No Man is an Island. Situated Design Research and Wicked Impact

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Abstract: In this paper, we describe the research-through-design process that led to the realization of the interactive exhibition \textit{Charged Utopia} that took place in August 2016 at the Norrbyskärs Museum. The design leveraged embodiment and active perception: visitors could activate the content by physically engaging with the space. These interactions were intended to trigger personal reflections on social coexistence, its paradoxes and challenges. The paper guides through the research-through-design process, from initial design direction and their theoretical grounding, to the design process and final event. The paper contributes with a reflection on the “wicked impact” of the event, suggesting that it is of relevance for design researchers that deal with societal issues, to discuss and expose the effects of their practice beyond immediate results.

Keywords: Interaction, Exhibition, Embodiment, Research-through-Design, Civic Engagement

1. Introduction: Relevance, Approach and Contributions

1.1 Relevance: Design for Social Challenges

Design research has been heralded as a uniquely valuable way to deal with big social challenges (e.g. Buchanan, 2001; Burns et al., 2006). In particular, because design is considered to be able to engage effectively with the complexity of such big challenges, often called “wicked problems” (Rittel and Weber, 1973).
One of the ways in which design research responds to both this opportunity and responsibility of engaging with social challenges is the growing body of work into enabling civic engagement through technology (Vlachokyriakos et al., 2016; DiSalvo et al. 2016). Civic engagement is a term that encompasses all individual and collective actions directed towards issues of public concern. Putting the role of technology forward, as a way to entice citizens to become active in the democratic process, positions design as a driving force behind civic engagement. This type of work often centers on the formation of publics. A public is a group of people bound by a shared experience they create together, in which reflexive relationships form to voice opinions and share concerns (McCarthy and Wright, 2004 p.150). DiSalvo et al. (2014) further elaborate on the role of design in constructing publics and propose the term public design. After Latour, they discuss how 21st Century democracy is object-oriented. Objects can express the subjective, lived qualities of political issues: articulating problematic issues and thereby contributing to the construction of publics. In doing so, objects become design things (Binder et al., 2012): expressing matters of concern by drawing together humans, non-humans, materials, and emotions. As DiSalvo et al. (2014) discuss, matters of concern go beyond matters of fact. In addition to the objective, quantified and generalizable, they encompass the subjective, lived-experience and personal concerns and thus make matters more complex. Design takes different forms when it creates design things. Despite taking different forms, it is the design component that allows such efforts to deal with complexity in a way that is highly localized: we address citizens in a specific way, which consists in building on the particular physical space they inhabit and to develop issues that are of particular concern to them. Working with the situatedness of the specific context reinforces the possibility of creating inclusive and respectfully diverse experiences.

1.2 Approach: Active Perception

To give expression to matters of concern design thus needs to embrace this complexity and respect an individual’s ability of making sense of this complexity. In this paper, we aim at contributing to the discourse around the role of design in 21st Century democracy by sharing a research-through-design project that engaged directly with these issues.

We present Charged Utopia, a set of design things that express matters of concern, orchestrated as an interactive exhibition with elements of participatory performance. Our intention in the Charged Utopia project, was to create design things that elicit reflection and engagement with contemporary
social issues through the lens of the past and vice versa. This brings us to reflective design: our intention is to elicit reflection through engaging experiences, where we empower people to take a conscious and active stance, based on their personal believes (Sengers et al. 2005), thereby fostering debate and active participation in civic processes beyond formal political arenas.

To substantiate our intention of eliciting reflection, it is of relevance here to consider our stance on interaction design research, in order to discover where reflection comes from. Our theoretical background builds on ecological psychology (Gibson, 1979), american pragmatism (Dewey, 1934) and phenomenology (Merleau-Ponty, 1945). Although strictly speaking not entirely compatible, these foundations share a notion of embodiment, making them functional to design. Embodiment asserts that our perception of the world comes from the way we act in it. Meaning arises in dialogue with the world around us, and is highly subjective, ephemeral and rich. Moreover, it means that perception is active: information is not shared and consumed passively. Rather, it is a process of interpretation triggered by seducing and engaging people, facilitating a seductive dialogue where the spectator becomes participant. Making topics experienceable overcomes traditional ways of consuming information, where information is provided to mostly passive visitors. This mainly triggers a visitors’ cognitive skills, but denies their ability to actively perceive and conceive their personal point of view in a meaningful dialogue. It assumes that information can only be consumed, exhausted, rather than, for instance, being spun, re-shaped and bounced back into the context under a different form, in a self-propelling construction of collective meaning. This resonates with the fundamental notion of matters of concern as being experiential and lived: matters of concerns are subjective and depend on our personal point of view in the world. To elicit engagement with matters of concern thus requires things to be ambiguous, open-ended and appeal to all of a person’s skills (Peeters and Trotto, 2015).

