyen, H., Griffiths, C., Michel, J.-P., & Herrmann, F. R. (2008). *Death toll exceeded 70,000 in Europe during the summer of 2003*. *Comptes Rendus Biologies*, 331(2), 171-178.
- Robinson, P. J. (2001). *On the Definition of a Heat Wave*. *Journal of Applied Meteorology*, 40(4), 762-775. [https://doi.org/10.1175/1520-0450\(2001\)040<0762:Otdoah>2.0.Co;2](https://doi.org/10.1175/1520-0450(2001)040<0762:Otdoah>2.0.Co;2)
- Rowlatt, J. (2020, June 22). *Arctic Circle sees 'highest-ever' recorded temperatures*. BBC. Retrieved from <https://www.bbc.com/news/science-environment-53140069>
- Sachs, N. M. (2019). *The Paris Agreement in the 2020s: Breakdown or Breakup*. *Ecology Law Quarterly*, 46(1), 865-909. <https://ssrn.com/abstract=3463892>
- Santamouris, M. (2001). *Energy and climate in the urban built environment*. James and James Science Publishers.
- Santamouris, M. (2013). *Using cool pavements as a mitigation strategy to fight urban heat island—A review of the actual developments*. *Renewable and Sustainable Energy Reviews*, 26, 224-240. <https://doi.org/10.1016/j.rser.2013.05.047>
- Schultz, T. (2018). *Mapping Indigenous Futures: Decolonising Techno-Colonising Designs*. *Strategic Design Research Journal*, 11(2), 79-91. <https://doi.org/10.4013/sdrj.2018.112.04>

- Sharifi, A. (2019a). *Resilient urban forms: A macro-scale analysis*. *Cities*, 85, 1-14. <https://doi.org/10.1016/j.cities.2018.11.023>
- Sharifi, A. (2019b). *Resilient urban forms: A review of literature on streets and street networks*. *Building and Environment*, 147, 171-187. <https://doi.org/10.1016/j.buildenv.2018.09.040>
- Sharifi, A. (2019c). *Urban form resilience: A meso-scale analysis*. *Cities*, 93, 238-252. <https://doi.org/10.1016/j.cities.2019.05.010>
- Sherwood, S. C., & Huber, M. (2010). *An adaptability limit to climate change due to heat stress*. *Proceedings of the National Academy of Sciences*, 107(21), 9552-9555. <https://doi.org/10.1073/pnas.0913352107>
- Simeone, L. (2020). *Characterizing Strategic Design Processes in Relation to Definitions of Strategy from Military, Business and Management Studies*. *The Design Journal*, 23(4), 515-534. <https://doi.org/10.1080/14606925.2020.1758472>
- Singh, R., Arrighi, J., Jjemba, E., Strachan, K., Spires, M., Kadihasanoglu, A. (2019). *Heatwave Guide for Cities*. Retrieved from Red Cross Red Crescent Climate Centre website: <https://www.climate-centre.org/downloads/files/IFRCGeneva/RCCC%20Heatwave%20Guide%202019%20A4%20RR%20ONLINE%20copy.pdf>
- Star, S. L., & Griesemer, J. R. (1989). *Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology*, 1907-39. *Social Studies of Science*, 19(3), 387-420. <https://doi.org/10.1177/03063128901900300>
- States of Change Learning Festival. (2020, June 1). *How Indigenous thinking can change the world with Tyson Yunkaporta* [Video]. YouTube. <https://www.youtube.com/watch?v=nBc-p2H2T2Q>
- Stott, P. A., Stone, D. A., & Allen, M. R. (2004). *Human contribution to the European heatwave of 2003*. *Nature*, 432(7017), 610-614. <https://doi.org/10.1038/nature03089>
- Smil, V. (2019). *Growth* (1st ed.). MIT Press.
- The Omidyar Group. (2016, July 13). *Why use a systems practice?* [Video]. Vimeo. <https://vimeo.com/174541762>
- TNA. (2012). *Disaster Resilience: A National Imperative*. The National Academies Press. <https://doi.org/doi:10.17226/13457>
- Verganti, R. (2017). *Overcrowded: designing meaningful products in a world awash with ideas*. MIT Press.
- Voluntarism (action). (2020d, March 26). In Wikipedia. [https://en.wikipedia.org/wiki/Voluntarism_\(action\)](https://en.wikipedia.org/wiki/Voluntarism_(action))
- Volunteering. (2020e, August 2). In Wikipedia. <https://en.wikipedia.org/wiki/Volunteering>
- Wallace-Wells, D. (2017, July 14). *The Uninhabitable Earth* (Annotated Edition). The New York Magazine. Retrieved from <https://nymag.com/intelligencer/2017/07/climate-change-earth-too-hot-for-humans-annotated.html>.
- Wallace-Wells, D. (2019). *The uninhabitable earth: A story of the future*. UK: Penguin.
- Watts, J. (2020, April 27). *Meteorologists say 2020 on course to be hottest year since records began*. The Guard-

ian. Retrieved from <https://www.theguardian.com/environment/2020/apr/27/meteorologists-say-2020-on-course-to-be-hottest-year-since-records-began>

World Health Organisation (2020). *WHO Coronavirus Disease (COVID-19) Dashboard*. Retrieved June 29, 2020, from <https://covid19.who.int/>

IDE Master Graduation

Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

! USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT

Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME

Save this form according to the format "IDE Master Graduation Project Brief_familyname_firstname_studentnumber_dd-mm-yyyy". Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1 !

family name	<u>Kesisoglou</u>	Your master programme (only select the options that apply to you):
initials	<u>I</u> given name <u>losif</u>	IDE master(s): <input type="radio"/> IPD <input type="radio"/> Dfl <input checked="" type="radio"/> SPD
student number	<u>4937600</u>	2 nd non-IDE master: _____
street & no.	_____	individual programme: <u>- -</u> (give date of approval)
zipcode & city	_____	honours programme: <input type="radio"/> Honours Programme Master
country	_____	specialisation / annotation: <input type="radio"/> Medisign
phone	_____	<input type="radio"/> Tech. in Sustainable Design
email	_____	<input type="radio"/> Entrepreneurship

SUPERVISORY TEAM **

Fill in the required data for the supervisory team members. Please check the instructions on the right !

** chair	<u>Price, R.A.</u>	dept. / section: <u>PIM/MCR</u>
** mentor	<u>Baha, S.E.</u>	dept. / section: <u>PIM/MOD</u>
2 nd mentor	<u>Michel Becks, Humanitarian Innovation Lead</u>	
	organisation: <u>Netherlands Red Cross</u>	
	city: <u>Den Haag</u>	country: <u>Netherlands</u>

comments (optional)
I have had the chance to be mentored by Ehsan Baha before, and I believe him to be the most suitable match for my graduation team, for his academic and philosophical rigour & his commitment to one's individual's excellence.

Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v..

- ! Second mentor only applies in case the assignment is hosted by an external organisation.

- ! Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.

APPROVAL PROJECT BRIEF

To be filled in by the chair of the supervisory team.

chair Price, R.A. date 06 - 04 - 2020 signature _____

CHECK STUDY PROGRESS

To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair. The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total: _____ EC

Of which, taking the conditional requirements into account, can be part of the exam programme _____ EC

List of electives obtained before the third semester without approval of the BoE

YES all 1st year master courses passed

NO missing 1st year master courses are:

name _____ date ____ - ____ - ____ signature _____

FORMAL APPROVAL GRADUATION PROJECT

To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked **. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks ?
- Does the composition of the supervisory team comply with the regulations and fit the assignment ?

Content: **APPROVED** **NOT APPROVED**

Procedure: **APPROVED** **NOT APPROVED**

comments

name _____ date ____ - ____ - ____ signature _____

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30 Page 2 of 7
 Initials & Name J Kesisoglou Student number 4937600
 Title of Project Co-creating climate change adaptation policy through design strategies

Co-creating climate change adaptation policy through design strategies project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date 30 - 03 - 2020 14 - 08 - 2020 end date

INTRODUCTION **

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

There is an increasing consensus emerging from empirical data and observations that the climate is changing, already affecting many communities and the ecosystems relying upon, in different ways and magnitudes [1]. For some this is a signal of the necessity of cultural and economic change, while for others reigns denialism [2]. For decades, the world witnessed the inability of nation-states to address meaningfully the climate crisis [3]. For international climate policy and action to be effective consensus is only the beginning. Most importantly it must be adaptive, and therefore equitable for local cultures, economies and ecosystems.

Situated amid this new and heavily politicised debate [4] for the protection and flourishing of livelihoods on the one hand, or the preservation of the status quo on the other [5], we are in urgent need for institutions capable to address the challenges ahead of us [3].

The Red Cross* is one of the oldest humanitarian organisations, founded in 1863 in the backdrop of wars between the great powers of the European continent, with the intention of helping victims of those wars. Ever since, they have played a significant role in fostering humanitarian laws and practices for the aid of those in need, either natural or human-induced disasters [6]. The Red Cross has already been acknowledging the significance of addressing climate change, manifested through (a) the operation of the Climate Centre [with whom this project will also collaborate], (b) global campaigns on climate action, (c) publication of practical guides, (d) roundtable discussions on the impacts of climate change, (e) peer-reviewed academic research, as well as (f) their ambition to address the climate crisis, while aiming to be a more proactive organisation.

The Red Cross Netherlands has already initiated a collaboration with the Faculty of Industrial Design Engineering at TU Delft, through a series of design briefs with master's students and several graduation opportunities in order to explore the value of strategic design on humanitarian challenges. This project aims at complementing this effort by exploring the impacts of climate change and more specifically the urban heatwaves, which are directly within the interest of the Red Cross. By focusing on how policy is designed and implemented internationally, nationally and locally, this project aims to bring the unique values of the Red Cross on the policy arena, envisioning more equitable climate change adaptation policies for all. This can be achieved by a design strategy and hopefully manifested through the concept being detailed at the Assignment section.

[1] IPCC, 2018: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty

[2] Latour, B. (2018). Down to Earth: Politics in the new climatic regime. John Wiley & Sons.

[3] Nick Mabey (24 Sept. 2019.). After failure in New York, we must reshape the politics of climate change. Climate Home News. Retrieved from

<https://www.climatechangenews.com/2019/09/24/failure-new-york-must-remake-politics-climate-change/>

[4] Popovich, N., Op-ed (20 Feb. 2020.). Climate Change Rises as a Public Priority. But It's More Partisan Than Ever.

[nytimes.com](https://www.nytimes.com/interactive/2020/02/20/climate/climate-change-polls.html). Retrieved from <https://www.nytimes.com/interactive/2020/02/20/climate/climate-change-polls.html>

[5] Jackson, T. (2009). Prosperity without growth?: The transition to a sustainable economy.

