Towards designerly data donation
in practice

MASTER THESIS
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in practice

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Master's Thesis
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TU Delft   The Valley   Data-Centric Design

Contents

Behavioural data that shows how and what people do could help designers unlock new ideas and perspectives about their users. However, collecting this data is expensive and time-consuming, and ethical concerns inevitably arise because the data often contains personal information. Ortega presents designerly data donation as an efficient and ethical approach that encourages the active participation of users to obtain contextualised data (Ortega et al., 2021). This subtle switch of attitude towards data collection will help designers reduce concerns about budget or invasion of privacy. Designers can build up proper triggers to inspire users to donate their data and provide enough information to enable donors to autonomously participate in their control and choice. While its potential has been defined, there are a few challenges to further integrating this concept in practice. In particular, designers must understand the whole system to plan the right strategies to call for donors, taking the right action at the right time. With this in mind, the main focus of this project was how to deliver the concept of designerly data donation as a design method for designers in practice. A design challenge and related activities were conducted with UX designers of The Valley and the data-centric design lab at TU delft, after which I proposed the initial shape of the DDD toolkit that can be used in practice as a result of this project.

Executive Summary

A.1. Project Context

A.1.1. DATA-CENTRIC DESIGN

The ubiquity of the Internet of Things (IoT) traces and digitalises countless human behaviours that occur in our daily lives. This behavioural data is mostly collected by businesses and organisations using IoT technologies, and its use is constantly expanding. This trend presents a great opportunity for designers and researchers to understand their users, predict their needs and provide more targeted and personalised services. While its potential is proven, there is still limited accessibility for designers from the 'big-data sets' (Bornakke and Due, 2018) that are commonly collected by most digital businesses.

Behavioural data that shows how and what people do could help designers unlock new ideas and perspectives about their users. As there are various methods to generate 'thick data' in traditional human- centred design approaches, such as generative toolkits and interviews, current technology enables designers to collect and employ various types of data through multiple mediums. Examples include connected probes, prototypes, and existing systems, which make it easier to capture users' behaviours and patterns (Speed and Oberlander 2016). However, collecting those data is expensive, time-consuming, and ethical concerns inevitably arise because the data often contains personal information. As such, users should be more reluctant to provide their data, which can be a major obstacle because their cooperation will be indispensable for further data activities. (Dove et al. 2017; Gorkovenko et al. 2020).

A.1.2. DESIGNERLY DATA DONATION (DDD)

Ortega presents designerly data donation(DDD) as an efficient and ethical approach that encourages the active participation of users to obtain contextualised data(Ortega et al., 2021). This subtle switch of the attitude toward data collection will help designers reduce the concerns about budget or invasion of privacy while they are using intimate user data. Instead of putting efforts into finding the right participants for interviews or struggling with limited access to data, designers can build up proper triggers to inspire users to donate their data and provide enough information to enable the donors autonomously participate in their control and choice. Within this process, users are able to protect their privacy by deciding the conditions for donating and giving their consent

A-Introduction

for transparently informed purposes and usages. The data is neither big nor multi-scaled, it has the potential to be highly contextualised through the active collaboration of data donors. Moreover, this collaborative approach for user data collection can make a great synergy when it is interpreted with the current big dataset (Ortega et al., 2021).

1.1.3. Challenges

Whereas its potential has been defined, there are a few challenges to further integrating this concept in practice. Diverse factors such as individual project circumstances, suitable donor incentives, useful data types, and ethical concerns must be taken into consideration. Therefore, designers must understand the whole system to plan the right strategies to call for donors, taking the right action at the right time. In other words, the ability of designers to manage the whole process of designerly data donation is one of the crucial parts of a successful collaboration. However, compared to its importance, there is a lack of approachable information and guidance for designers yet, which makes it difficult to implement this new concept in more cases. This thesis explored how to reframe and deliver designerly data donation as a design method for designers of digital design agencies.

