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Cutting Cubes from Clouds: Using Gigamapping to Coordinate Narratives in Complexity

Benjamin Alder

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This exegesis is presented in partial fulfilment of the requirements for a Master in Design at Te Kunenga ki Pūrehuroa Massey University, Aotearoa New Zealand.

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Abstract

In complex transition design projects, effective communication of the intended change is crucial. Design practitioners are well-positioned to lead in this area but must incorporate interdisciplinary thinking and methods to enhance their effectiveness. This exegesis explores how the systems-oriented design method of Gigamapping can be used to strengthen a design practitioner's ability to understand and communicate effective narratives within complex transition design projects. Taking a

practice-based approach, the researcher applied Gigamapping to a live transition design case study (which they are embedded in), first mapping solo, and then with relevant stakeholders. The research found Gigamapping to be an effective approach for coordinating narratives in complexity and resulted in the development of a novel practice-based tool, The Narrative Canvas. The researcher recommends that other practitioners use the canvas in their context to corroborate its value and refine the approach.

Acknowledgements

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**Kia ora
Ko Ingarangi, ko Kōtirana, te whakapaparanga mai
Engari,
Nō Te Waipounamu ahau
Ko Whakatū te whenua tupu
Ko Te Whanganui-a-Tara te kāinga
He kaihangā tahi ahau i The Wellbeing Protocol
Ko Benjamin Alder taku ingoa**

Some have asked why I would undertake a masters alongside co-founding and launching an ambitious digital public good infrastructure. It is a fair question, but there was some method to the madness. From past entrepreneurial experiences, I know that I have a tendency to go all in on a project, often forgoing other things that lead to a healthy, balanced life. My wellbeing has often paid the price for not taking time to create the space to reflect on whether it is worth doubling down on a current approach, pivoting, or calling it a day. Not creating space for critical reflection means assumptions go unquestioned, increasing the risk of running in the wrong direction for too long.

Partially as an act of self care, and partially from a desire to see my current project succeed, I undertook this Masters of Design to create the time and space to critically reflect on my own process and to invite external opinion and thought. Throughout this Master’s journey I am grateful for the time I have had to read more widely

than I would have, and to discuss the project with people I would have otherwise not met.

Part One of this exegesis documents my reflection to date on my past practice and how that forms my positionality as a design practitioner in the present. Part Two describes how this reflection helped me identify an area of weakness in my practice, sets out my research question, and summarises a review of the literature and design precedents. Part Three documents the practice-led process I took to resolve the identified weakness. In Part Four I showcase, present and discuss a new tool, The Narrative Canvas, that I present as a way to help practitioners coordinate narratives in complexity.

Parts One and Two function both as an introduction to the research context and as an artefact of my reflective practice. The process of thinking about and writing these sections provided the clarity that ultimately shaped the core focus of the research in Parts Three and Four.

Abstract	5	Narrative Change	35
Acknowledgements	6	Design Precedents	36
Preface	8		
Table of Contents	9	Part Three: A Practice-led Approach	43
		Design Process	44
Part One: Reflecting on Practice	11	Reflection Stage	44
4th Order Design	12	Gigamapping	44
Practice Examples	14	Testing Mediums	44
Poetick	14	Capturing the Process	46
Elixa	14	Solo Mapping	46
Glass Box Studios	15	User Research	50
Public Sector Innovation	15	Mapping with Others	50
The Wellbeing Protocol	16	Prototyping the Tool	52
Influences on my Practice	18	Insights	54
Buckminster Fuller	18	Final Gigamap	56
Complexity Science	19		
Designing Where You Stand	20	Part Four: Design Outcome	61
Positionality	21	The Narrative Canvas	64
Shifting My Definition of Design	22	Design Decisions	64
		Discussion	68
Part Two: Reflecting Through Practice	27	Conclusion	71
Refining my Research Focus	28	Works Cited	74
Research Question	32	Appendix A: Ethics Application	76
Research Methodology	32	Appendix B: Participant Information Sheet	78
Literature Review	33	Appendix C: Participant Consent Form	80
Foundational Theories	33	List of Figures	81
Narrative Coordination Tools	34		

Part 1

Reflecting on Practice

Practice Examples

The Wellbeing Protocol

Influences on my Practice

Positionality

Shifting My Definition of Design

Reflecting on Practice

I never intended to become a 'designer'. I sort of fell into it and then the approach seemed to fit. I had always enjoyed making things with my hands so after high school I became a builder. I enjoyed it, but a significant injury made me rethink my career trajectory and I signed up for my first year of engineering at Ōtākou Whakaihu Waka, University of Otago. When I failed to balance a simple chemistry equation after the first laboratory, I changed tack and switched to studying design and psychology. Paired with some enthusiastic teachers who backed us to go out and make change in the world and a multi disciplinary melting pot of fellow students, I flourished.

In the eight years since I have pursued a range of different projects where design has had a strong influence. However, as I have traversed projects and taken roles across disciplines, I have wrestled with describing what I do, how I do it, and why I am so driven to make change. In Part One of this exegesis I capture what Donald Schön would call "reflection on action", or in my case reflection on practice (49).

This reflection is also framed in response to the growing call for designers to understand not just their process but also the social and cultural positionality from which they practise (Escobar; Papanek; Tunstall). I conclude Part One with a positionality statement informed by this process of reflection.

4th Order Design

In his paper "Wicked Problems in Design Thinking" American design theorist Richard Buchanan proposed a complexity scale known as the four orders of design. Ever since learning about it I have wanted to be a '4th order designer' and work on wicked problems. Wicked problems are complicated issues that don't have simple solutions and keep changing as you try to fix them (Rittel and Webber). Across my career I have actively sought out opportunities to work within the higher orders of design (see Figure 1.). In the following sections I highlight a selection of projects from my practice that follow this trend, followed by an overview of The Wellbeing Protocol, the project I am using as the case study for this research.

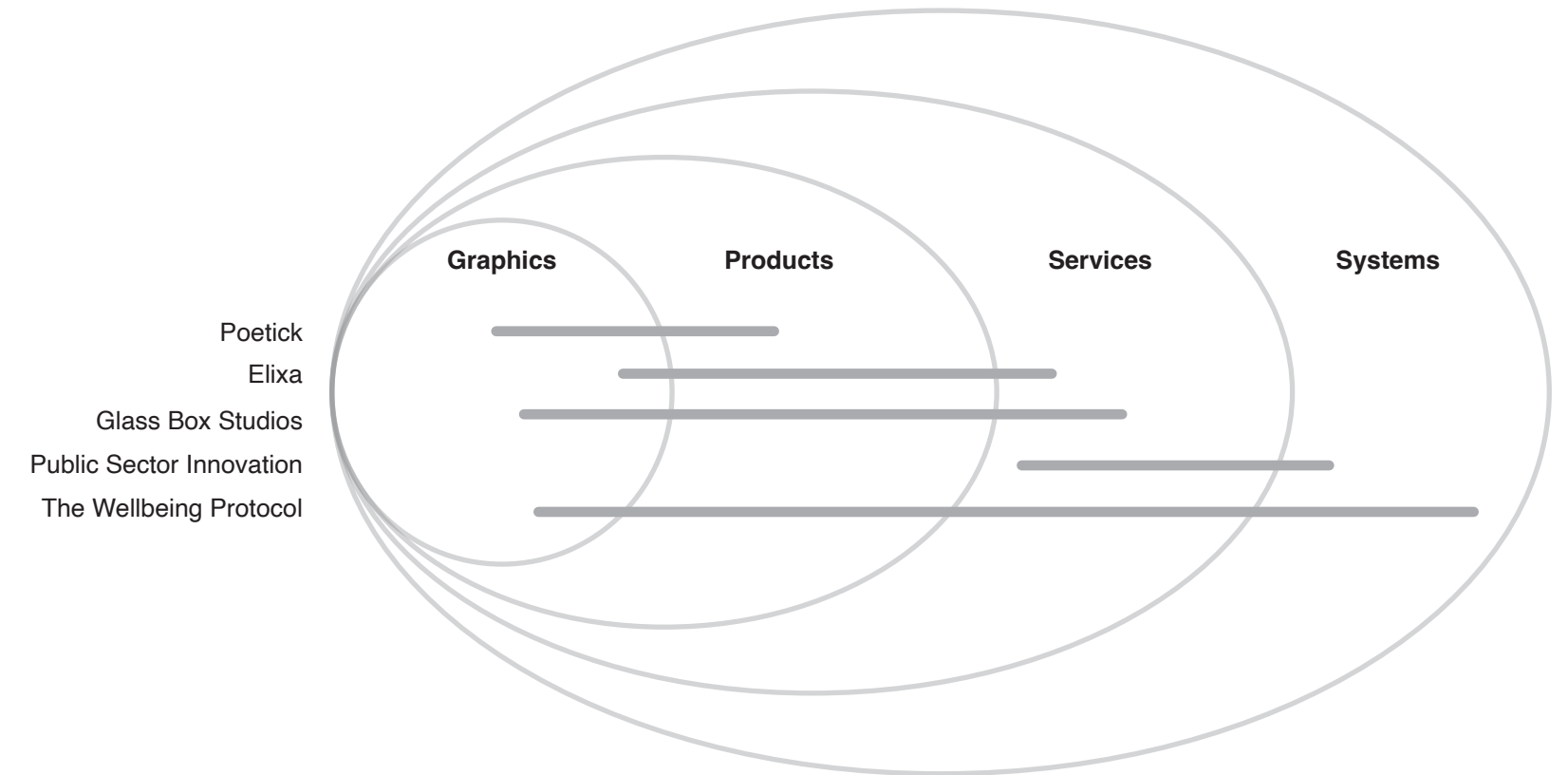


Figure 1. Practice examples mapped onto an adaption of Richard Buchanans Four Orders of Design.

Practice Examples

Poetick

In 2014 Dunedin was awarded its status as a United Nations Educational, Scientific and Cultural Organisation (UNESCO) city of literature (Waite 209). In response to a class brief to create an experience that promoted this new status I designed the project 'Poetick'. This involved printing poems from local and international poets onto the back of paper parking tickets through retrofitted parking machines. The concept was first displayed at the city's Vogel Street Party, a community driven event celebrating literature and light, then later printed on the back of the official pay and display tickets city wide (Borley; Loughrey). The Toitū Otago Settlers Museum also exhibited the concept and attracted international attention including the Lord Provost of Edinburgh and, the now, Queen Camilla (see Figure 2.)(Waite; Otago Daily Times).

Elixa

In 2015 I co-founded a startup called Elixa, which developed a product that offered a new way for people to drink supplements. We developed a unique bottle top which allowed individual powdered



Figure 2. Poetick parking machine installed at Toitū Otago Settlers Museum.



Figure 3. Elixa brand design.

capsules to be dispensed into water bottles. We described it as 'Nespresso coffee pods for cold drinks'. I had a range of roles but was mainly responsible for all aspects of product development and the brand (see Figure 3.). A highlight was the dispensing lid being accepted for a global patent (Ramsay and Alder). Unfortunately the product never made it to market while I was with the company, but I learnt some invaluable lessons from trying to take on Coca-Cola from the 'bottom' of the world and the importance of maintaining a work-life balance.

Glass Box Studios

Alongside my more ambitious projects I set up Glass Box Studios, a design consulting business working for a range of clients across product and service design. A core service I offered was digital user experience. My clients ranged from startups to large scale corporations like HealthEquity, a US based company who provides employee pre-tax benefit programmes. While at times it wasn't the most stimulating work, on reflection, honing my skills in digital user experience has proved to be a valuable skill I have been able to utilise in my other projects.

Public Sector Innovation

On recognising the government has massive potential for systems change, I made the conscious decision to switch from the private sector to the public sector. I took a job with Creative HQ which helped deliver the Govtech Accelerator, a program designed to help public sector organisations accelerate progress on some of their most pressing challenges (Creative HQ 64). My role was to join various project teams as a designer. These projects were largely service design challenges, such as helping decision makers get a clearer view of the state of Wellington's water system or helping the Valenzuela City Social Welfare and Development Office in the Philippines optimise their services (Creative HQ 74). I also worked on projects exploring how new technology could be implemented, including how artificial intelligence could be used to scan aerial photographs for historical land contamination. My final project at Creative HQ was leading a cross government team to explore how emerging decentralisation technologies such as Web 3 and blockchain could be used for the public's benefit. This work became the basis of the case study used in this research—The Wellbeing Protocol.

The Wellbeing Protocol

I am the co-founder of The Wellbeing Protocol, an ambitious project aiming to build a new digital infrastructure that can help transition society to a new economy. The project's underlying thesis rests on two big ideas. The first, drawing on Nobel Laureate Elenor Estrom's work on managing the commons, is that a number of challenges society faces can be resolved by empowering communities closest to the problem with resources and decision making power (Pascall, "Reinventing Social Welfare"). The second is a new computing paradigm known as Web 3, an umbrella term given to a group of decentralisation technologies enabled by the invention of the blockchain (Pascall, "Web 3"). The Wellbeing Protocol believes the combination of these two ideas can help society reimagine how we organise ourselves and privilege different values outside the prevailing capitalist paradigm (SuperBenefit).