[6] History of ICRC. Retrieved from <https://www.icrc.org/en/who-we-are/history>

space available for images / figures on next page

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30

Page 3 of 7

Initials & Name J Kesisoglou Student number 4937600

Title of Project Co-creating climate change adaptation policy through design strategies

introduction (continued): space for images

Strategic Stakeholders

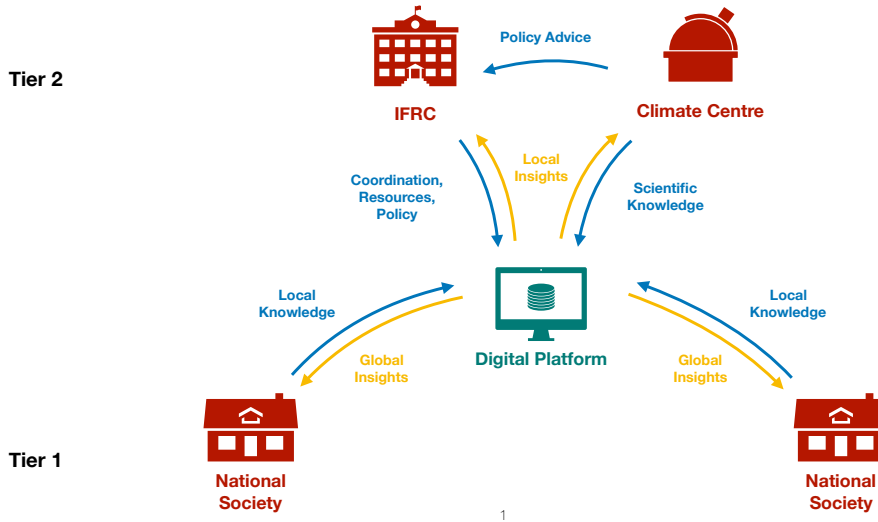


image / figure 1: strategic stakeholder diagram for digital platform concept, see Assignment

Strategic Stakeholders (inc. Government and the people)



image / figure 2: extended strategic stakeholder diagram for digital platform concept, see Assignment

PROBLEM DEFINITION **

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

The Red Cross thinks and operates based on their seven fundamental principles (humanity, impartiality, neutrality, independence, voluntary service, unity, universality) [1]. Traditionally, the National Societies comprising the Movement perform crisis response work.

The main problem at this point, is that climate change policy is written very far from the people that it affects. This project will address this problem through organisational innovation within the Red Cross, an organisation with the potential to influence policy impartially.

In light of their ambition to become proactive, this project proposes a vision where each National Society's unique position they operate from, are enabled to become an advocate for their community, in regards to the local impacts caused by climate change.

[1] <https://www.icrc.org/en/document/fundamental-principles-red-cross-and-red-crescent>

ASSIGNMENT **

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

This project will design a vision and strategy to enable the International Red Cross and Red Crescent Movement to influence international climate policy informed by local knowledge and practices, via leveraging the position and experiences of the volunteers and employees from the National Societies.

In order to achieve this strategy a digital platform for collecting, organising, analysing and sharing local knowledge from National Societies, in order to exchange best practices among them and enrich policy adaptation in a manner adhering to the seven fundamental principles.

The digital platform will allow for National Societies to share insights on the following matters; community traditions & cultural dispositions, bioregional wisdom [1], previous responses to crises, key local stakeholders and the performance of current and previous policy outcomes. The platform will be a common resource under the coordination of the International Federation of Red Cross and Red Crescent Societies (IFRC), which already has such a role, while contributing members will be all National Societies. Similarly to open innovation platforms [2], this platform will seek to inspire peers by sharing best practices and stories from the field.

The main focus of this platform will be on knowledge sharing for urban heatwaves since it's the domain in question, while recommendations and a roadmap will be drafted in order to illustrate the scaling of the platform across all National Societies and types of disasters. An analysis of current climate change adaptation policies, their key stakeholders and driving factors is going to form the basis for the research phase. Furthermore, research of the Red Cross organisational relations is significant, before embarking on designing the digital platform.

References: [1] Thackara, J. (2019). Bioregioning: Pathways to Urban-Rural Reconnection. *She Ji*, 5(1), 15–28. <https://doi.org/10.1016/j.sheji.2019.01.002> [2] IDEO's Open Innovation platform, <https://www.openideo.com>

PLANNING AND APPROACH **

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date 30 - 3 - 2020 14 - 8 - 2020 end date

	Feb	March					April					May					June					July					Aug				
Week Date Start	24/2	2/3	9/3	16/3	23/3	30/3	6/4	13/4	20/4	27/4	4/5	11/5	18/5	25/5	1/6	8/6	15/6	22/6	29/6	6/7	13/7	20/7	27/7	3/8	10/8						
Week Date End	28/2	6/3	13/3	20/3	27/3	3/4	10/4	17/4	24/4	1/5	8/5	15/5	22/5	29/5	5/6	12/6	19/6	26/6	3/7	10/7	17/7	24/7	31/7	7/8	14/8						
Calendar Week	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33						
Project Week	0.1	0.2	0.3	0.4	0.5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20						
Project Phases						Kick-off				1st Quarter			Midterm							3rd Quarter	Green Light				Graduation						
Project Activities	Explore Domain, Compose Team & Brief					Discover					Define					Develop					Deliver					Wrap-up Academic Deliverables					
Red Cross Context Research																															
Climate Change Context Research																															
Expert Interviews/Insight Collection																															
Highlight Themes/Opportunities																															
Strategic Stakeholder Co-creation																															
Solution: Iterative Cycle and Delivery																															
Prepare for Evaluation/Deliverables																															
Meetings: Supervisory Team/Mentor	25/2	3/3	11/3	18/3	25/3	30/3	8/4	15/4	22/4	28/4	6/5	13/5	22/5	27/5	3/6	10/6	17/6	24/6	1/7	7/7	13/7	22/7	29/7	5/8	12/8						
Meetings: Supervisory Team/Chair	25/2	3/3		18/3		30/3				28/4			22/5							8/7	13/7										
Meetings: Third Party/2nd Mentor	25/2					30/3				28/4			22/5							7/7	13/7										

The project will run without any planned breaks, excluding of course the possible delays of the research phase due to the current epidemic crisis. All mandatory meetings have been scheduled (see Gantt chart).

This project is taking a vision-driven innovation approach, where the vision of equitable policies for all, and the strategic position and of the Red Cross, critically define the outcome, meaning the concept to be designed. Essentially, the innovation process is addressing the existing organisational structure and how it can be reconfigured, mostly with existing resources, to create social and ecological value in an impartial and neutral manner. Furthermore, it aims to introduce to the world a new form of agency in the climate policy debate from an actor (Red Cross) who is trusted and respected by all nations.

The participation of all strategic stakeholders (see diagram) is critical for designing a desirable, feasible and viable outcome. The current situation might limit the level of participatory design, primarily in person meetings, interviews and workshops, nonetheless it will remain a core design principle. A validation of the concept will be undertaken from early on in the design process, in order to allow room for changes.

MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge on a specific subject, broadening your competences or experimenting with a specific tool and/or methodology, Stick to no more than five ambitions.

It is within my ambition to depart the Faculty of Industrial Design Engineering with the most holistic understanding of the potential of design in society. Following the SPD main programme, I attended the master's of strategy trip in Stockholm followed by an internship at the internal startup incubator of Ericsson. Upon my return, I had the chance to be a facilitator at a technology transfer workshop organised by ESA and Rotterdam School of Management. During the last semester I have been working part-time as a researcher in a technology innovation consultancy and choose electives that cover the startup creation process, supply chain innovation, service design and a bio-inspired design/engineering course. All of the aforementioned opportunities helped frame the contemporary practice of design and its value.

Many organisations have short perspectives, especially when it comes to creating inclusive visions for the future of humanity. Thus, it became paramount that I satisfy my passion for long-term thinking and designing within the environmental crisis, by contributing to the ambition of the Red Cross.

Thus, in my capacity as a designer, I would like to explore the greater social and ecological benefits that my actions can produce, actions and provisions which cannot be facilitated by one organisation alone, especially when inherently engaged in market competition, and infinite growth as *raison d'être*. The vision I am wishing to see for our cultures does not yet exist, on the contrary it will be co-created with many actors.

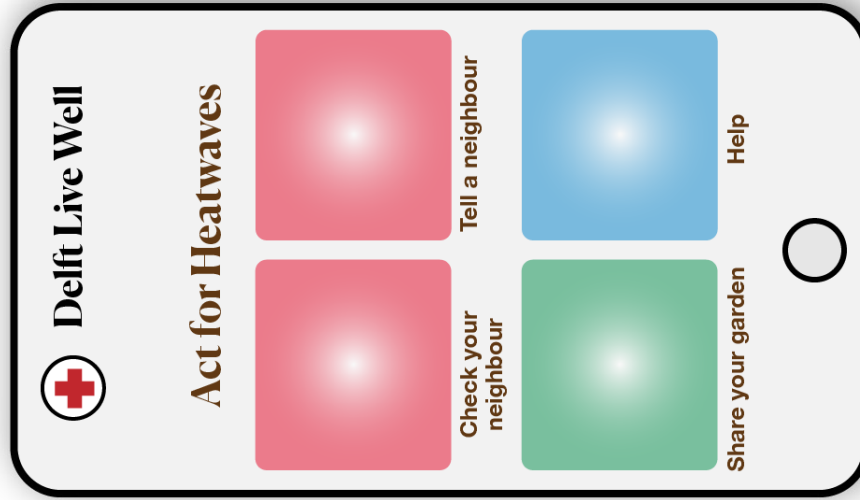
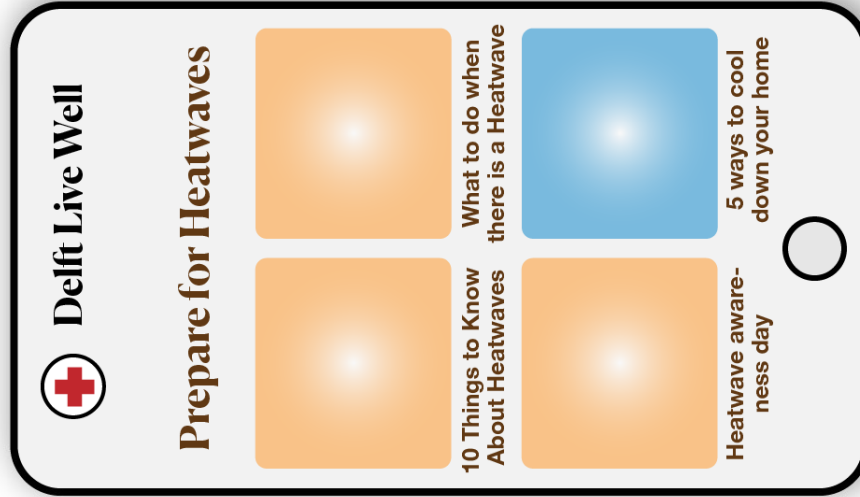
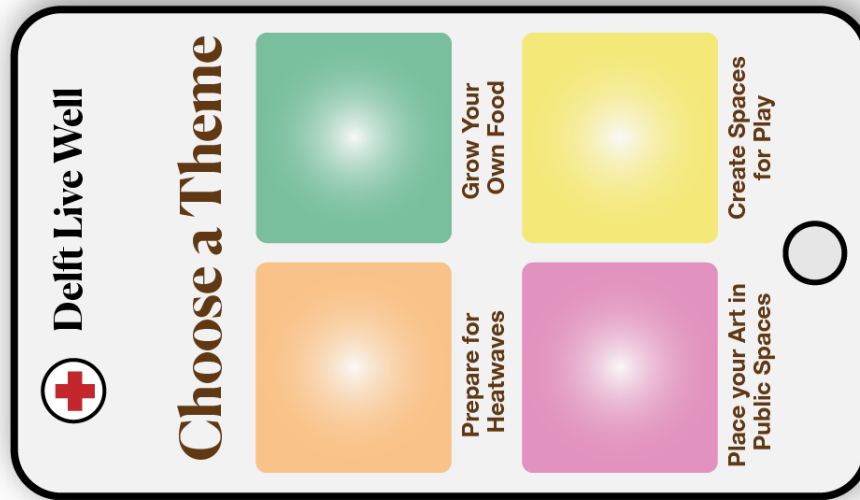
Therefore, working with the Red Cross, an organisation with international recognition and positive impact on the lives of millions of people, is a great place to start understanding the stories of those marginalised, while designing for a future, which will undeniably impact everyone on our planet.