A.2. Research Setup

A.2.1. STAKEHOLDER MAP

The main purpose of this thesis is to deliver the concept of designerly data donation as a new design method for designers.

The Valley, a digital design agency based in Amsterdam, was the research context. With their resources and the cooperation of their UX designers, the concept of designerly data donation is to be repackaged in a more communicative format so that designers can actively adjust their processes. In addition, this new method is expected to be a strategy for design agencies to promote their methodological capabilities as an expanded usage of user data to their clients. (Van Boeijen et al., 2014).

Data-Centric Design Lab at the Delft University of Technology is one of the main stakeholders that has the infrastructure and resources related to the main theme of this project. While their experience and resources were a fundamental source for this project, I expect to open the discussions about their research topic to external stakeholders (Figure A.1).
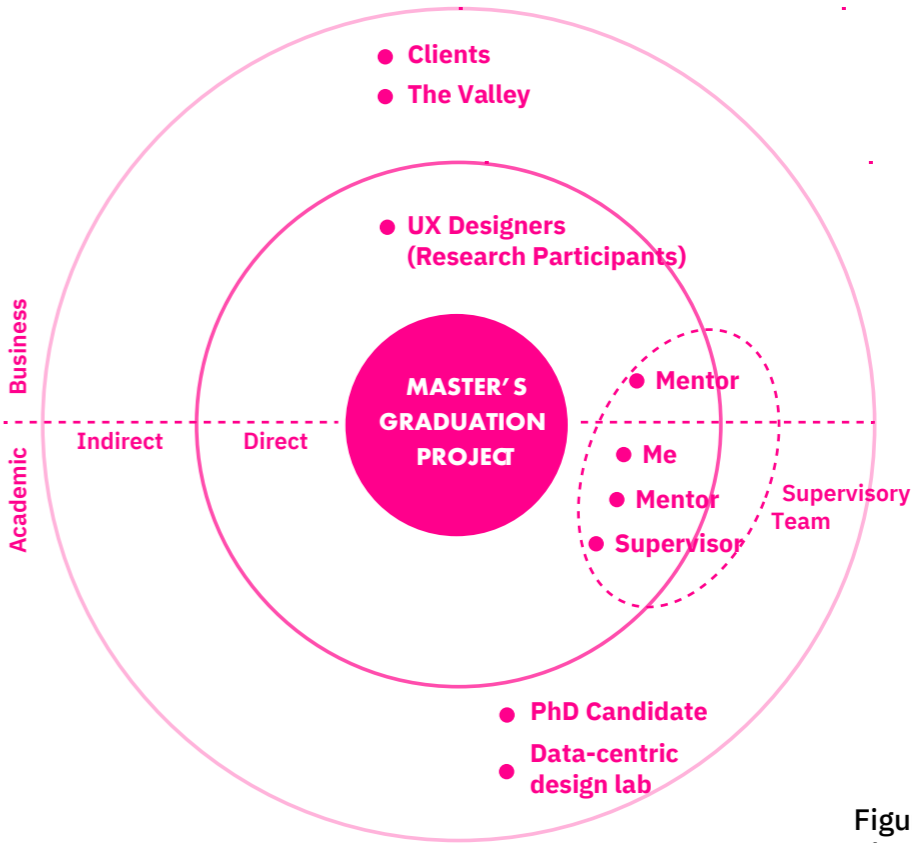

Figure A.1: Relationship between central terms

A.2.2. RESEARCH QUESTION

> How can the concept of ***designerly data donation***
> be operationalizing as ***a design method*** that
> ***UX designers of The Valley*** can actively integrate
> into their design process?

Chapter B- Background (Literature Review)

RQ B-1: What is the DDD?

RQ B-2: What is the design method?

RQ B-3: What is the right format to deliver DDD to designers?

Chapter C- Preliminary Research (Expert & End-user Research)

RQ C-1: What is the process of DDD?

RQ C-2: What information need to be given for designers on each phases?

RQ C-3: What makes designers to find new design methods?

RQ C-4: What are their expectation towards DDD?