However, this opportunity is both speculative and emergent, and my co-founder and I learned early on that talking to people about complex ideas, societal

transitions and new paradigms was an uphill battle. Instead we decided we needed to make it real for people through what Dan Hill in his book *Designing Missions* calls a 'systems demonstrator'. Hill defines system demonstrators as "an inspirational and tangible vehicle demonstrating what is possible at the level of systems of systems" (576). Well known examples of systems demonstrators include the town of Tregar in Wales creating the blueprint for the National Health Service or Andrew Carnegie's contributions to kickstart the formation of public libraries around the world (Dark Matter Laboratories, "(Re)Founding CIVIC SQUARE 2.0").

In our work we have gained traction with two systems demonstrators. The first was the implementation of a digital community currency aimed at supporting community wellbeing (Pascall, "Reinventing Social Welfare"). This was valuable validation of our approach, however, we pivoted from this approach because we struggled to attract the funding required to build out the digital infrastructure required. Our second attempt aimed to solve this



Figure 4. The Wellbeing Protocol logo.

funding problem by switching our focus to helping funders distribute resources to communities. We found ourselves solving a real pain point for funders and at the time of writing this exegesis we have managed to raise approximately \$350K in funds to progress the technical infrastructure for our participatory grantmaking tool. This digital tool allows a community to collectively allocate high trust grant funding towards their self determined goals. We now have over 10 trials of this approach running in four countries with more than \$350K in grant funding under the direct control of communities.

Even with four years of practice and real momentum behind our project, as a team we still find ourselves struggling with the complexity of the messaging around the project. Initially we thought we perhaps just were not very good at communicating, and while we have room to improve, we also concluded that the project is actually just really complex. This communication challenge is the focus of this research which has been explored and documented in Parts Two, Three and Four.

Influences on my Practice

In my practice I have always been intentional about expanding my horizons by seeking new ways of thinking and working. Below I briefly discuss the most relevant influences on my practice.

Buckminster Fuller

Seminal American design theorist Buckminster Fuller had an early and lasting influence on the trajectory of my practice. I was first introduced to his concept of comprehensive anticipatory design science through his book *Operating Manual for Spaceship Earth*. Fuller argued for a future focused cross-disciplinary approach to solving issues that impact all of humanity.

Following a period of personal turmoil, Fuller had an epiphany and decided that he would dedicate his life to “an experiment to find what a single individual can contribute to changing the world and benefiting all humanity.” (Patton). This inquiry resonated strongly with me, particularly his application of engineering principles aimed at “least amount of effort, maximum change”, a concept

captured elegantly in his analogy of the trim tab. A trim tab is a small, secondary rudder attached to a ship’s larger rudder where even a slight adjustment to the trim tab can cause a dramatic shift in the direction of the entire vessel. Fuller used this idea to encourage individuals to make small, thoughtful changes in their own lives, believing they could catalyse larger shifts in society (Fuller, *Operating Manual for Spaceship Earth 45*). On reflection, his work was my first introduction to systems thinking and aligned with my own curiosity about how I might create a positive impact in the world.

While my thinking has since evolved from such a mechanistic view of the world, Fuller’s Dymaxion map (see Figure 5.) has remained a powerful influence. Fuller’s map was designed to challenge traditional perspectives and encourage people to think of the world as an interconnected, unified system (Fuller, *Critical Path*). For me this was the first time I had seen an alternative world map and I liked it so much that I used it as the inspiration for my professional logo (see Figure 5.). I use

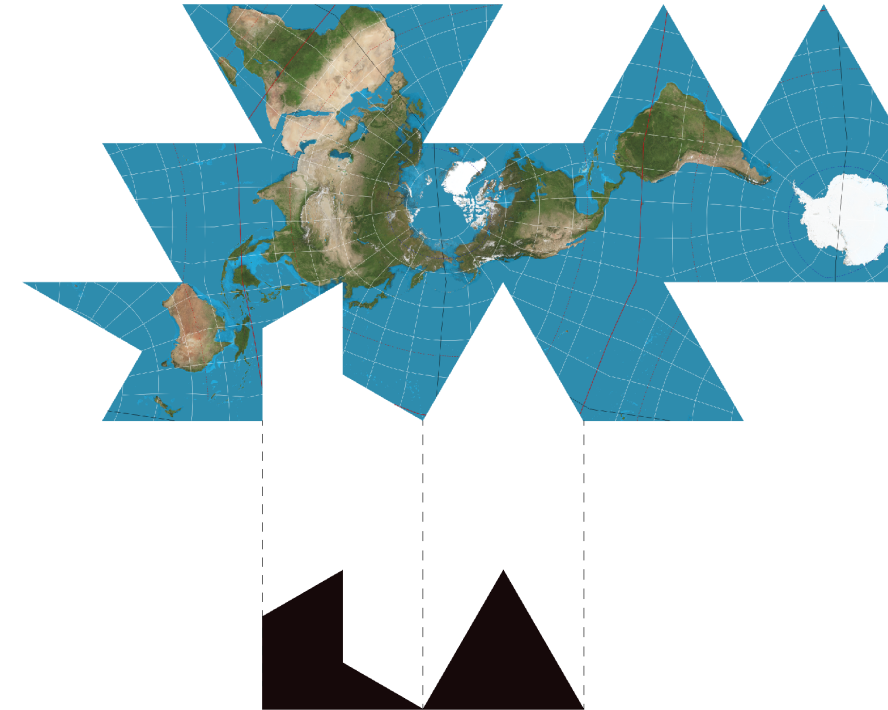


Figure 5. The Buckminster Fuller’s Dymaxion map provided the inspiration for my professional logo.

it to remind myself that my view of the world is limited and that it is important to try to see the challenges we face through other perspectives.

Complexity Science

My first introduction to complexity science was through Dave Snowden’s Cynefin Framework, a tool designed to aid decision-making in complex systems (Kurtz and Snowden). Complexity science is the study of systems composed of many interacting components, where the collective behaviour emerges in ways that are not easily predictable. This reflection helped me realise that many of the methods I learned in my traditional design education were shaped by Buckminster Fuller’s mechanistic thinking and cybernetics—the study of systems and feedback loops (Ashby). Traditional design education often promotes these methods as universally applicable, and often frame problems as systems that could be broken down into smaller parts and solved through systematic analysis and synthesis (VanPatter). While effective in simpler systems, these methods are ill-suited

to wicked problems as they don't accommodate the inherent emergence and unpredictability found in complex systems. Kurtz and Snowden's work, along with the more recent influence of Arturo Escobar's writings in *Designs for the Pluriverse*, has helped me recognise these limitations and has encouraged me to adopt a more multidisciplinary approach that embraces emergence.

Designing Where You Stand

Throughout my career I have adopted a philosophy of 'design where you stand'. I use this motto to help ground myself in a world where the scale of the

problems humanity faces can easily impact your mental health. Part of designing where I stand has been understanding the issues facing Aotearoa New Zealand, as well as the impact of colonisation and Te Tiriti o Waitangi (Marsden 128). I acknowledge that the failure to uphold the Treaty continues to have a lasting impact on Māori communities today. Throughout my work I have been privileged to be able to engage and work with Māori and I have gained an insight into their indigenous worldview. These experiences have helped me develop a more holistic approach to design and helped inform my positionality in my practice.

Positionality

This reflection phase has helped me realise that defining my positionality has been important for me to feel more confident working in the community development space. The following is my current positionality statement, although I think it should always be a work in progress.

I am a man of European descent, born and raised in Aotearoa New Zealand. I choose to practise design through entrepreneurship for the public good. I am currently designing digital technology to equip the least empowered in society with the tools to empower themselves. In my work I need to take great care, acknowledging the privilege and power that I bring. I also must not let the fear of making mistakes stall progress. I approach my work with a collaborative mindset, a deep respect for people and place, humility, and a sense of curiosity—pursuing a more fair, just and equal society with passion and abandon, guided by the belief that transformative change comes from both boldness and care.

Shifting My Definition of Design

A comprehensive discussion on the definition of design is out of the scope of this exegesis, however, I have found it helpful as a practitioner to have a working definition of design in the context with which I am working. Previously my preferred definition of design was (*Nick Laird, personal communication, 1 March 2017*):

Design = Innovation + Creativity

As I have pursued work in more complex systems and incorporated new ways of being and knowing, I have revised my preferred definition of design to more appropriately suit the systems level context I am working in. My new working definition of design, drawn from Arturo Escobar's book *Designs for the Pluriverse* (XV) is now:

Design = Emergent heterogeneous assemblage

From personas _____ to real people

From ethnography _____ to action research

From mechanistic _____ to relational

**From cybernetics _____ to pluriversal entanglement
+ emergence**

Part 2

Reflecting Through Practice

Refining my Research Focus

Research Question and Method

Literature Review

Design Precedents

Refining my Research Focus

I chose to undertake this masters alongside launching The Wellbeing Protocol to create the opportunity to reflect on, and improve my practice, while also exploring approaches that could increase the project's chances of success. In this part of my exegesis I explore how the focus of my research question has evolved alongside my practice in an example of what Schön would call "reflection in action" (49). I then discuss the literature that informed my approach and present a range of design precedents.

To help frame my initial exploration I started with an intentionally broad set of research questions knowing they would evolve as I progressed with my research. These early questions were:

- **How might design strategy be used to effectively link beneficial attributes of place based & decentralised communities?**
- **How can design tactics and strategy best assist multidisciplinary teams (i.e. The Wellbeing Protocol) working on wicked problems?**

When reviewing the literature for 4th order design methodologies I learned of the emerging field of systemic design. The Systemic Design Association defines systemic design as "an interdiscipline that joins systems thinking to design methodology". This broad, pluralistic approach, fitted well with the diversity of the change The Wellbeing Protocol is seeking to influence. At the same time a common problem was occurring when we were trying to tell people about our change. We were getting feedback from people that they were struggling to understand the concept and did not feel like they could easily explain it to others. This insight helped me refine the focus my research question to:

- **How might systemic design approaches, situated in the active case study of The Wellbeing Protocol, be used to effectively support knowledge dissemination and adoption of neo-economic paradigms to a wide range of stakeholders and generate buy-in for lasting systems change?**

As I was exploring systemic design approaches, one framework that stood out and solidified my research

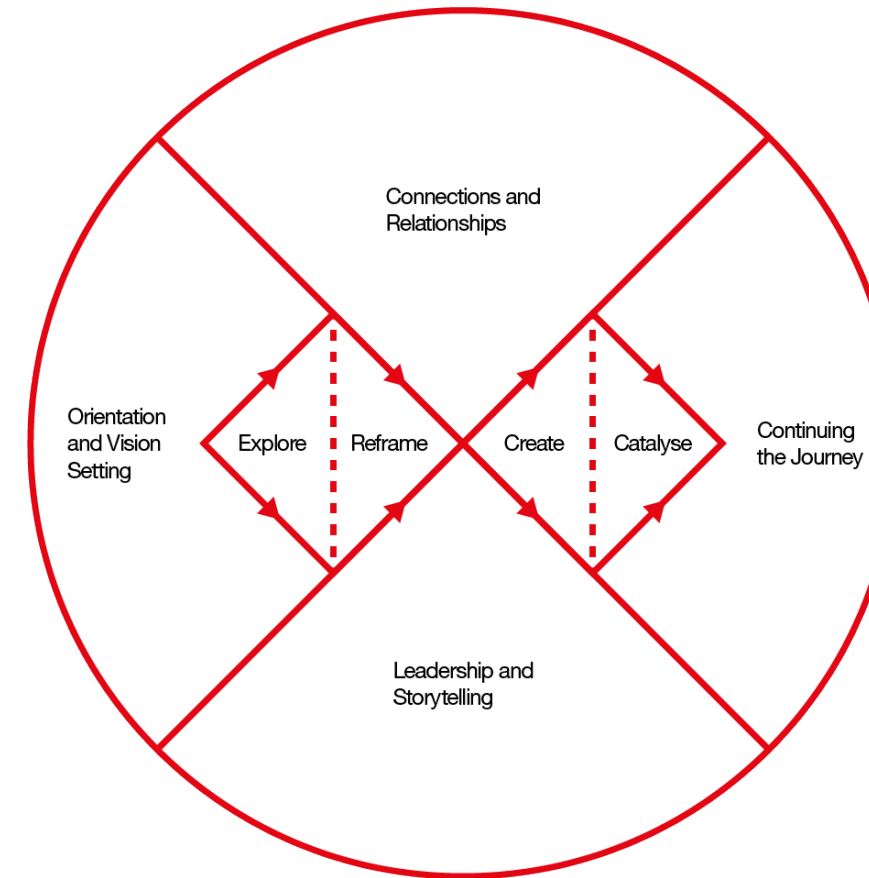


Figure 6. The Design Councils Systemic Design framework.

direction was the Design Council's Systemic Design framework (see Figure 6.). The framework is an evolution of the Design Councils double diamond model and was developed to acknowledge the nonlinearity present in complexity and to highlight the "invisible activities" that are needed, but often neglected and under-resourced (Drew).