Through this project I aim to practice in depth, historical analysis, vision creation, reframing narratives while also working on the very complex nature of global issues such as climate change, and actual strategies for addressing those issues collaboratively.

FINAL COMMENTS





In case your project brief needs final comments, please add any information you think is relevant.


Due to the epidemic, resources and access are already more restricted from the Red Cross side, since this project's mentor is part of the national response team for the Netherlands and most of their colleagues are busy mitigating this global crisis.




 **Delft Live Well**





Act for the Community


	
Write a letter to the Gemeente	Organise an greening evaluation walk
	
Propose ideas for unused spaces	Award the best local business



 **Delft Live Well**

Act for the Community

	
Monthly Material Upcycling Day	Contribute to path for accessibility
	
Propose ideas for unused spaces	History Highlight of the month



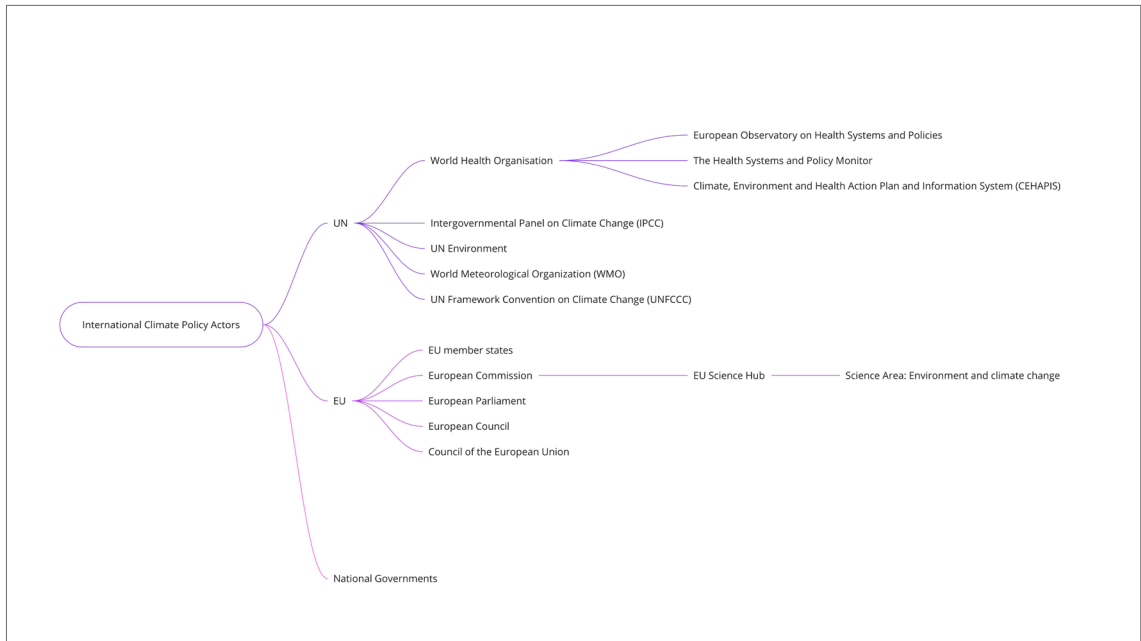


Figure R1. International Climate Actors Mindmap

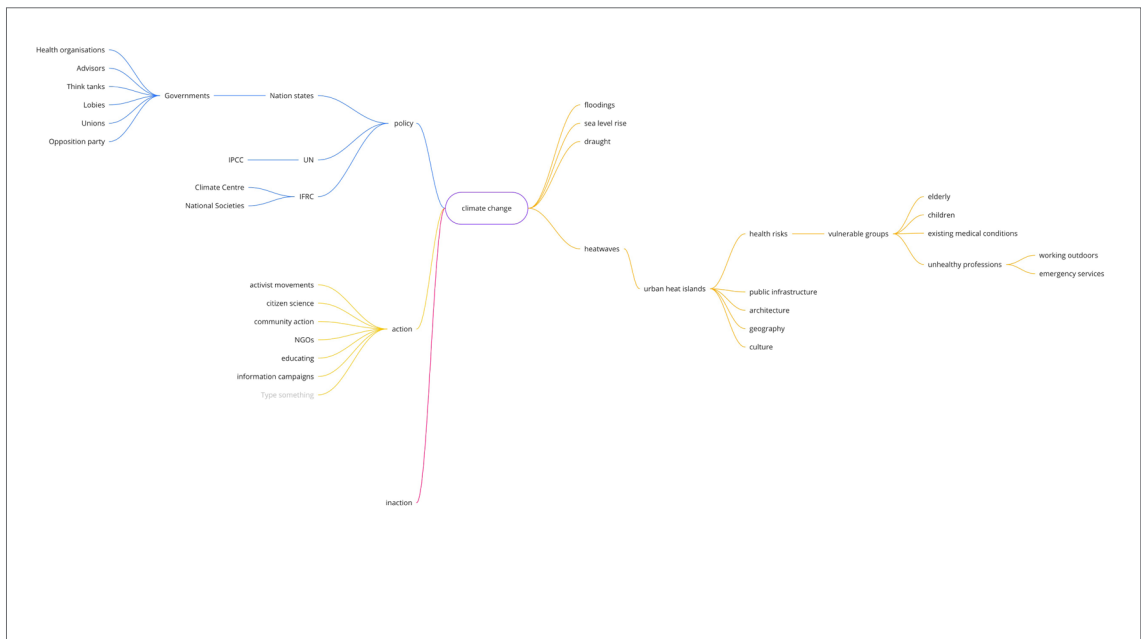
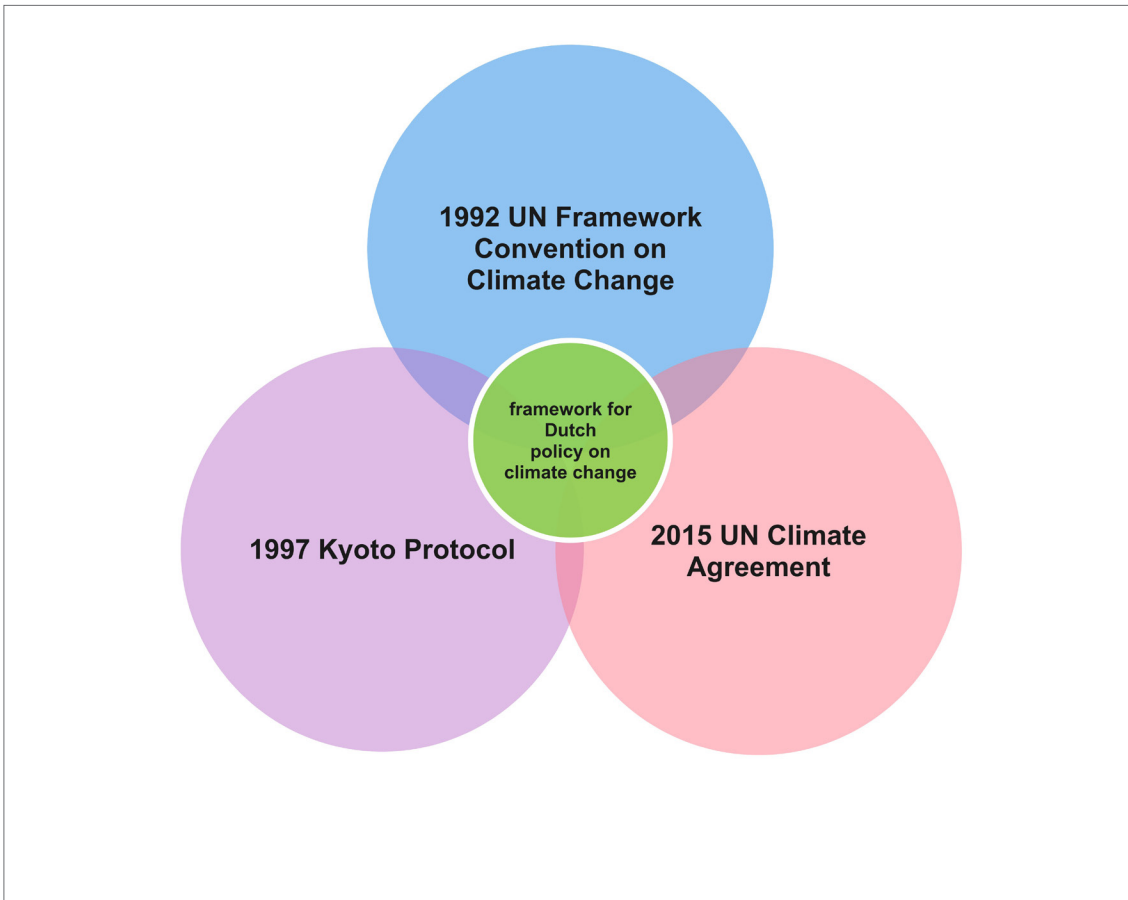


Figure R2. Climate Change Mindmap



*Figure R7. Visual created based on Dutch vision on global climate action
(Government of the Netherlands, 2020)*

Scenarios & Storyboards

Maria, 32
Scenario 1 (2nd iteration)
Observations
Storyboard



Maria, 32

- Lives and works in Geneva, Switzerland
- She likes travelling
- Leads a healthy and simple lifestyle
- She is self-sufficient, doesn't like to consume unnecessarily
- She is taking her first holiday after 6 months
- The lockdown has affected her and needs a break
- She is visiting Delft early July 2020 for a short holiday
- She stays with friends in Rotterdam, but she is visiting Delft alone for a day trip, while her friends are at work

Scenario 1 (2nd iteration)

Context

Maria is taking her first **holiday** since December 2019. The **lockdown** [1] in Switzerland kept her home for a good 3 months. Maria has decided to take a short trip

Observations

1. The story is talking place during the coronavirus epidemic.

Figure R8a. Scenario with Maria, a tourist visiting Delft in the midst of a heatwave during the pandemic

to the Netherlands to see her good friends for a long weekend early in July 2020.