RQ C-5: What are the missing information?

RQ C-6: What are the difficulties?

Chapter D- Design Challenge (Generative Session & Prototype)

RQ D-1: What are the difficulties during the journey?

RQ D-2: What information needs to be included in the method?

RQ D-3: How to solve the problems?

RQ D-4: What are the values for the stakeholders derived from the method?

A.2.3. APPROACH AND METHOD

The research focused on the integration of designerly data donation in practice, and it aimed to validate its value in the context of a digital design agency. Therefore, it was expected to provide valuable insights by trying it out in a real context as a research activity. As such, a design challenge (D) was planned as the main activity of this project. It was conducted with the cooperation of the UX designers of The Valley. During the design challenge, they attempted to use designerly data donation in their project context following the given guidance. With the empirical research approaches, a scenario for a new design method and a toolkit to deliver its concept was developed and validated.

The research consisted of three parts. The first and second phases (B, C) went in parallel with the purpose of creating a testable prototype for the design challenge (D). In the first phase (B), literature was reviewed to fix the theoretical knowledge in the research theme, such as data donation and design methods. In the second phase (C), expert research and end-user research were conducted. The expert research aimed to learn about designerly data donation in detail using existing cases. A semi-structured interview and generative session with the designers of The Valley was conducted to learn about the context of end-users before the design challenge. Taking the insights that are framed through research activities during the early phases, a prototype was created for the design challenge (D). Based on the results of the design challenge, research questions and interaction vision were reflected upon and discussed, which led to further challenges. (Figure A.2: Overview of the research activities)

B. BACKGROUND	C. PRELIMINARY RESEARCH	D. DESIGN CHALLENGE *	E. DISCUSSION	F. DDD TOOLKIT	G. CONCLUSION
RQ B-1 Literature RQ B-2 Review RQ B-3	RQ C-1 Expert Research RQ C-2 @ DCD Lab RQ C-3 RQ C-4 End-User Research RQ C-5 @ The Valley RQ C-6	RQ D-1 Prototype RQ D-2 RQ D-3 Generative RQ D-4 Session @ The Valley			

Figure A.2: Overview of the research activities

B.1. Data Donation

Data donation is one of the approaches for data collection. Donating data means a person transfers their personal data to another one with an agreement that the receiver can access and use the given data within an informed project context or case (Floridi and Taddeo, 2019).

Currently, data donation and its relevant studies were mostly conducted for healthcare purposes, where the data can present unique features to help other people by better understanding personal health (Ortega et al., 2021). For example, longitudinal data generated by self-tracking applications by users can provide evidence for developing new medications and treating chronic diseases (Skatova et al., 2019).

People live in a world where massive amounts of personal data are generated via connected products and services. These data provide rich insight that have the potential to understand the behaviours and lifestyles of people. Data donation enables designers and researchers to actively utilise personal data when it is given by donors for the informed context. In particular, current rules of the EU's General Data Protection Regulation (GDPR) and the right to portability (GDPR, 2018), allow people to request data gathered about themselves by third parties in order to reuse it and share it.

In data donation, there are no economic profit motives that happen during its transfer. However, the practice of giving and receiving and its consequences cannot be understood outside of the personal, social and economic relations surrounding the donor and receiver. Although the donation is not directly reciprocal, it can affect the relationships between the people involved (Floridi and Taddeo, 2019). With this in mind, understanding the relationship between donors and receivers, how donation happens, in what situations, and the factors that motivate people to donate become important aspects of data donation.

B- Background

B.2. Designerly Data Donation (DDD)

Ortega presented designerly data donation for designerly contexts which requires more context and meaning on data. (Ortega et al., 2022) In this part, literature relevant to the concept of designerly data donation was reviewed to understand its process and to deepen the knowledge on related theories.

B.2.1. PROCEDURE

Designerly data donation consists of three different phases.

• Plan: First, data receivers start by defining their data donation journey. In this stage, they should be able to understand which data will be collected for what purposes, as well as how to collect that data and from whom. Also, they should keep in mind the ethical principles because it will be a practice of using intimate user data.