Specifically, the part that caught my attention was the leadership and storytelling segment. From experience, I knew we had trouble explaining the complexity behind the The Wellbeing Protocol. I spent some time reflecting on why we had this challenge with advisors and stakeholders and concluded:

- Introducing a new economic paradigm is going to be inherently complex to communicate
- As educated white males with limited personal experience of the negative aspects of the prevailing economic paradigm, and with no background in community development, we were not well positioned to communicate the empowerment message.

- Existing negative narratives around ‘white guys in tech’, ‘blockchain is a scam’ and ‘blockchain is bad for the climate’ had to be addressed upfront.
- There was, and is, a prevailing, and understandable, caution by intermediaries about the use of technology in underserved communities.
- Talking in the abstract was not helpful. We needed to convey how our approach could deliver tangible benefits in real communities. An example of this was when a funder was considering a second investment but was having second thoughts. I created a short video of our prospective plan for the participatory grantmaking trial that included representation from the community group we were partnering with. This helped clarify the potential impact of the investment and resulted in the funders board unanimously backing the second investment.
- At times we were not the best communicators—sometimes the clarity and delivery was off and we needed to improve.
- Not being well positioned to tell genuine

community stories meant relying on others. This challenge was compounded by the project being resource constrained and we did not want to be extractive by pushing communities to share their stories for free.

Another driver for finding more compelling narratives at the time was that the project was running critically short on resources. In response to this communication challenge, and in an attempt to keep the project alive, I refined the focus of my research question to:

- **How might systemic design approaches help identify narratives to attract resources to build digital public goods?**

Fortunately, we were successful with some funding and further reflection made it clear that the factors described earlier, while still relevant, were not absolute barriers. It was not the stories and narratives themselves that were wrong, badly delivered, or by the wrong person. The biggest insight was that there was not a single narrative that was going to work. Each partner who we

had onboarded was requiring a tailored and nuanced message. This was especially true when stakeholders were committing resources. We needed to tailor the message to the very specific outcomes that they could advocate for, and align to their organisational strategy and timelines. This insight intuitively felt right as I was finding it hard to keep track of what story to tell to whom. I counted the amount of pitch decks we had used and at the time of writing we have created over 90 variations.

I needed a way to help ground the project in practical next steps to move the project forwards. If I could not do this, and could not progress the project, I would be failing in my job as a leader. I needed an approach to help meet this skills gap. I was not aware of tools or methods that could help and an initial search of the literature for approaches proved unhelpful (I expand on this further in the literature review). Instead, the Systemic Design literature led me to sensemaking approaches in complexity. This is when I discovered Systems Oriented Design (SOD) and its core methodology of

visualised sensemaking, known as Gigamapping. SOD is a non prescriptive design methodology within the pluralistic field of Systemic Design. It was developed to help bridge the gap between systems thinking and design thinking. Its goal is to help designers tackle complex problems by using systems thinking and visualisation techniques (Sevaldson, *Designing Complexity* 28). Gigamapping is the core visualisation technique within SOD which Sevaldson defines as “super extensive mapping across many sections, layers and scales with the goal of investigating relations between seemingly separate things, categories, and silos.”(Sevaldson, “What Is Gigamapping?”).

As someone who typically makes sense of things with a white board and pen in hand, the SOD approach of visualisation, encouraging ‘unfinishedness’ and ‘emergence’ sat well with me. It gave me a framework for how I might go about my research aim of resolving the narrative coordination skills gap and clarified my research question (see overleaf).

Research Question

How can Gigamapping support a practitioner to effectively coordinate narratives when leading a complex transition design project?

Research Methodology

Systems Oriented Design

Literature Review

Key words: Systems oriented design, Gigamapping, Transition Design, narrative change, narrative landscape mapping, visualised sensemaking, practice-led research

In contrast to a traditional research approach, where the literature review is conducted first to identify a knowledge gap, my awareness of the gap came directly from my practice experience. Recognising a need to improve my skills in narrative coordination, I started by reviewing the literature for existing tools or frameworks that could help. When this search failed to provide definitive tools relevant to my context, I instead chose a practice-led approach, using Gigamapping as a sensemaking strategy to chart a possible path forward. A practice-led approach was the appropriate method of inquiry as it allowed me to respond and adapt to my process as new insights emerged (Smith). As I mapped, a process for how I was organising the information emerged. I had not set out to create a specific tool but, the idea of evolving this process into a tool for others to use, came after a discussion with my supervisors. I then revisited the literature with a

sharper focus and used what I learnt to help inform the development of The Narrative Canvas. The following review reflects this journey. It combines insights gained from foundational theories with relevant literature in narrative mapping.

Foundational Theories

Transition Design, developed by Terry Irwin et al., provides a framework for addressing complex societal challenges. The approach emphasises long-term thinking and encourages a shift towards a global economy that is more local, participatory, and in harmony with nature. I found this framework to be a valuable foundation for my research, as it aligned well with The Wellbeing Protocol's thesis and helped me consider how the project's narratives were distributed geographically and across time. This process of visioning desirable futures and setting out steps to get there has also been integrated as a key stage in The Narrative Canvas.

Sensemaking is the process by which people interpret and give meaning to complex, ambiguous

situations or information (Weick). There are a number of methods for sensemaking, however, in an early stage startup context when time and resources are tight, it is important for the organisation to remain agile and adaptive with the tools it uses (Ries). An efficient way of making sense of large amounts of complex information is through visualising the information in a map (Sevaldson, *Designing Complexity* 48). Often maps are thought of as final communication tools, however, when dealing with complex situations, multidisciplinary practitioners have been turning to maps as a core part of the inquiry process (Dark Matter Laboratories, “DM Note # 7”). The Gigamapping method supports the sensemaking process while remaining flexible in its application, making it suitable for this research context.

Narrative Coordination Tools

In my search for narrative coordination tools, I found that many focused on creating a single narrative or consolidating messaging into one cohesive story (Gupta; Burdett). However, I came across very

few approaches that aimed to coordinate multiple narratives for different audiences. The approaches I did find were high level and typically amounted to suggestions of ‘develop a communications plan’ or ‘hire a communications team’. As a time poor founder with a project that was pre revenue I did not have the resources to pursue these options.

I did find approaches like those used by Ng et al., who applied big data techniques to analyse the narratives surrounding the 2021 United States Capitol riots. Their Coordinating Narratives Framework leverages social media data to analyse and extract insights on influential narratives. However, like many of these big data approaches, it requires collecting the data first—something that didn’t exist for us. From experience I had also learnt that the philanthropy and grant sector in Aotearoa is very relational, so pursuing a big data approach was unlikely to be a good use of our limited resources. Authors such as Grunig et al., also explain how organisations often keep their communication strategies hidden due to their competitive, political,

and strategic nature which makes studying and getting insight into specific models difficult. This partially explains why identifying appropriate strategies for my context was challenging.

Narrative Change

As a process for coordinating narratives was emerging I returned to the literature and learnt about the field of narrative change. Narrative change is a field that studies how to shift narrative discourse over time (Kalra et al.). The Narrative Initiative, a key voice in the field, defines narrative as “ideas and themes that permeate collections of stories.” (Narrative Initiative). This definition alludes to the idea that transforming narratives requires a broad and cohesive approach to storytelling rather than singular isolated stories alone. This concept is discussed further in the narrative house example in the design precedents section.

A relevant technique in narrative change work is narrative landscape mapping. Much like Gigamapping, narrative landscape mapping

encourages a workshop setting with stakeholders to develop an understanding of the harmful, and helpful, narratives influencing public perception and decision-making around a specific issue (Weidinger). In my work, this technique helped me to think about not just the positive narratives, but also narratives we wanted to avoid, or counter. A critique of the narrative landscape mapping approach is that it is not instructive, making it hard for a practitioner to use without experience of the process or supported by skilled facilitation.

In summary, I wasn’t able to find a specific published approach that I could use to help me meet the identified skills gap of narrative coordination, so turned to Gigamapping to explore if making sense of the information I already had could provide a way forward. Further consultation of the literature throughout the development of The Narrative Canvas helped validate that there were no suitable tools for time and resource constrained founders working in a startup context.

Design Precedents

In the following section I present a number of design precedents that have informed the development of The Narrative Canvas.

- The Storyteller Tactics card deck was developed by former BBC reporter Steve Rawling to help people create more compelling stories (Burdett). The Story Bank card (see Figure 7.) encourages you to keep track of which stories you tell to who. This gave me the inspiration to try and collect all of the stories in my project in one place to try to better coordinate them.
- When attending a workshop on narrative change I was introduced to the idea of thinking about narratives as a mosaic house (see Figure 8.). The grand narrative represents the roof with a number of organisations contributing to a mosaic of stories that help hold that larger narrative in place. I used this concept to help me think about the many layers of stories and narratives in our context. The key insight was that we could not control the whole information space, instead we had to contribute by building up (or taking down) some of these building blocks.

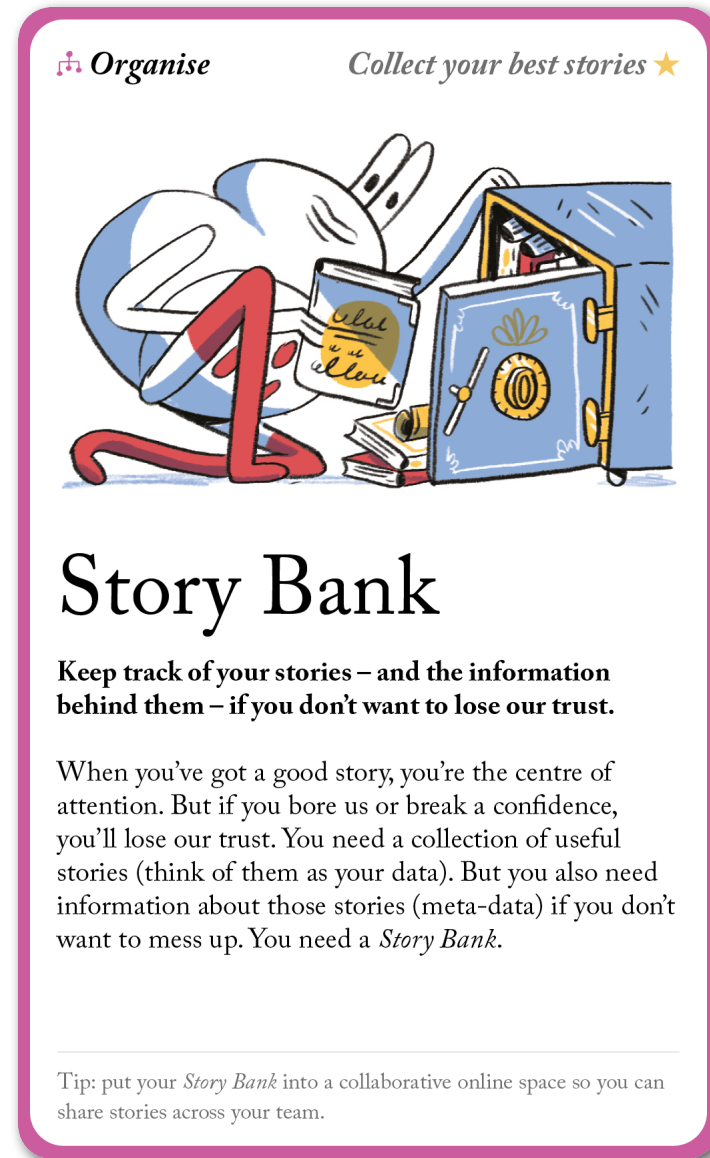


Figure 7. Story Bank card. Pip Decks, Storyteller Tactics, 2024.

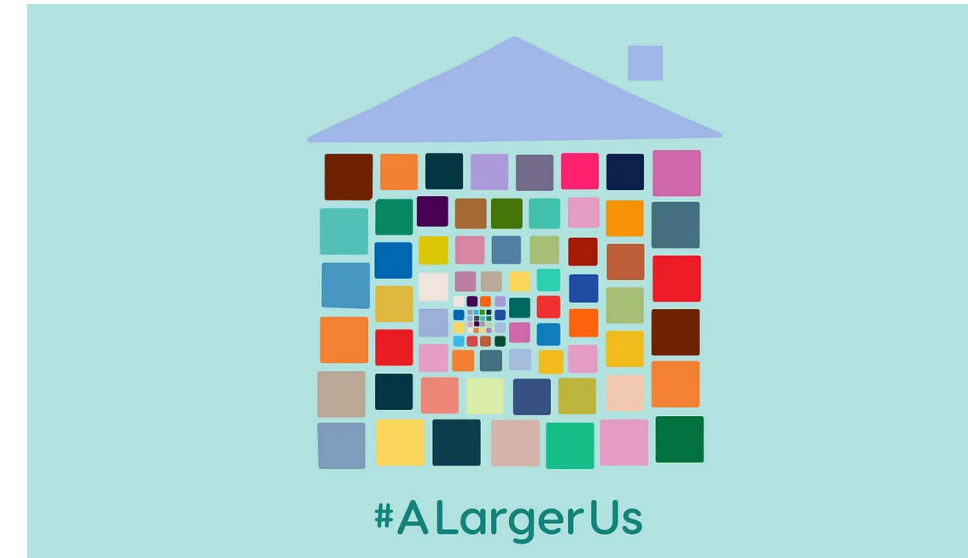


Figure 8. Mosaic narrative house.