In building on embodied interaction design to express matters of concern, we build on earlier work that has leveraged this approach. We consider worth mentioning two instances. Firstly the Rights through Making project actualized pervasive ethics by educating design students to explore - through making - their personal stance on ethical issues. In expressing their matters of concern in their designs, they became aware of their responsibility as designers (Trotto, 2011). Secondly, the Ballade of Women project, which was an interactive installation that presented a wealth of information relating to women’s rights in a complex and fragmented manner, responding ambiguously to visitors’ physical presence in the space in order to trigger personal reflections (Marti et al., 2015).

1.3 Contribution: Wicked Impact

In sharing the research-through-design project Charged Utopia, we aim at contributing on two levels: we present the exhibition as a design case and we attempt to illustrate the wicked impact of this case on our practice.

We therefore first focus on presenting the rich socio-cultural context of the exhibition, its location, the narratives, themes and design process, with the aim to guide the reader along a case study of how such complex and multifaceted concerns find synthesis in the design of things.

We then focus on the wicked impact that these design things had on our local practice. By elaborating on the mid-term impact of the project, we aim at highlighting how the powerful synthesis brought forward by design, drives change within our local context in ways that are rarely addressed within the discourse. In this paper, rather than to focus on detailed descriptions of the process and end-results, we instead turn our attention to the impact on an institutional level within our own context. We call this section “Wicked Impact”, because like wicked problems, the impact beyond the immediate is complex, multi-faceted and is difficult to describe in full. Our focus is on
dredging out how this impact relates to the necessity for design research to be able to carve out a space for itself as a valuable instigator and catalyst.

In the following two sections, we aim to convey the richness and multi-faceted nature of the project by describing those involved, the process and end-results. We first introduce the particular opportunity for the design of this exhibition. In briefly discussing the history of this island and the way in which it provides a rich socio-cultural soil for the project, and the process through which the exhibition was designed, we aim at sharing insights into the complexities that together form the matters of concern that were expressed. The third section briefly presents these expressions: the different elements that came together to form the Charged Utopia event and forged together this issues at play. Lastly, we conclude with reflections that form the contribution of this paper. The way that design impacted the area and has influenced our position within the local context.

2. Introducing the Opportunity

2.1 The Place

Norrbyskär is an island outside of the city of Umeå in Northern Sweden. In 1895 the Swedish industrial magnate Frans Kempe founded a large sawmill on the islands. He was attracted to the remoteness of the place and constructed a community around the factory, modeled after his own utopian ideals. He provided his workers with modern homes, gardens, schools and healthcare. In return they had to lead a sober and God-fearing life, and were forbidden to engage in Unions. Norrbyskär’s community and sawmill operated for decades, until shutting down in the mid 1950’s. Presently, the worker’s homes are used as vacation homes, and the island is largely used for leisure activities. Remnants of the island’s past can be found scattered around the island and in a museum on site (See Figure 1).

Figure 1 – Wood processed by the saw mill on the island was treated with dioxine and other chemicals to avoid the beams rotting as they dried. Thousands of pieces of driftwood can be found on the coast line of the island, weathered and beaten, but remaining as memories of its past.
2.2 The People

The project was funded and executed by several partners. RISE Interactive (the national interaction design research institute), Umeå School of Architecture at Umeå University, the Norrbyskärs museum, the municipality of Umeå, and KFUM (Swedish for YMCA). The design and production team was multidisciplinary, consisting of three design researchers, two architects, two industrial design students and two developers. The design team prepared the concepts and lead the production of the event together with a group of ten volunteers.

2.3 The Intention

This industrial heritage of the island and the utopian ideal it once represented, offered a starting point for the project. Utopian visions have always come with a price, leading to the question of what serves as a utopian vision today? How can we connect the foundation of the Swedish welfare society laid by the Swedish lumber-industry with issues that concern contemporary Europe, such as the refugee crisis?

The intention of the project was thus shaped to synthesize, through design, the complexities of such issues: the local context represented by the island’s history, connected to national discussions on the decline of the Swedish welfare state and the global issue of the refugee crisis. The intention of the project became to use design to place visitors within these perspectives on utopia and the pressures they endure. The past was employed as a lens to look at the present, and vice versa, thereby eliciting individual reflections on one’s position in both the physical, local landscape as well as the political landscape.

2.4 The Process

The design team was constituted by people based in different locations and institutions spread around Sweden. Besides, the island is relatively remote and complicated to reach. These elements posed both challenges and opportunities for the design process. After an initial site visit, the overall intention was set and tasks were divided in order to address the different components of the design of the event. These elements, which were executed in parallel by different teams, were: the experiential path, the museum space itself and the content development of narratives.