• Reach Out & Receive: Then, they need to reach out to potential donors and retrieve the data from them. For a successful data donation, they should consider what will be the value for the donors. Data donation never works without the active participation of donors. As data receivers may take affordable and timely access to personal machine data, donors should be able to assume what they will gain after their participation in the activities before actually engaging. Once receivers call for donors with all kinds of information that donors need to know, they will start receiving the data. While they are receiving the data from donors, they should keep communicating with the donors to help them make informed decisions during the process.

• Reconstruction: Reconstructing data is one of the notable features of designerly data donation. It is more common to find the project or research cases related to data donation in medical fields, where data donation is presented to help others, to better understand people and to improve such areas as treatments and medical devices. However, relative to the field of medicine, where statistical data is valuable, design research or practices require multi-scaled data that is highly contextualised. Thus, having a reconstructing stage here could open up great opportunities for designers to have richer insights about their user data. For this contextualisation, receivers can plan interviews or sessions with donors who have agreed upon those extra steps. In the end of this process, receivers can work with the collected data as they want within the given contexts that are provided in the beginning to donors.

B.2.2. DEFINE THE VALUE

Defining the value of data donation for both receivers and donors is important not just for collecting user data but also for inspiring designers to select this method under the right circumstances. In other words, the outcome of this project should be able to deliver the value of data donation to data receivers, and designers should be able to produce proper values for donors (Krutzinna & Floridi, 2019). In this regard, the value of the data for receivers and donors within the specified context is defined based on the literature.

• Value for the Designer: Over the past decades of human-centred design development, various methods and methodologies have been developed to understand the needs and contexts of users and customers, which are always an important basis for creative thinking (Gericke et al., 2016b). The development of IoT smart devices has made it possible to record people's actions in various perspectives and layers, and the availability of such human behaviour data often opens up much greater possibilities for designers (Gabriele & Chiasson, 2020). Data donation can be an efficient methodology for designers by reducing the ethical or financial burden by allowing users to donate behavioural data. There are endless types of behavioural data that designers can take from data donation (Strotbaum et al., 2019). Designers can freely choose data types for collection according to the context of their project. Regardless of their expertise on the data, they define useful data types according to their situations. This also opens up opportunities for designers who are unfamiliar with data to actively use their user data in their design process, which can be meaningful in terms of how the approach will enable a wider range of designers to experience data-centric designs.

• Value for the Donors: According to the literature (Bietz et al., 2019), the possible value for donors through data donation can be categorised as follow;

> Social duty: a desire to serve society and give back to the community.
> Self-interest: a need to gain a personal benefit as a result of data donation.
> Positive feelings: satisfaction; it feels good to help others.

The value for donors can be determined by different project contexts. Therefore, it can be a defined by the data receiver who is planning to donate data. Clearly defined values will trigger more people to donate and participate in the project.

• Value of Designerly data donation - Data centric design in practice: Behavioural data is a collection of specific information, referring to data from sensors, self-logging, telemetry, or social networks which capture people's behaviours and patterns (Gomez Ortega, van Kollenburg, et al., 2022). Behaviours that represent people's habits and lifestyles do not necessarily reveal facts about the social and natural world. Moreover, data is meaningless if isolated from the humans and artifacts that created and sustained them (Leonelli, 2016). In other words, people's behavioural data could be saying more than designers are currently seeing through big data analysis. Designerly data donation opens up opportunities to learn about behavioural data by encouraging collaboration with data donors who are experts about their data.

• Value of Designerly data donation - Participatory design:

Dunne and Raby described 'preferable futures' as 'not trying to predict the future but in using design to open up all possibilities that can be discussed, debated and used to collectively define a preferable future for a group of people from company to society' (Dunne & Raby, 2013). In this context, they refer to citizens who are involved with fictional products or services. They are the 'consumer-citizens' who critically engage in social issues. Understanding people as both citizens and consumers is very important, as each will bring different effects on the future. The decisions made by consumers will determine the direction of the future, but decisions are not always ideally made for our society; there are many other influences that affect those decisions (Dunne & Raby, 2013).