Her friends are working as usual, from home, and she decides to take a day trip to Delft to enjoy some more traditional architecture of the Netherlands.

Frame 1

Knowing from **last year's warm summer** [2], she's talking all the precautions she knows of, before walking out for a full day of **historical exploration of the old city of Delft** [3]. She carries a bag with all the **essentials** [4], sunscreen, sunglasses, a hat, a bottle of water, and some healthy snacks for the day (mostly fruits and nuts to avoid them going bad from the heat).

Frame 2

Maria walked from the train station to the centre of the old city, and toured around to famous architectural highlights. Already a few hours in her exploration around Delft, **she is running low on water** [5]. The day is unusually warm, which meant she had to hydrate often. It's afternoon around 13:30, the sun is at the highest point, reaching a **high temperature**.

Frame 3

Maria is soon without water. Knowing from back home, where there are public water fountains in every city at several points, the first thing she does is to look for them around the city. **Maria could not locate any water fountains** [6]. Normally she would have walked into a cafe and use the toilet to refill her bottle, but now, during the **coronavirus, walking into a cafe or restaurant is lot more complicated** [7], sometimes requiring waiting queues, signing documents, sanitising your hands. She also wants to avoid walking

2. Last year there was an intense heatwave across Europe.

3. Closer framing of Maria's activities

4. Maria is familiar with travelling, she know to a degree how to protect herself from intense heat

5. **PROBLEM:** Hydration is key to avoid any health related issues from a heatwave.

6. **PROBLEM:** She can't find **where** to refill her water bottle. (Her expectations are not met)

7. The coronavirus limits her options. The health policies applied by local business makes access harder for amenities such as toilets and water.

8. **PROPOSAL:** A cool area to rest away from the intense heat is a necessity

Figure R8b. Scenario with Maria, a tourist visiting Delft in the midst of a heatwave during the pandemic

into any cafe to reduce her contact with other tourists and staff, in order to stay away from risk of infection.

As if that's not already an issue, she is getting a little hungry and all **she wants is to sit somewhere cool, under the shadow of some tree and enjoy her lunch** [8], reflect on the day, perhaps read a little about the history of Delft on her tablet.

Frame 4

The fact that she is **not willing to sit somewhere to pay or water and lunch** [9, 10], and that there are not many places to cool down in the city, stresses her body under the warm sun.

for tourists during the summer.

9. **PRINCIPLE:** There should be options which address all people, regardless of their economic status and lifestyle.
10. **PRINCIPLE:** Access to goods such as toilet and water are essential for tourists.

Storyboard

 Scenario 1 (first iteration, photos)

https://miro.com/app/board/o9J_kuXpbe8=?moveToWidget=3074457348525530938&cot=13

Figure R8c. Scenario with Maria, a tourist visiting Delft in the midst of a heatwave during the pandemic



Figure R8d. Scenario with Maria, a tourist visiting Delft in the midst of a heatwave during the pandemic

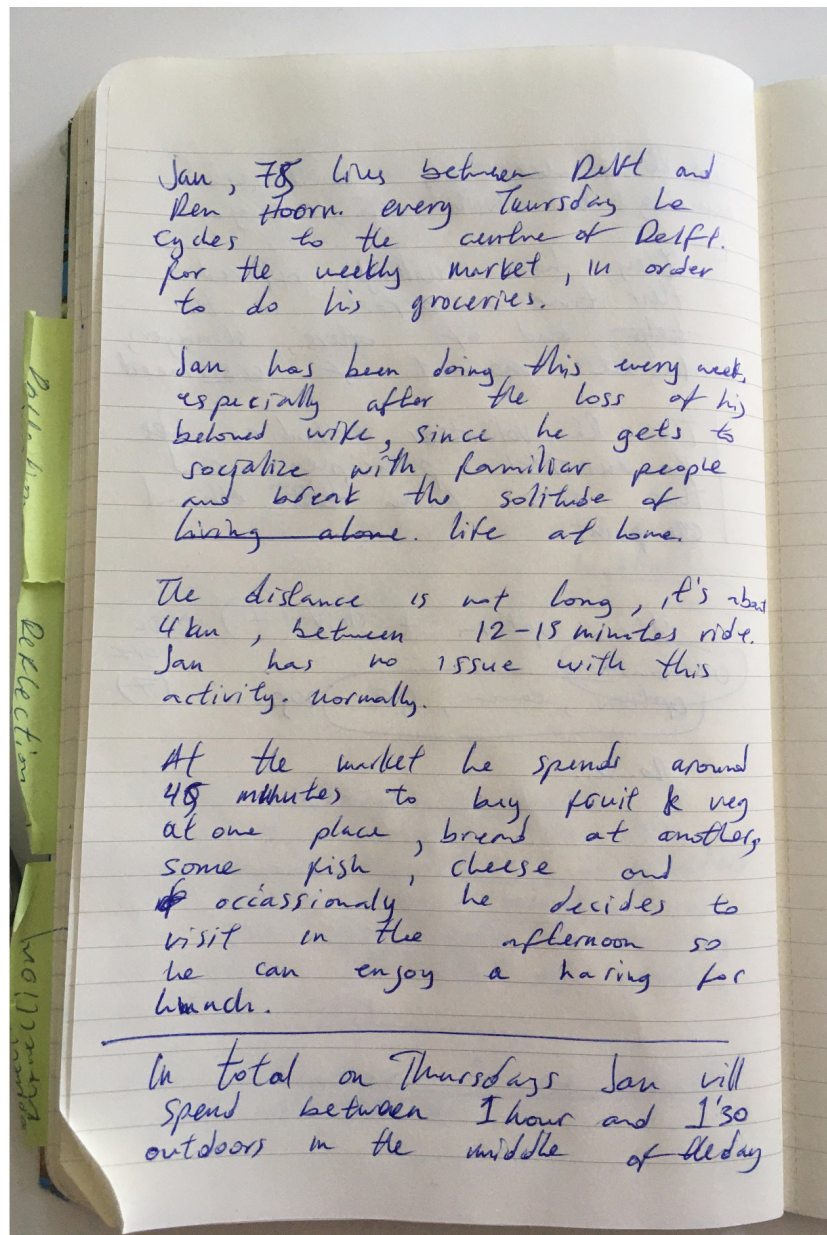


Figure R9a. Evolution of a scenario (v1)

Jan, 75, lives between in Den Hoorn and every Thursday morning he cycles to Delft centre for his weekly market groceries. He likes to do as much of his groceries there instead of the supermarket.

Jan has been doing this every week, especially after the loss of his beloved wife, in order to socialise with familiar people and break the solitude of life at home.

The distance is not long, it's about 4 km each way, around 30 minutes of cycling back and forth. He has no issue with this activity. Jan is not an athlete, but has been cycling ever since he was a child.

At the market he usually spends around 45 minutes to buy his groceries from all different kiosks. Fruit and vegetable from one place, bread from another, cheese and fish too.

He occasionally visits the market in the afternoon, in order to lunch there. He loves the haring and maybe some fries but not that often.

In total Jan will spend between 1 hour and th 30 min every Thursday outdoors, during the morning and afternoon.



Figure R9b. Evolution of a scenario (v2)

Last summer, in July 2019, Jan noticed that during the extremely warm week, that he had been more exhausted during the trips outdoors for groceries, especially when cycling to the Delft market on Thursdays and Saturdays.

Saturdays can be hectic, due to the added traffic from tourists and neighbouring visitors to the famous markets of Delft. This means that a visit for groceries and flowers can take an additional 30-45 minutes. Adding to the traffic the new coronavirus measures, and everyone is left standing longer under the sun.

He doesn't usually drink a lot of water during the day, and enjoys several cups of coffee. He realised he was thirsty very often during that week, also while being at the market.

Besides the exposure to intense sun during his afternoon visit, he also cycles to and from Delft completely exposed to the sun.

extended queues due to weekend traffic

extended queues due to coronavirus measures

Lack of water taps at the market

Lack of shadow at the market

Lack of shadow during his cycling

Figure R9c. Evolution of a scenario (v3)

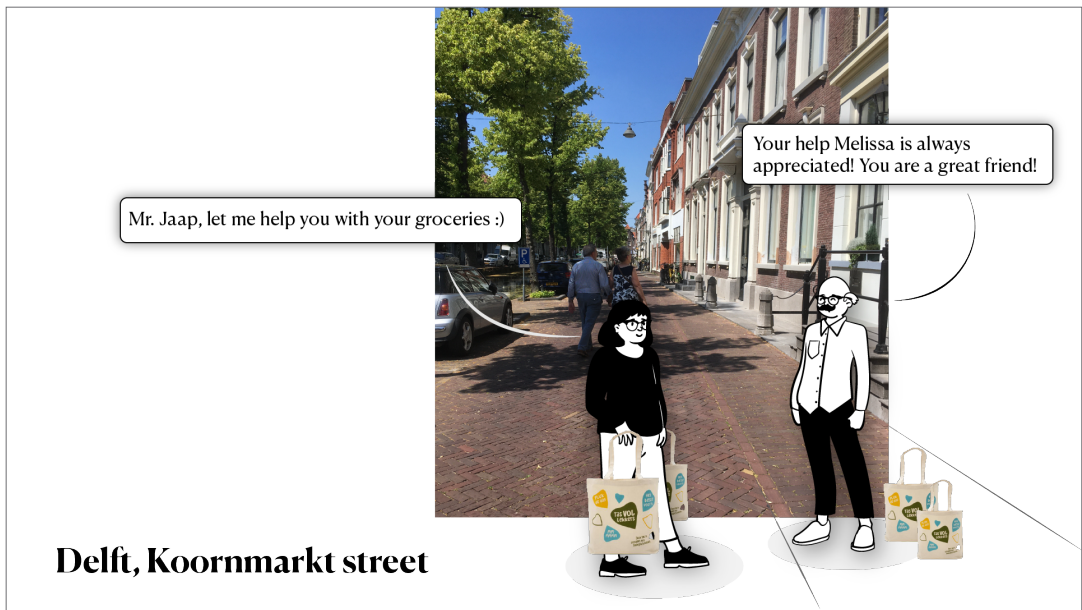
Figure S1. Melissa in Delft.