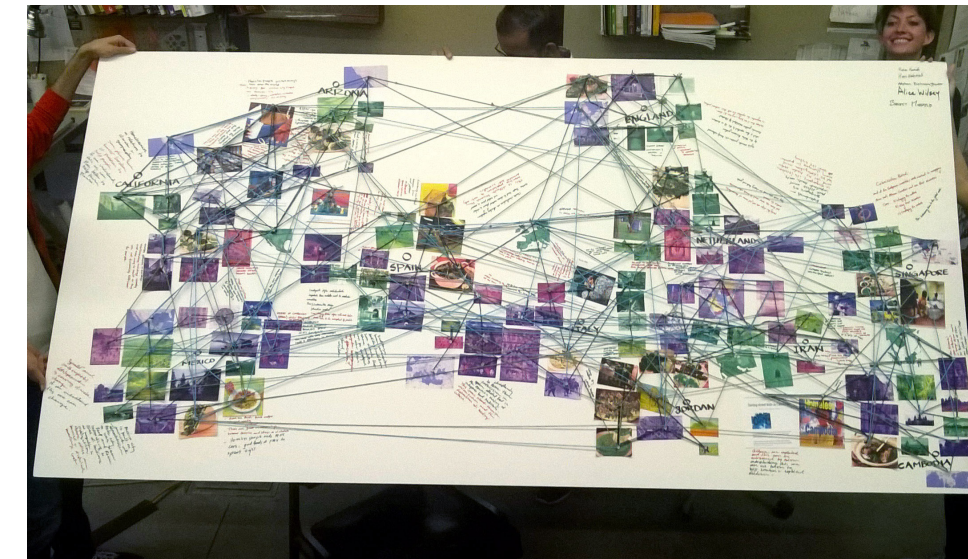


Figure 9. Professor Marie Davidova's gigamap.

- The Systems Oriented Design website has a large library of gigamaps to draw inspiration from. One example is Marie Davidova's gigamap (see Figure 9.) which draws on the use of real imagery to help the map hold more context and support sense sharing (Image Maps). This was a useful example which encouraged me to collect and print all of the real imagery we had to help me with my mapping process.
- Wesley Community Action is a community social services organisation based in Wellington. I came across Wesley's visual theory of change (see Figure 10.) when we partnered to deliver our community currency system demonstrator. I was familiar with the approach but at the time I remember being impressed by how they used it. It was displayed in their community house and all members of the organisation were able to stand in front of it and clearly explain in a few sentences how they were trying to bring about change even though the context they were operating in was very complex.



Figure 10. Wesley Community Action visual theory of change.



Figure 11. Climate Fresk workshops.

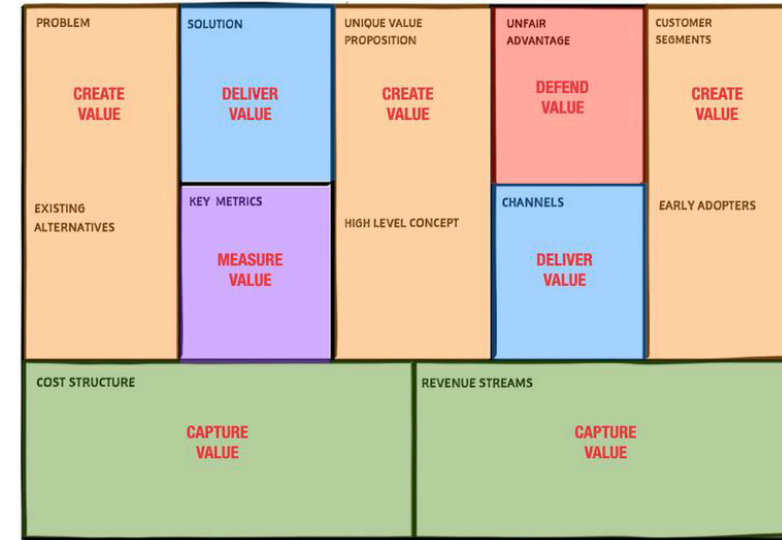


Figure 12. The Lean Canvas by Ash Maurya.

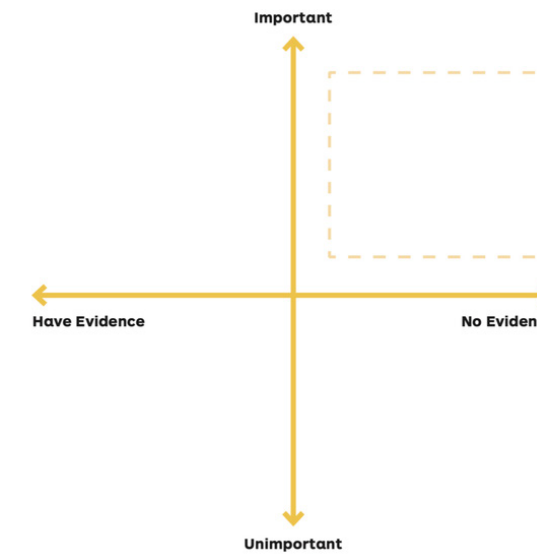


Figure 13. Assumption map by David J. Bland.

- The Intergovernmental Panel on Climate Change reports are nearly 6000 pages long so in 2015 Cédric Tingenbach designed a workshop, called Fresks, to communicate the key findings to participants (Daalder). The workshop, structured as a game, uses 42 images to map the key issues (see Figure 11.). It has since been played by 1.8 million users across 162 countries. This is another example of how visualising information with in-person groups can help communicate complex information.
- The Lean Canvas, created by Ash Maurya and the Assumption map developed by David J. Bland (see Figure 12. and 13.) are both examples of simple but powerful frameworks for helping startups succeed (Maurya; Bland). Although The Narrative Canvas has more steps and is a more complex process, I used these examples as a guide to simplify my approach.

**The journey of the innovator,
as one designer described it,
is learning how to ‘cut cubes out of clouds’.**

**How can you give sharp edges to a soft
concept so everyone can see it?
How can you make the intangible tangible?**

(Neumeier 130)

Part 3

A Practice-led Approach

Design Process

User Research

Final Gigamap

Design Process

The following sections present the practice-led process I took to develop The Narrative Canvas.

Reflection Stage

As described in Part One the reflection stage was key to helping me gain clarity for both my positionality and my research focus. This involved reviewing old project material and discussions with people about my past projects. I also used the writing process and reading key texts which I've discussed in my literature review. A key part of this stage was mapping the macro, meso and micro systems The Wellbeing Protocol was trying to influence. This included mapping out the stories that we had told (see Figure 14.), and I often also used the white board to think through the iterations of my research question.

Gigamapping

To start I spent some time researching other peoples gigamaps and reading the documentation on how to gigamap (see: www.systemsorienteddesign.net/how-to-gigamap/).

www.systemsorienteddesign.net/how-to-gigamap/).

Testing Mediums

The next step was to figure out what medium I was going to use. I tested a number of options in following order:

- Whiteboarding
- Whiteboarding + digital projection
- Digital only
- Pinboard only
- Pinboard + digital projection (see Figure 15.)
- Pinboard + paper background

I ultimately chose a pinboard with a paper background as the most suitable option because:

- I needed an accessible and permanent place for the map for the duration of the research so myself and other participants could easily iterate on it.
- Whiteboards were only available in shared spaces and it risked getting rubbed off.
- It had to be set up in such a way that it

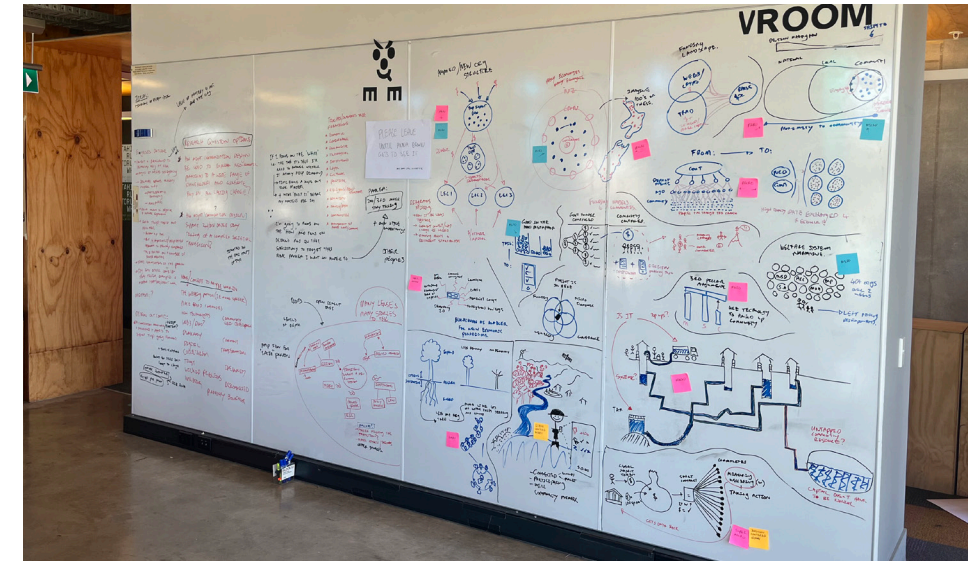


Figure 14. Mapping the stories we had told in the project



Figure 15. Testing pinboard and digital projection as a possible medium for Gigamapping.

was very easy to evolve the map while still capturing the changes. Needing to get a camera and tripod out of the Toy Store every time would have created a lot of friction (see the next section for how I resolved this)

- Pins allowed me to easily attach and rearrange information. Magnets were trialed, however, they were found to be difficult to work with and expensive.
- Digital mapping only was ruled out because it is not recommended in the Gigamapping documentation (Sevaldson, "How to Gigamap").
- I also preferred this approach as I find that my ideas flow best when working in a physical medium. As I was using the paper background a digital overlay was still an option though I didn't find a need to use it. I found I could just show digital information via a computer screen, although, if you were working with bigger groups a larger projection might be helpful.
- The paper background allowed me to directly draw on the map, although not as freely as a whiteboard would have as it was harder to

correct mistakes or make changes. On reflection this likely slowed down the free flowing ideas as I tended to draw out other ideas in my book first before committing it to the paper on the wall.

An interesting observation I made was that because it was physical you had to be considerate about where you put things. For example, if you wanted to draw a connection on a digital platform it is inconsequential as it is easy to remove, but, by using a permanent pen or string you are made to think much more carefully about whether or not you really wanted to highlight that connection. Ultimately I found the medium of pin board and paper versatile enough for my purposes. If I was to do it again, I would ideally find a white board surface that I could still use pins on.

Capturing the Process

Capturing the process in a low effort way was important to not disrupt the flow of ideas and to communicate to others what I had done. The first technique I tried was when I was using the white board using an app called Rocketbook. You place orange triangles at the corner of your work and then

when taking the photo (from any angle) through the app, it auto detects the area enclosed by the triangles. The software then edits the photo for aspect and contrast, then sends it to your Google Drive. This worked well enough but required remembering to take a photo every so often. I did not explore this approach further as the software was designed to work on whiteboards only. Instead, I decided recording the process was an easier option and I developed a camera jig that could stay in place for the duration of my mapping process (see Figure 16.). This was designed to hold my iPhone which proved a simple way to capture the changes to the map, and also allowed me to easily capture the audio from workshop participants.

Solo Mapping

I initially spent a lot of time looking at other gigamaps for inspiration. I then decided to start my process with the AEIOU (Activities, Environments, Interaction, Objects, Users) heuristic framework used by ethnographers to document contextual inquiries (see Figure 17.)(Robinson). I followed this by using string to help identify how the information was related (see Figure 18.).



Figure 16. The camera jig I made to capture the time-lapse of the Gigamapping process.

After completing this I stepped back and had the key insight that the people hold the stories and the other information was less relevant. I then generated a list of people from The Wellbeing Protocol's database and pinned a printed card for each onto the gigamap (see Figure 19.).

When theming these people into groups the most interesting were those who we had told our story to and then taken some sort of action to support the project (i.e. a warm introduction, start a trial, providing funding). Once I had identified this group I started interrogating which part of our transition story the person had brought into (see Figure 20.). These ranged from people who just wanted the short term benefits of better resource distribution to communities or those who were convinced by the longer term decentralised technology play that could lead to a better economic system.

The last stage of my solo mapping was to then layer on the relevant stories or future stages we were trying to achieve (see Figure 21.). At this point, a discussion with my supervisors encouraged me to explore how the process I had gone through could be more clearly defined, and how others might also find it useful. Figure 22. shows an initial sketch of the process I captured in my sketch book.