Nevertheless, some people are open to discussing social challenges. Participatory design approaches can make more people aware of their surroundings and how their movements might influence their future (Knutz et al., 2014). In other words, people, citizens and consumers have the right and power to autonomously drive toward their preferable future (Dunne & Raby, 2013). This approach will encourage people to participate in the design process, which can eventually be the driving force behind creative thinking for complex design challenges.

In the context of designerly data donation, it is impossible to utilise intimate user data without the active participation of data owners. They are primary domains that may provide valuable insights about the data; their participation is becoming more crucial, especially in the contextualising phase (Ortega et al., 2021). Therefore, a proper understanding of the value of participatory design would help data receivers make more users engage in the data donation process.

B.2.3. RESPONSIBILITIES FOR DESIGNER

When designerly data donation is come to a method for designers and in order to utilize data donation during a design project, it is important to clarify the role of the designer, who is the subject of using the data donation method, and to know the responsibilities by the designers themselves. Responsibilities of designers are as follow (Gomez Ortega et al., 2022):

Inform

Firstly, a designer should be able to deliver the value of data donation and provide the donor the necessary information at the right time, as information flow is at the core of successful collaboration. The information includes: How the collected data will be handled for what purposes. Sufficient information should be delivered within a clear and communicative format.

Make Autonomy

By providing sufficient information, designers should allow donors to define their own terms and limitations upon their data, such as whether to donate, what to donate, how to participate.

Make Trustworthy

Finally, to make data donation possible, designers should care about the interaction with (potential) donors and make the whole process reliable and trustworthy by following the rules and principles of GDPR as it is could be related to intimate user data.

B.2. Main takeaways

• Data donations allow designers and researchers to actively use personal data based on information provided by donors

• The practice of giving and receiving cannot be understood outside of the personal, social and economic relations surrounding the donor and receiver. understanding the relationship between donors and receivers become important aspects of data donation.

• The value gaining is a significant factor that making this relationship happen successfully.

• Compared to the great responsibility for data receiver, there are lack of guidelines for data receivers to be actively used this method by designers.

• Therefore, the outcome of this project should be able to deliver the value of data donation to data receivers, and designers should be able to define proper values for donors depending on their project context.

B.3. Methods, Tools and Methodologies

Before conducting the research, it was necessary to clarify the terms about what is actually going to be proposed as a result of this project. Will it be a design method, a guideline or a tool? There are several ways of transferring knowledge into practice. By clarifying the term in the beginning, it was expected to clarify communication with stakeholders but also clearly defining the scope of the project. Gericke et al. framed the definition of different terms around design methods as follow (2017) (Figure B.1):

(1) A design methodology includes Methods, Guidelines, Design Process and Tools. Moreover, it guides how relationships and sequences are managed. (2) A design method describes how certain results can be derived from cerain ways. The information can be recommendations of specific tasks, tools or the way of communication. (3) Guidelines are more specific requirements to get certain results. This can includes rules, principles, heuristics and bes practice.(4) A tool can be a software tool, toolkit, template or checklist, which makes it easier to apply design methods or guidelines in practice. Design methods or theoretical knowledge can led to a design tool.

In research from Blessing and Chakrabarti, they defined design methods have different layers depending on the purposes for using them (2014) (Figure B.2). The frameworks led to the outline of the project scope in the early stages of the project. Thinking about the context of the current project together with the framework of different terms, I identified the primary purpose of the project, the information I already have and the information I need to learn and complete through further research activities.