Figure S2. Melissa in activities.



Figure S3. Melissa helping a neighbour.



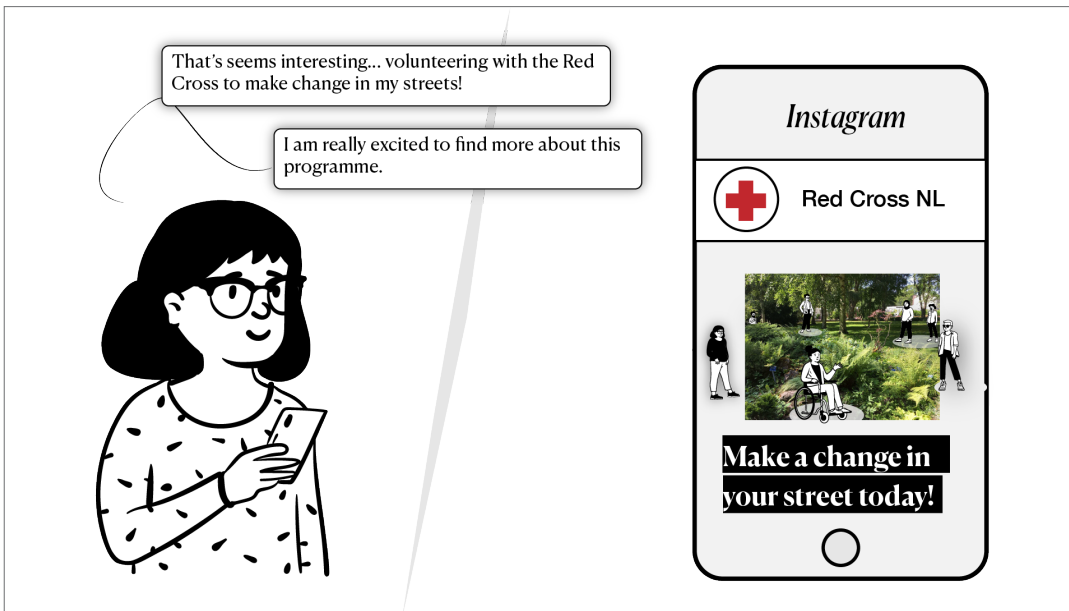


Figure S4. Participation platform, IdeaBox prompt.

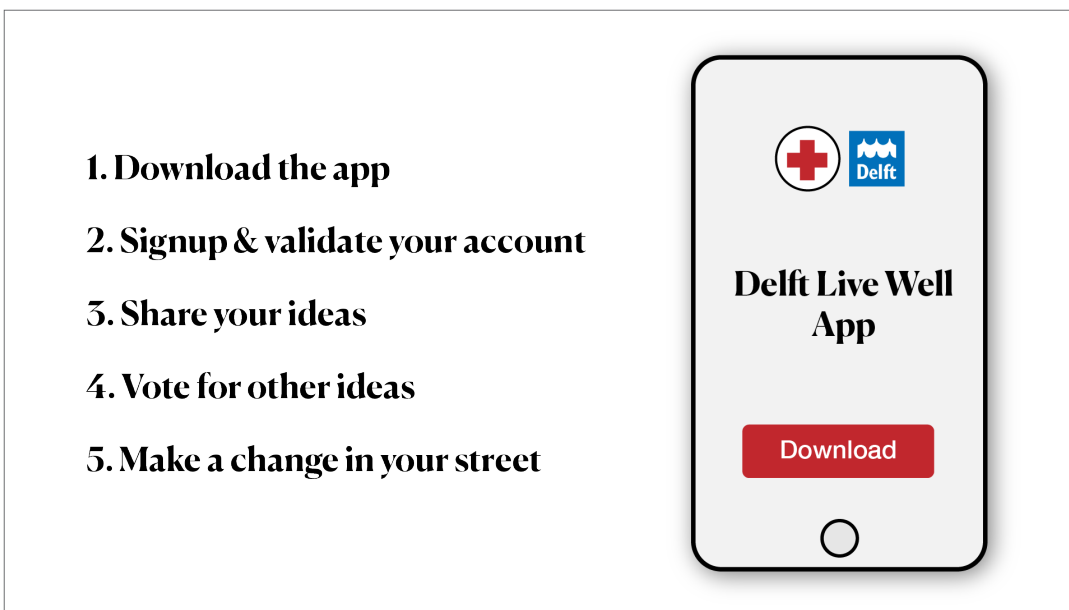


Figure S5. Melissa downloading the app.

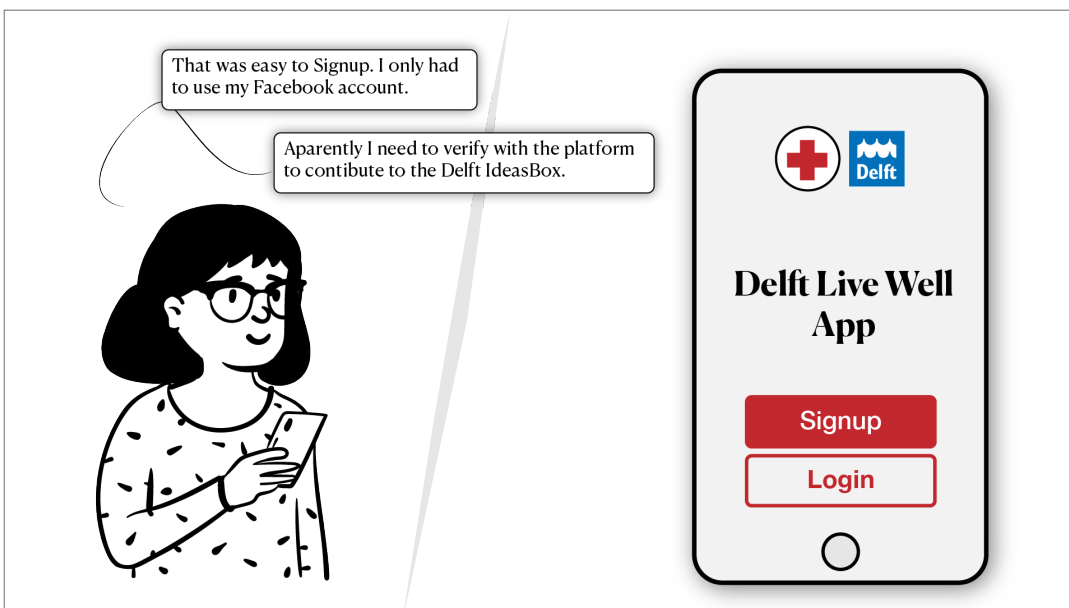


Figure S6. Melissa registering on the platform.

Appendix Scenarios

Figure S7. Melissa attending the online briefing.

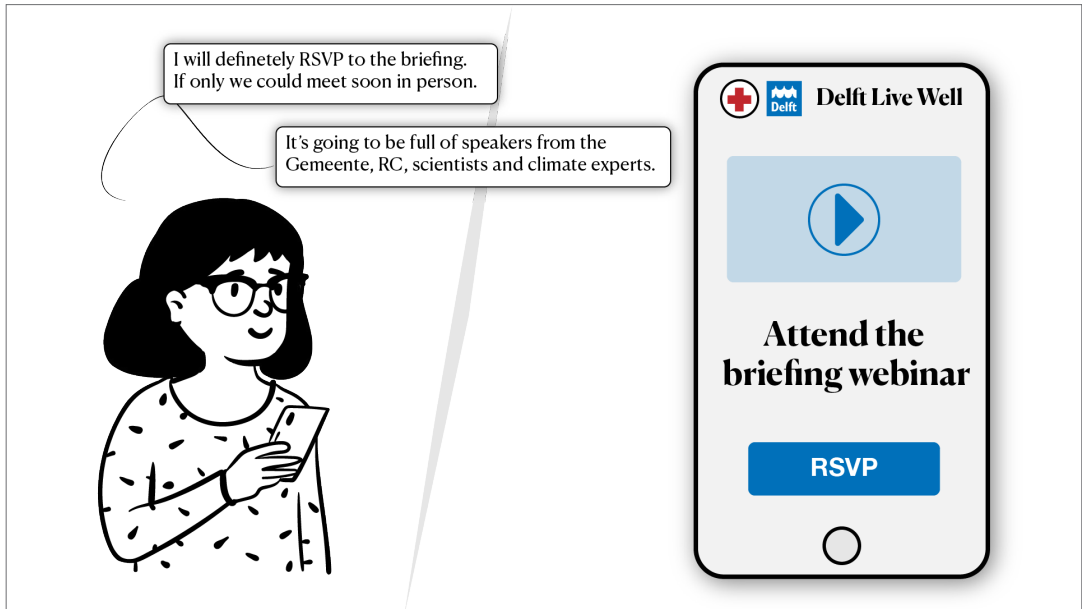


Figure S8. Melissa watching the live keynote on heatwaves.



Figure S9. Melissa onboarding the IdeaBox.



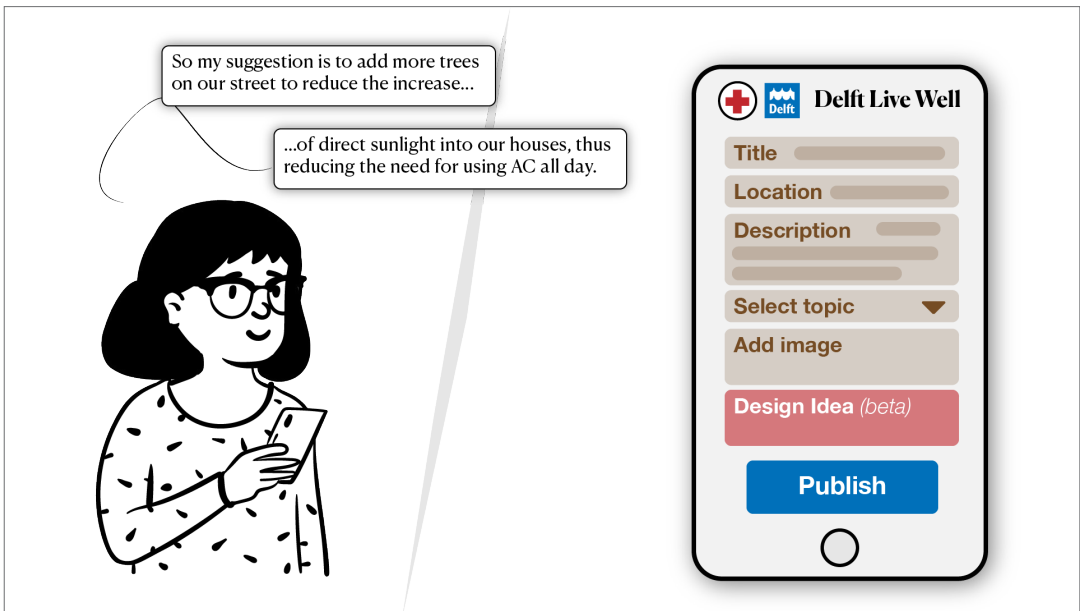


Figure S10. PMelissa adding a new idea.