The event was designed in the 3 weeks preceding the event and produced, on site, in 5 days leading up to the day of the event, which was the concluding one of the tourist season. The remoteness of the island presented its own particular challenges and opportunities. At that point of the season, the ferry that forms the only means of access to the island runs only three trips a day, forming a logistical challenge. This meant that the design and production team were almost isolated during the 5 days leading up to the event. Moreover, it meant that it was difficult to acquire additional tools or materials. The team brought documentation of the design concepts, basic tools and electronic components to the island. This result was that all of the interactive installations needed to be produced on site and rapidly, requiring to employ local materials and tools. Concepts were thus developed into functional prototypes under direct influence of the context.
3. Charged Utopia

3.1 The Event

Charged Utopia was curated around a series of themes related to the tension between current societal challenges and the notion of utopia. More specifically, such themes were: trips vs. borders, groups vs. negotiations, the place vs. home, identity vs. passport and, finally, designing the utopia.

The participants were invited into the role as active co-creators of the event. Every transition was built around space, triggers through design and storytelling and a personal reflection from the participant. The journey of the participants was a metaphor for an imagined immigration process to enter an utopian community and dealt with the risks and costs of such process.

The event was held for one day in August 2016 on the island of Norrbyskär. Participants to the event included inhabitants of the island, tourists exploring the island and the museum, and finally a group of approximately 70 invited guests from local institutions (including university, government and local industry). In what follows, we briefly describe the different components that together formed the Charged Utopia event. We kindly recommend the reader to watch the video of the event, to better get a grip of the complexity of this experience. (https://vimeo.com/181787781).

3.3 The Experiential Path

The Charged Utopia experience started on the ferry that carries visitors to the island from the mainland. Upon arrival at the quay, visitors were handed a branded piece of driftwood from the island. This “passport to utopia” depicted a stylized image of a laborer and a migrant (See Figure 2). On board of the boat, visitors were confronted with banners displaying poetry that started to reveal the themes of the event, inviting them to ponder their own journey as they travelled over the sea.

![Figure 2 - The passport to utopia that each visitor received, a branded piece of driftwood from the Island, depicting a labourer (inside the utopia) and a migrant (outside the utopia). The branding iron designed and produced for the event can be seen in the background.](image-url)
Arriving on the island and stepping out of the boat on to the other side, visitors embarked on an interactive path leading up to the museum building. Along the path, seven interactive stations were placed. The stations were built using materials found on the island, many of them embodying the island’s industrial heritage, such as rusted cast iron barge shackles and driftwood (See Figure 3). Each station was constructed around one of the themes above mentioned, preparing the visitors to the final experience of the exhibition space inside the museum.

These issues were posed as questions and printed onto strips of cloth tied into the stations. (See Figure 4). To read the questions, visitors were required to physically engage with the stations and cooperate within their group. For example, one installation required one visitor to pull on a rope to lift a heavy beam, triggering a mechanism that allowed others to view the banner (See Figure 3).

The participants were encouraged to give a response to each question by stating: yes, maybe, I don’t know, not really, or no. They were also encouraged to color a portion of their individual passports accordingly, with crayons that were part of each station. Each of the questions raised a type of wicked problems, raising issues around the cost of one’s own personal idea of utopia. The multiple-choice answers were deliberate: they reduced the complexity of each question to discrete categories, caused friction and deliberation amongst visitors as they expressed and discussed their individual points of view.
3.3 The Museum Space

The destination of this initial journey was enclosed in the space inside the museum. The former machinery room of the sawmill was the scenario to build the final moment of this experience. The design concept that we chose, revolved on the aesthetics of points of view: depending on where one stood, fragments of history, fragments of memories and fragments of possibilities became evident and perceivable (See Figure 5). These fragments were physically structured and contained. A geometrical composition defined the whole space, floor and walls were drawn with a new pattern, defining at the same time the spatial organization and the sequence of the journey and its moments.
Upon entering the space, visitors were asked to split their passport in two. They were allowed to keep one part as a souvenir, while the other half was displayed at the entrance to the space. This, in a way, exposed their points of view on the statements as recorded by the colors on the passport.

The space itself housed four interactive installations and one interactive sculpture. These were organised to echo the themes treated in the path (see Figure 6). The four interactive installations involved live and recorded audio and video projections that communicated different stories, weaving together the history of the island, current social challenges such as the refugee crisis and the making of the project itself. By physically moving tree trunks within the space near the installation, visitors would trigger different content to be played (See Figure 7). The audio played poetic narratives, written specifically for this exhibition, touching upon subjects and impressions stimulated by the island and its history, which could also refer to contemporary human situations. These narrative excerpts were also recorded using two voices, one in Swedish and one in English. The audio was played through directional speakers, meaning that the narratives were only audible for one or two visitors at a time, as they were required to stand in a particular spot of roughly half a meter in diameter. In one of the areas, instead of recorded audio, actor Hans-Ola Stenlund performed live. The videos projected in the panels of each area were produced using a type of dystopian aesthetic: nonlinear, erratic cuts to further strengthen the concept of fragmentation. (This type of aesthetic is also visible in the video of the exhibition referenced in Section 3.1, and in Figures 3, 6 and 7).