The main challenge of this project was to transfer into practice the existing knowledge about the designerly data donation from the data-centric design laboratory by discovering the research concept from a designer's perspective. As such, for the research activities, I intend to frame the knowledge as a design method. At the same time, however, the final deliverable can be a design toolkit that may include the core idea, representation, procedures and intended use.
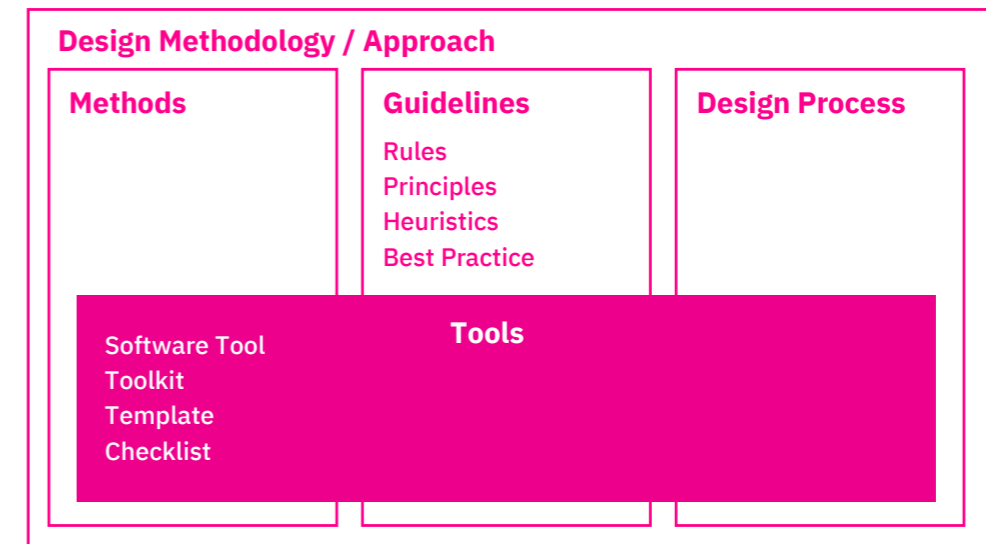

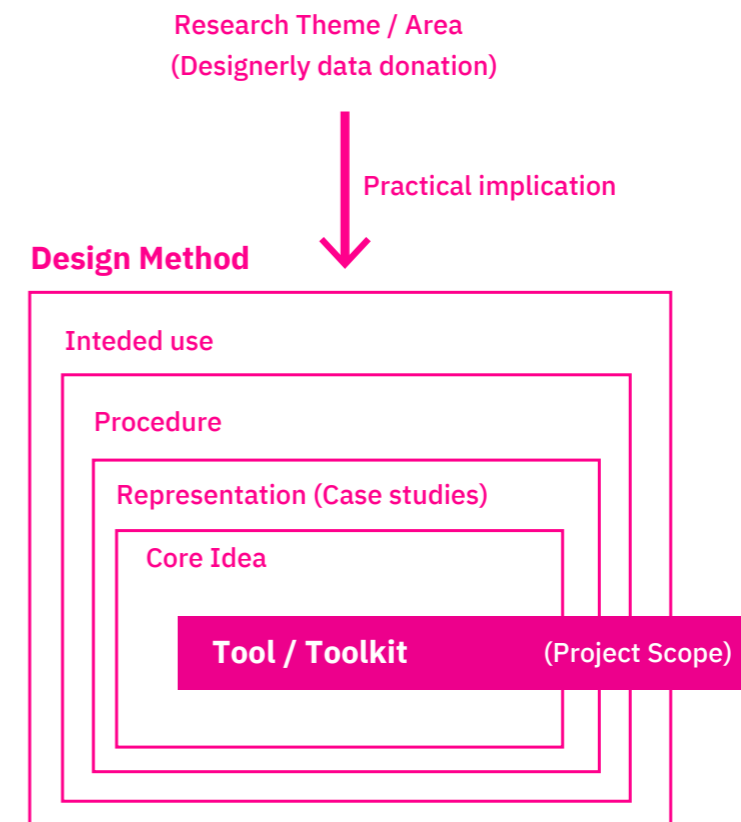Figure B.1: Relationship between central terms

Figure B.2: Elements of a method and scope of the project

B.3.1 FORMATS

Although various design methods and methodologies are continuously developed by academia, only a few of them are transferred into design practice (Gericke et al., 2016). However, new technologies and social duties result in complex design challenges, and these require the need for new design tools, techniques and methods developed by practitioners and design researchers. Gericke et al. highlighted the importance of supporting the knowledge transfer between industry and academia and discovered how design practitioners discover, select and adapt design methods and methodologies through several interviews (2016).