Figure S11. Melissa using the beta design feature.

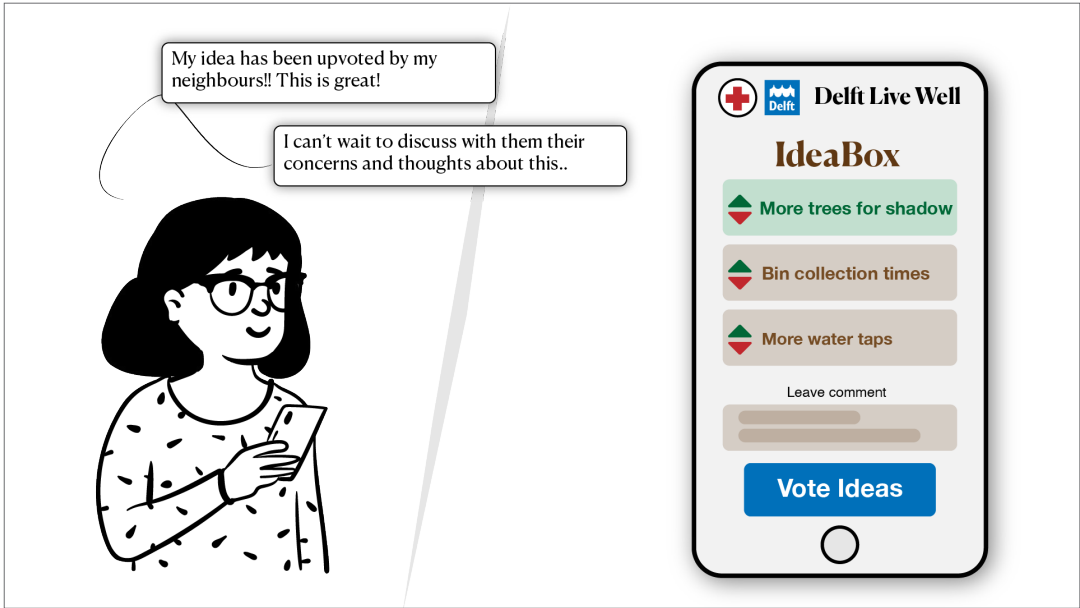


Figure S12. Melissa voting for other neighbourhood ideas.

Figure S13. Melissa receiving a notification on her idea.

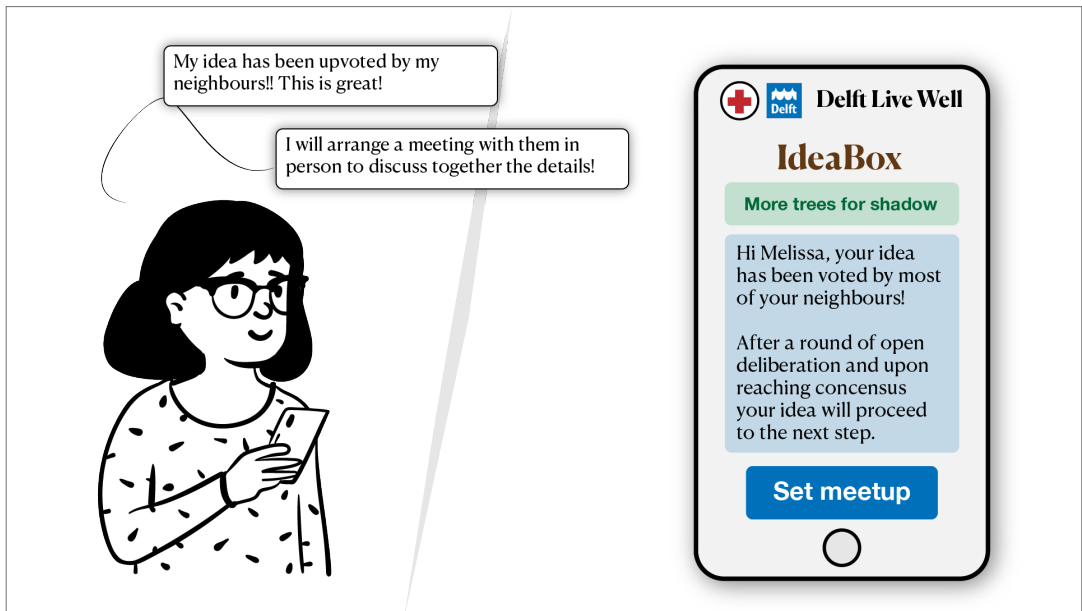


Figure S14. Tim the neighbour receiving a notification.

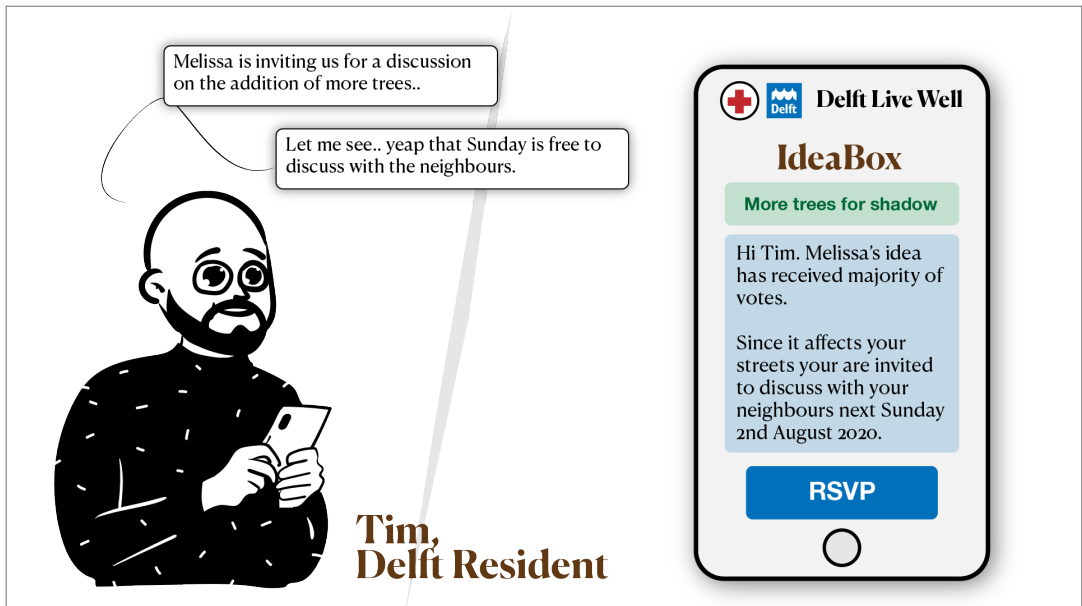
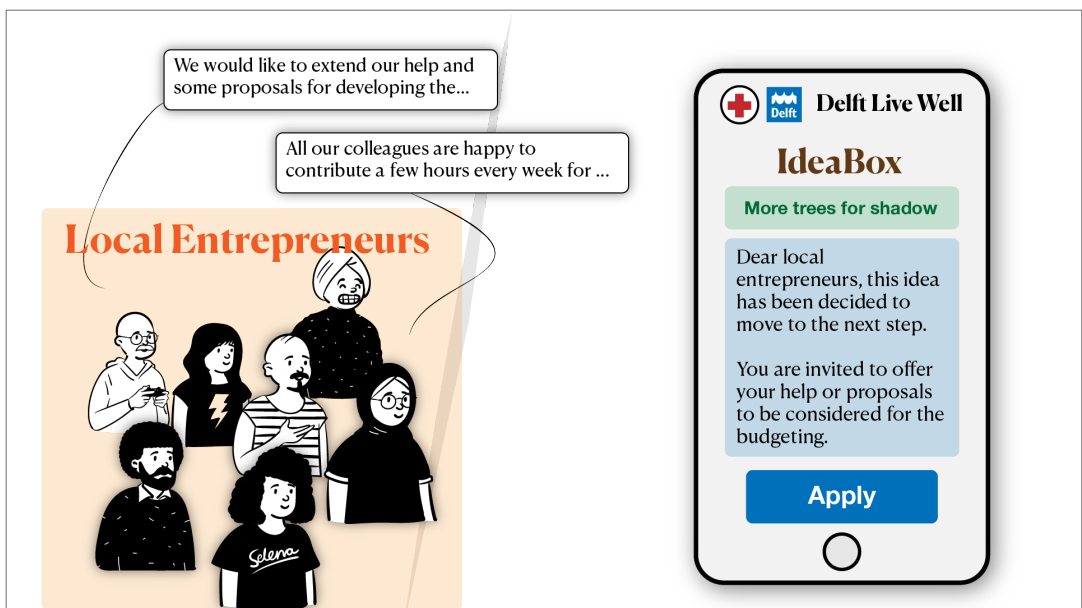