Figure 17. Initial mapping of project information



Figure 18. Identifying relationships between different types of information

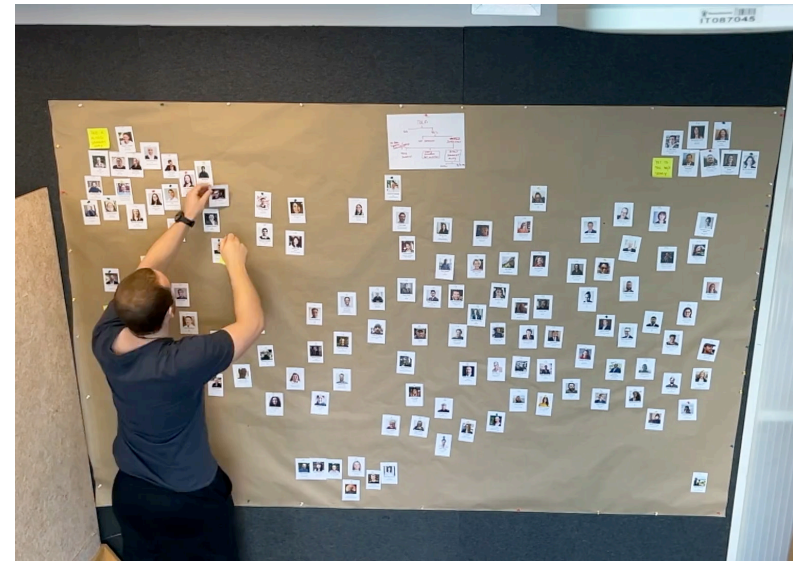


Figure 19. Analysing and theming stakeholders



Figure 20. Assessing how stakeholders relate to transition stages.



Figure 21. Mapping the stories we have been telling.

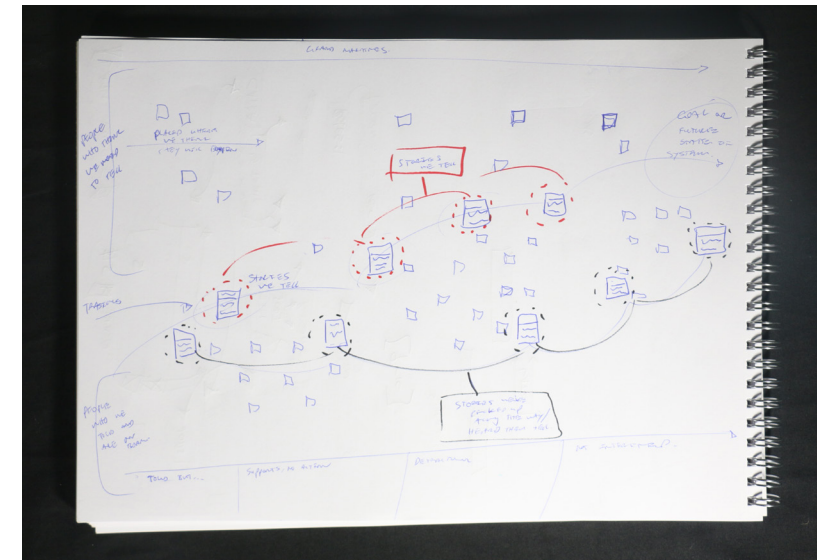


Figure 22. Initial concept of the tool that was emerging from the process

User Research

This section is presented in a linear fashion for clarity but in reality it ran in parallel with prototyping, evolving the gigamap and continued working on the live case study. Following my initial solo mapping phase over the next three months, I conducted a series of 30-60 minute workshops with three distinct groups: stakeholders with direct knowledge of The Wellbeing Protocol, practitioners in a similar position to myself, and narrative professionals. The workshops aimed to help me refine my approach to narrative coordination by engaging participants in discussions about the process to date, contributing to the gigamap, and giving feedback on the different iterations of The Narrative Canvas. Nine individuals participated, providing insights on the approach's relevance, potential applications, and novelty.

I initially planned for more collaborative mapping, but the emergence of a coordination process during my solo mapping, combined with logistical challenges and limited participant case study knowledge, shifted my approach. I instead used the gigamap more as a reference point and centered

the workshops on refining The Narrative Canvas. I present this workshop process and discuss the key insights in the following sections. The full workshop process is outlined in Appendix B.

Mapping with Others

Figures 23-26. capture some of the process work related to the stakeholder workshops.



Figure 23. Discussing the map with a narrative professional



Figure 24. Mapping the stories we have told with my co-founder



Figure 25. Mapping with a project stakeholder



Figure 26. Plotting potential narratives

Prototyping the Tool

Once the idea for developing a tool for others emerged, I began recording the process after each mapping session in my sketchbook (see Figure 27.). I then created a series of physical prototypes to help think through how the different layers of information could be structured into stages for others to follow (see Figures 28-32.). These were then used to help discuss the approach at the workshops.

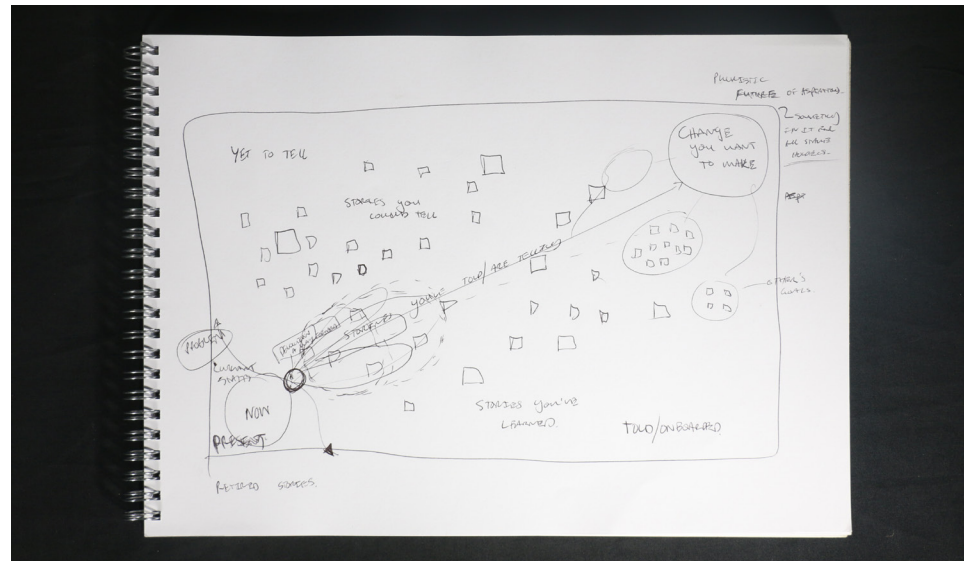


Figure 27. Workbook concept sketch

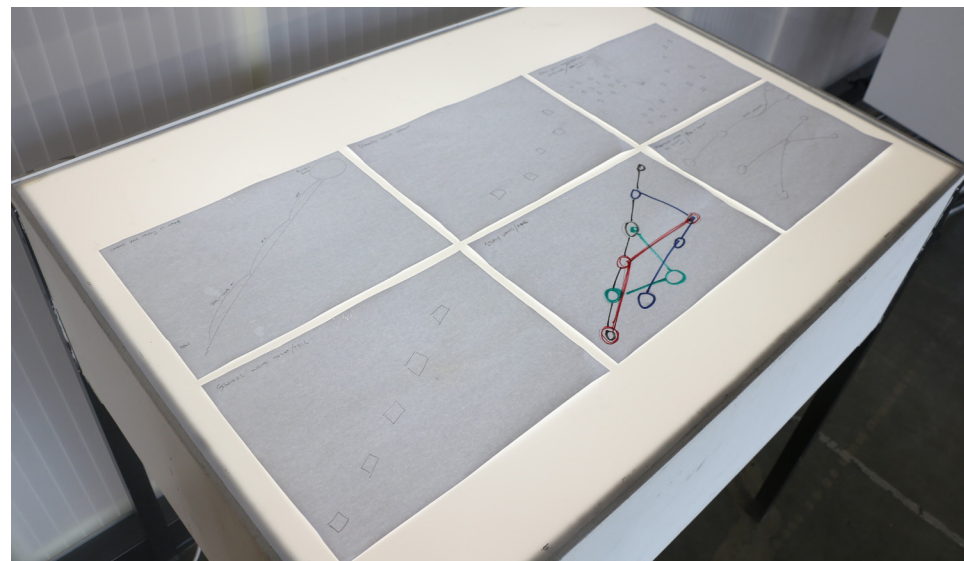


Figure 28. My first layered prototype created on the light table.