B.3.2. TYPES OF DESIGN METHODS

Gericke et al. framed the three different types of design methods and methodologies (2016). From textbooks and archival publications, people can expect consistent and reliable content and it uses to focus on pure descriptions, however, there are limitations to update information once it is published. Web repositories can resolve those problems, but the quality of information can be low as people have less responsibilities to contribute to the platform without clear motivation. Considering the right format for the method of this project, it was found that taking web based platform has greater advantage compared to the printed publications in terms of that it needed to open the possibilities to edit and update the information as designerly data donation is an upcoming concept. In particular, when a web platform is supported by community, the information can be more reliable. Furthermore, as designerly data donation was developed within the data-centric design laboratory, Community based design support(CBDS) came to be given priority (Daalhuizen et al., 2008).

B.3.3. COMMUNITY BASED DESIGN SUPPORT (CBDS)

Community based design support (CBDS) exchange knowledge and experiences about design method applications (Daalhuizen et al., 2008). The concept is motivated by the lack of information in the practical application of methods. Its challenge is the availability and quality of knowledge and the willingness of practitioners to share it with others. Gericke et al. defined with several hypothesized characteristics of a successful knowledge management system: (2016) • Present clear advantages that system can provide (1) Present clear advantages that system can provide (2) Share a common infrastructure (3) Keep standarized, yet flexible structure (4) Having an articulated purpose and clear language (5) Keep generating inspiration to create, share, and use knowledge (6) Provide channels to transfer knowledge

A CBDS consists of three features: domain, community and practice. 'Domain' here means a group of people who engaging in a specific area to share their knowledge. Domains have activities and discussions as a 'community', which allow for collaborative learning and support their positive relationships. In community, domains should have a specific knowledge area, which is referred to here as a 'practice'. Resources related to the interest area can be shared and developed through the activities within a community (Daalhuizen et al., 2008) (Figure B.3).

Furthermore, people tend to be motivated to share their experience in an online community by five different factors and those factors can be considered to inspire the designers and researcher of a community about why people would like to join and share knowledge within the community (Hew & Hara, 2007): (1) A willingness to learn and contribute to a particular field of expertise. (2) A desire to improve career. (3) Feeling obligated after receiving knowledge that has been offered by others. (4) Participating in an environment that is polite and non-competitive. (5) Engaging in subject-appropriate dialogue.

Community Based Design Support (CBDS)

People of research lab (DCD Lab)
Design practitioners (The Valley)

People

Focus Area

Designerly data donation / Data-centric dessign

Activities

Knowledge sharing activities

Figure B.3: Elements of a CBDS and their relationship

B.3. Main takeaways

Concluding this section about the format of the final design, a community-based platform is considered a suitable framework to deliver the method to designers for following reasons:

• Designerly data donation is an evolving concept and is to be established as a design method for practical implication. It is mandatory to open the possibilities to edit and update the information. Therefore, it is limited to start in an inflexible format, such as printed publications or web repositories.

• As this project is conducted with the cooperation of a research laboratory and a design agency, there are existing infrastructures and a community that could be considered as being involved. Therefore, CBDS can be an efficient approach.

• With collaborative activities and relationships between a design laboratory and a design agency, they could expect different benefits from each other. The laboratory can have rich and broad insights about their research area through practical implementation in various cases, while the agencies are broadening their capabilities through experimental design approaches.

Moreover, to deliver a new design method to designers, it is essential to attract their attention. This means that understanding the mindset of designers who are engaging with the CBDS will be one of the core considerations when designing the structure of the platform.