Figure S15. Local entrepreneurs receiving a notification



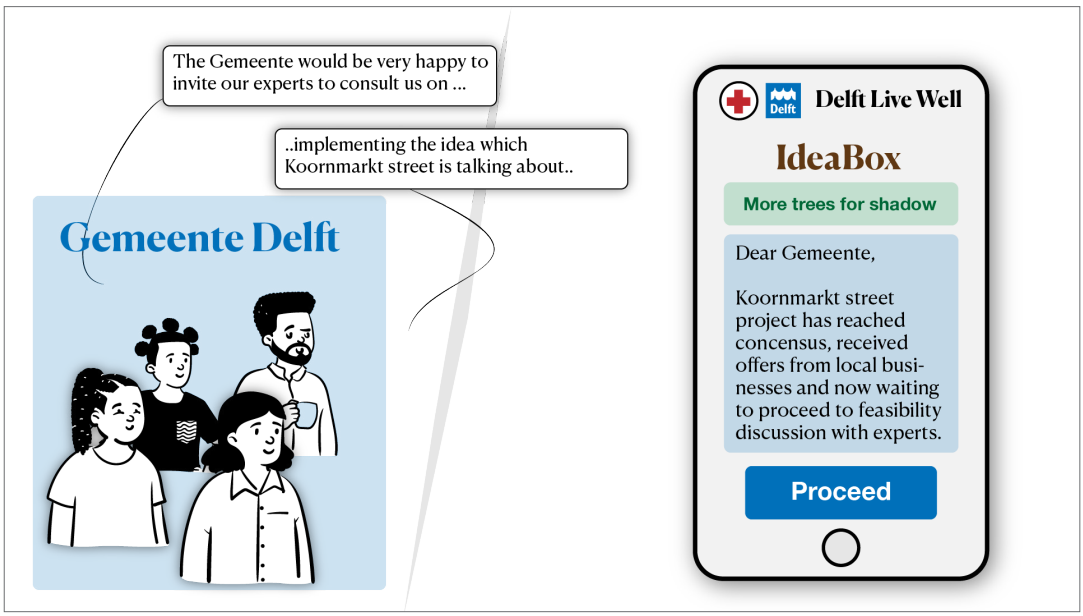
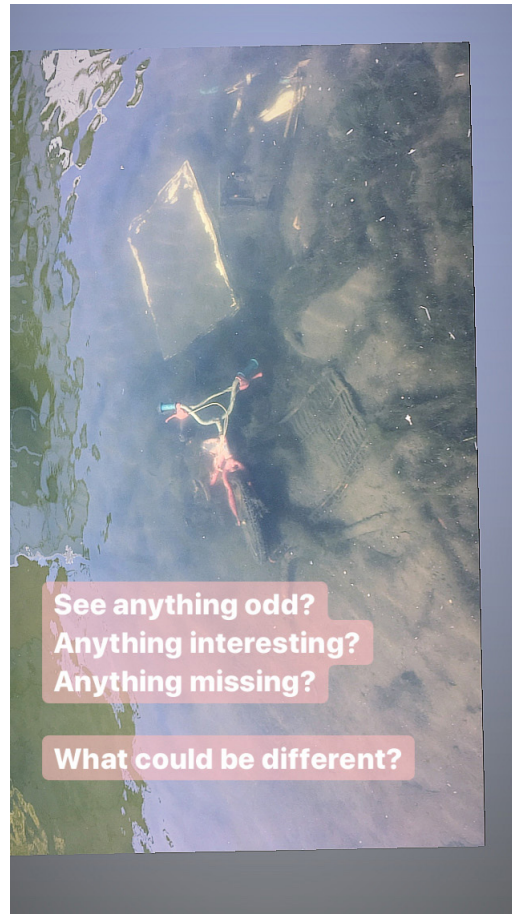


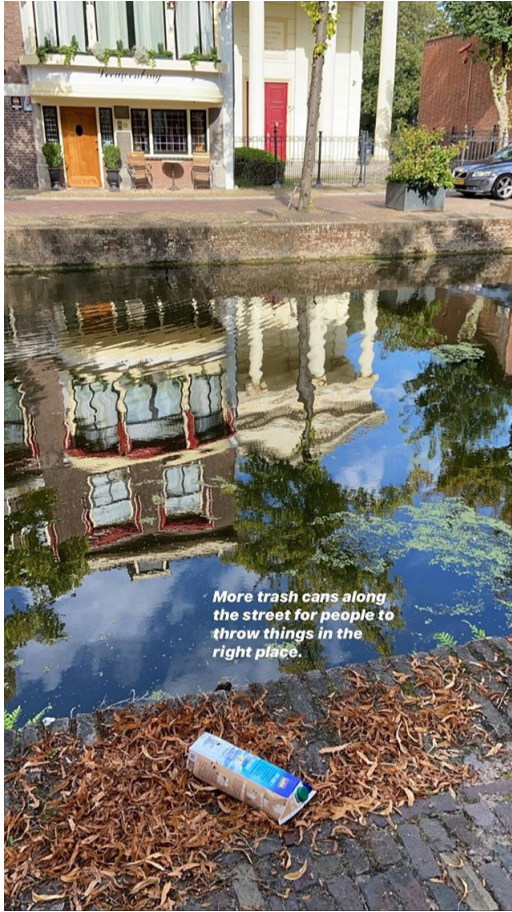
Figure S16. Delft Gemeente receiving a notification.

Appendix
Prototype
Open Call





Appendix
Prototype
Responses
Participant 1





Real grass instead of fake grass. Even some planters would make it more lively/inviting to me.



Aesthetic rules so graphics/business ads are not so in your face.



Can this road be made accessible to wheelchairs? Blind people? How could an inclusive canal street look like



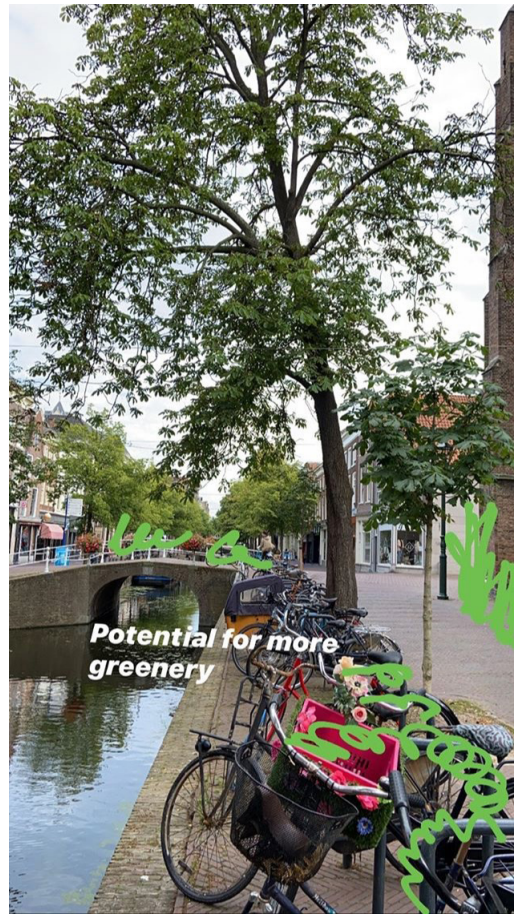
Is it possible to make 'royal monuments' more accessible to people? To Give it back to society in special ways

Appendix
Prototype
Responses
Participant 1





Give michel's a prize
for best bread in delft.
An initiative to
Support local
businesses!



Potential for more
greenery



More inventiveness.



Reutilize unused space
for housing or other
community-led
initiatives.

Appendix
Prototype
Responses
Participant 1



People leaving friendly messages to neighbors.



Turn this square into a living one with a park that brings people/communities together. It seems like the area divides now.



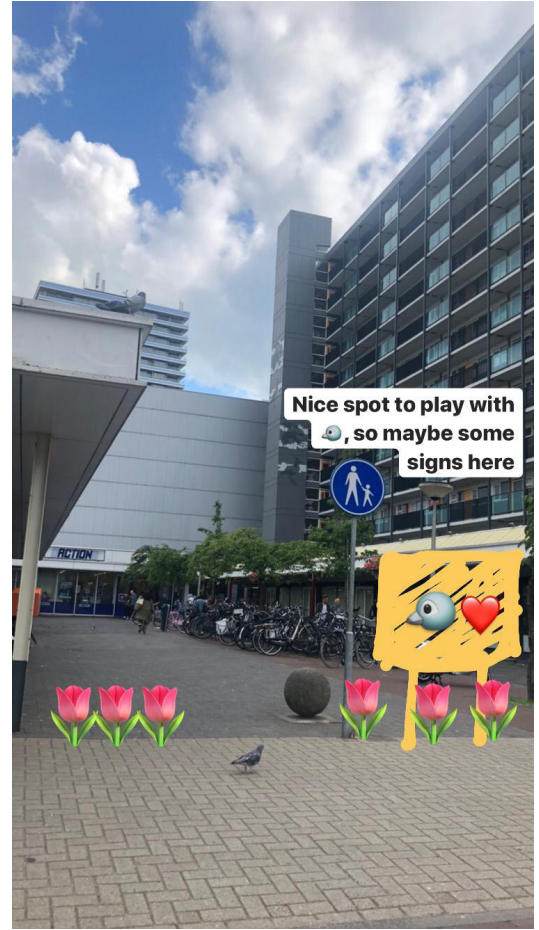
Greener and affordable options for lunch. It's easy to be tempted by low price and quick bites. Would like for sustainable resto's having more visibility, instead of always having to look out for them.