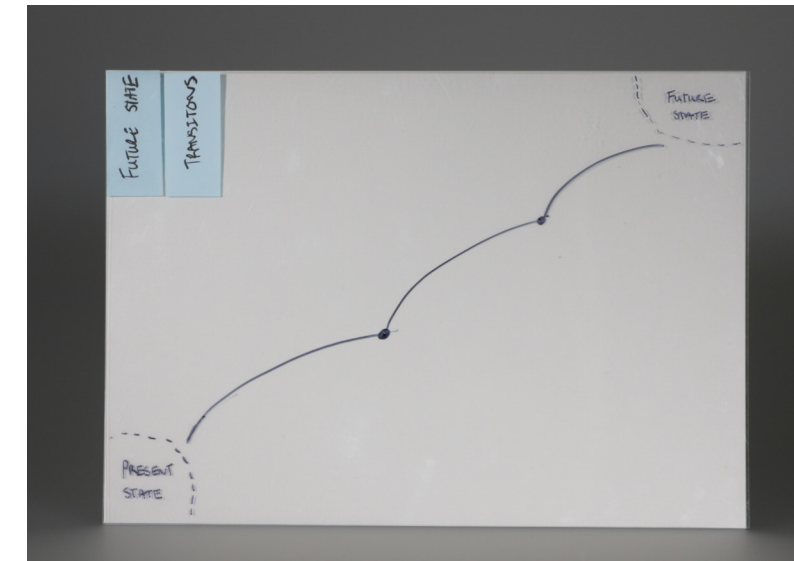


Figure 29. Transparency prototype: Transitions layer

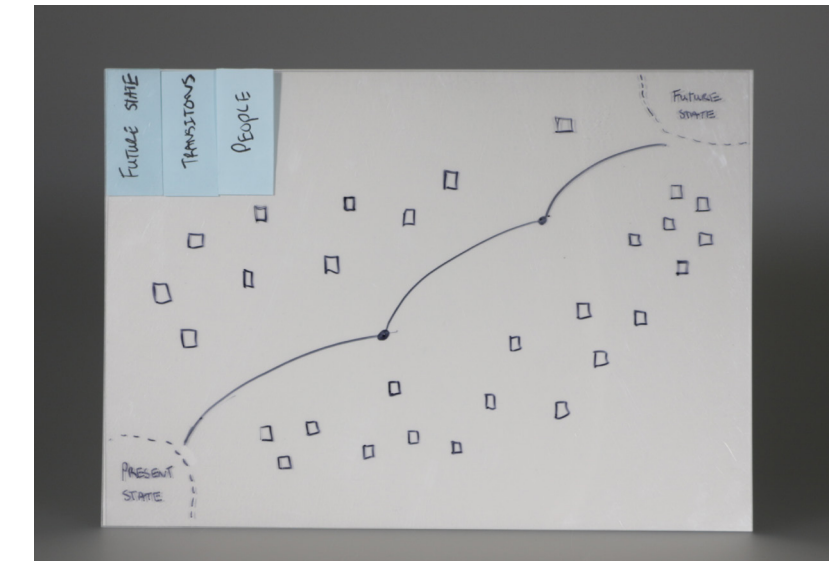


Figure 30. Transparency prototype: People layer



Figure 31. Transparency prototype: Story layer

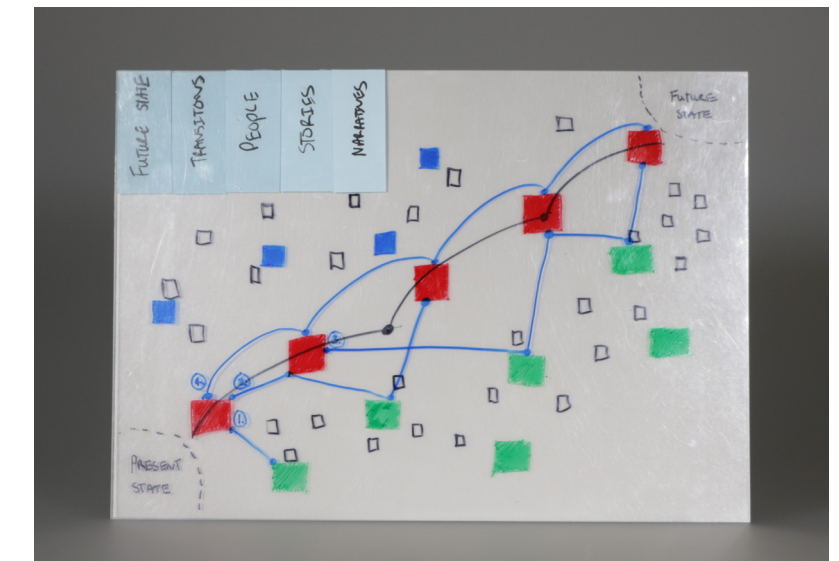


Figure 32. Transparency prototype: Narrative layer

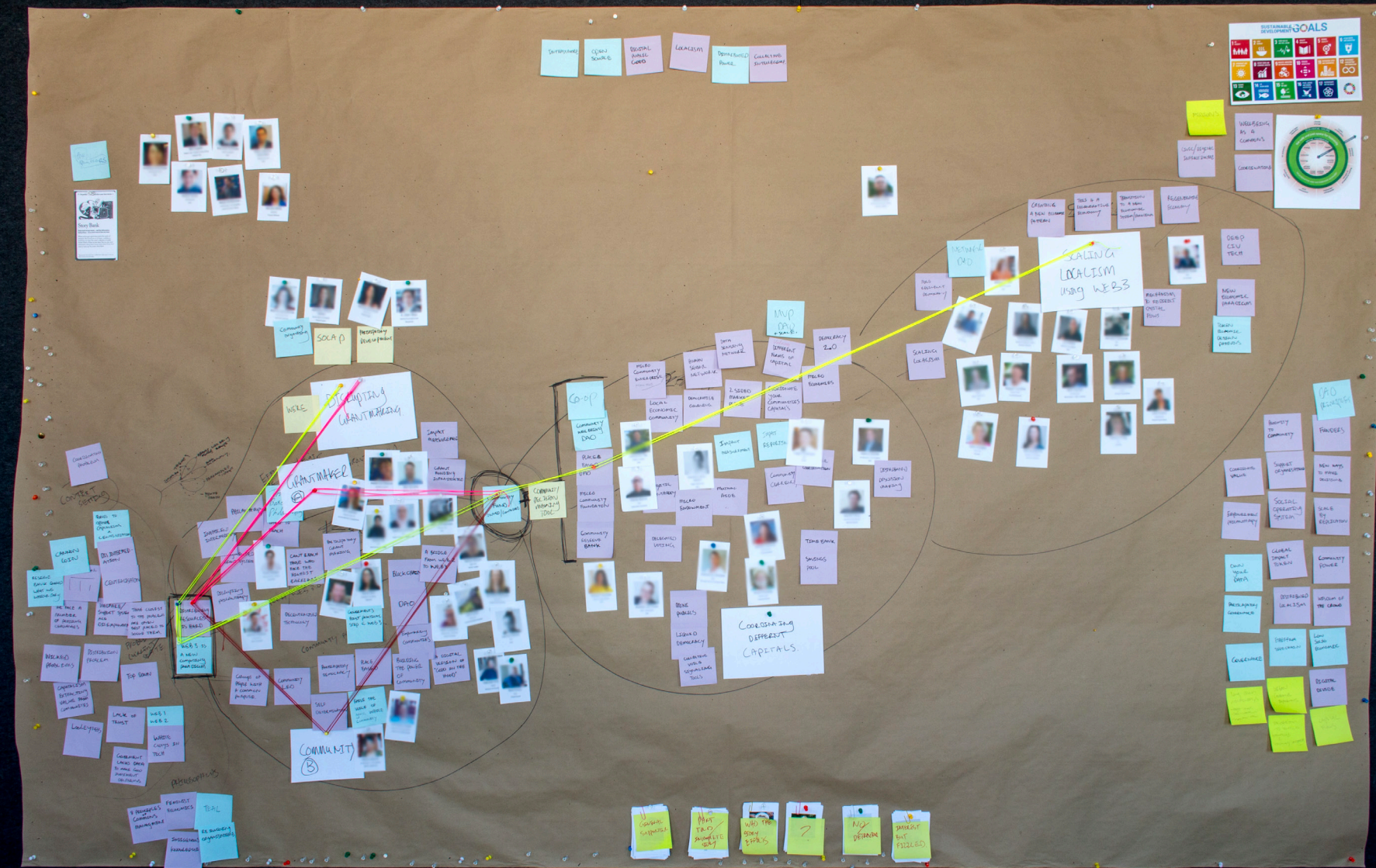
Insights

The following insights have been summarised from the workshops and influenced the development of the Narrative Canvas:

- The physicality of the prototype and layering elements on the canvas was seen as a positive aspect. People found it engaging, and it appeared to support deeper interaction and reflection.
- One participant noted that the participatory nature of the process aligned with the values of collaborative projects. They reflected that this was quite a stark contrast to a corporate environment where messaging was siloed and hierarchical.
- People with more context about the project found it easier to engage with the gigamap, while those without prior knowledge struggled to participate at the same level.
- It was noted that the process requires significant time and effort, which could limit participation to those with the time to commit to deeper involvement in the project (i.e. founding teams).
- Some saw the approach as particularly useful in the early stages before a formal communication plan was established. It was viewed as a space for actively testing, iterating, and refining key narratives before committing to a structured plan.
- There was a sense that the canvas offers a unique approach compared to typical startup tools. No other tools were identified that focus on exploring early-stage narrative development in a similar way.
- The potential to use the canvas in client workshops was considered, but it was noted that the success of this approach may depend on how much shared knowledge participants have at the outset.
- All participants thought that it would need some explanation. This highlighted the need for some kind of onboarding process to introduce newcomers to the canvas and its logic.
- The use of real people to hold the context and simplify the map was seen as valuable. However it was noted that it could also be useful to consider the use of personas to help those with less contextual knowledge, make use of it.
- On analysing the stories within the case study it was noted that people responded to familiar language, jargon, from their context. It was observed that small shifts in wording rather than complete changes in the message often helped bring someone on board.
- For unknown leads, it was noted that starting with a simple version of the story and then gradually building in complexity was likely to be most effective and reduce the risk of confusing them.
- It was discussed that defining what indicators of success would be helpful. In the case study context these were things like ‘did they give us funding’ or ‘did they introduce us to a person in their network’. When analysing the effectiveness of specific stories or narratives it was ‘were they able to easily communicate the concept on to the next person or within their organisation’
- It was noted that you need to have different length versions of the same narrative (i.e. an elevator pitch as well as a longer, more in depth narrative with examples)
- One participant commented that the canvas encouraged an approach that felt like an active, real-time theory of change. Rather than having a polished strategy from the outset, the canvas allowed for ongoing exploration, testing, and iteration of narratives.
- There was an observed tension between the openness of exploration and the desire for structure. While the process allowed for free-form exploration of connections, some participants expressed a desire for more clarity on “when to start” and “when it’s done.” This tension seemed to be part of the nature of the canvas itself—it works as a living, iterative tool, but this open-ended nature can also feel unclear at times.
- When discussing the canvas one participant remarked that “all this tells me is that these people responded to these messages.” While initially framed as a critique of why they wouldn’t use it, this insight helped clarify the tool’s purpose — to track and make sense of messaging at a stage in the project where it is still unclear which communications will work or when the diversity of the messaging is so diverse and complex that coordination is needed.

Final Gigamap

Figure 33. shows the gigamap at the time of publishing this exegesis. It will continue to evolve as the project progresses. As our team remains small, the gigamap will be maintained in physical form. In the future, a simplified digital version may be created to capture the successful narratives, making it easier to share with new team members and stakeholders.



Opposite
Figure 33. The final gigamap

**‘These people responded
to these messages’**

Research participant

Part 4

Design Outcome
The Narrative Canvas
Discussion

The Narrative Canvas

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Leads

People you need to convince

Future

The system you are trying to create

Present

The system you are trying to change

Advocates

Leads who bought in and took action

Detractors

Leads working against the change you are trying to make

Supporters

Leads who bought in but did not take action

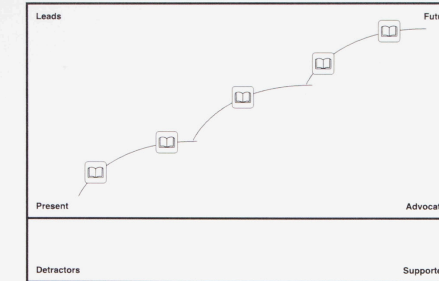
How to use The Narrative Canvas

This canvas is a sense making tool designed to help you analyse and coordinate narratives when working to change complex systems. Use it to track which messaging is converting people into advocates for your change. It is particularly useful in situations with multiple stakeholders, extended time frames, and when the stories and narratives you need to convey are uncertain or emergent.

Tips

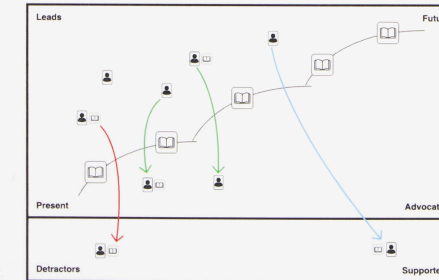
- Pre-qualify your leads
- Use real people as leads instead of personas. This helps your canvas hold rich context for discussing and planning your narratives
- Involve your team and stakeholders to improve understanding of which narratives work best
- Keep your canvas accessible and revisit it often
- A large physical canvas works best for spontaneous conversation and group collaboration
- Capture jargon you learn from your leads. A slight shift in framing and language can be all it takes to convert a supporter to an advocate

This canvas can also act as a base layer for a more complex gigamap. Learn more about gigamapping and how to do it here: www.systemsorienteddesign.net/how-to-gigamap/.



Step 1

Add your present and future system states. Link them with the stages for how you think your change can happen. Then add the stories that you are already telling.



Step 3

Engage your leads and record their response to your messaging by moving them to the relevant area. Add any stories you've learnt.

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Step 2

Add your leads relative to where you think they might engage with your stages of change. Include any stories you think you could tell.



Step 4

Regularly update your canvas and analyse it for common narratives that are converting your leads to advocates.

The Narrative Canvas

In this section I present The Narrative Canvas and discuss the key design decisions that have been made (see Figure 34. and 35.). The Narrative Canvas is designed as a sense making tool to help practitioners analyse and coordinate narratives when working to change complex systems. The core function of the canvas is to systematically test and track which messaging and narratives are converting people into advocates for your proposed change. It is designed for situations where there are a large number of stakeholders, the change being sought is expected to take place across extended time frames, and when the required stories and narratives to bring about this change are uncertain or emergent. This makes it especially suited to early stages of a project but also can be used to track changes over time, or as a retroactive exercise to help gain clarity once knowledge has been accrued. It acts as:

- A base layer for a more complex gigamap
- A story library that holds the organisation's knowledge
- A place to hold and visualise the organisations, or movements, theory

- of change and desired future state
- A strategic customer relationship management tool.

In summary, it is a tool that can help practitioners coordinate narratives in complexity, or more artistically, 'cut cubes out of clouds'.

Design Decisions

- Built-in guidance: Instructions and tips are included on the reverse side, making it accessible and easy to start without additional support. Additionally, for those who want to evolve their map, a link has been added to locate further information on Gigamapping principles
- Visual style: The design aligns with the functional and minimalist style of other canvases such as The Lean Business Model Canvas. This makes it both familiar and prioritises the information added to the canvas rather than the canvas itself.
- Stakeholder and alternative narrative awareness: A dedicated area of the canvas

The Narrative Canvas

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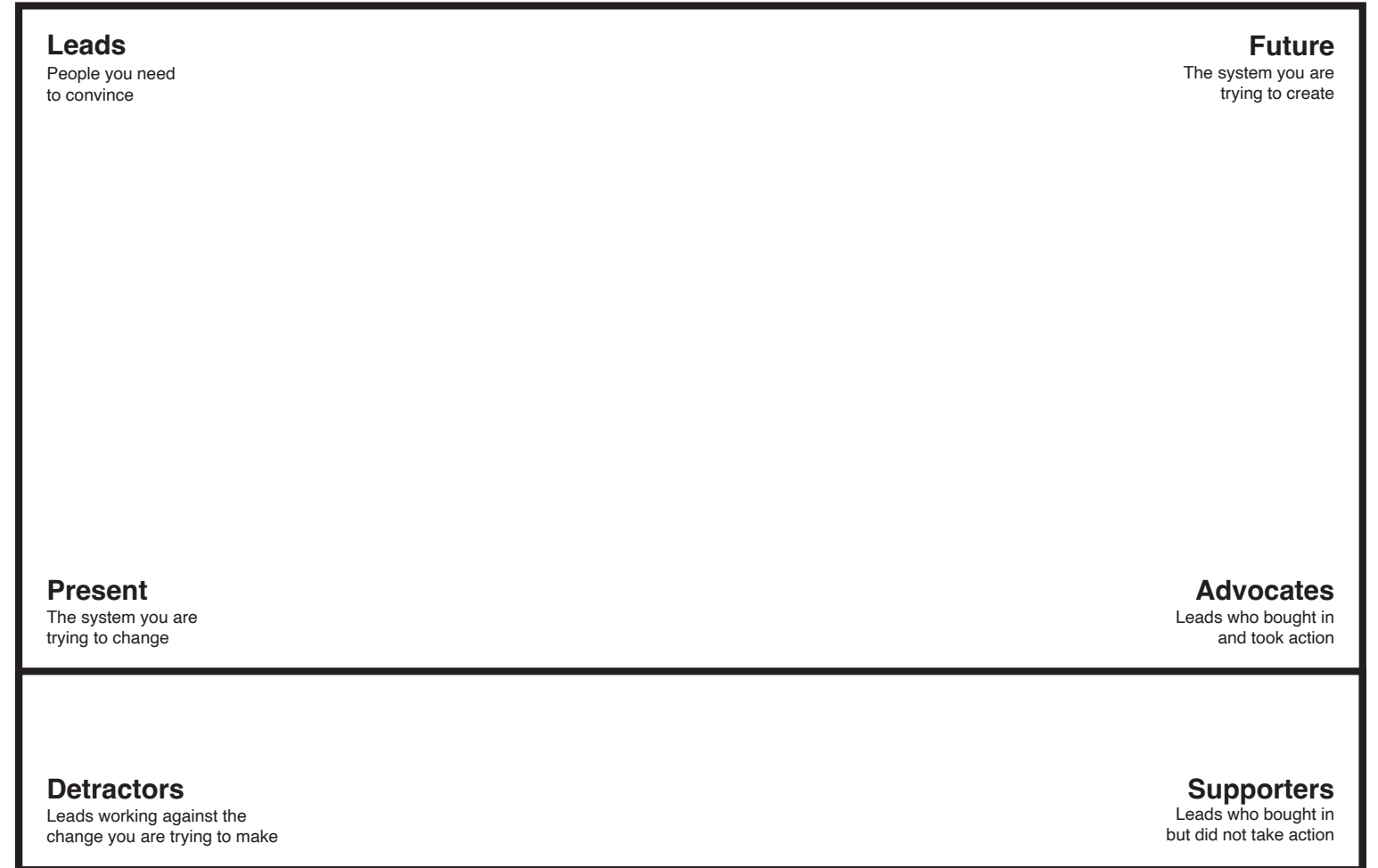