Figure 6 – A drawing of the museum space, showing how the different areas were dedicated to the different themes and what interactive behaviours such spaces had.
The central area of the gallery, dedicated to the themes of trips and borders, was dominated by a large driftwood sculpture (See Figure 8). It was constructed of several hundred pieces of driftwood, hung on a matrix of nylon threads from the ceiling. A fan mounted to the side of the installation set the pieces in motion as visitors moved closer.
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The constant interaction, analogue and technological, was a way to involve the user with the content displayed and structured to trigger questions, reflections and to recover and rebuild the identity of a place.

3.4 The Debate

The closure of the event revolved around a debate between representatives of three local institutions: the head of the Umeå School of Architecture, Ana Betancour, the Director of the Norrbyskars Museum, Nicola Fackel and the alderman for commerce and development of the Umeå municipality, Peter Juneblad. In the debate, this three representatives were asked to reflect on the experience they had undergone and in particular, to reflect on the role of design and architecture in raising issues of social concern. This debate was organized with the aim of, at the end of the event, immediately place the event itself within a wider frame of reference: to bring the discussion towards the role of design coming from the perspective of different local institutions.

4. Time to Ruminate

4.1 Wicked Impact

Reflecting on the impact of the event, we can identify two levels: short-term impact and mid-term impact. The short-term impact was observed in the behavior of visitors, their opinions, vibrant discussions and the tone of the debate. At times, some visitors were observed to engage in heated discussions over the questions posed along the path, or the meaning of videos and audio played in the museum space. At the same time, some visitors were observed to become quiet, perhaps pondering over their point of view on issues.

However, our main focus in this paper is on less immediate results, the “wicked impact”. This impact relates to effects of the event in terms of the relationships it formed on an institutional level. Several larger projects with multiple stakeholders are currently underway or being developed, as a direct effect of the Charged Utopia event. The event solidified relationships with existing local partners, as well as forming new ones. For example, a consortium was formed between partners in the Charged Utopia project and several partners based in a neighboring municipality. The aim of this consortium is to develop a project for a two-year design research project with the intention of deploying permanent interactive interventions that support the communication of local heritage. Another example is the formation of a partnership between the Norrbyskär Museum and an Architecture School, as a result of the event. An obligatory component of the second year curriculum is now centered around the island. Students start from the physical comprehension of a territory on the island and its social and cultural layers in order to propose an idea for a new architectural landscape to revitalize the place, while dealing responsibly with its industrial heritage. Furthermore, residents of the island, some of whom have lived there in independent communes started during the 60’s, have become revitalized in their concern for the island. They have reached out actively to the partners of the project, in order to tell their stories and activate cultural events. Moreover, some have become involved in the ongoing development of design and architecture projects on the island, as well as proposing new ones on their own.

The above examples demonstrate how the project catalyzed the start of a cross-disciplinary dialogue and allows for the formation of a framework around design research in the local context. This framework can be explored in different ways: through experimental interventions, analytical processes and academic reflections. It provides ways forward for commercial, educational and research projects.
For us as design researchers, this broader, long-term impact suggests that the power of design is really in the making of things, but also that the impact of those things stretches further than we might think, in different directions, over time.

For the community of design research, it suggest that it may be difficult to convince potential partners and funders of the impact design can have on paper, but that by making this quality experienceable we might bring our point across more effectively. These reflections on the project also suggest that for the design research community, it is of relevance to report not only the direct or measurable effects of social design initiatives, or the wider meaning of such effects for the discourse. There exists an intermediate level of impact, in between the concrete design and its place in the design research community. As we create design things that synthesize the complexities inherent to matters of concern, our attention might naturally shift towards that thing we have created and the direct effect it has on our research intention. However, the ways in which this thing becomes an active constituent of the praxis of design research and takes a role within the local landscape, stretches beyond its particular use or intention. Many concerns converge within the concrete thing that design research creates, in particular in a societal context, but these concerns diverge and expand as this thing is manifested. Every design research project, and in particular those that engage with social issues through complex partnerships, will have a wider impact that can solidify the position of design within a local context. In offering reflections on the impact we have found the project to have on our own practice, we hope to open up towards others and entice them to share their experiences. Sharing and discussing on ways in which design research impacts local contexts beyond particular instances, can aid in the development of the institutional strategies that strengthen the reach of design research.

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