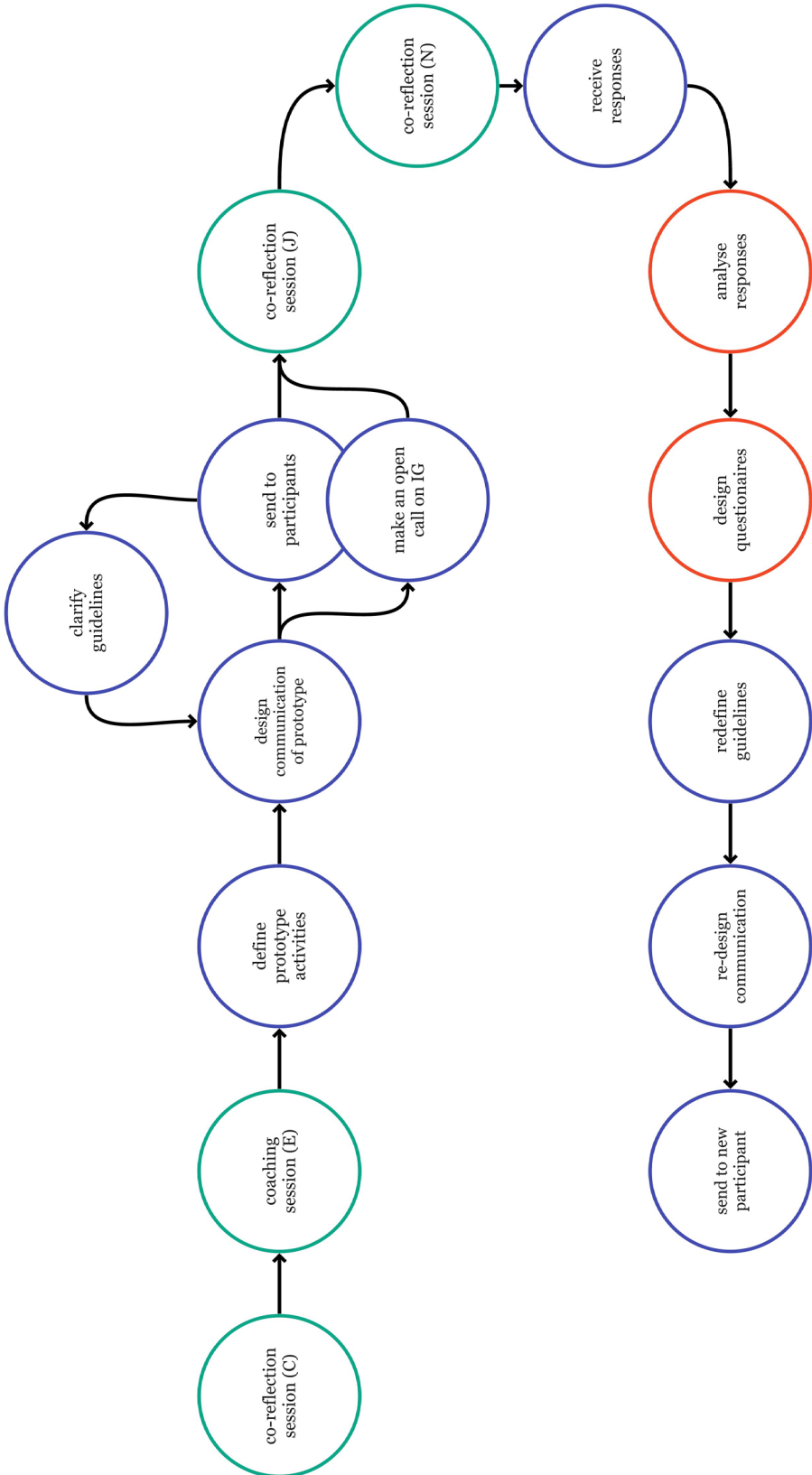


A cheap option to finally repair my bike 🙄



Appendix
Prototype
Responses
Participant 2

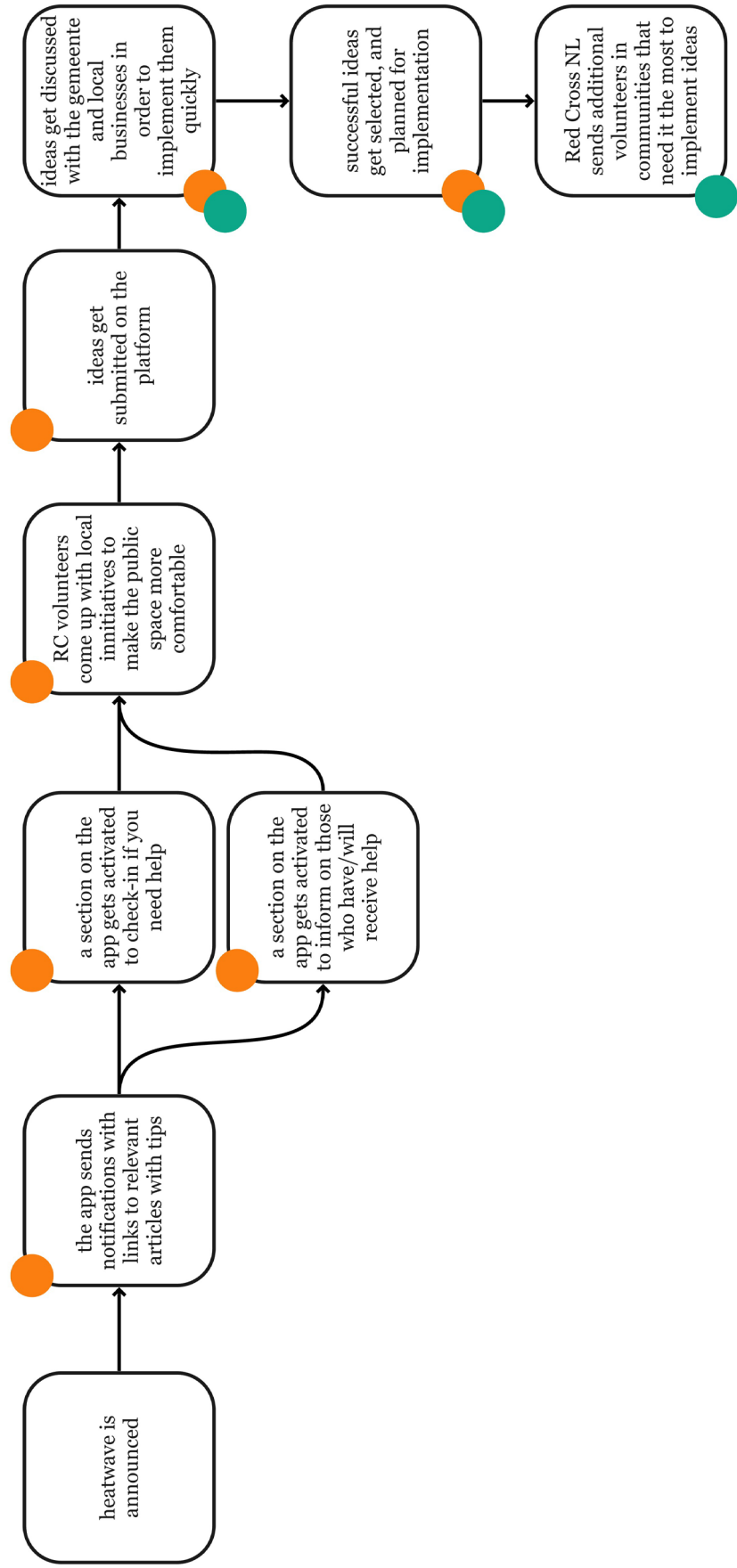




Appendix

User Journey

During Heatwave



Interview with RC Mentor

Positive insights

- every volunteer join for different reasons, motivation varies per individual
- older volunteers have the attitude of a caretaker
- we know of the benefits of digital volunteering from the [510](#) initiative
- need to lower the threshold for a younger generation of volunteers to join
- not all volunteers require the same rigorous training

45

Interview with RC Mentor

Negative insights

- volunteer base is not culture diverse and the volunteer pool is ageing
- most volunteers are middle-aged (50+), white, christian, men
- older generation of volunteers are not self-driven, don't take initiatives, expect explicit guidelines from manager
- older volunteers are not flexible and more resistant to change
- training process is cumbersome and lengthy, not all **want** to undergo a lengthy training
- current meaning of empowerment revolves around training → attitude resembles military

46

Interview with RC Mentor

Opportunity questions

- How might we benefit from the younger generation of climate activists?
(Greta Thundberg, digital activism, social media)
- How might the younger generation contribute with their existing skills and motivations.
- How might we change the meaning of empowerment?

47

Digital Volunteering



- Digital transformation is one of seven transformations agreed upon in IFRC Strategy 2030
- Digital volunteering needs to be defined and understood
- 8 Key areas of insights

IFRC Digital Consultations - Digital Volunteering Insights, April 2020

48

Digital Volunteering

"Working with digital volunteers, allows the movement to maximise volunteer's engagement in a time- and cost-efficient manner"

Organizational support

- Digital volunteers are **crucial** for the future of the Movement
- Digital has the potential to **reduce** activity-related **costs** and **increase scale**
- Digital provides an **opportunity to establish partnerships** with other organizations on digital volunteer engagement.

IFRC Digital Consultations - Digital Volunteering Insights, April 2020

49

Digital Volunteering

"Working with digital volunteers, allows the movement to maximise volunteer's engagement in a time- and cost-efficient manner"

Organizational support

- Digital volunteers are **crucial** for the future of the Movement
- Digital has the potential to **reduce** activity-related **costs** and **increase scale**
- Digital provides an **opportunity to establish partnerships** with other organizations on digital volunteer engagement.

IFRC Digital Consultations - Digital Volunteering Insights, April 2020

49

Digital Volunteering

“It’s a challenge to include volunteers who don’t have the resources or skills to connect digitally”

Infrastructure

- Not all NS have the same technical resources and tools available to be able to facilitate digital volunteering
- Not all volunteers or communities have the same skills and/or resources to connect digitally.
- Can we reach them digitally? How?

IFRC Digital Consultations - Digital Volunteering Insights, April 2020

50

Digital Volunteering

“Digital volunteering provides more people with more diverse opportunities to contribute at moments and locations most suitable to them”

Access

- Digital volunteerism is a low barrier way of starting one’s engagement with the RCRC
- A great possibility of inclusion and interaction across borders

Digital can provide a new pathway into volunteering that otherwise may have not been available

IFRC Digital Consultations - Digital Volunteering Insights, April 2020

51

Digital Volunteering

“Digital volunteering provides more people with more diverse opportunities to contribute at moments and locations most suitable to them”

Skills

- There is not one single profile or form of digital volunteering
→ *Diversity enhancing*
- Digital allows distance learning, sharing knowledge and skills
→ *Greater knowledge building and exchange*
- Younger people are easier to reach because they are usually more digitally skilled
→ *the strategy is to play where the young generation is playing*
- Need to adapt to tools that people know or are comfortable with
→ *this can increase engagement, and reduce the digital divide*

IFRC Digital Consultations - Digital Volunteering Insights, April 2020

52

Digital Volunteering

“The current crisis underlines the potential of Digital Volunteers as we come up with more services to target groups and remove the limitations of location”

Location can be seen as an opportunity, let one volunteer for their community directly

Tasks

- Tasks need to be very clear and well defined
→ *empower volunteers to decide what is important to address in their community*
- Knowing their skills allows appropriate matching of volunteers with tasks
→ *resource management VS community engagement*
- Younger people are easier to reach because they are usually more digitally skilled
→ *the strategy is to play where the young generation is playing*
- Digital activities may draw volunteers’ attention and interest, but non-digital tasks still need to be done
→ *local initiatives by volunteers is what my project is building on*

IFRC Digital Consultations - Digital Volunteering Insights, April 2020

53

Digital Volunteering

“Social interaction is an important part of motivating volunteers but sending meaningful tasks to the Digital Volunteers is also important to keep them engaged.”

My concept challenges this top-down view of volunteers.

Motivation

- Has the potential to create or strengthen a sense of belonging to the Movement across borders
- Maintaining motivation during peace times, where contribution possibilities are lower
→ *this is exactly what my project is aiming to highlight*
- Can be isolating and, therefore, decrease motivation
→ *not if it involves local action, complementary to digital tasks*
- Can be a deterrent for the non-digital-savvy
→ *older generation can mentor younger on the principles of RC, younger generations can help the non-digital-savvy to learn*
-

IFRC Digital Consultations - Digital Volunteering Insights, April 2020

54

Digital Volunteering

“Supporting people to take humanitarian action in their households and communities”

Volunteer Management

- **Recruitment** - How to find the right digital volunteers and raise awareness of digital volunteering opportunities? Knowing their skills allows appropriate matching of volunteers with tasks
→ *in my project this is dependent on the location that requires volunteers, in Delft, it's locals or citizens living nearby. Caring for one owns habitat becomes the motivation*
- **Onboarding** - How to ensure compliance with RCRC principles and standards?
→ *a mentoring programme from the older generation towards the younger*

IFRC Digital Consultations - Digital Volunteering Insights, April 2020

55

Digital Volunteering

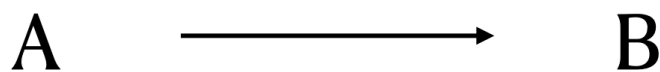
Reach

- Digital volunteering allows to localize solutions (e.g. translation and communication in local languages)
- Access to real time information and services poorly accessible in the physical space
- Younger people are easier to reach digitally while older people may remain off the radar

IFRC Digital Consultations - Digital Volunteering Insights, April 2020

56

Volunteering



Transitioning to distributed networks (as per the RC strategy for 2030) of local action will require a shift in the role of the volunteers from managed and reactive, to self-driven and proactive.

57

Volunteering

A



B

Reactive
Managed
Centralised
Not diverse

Proactive
Self-driven
Decentralised
Diverse