Figure 34. The Narrative Canvas

How to use The Narrative Canvas

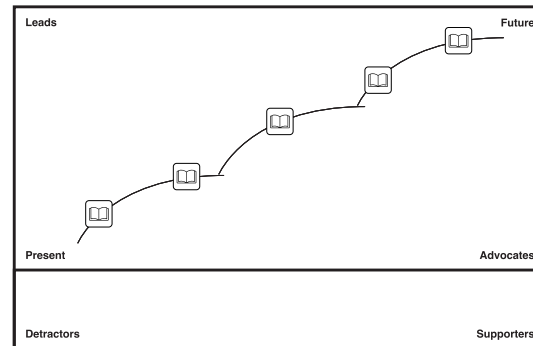
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Tips

- Pre-qualify your leads
- Use real people as leads instead of personas. This helps your canvas hold rich context for discussing and planning your narratives
- Involve your team and stakeholders to improve understanding of which narratives work best
- Keep your canvas accessible and revisit it often
- A large physical canvas works best for spontaneous conversation and group collaboration
- Capture jargon you learn from your leads. A slight shift in framing and language can be all you need to convert a supporter to an advocate

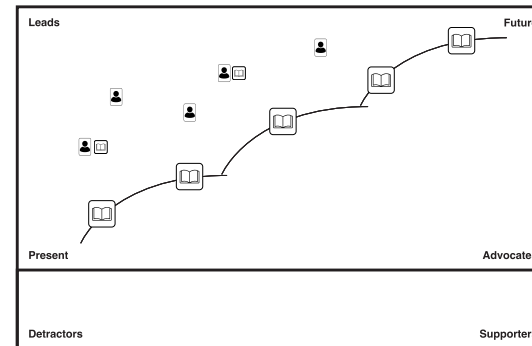
This canvas can also act as a base layer for a more complex gigamap. Learn more about the benefit of gigamapping and how to do it here: <https://systemsorientreddesign.net/how-to-gigamap/>

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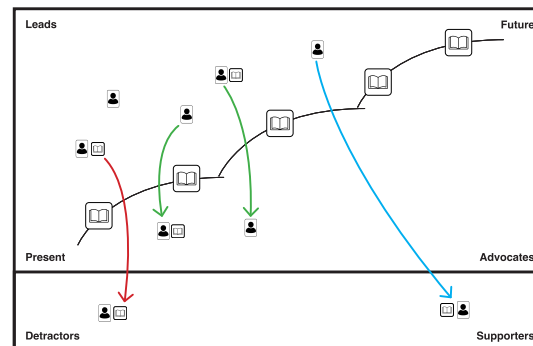
Step 1

Add your present and future system states. Link them with the stages for how you think your change can happen. Then add the stories that you are already telling.



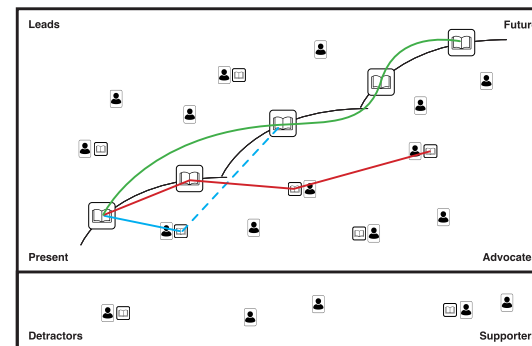
Step 2

Add your leads relative to where you think they might engage with your stages of change. Include any stories you think you could tell.



Step 3

Engage your leads and record their response to your messaging by moving them to the relevant area. Add any stories you've learnt.



Step 4

Regularly update your canvas and analyse it for common narratives that are converting your leads to advocates.

has been included to track the narratives from both detractors and supporters. This is so that opposing views and counter-narratives are present and can easily be referred to without them detracting from the focus on the narratives you want to be telling.

- Leverages familiar frameworks: The canvas incorporates existing frameworks such as the Theory of Change, Three Horizons, and Future State Mapping. Practitioners are likely already familiar with these approaches and may have already completed this work. The canvas provides a way to layer narratives within these frameworks, adding depth and clarity to the process.
- Targeted language: The Canvas uses terminology that practitioners are likely already familiar with, helping to support quick comprehension. For those less familiar with certain terms, brief explanations are also provided to clarify their meaning and intent.
- Encourages collaboration: The design promotes collaborative engagement by encouraging teams

to use large surfaces or shared spaces, which fosters co-creation, shared understanding, and consensus-building among diverse stakeholders.

- Prioritises simplicity and flexibility: The canvas is intentionally simple, allowing users to easily expand its use beyond the page. This flexibility enables the mapping of narratives on larger surfaces, facilitating dynamic and adaptable processes.
- Open-source licensing: The Narrative Canvas is published under a Creative Commons Attribution-ShareAlike (CC BY-SA 4.0) licence, allowing anyone to adapt, modify, and share it freely, provided attribution is given.

Figure 35. The Narrative Canvas instructions

Discussion

I began this research with a goal of identifying how design, in a general sense, could support me as a design practitioner in my role leading The Wellbeing Protocol. The central research question guiding this exploration was: *How can Gigamapping support a practitioner to effectively coordinate narratives when leading a complex transition design project?* This question was established after the reflection phase revealed a critical gap in my ability to coordinate narratives, ultimately hindering our success in fundraising for the early stages of the project.

I explored existing communication coordination methods but didn't find a suitable approach that would work in my context of being a resource-constrained startup founder. This prompted me to adopt the Systems-Oriented Design technique of Gigamapping to explore a more adaptable, contextually relevant approach of coordinating narratives. Following this practice-led process, I found Gigamapping to be highly effective in helping coordinate narratives in my context. The findings of this exploration then led to the development of The Narrative Canvas, a novel, lightweight tool designed for practitioners facing

similar constraints. Through user research, I was able to refine the canvas into a practical and effective tool, which I have now published under a Creative Commons license to enable others to adapt, use, and share it within their own contexts. In the following sections I briefly discuss some of the key learnings from this research process and make some recommendations for future research.

An important insight from this research was understanding when The Narrative Canvas could be most effective. During the user research, a participant with a communications background described it as “simplistic,” stating “it only tells me that these people responded to these messages.” While initially offered as a critique we discussed it further and clarified that the canvas could be very effective in the early stages of a project where you are building something novel. They described it as a ‘pre-communications plan’ tool that could help lay the groundwork for a more concrete communication plan. With another participant I also discussed how organisations often created a theory of change visualisation but that they remained static. They felt The Narrative Canvas’s integrated narrative and

transition layers could be used to help turn static theories of change into more ‘active’ ones. They especially liked how this could fit in with the iterative approach of the Lean Startup methodology that promotes consistently validating if your assumptions (which theories of change effectively are) map to the dynamic realities of a real world project. Both of these conversations, along with my own application of the canvas four years into my project, helped clarify its value as a tool for navigating emergent contexts at any stage—providing a dynamic framework for iteratively aligning narratives with the evolving realities of complex transition projects.

Another interesting insight was a participant observing how the participatory nature of The Narrative Canvas mirrors the values of collaboration promoted by The Wellbeing Protocol. I found this observation compelling as it relates to Escobar’s concept of Ontological Design, as described in his book *Designs for the Pluriverse*. Ontological design suggests that the tools we create are not separate from the contexts we work within, but are co-constructed through our interactions with them. In this case, the development of The Narrative

Canvas was influenced by the case study, while the case study was shaped by the research process. By developing the tool alongside the project, I was able to directly experience how Escobar’s theoretical framework applies in practice. This framing helped me move past my initial ‘mechanistic’ inclination to keep the project and research quite separate, and allowed me to embrace a more fluid, integrated approach where the development of the tool and the project could evolve together.

A key learning for our team was how The Narrative Canvas process helped us move past conflict around our differing preferred communication styles. My co-founder and I would frequently clash over whether to use more technical, informational content or a more emotive narrative in our stakeholder outreach. Both styles have their place, depending on the audience, but what The Narrative Canvas enabled us to do was visually map and discuss where certain approaches worked and where they didn’t. As noted on the tips section of the canvas, physically being able to point to a certain area, helped focus the conversation. For example, we could easily say, “we told this story, and this type

of stakeholder did not become an advocate,” versus, “we told this type of story, and this type of stakeholder did become an advocate.” While the distinction wasn’t always binary, the act of interrogating each piece in the context of other potential narratives, mapped to the transition stages, helped us better understand each other’s points of view, supported by tangible evidence. An example of where this was very effective was planning for a conference in San Francisco. We used the canvas to strategise and role-play which “stump speeches” we would use for which type of stakeholder. As the project progresses we will use The Narrative Canvas to constantly refine our approach, and use it to bring new team members up to speed.

While it is my opinion that the true value of The Narrative Canvas lies in complex, emergent spaces, others might find it useful to adapt it to other contexts. The tool was developed in a highly relational context, alongside a case study that relied heavily on stakeholder engagement and collaboration. This is exemplified in the tips section, where I strongly recommend using real people in the process. However, this depth

of relational interaction may not be necessary in other contexts. In situations where time or resources are limited, businesses might choose to apply the tool in a more transactional way, focusing on lighter-touch methods like personas.

I believe this research contributes to industry practice by providing a tool that fills a gap in tracking and coordinating narratives. The Narrative Canvas simplifies the process of managing complex communications, making it easier for practitioners from a range of backgrounds, including design, who are leading complex transition design projects to identify which narratives resonate with stakeholders. This accessibility and simplicity make it a valuable addition alongside other tools used by practitioners. Additionally, this research itself serves as a case study that demonstrates the benefits of practitioners reflecting on their work, and how it can result in the development of contextually relevant tools and approaches.

Finally, I am publishing this version of The Narrative Canvas under a Creative Commons license because I recognise that this is just the first iteration, and

I expect the tool will evolve with further use. I recommend that other practitioners apply The Narrative Canvas in their own contexts to further validate its value and refine its approach. Some potential ways to explore this could include:

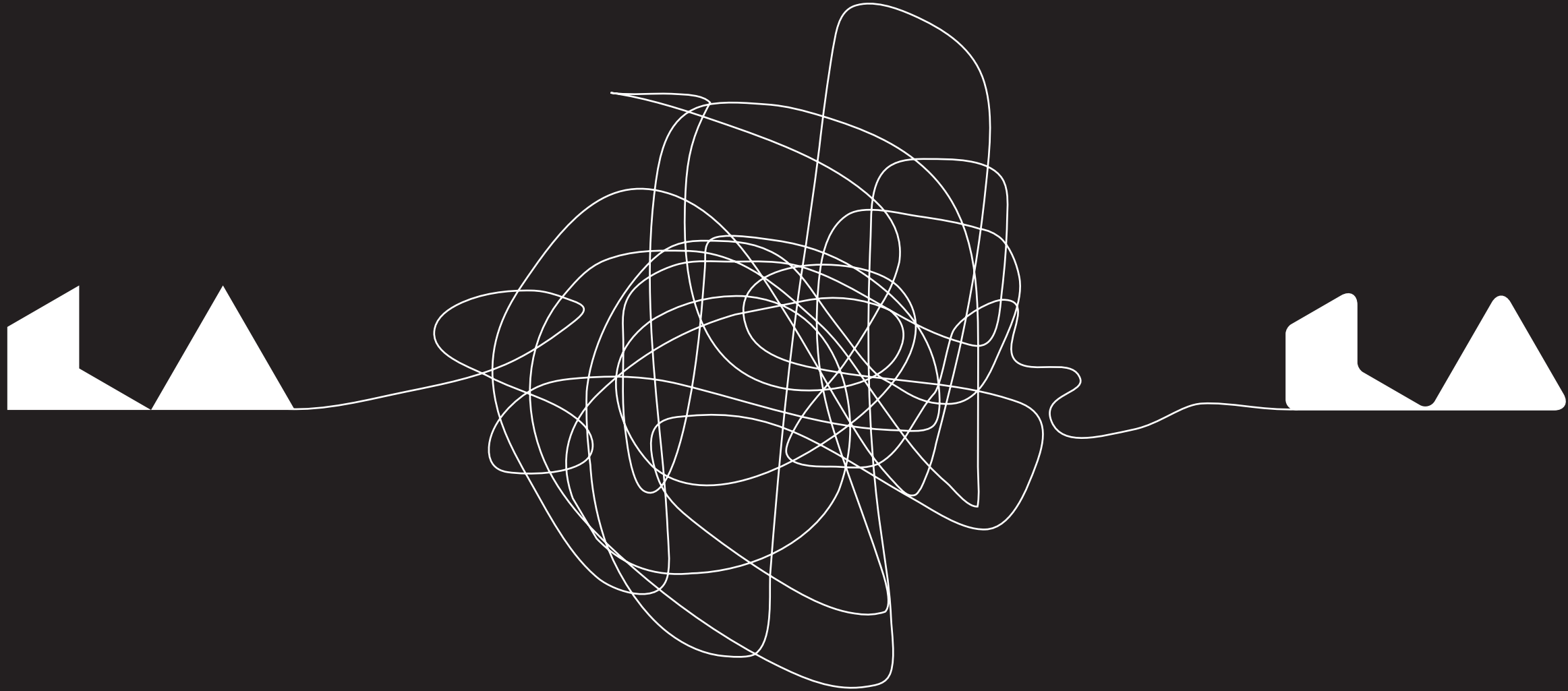
- Applying the tool to similarly complex transition design projects to corroborate its value and refine the approach in this context.
- Using the canvas at the start of a project, rather than several years in as I did in this research.
- Testing it in less complex or emergent contexts, such as within startup environments or accelerator programs, to determine if it can be integrated into these settings as a practical tool for refining simpler messaging strategies.

Conclusion

In conclusion, this Master’s journey has itself been one of transition or at least the realisation of one. It has created the space I needed to critically reflect, recalibrate my approach, and shed constraints about the roles I thought I could fill as a designer. The experience has reshaped

how I approach design leadership, placing greater emphasis on relationships, collaboration, and the use of lightweight tools to navigate complexity. The act of writing Parts One and Two of this exegesis were pivotal to help articulate this. I consider the clarity reached through this process is as valuable as the development of The Narrative Canvas.

To reflect my shift in perspective I have also updated my professional logo (see overleaf). The design respects the original inspiration and intent of bringing about transformative change at scale. However, the new version moves away from its mechanistic past, signalling instead a more well-rounded design practitioner who embraces adaptability, relationality, and comfort with emergence. As I move forward, I am inspired to continue developing tools and approaches that can help both myself, and others, navigate complexity—attempting to cut cubes from clouds with clarity and purpose.



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Appendix A: Ethics Application

Project Title
Making sense of complex narratives through Gigamapping

Recruitment / Data collection start date
29th July 2024

What date do you expect data collection and analysis activities to be completed by?
February 2025

Project Type
Postgraduate Student Research

Aim of the project
The aim of the project is to understand if Gigamapping, an approach to managing complex information, is an effective tool/process to help a practitioner/project team identify and coordinate stories and narratives in a transition design project.

Project Summary
Research participants will be invited to a workshop style setting and participate in a process known as Gigamapping. Gigamapping is defined as a super extensive mapping across multiple layers and scales with the goal of investigating relations between seemingly separate categories.

Practically this will involve participants meeting the researcher on the Massey University Campus in Wellington, room 12E12. They will spend up to 2 hours participating. Light refreshments will be provided and a \$50 gift voucher (petrol or supermarket) will be offered as koha for their time. The majority of the mapping will take place on a wall or table at this location, though in some cases where participants can not easily travel they may be given the option to participate in a digital white board environment remotely. During the mapping process

participants will be involved in unstructured discussion relating to the live case study and/or the mapping process as a tool. The researcher will prepare some discussion points but will let the mapping process guide the conversation as the point of the research/technique is exploratory. It is anticipated that these discussions will take place over a period of ~1 month.

The research will aim to attract:
3-10 participants associated with the live case study project. This could include direct team members, advisors, existing or prospective funding partners and community members.
2-5 not associated with the live case study. This could include the professional or
Participants will be invited at the researchers discretion.

Describe the peer review process that has been used to discuss and analyse the ethical issues present in this project
The peer review process has involved discussions with my supervisors about all aspects of the research. Specifically a number of in person meetings have been held as well as feedback via collaborative google doc as my research plan has developed.

Summarise the ethical issues considered and explain how each has been addressed
The first relates to research participants or those involved in the live case study being inadvertently identified without their permission. The mapping process could use identifying information such as names, photographs or roles of people from the live case study to help give context to the process for the workshop participants. To mitigate this identified risk all data used in the mapping processes regarding the live case study, will only be drawn from what already exists in the public domain and in any publishing of the data in research documentation will be anonymised. For example pictures and names sourced from organisation website pages or LinkedIn profiles that are captured in

photographs of the mapping will be blurred in published research. Workshop participants' personal details will be anonymised and referred to by a generalised role type related to their capacity to which they have been invited to participate (e.g. community member, professional, public servant etc.) Where the participants role is easily identifiable to their personal information the researcher will obscure their role sufficiently to ensure their opinion/ involvement can not to be identifiable in the published research. E.g. if the CEO of a public organisation is participating the researcher will refer to their generic role (i.e senior public servant).

The second relates to the potential conflict of interest of the researcher. The live case study that will be used as the context for the mapping process is under the direct influence of the researcher (i.e. the researcher is the project lead and has financial interests and professional/existing relationships with some participants). Peer review has determined that as this research is not about the live case study itself but instead about developing a process alongside the live case study in a theoretical capacity. As such, this exploration of the process can be applied to other projects, and thus the conflict is negligible.

With whom did you peer review the ethical aspects of your research?
My two supervisors Prof Anna Brown and Tristram Sparks.

All risk assessment questions we answered as 'No' and the ethics for this research was approved as low risk as per the Massey University's Code of Conduct for Human Participants.

Appendix B: Participant Information Sheet



Workshop

Making sense of complex narratives through gigamapping
by Benjamin Alder

Participant Information Sheet

This information is valid for a period of five (5) years

Researcher Introduction

My name is Benjamin Alder and I am currently completing a Masters of Design at Te Kunenga ki Pūrehuroa | Massey University. My research is looking at how a design practitioner/change agent can successfully coordinate narratives and align stakeholders when working in complexity. To explore this I am conducting collaborative workshops using an approach known as gigamapping. Gigamapping is a technique that uses super-extensive mapping across multiple layers and scales to construct a rich picture of real-life complexity. I will be using The Wellbeing Protocol, a project which I co-founded, as the case study. I am interested in involving external stakeholders as the process is designed to be collaborative and I would like to get feedback on the development of a tool that has emerged from the research that is likely to have applications in other practitioners' context.

Participant Recruitment

For this research I am seeking participants from two broad groups:

- Stakeholders who have been directly involved in the case study that will be used in the research (The Wellbeing Protocol)
- Professionals who work with narratives in complexity and may find the mapping process/tool being developed useful in their context

Participants will be offered a \$50 voucher (supermarket/for petrol voucher) as koha for their time and contribution.

Participant Involvement/Project Procedures

Participants will be invited to participate a workshop (30-60 min duration) where they will/can:

- learn about how the process came to be and how it has evolved to date
- make a contribution to the map itself
- discuss with the researcher their views on the approach
- engage with a prototype tool/process that could be use in their contexts

Light refreshments will be provided.

Participant's Rights

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- Decline to answer any particular question;
- Withdraw from the study (no specific timeframe);
- Ask any questions about the study at any time during participation;
- Provide information on the understanding that your name will not be used unless you give permission to the researcher;
- Be given access to a summary of the project findings when it is concluded.

- Ask for the audio/video tape to be turned off at any time during the research.

Data Collection

The data collected during the workshop will include written notes, drawings, maps, and other visual outputs generated by participants. Additionally, audio or video recordings may be made to capture discussions and interactions for later analysis.

What happens to the data/information that participants supply for this workshop?

All data will be anonymized, ensuring that no personally identifiable information is included in the research findings. Following the workshops all information will be backed up electronically and stored in a secure manner for the duration of the research. All workshop data, audio or video recordings will be deleted at the conclusion of the research project.

Participants contributions will help inform the design outcome and the resulting research will be made publicly available online and through the Massey University Library.

Project Contacts

Please feel free to contact the following individuals at any stage if you have any questions about the project.

Lead researcher

Benjamin Alder
Contact email: benjamin@alder.nz

Director, Toi Āria - Design for Public Good

Prof. Anna Brown
Contact email: a.e.brown@massey.ac.nz

Senior Lecturer and Research advisor


Tristram Sparks
Contact email: t.sparks@massey.ac.nz

We take your privacy seriously. Your contact information will never be used for any other purpose other than to contact you about your participation in this production or design research.

This project has been evaluated by peer review and judged to be low risk. Consequently it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director (Research Ethics), email humanethics@massey.ac.nz.

Appendix C: Participant Consent Form



MASSEY UNIVERSITY
TE KUNenga KI PŪRĪHURŪA

UNIVERSITY OF NEW ZEALAND

PARTICIPANT CONSENT FORM

Name: _____

email: _____

Organisation: _____

City: _____

Workshop

Making sense of complex narratives through gigamapping
by Benjamin Alder

This consent form will be held for a period of five (5) years

I have had the details of the **Making sense of complex narratives through gigamapping** project explained to me and/or I have read the information sheet. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

Please circle one option for each clause...

- I **agree/do not agree** to the documentation of my participation in this research.
- I **agree/do not agree** that my participation in this research can be attributed to me.
- I **agree/do not agree** to the audio recording of my participation in this research.
- I **agree/do not agree** to the photography of my participation in this research.
- I **wish/do not wish** to have audio media or photographs sent to me.
- I **would like/would not like** a copy of this document
- I am **willing/not willing** to be contacted

I agree to participate in **Making sense of complex narratives through gigamapping** workshop under the conditions I have outlined above.

Signature: _____ **Date:** _____

Full Name - printed _____

We take your privacy seriously. Your contact information will never be used for any other purpose other than to contact you about your participation in this design research.

List of Figures

Figure 1.	Practice examples mapped onto an adaption of Richard Buchanans Four Orders of Design. (Buchanan)	11	Figure 18.	Identifying relationships between different types of information	46
Figure 2.	Poetick parking machine installed at Toitū Otago Settlers Museum.	12	Figure 19.	Analysing and theming stakeholders	47
Figure 3.	Elixa brand design.	12	Figure 20.	Mapping the stories we have been telling.	47
Figure 4.	The Wellbeing Protocol logo.	15	Figure 21.	Assessing how stakeholders relate to transition stages.	47
Figure 5.	The Buckminster Fuller's Dymaxion map provided the inspiration for my professional logo. https://en.wikipedia.org/wiki/Dymaxion_map#/media/File:Dymaxion_projection.png	17	Figure 22.	Initial concept of the tool that was emerging from the process	47
Figure 6.	The Design Councils Systemic Design framework. https://www.designcouncil.org.uk/our-resources/systemic-design-framework/	27	Figure 23.	Discussing the map with a narrative professional	49
Figure 7.	Story Bank card. Pip Decks, Storyteller Tactics, 2024.	34	Figure 24.	Mapping with a project stakeholder	49
Figure 8.	Mosaic narrative house. https://medium.com/new-media-advocacy-project/from-megaphone-to-mosaic-five-principles-for-narrative-communications-c5105c91707	35	Figure 25.	Mapping the stories we have told with my co-founder	49
Figure 9.	Professor Marie Davidova's gigamap. https://systemsorienteddesign.net/gigamap-image/	35	Figure 26.	Plotting potential narratives	49
Figure 10.	Wesley Community Action visual theory of change.	36	Figure 27.	Workbook concept sketch	50
Figure 11.	Climate Fresk workshops. https://newsroom.co.nz/2024/10/11/innovative-climate-workshops-look-for-new-solutions-to-the-crisis/	36	Figure 28.	My first layered prototype created on the light table.	50
Figure 12.	The Lean Canvas by Ash Maurya. https://www.leanfoundry.com/tools/lean-canvas	37	Figure 29.	Transparency prototype: Transitions layer	51
Figure 13.	Assumption map by David J. Bland. https://www.strategyzer.com/library/how-assumptions-mapping-can-focus-your-teams-on-running-experiments-that-matter	37	Figure 30.	Transparency prototype: Story layer	51
Figure 14.	Mapping the stories we had told in the project	43	Figure 31.	Transparency prototype: People layer	51
Figure 15.	Testing pinboard and digital projection as a possible medium for Gigamapping.	43	Figure 32.	Transparency prototype: Narrative layer	51
Figure 16.	The camera jig I made to capture the time-lapse of the Gigamapping process.	45	Figure 33.	The final gigamap	54
Figure 17.	Initial mapping of project information	46	Figure 34.	The Narrative Canvas	63
			Figure 35.	The Narrative Canvas instructions	64

All figures not referend are the authors images