In this phase, empirical design research was conducted with both an expert and end-users of the final design. Overall, it aimed to explore research themes with stakeholders and gain insights from the interactions. The stakeholders were sorted into two groups: experts and end-users. During a session with an expert in Designerly Data Donation, a journey map was created that presented the overview of data donation from the perspective of the designers. With the end-user group, a semi-structured interview and a generative session were completed, and the key insights were framed to support the concept of the prototype for the design challenge.

C-
Preliminary
Research

C.1. Expert Research

C.1.1. SETUP

Expert research was planned to ground the knowledge of Designerly Data Donation. The challenge of reframing the research topic as a design method was gaining an in-depth understanding of the concept of what had happened in the whole journey. Therefore, insights from experts who had experience with real cases were a crucial part of the research. Designerly Data Donation is one of the research topics of the data-centric design lab at Delft University of Technology (TU Delft). This project is initiated from the research of a Ph.D. candidate from the lab presently conducting research around the theme of designerly data donation with aims to facilitate access to data for designers. As such, she was the most appropriate stakeholder to represent this research theme's expert.

C.1.2. METHODS

(A) Case study: To prepare research activities with Ortega, case studies were reviewed to understand the flow of designerly data donation in depth within a real world context. Cases were selected from the latest cases using designerly data donation or data donation as a research method. *(B): Co-creative session:* Co-creation is a research method for collaboration with stakeholders which is helpful to learn various constraints (Sanders & Stappers, 2013), processes about a product or its journey. Through the session with Ortega, it aimed to complete a journey map. *(C) User journey mapping*: User journey map is a visualisation of a user flow which helps organise user interactions over the journey (Stickdorn & Schneider, 2012). The process of mapping can encourage and remind stakeholders to consider their entire experience following the timeline (Figure C.1).

C.1.3. PROCEDURES

For expert research, case studies and a co-creation session were conducted with the expert mentioned above.

First, existing cases reporting the process of Designerly Data Donation were reviewed. Then, the session to define the procedures of data donation from the designers' perspectives was conducted. As a result of the case study, a user journey map structure was created, which included the steps, along with the principles and recommended activities of each step. A user journey map was an efficient way to present the overview of data donation with d ifferent layers from a user's perspectives and could be used for the co-creation session material (Figure C.2).

The aim of the session was to complete a user journey map with insights based on the expert's experience. I guided the participants through the session, which lasted around an hour and took place in a meeting room with our faculty. A Miro board (a Collaboration platform) was used during the session to share the journey map based on the results of case studies and to co-create a journey map step by step with the insights of the expert. During the activity, steps, recommended activities, difficulties and limitations, and expected duration were discussed.

C.1.4. RESULTS

The results of this study are organized within the format of a user journey map. It is divided into three different stages (Figure C.3). (A) Defining the journey is the first phase of the whole journey. In this stage, designer should be able to define what they want to learn, what they want to collect, who will be the targeted group for themselves. (B) Once completed the planning, designers can create a project on the platform they have chosen to request data from their data donors and advertise it. (C) This step is an optional but it is a unique feature of 'Designerly' data donation. Here, designers can plan additional sessions or interview with donors to reconstruct interesting user data.
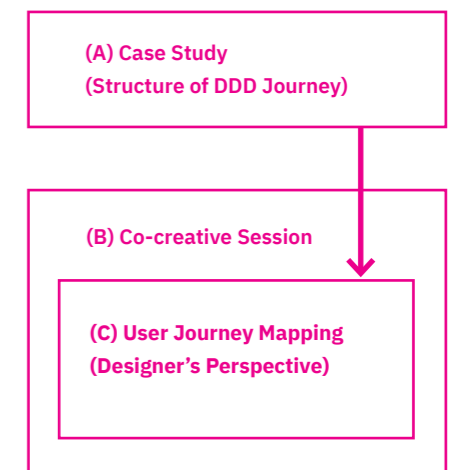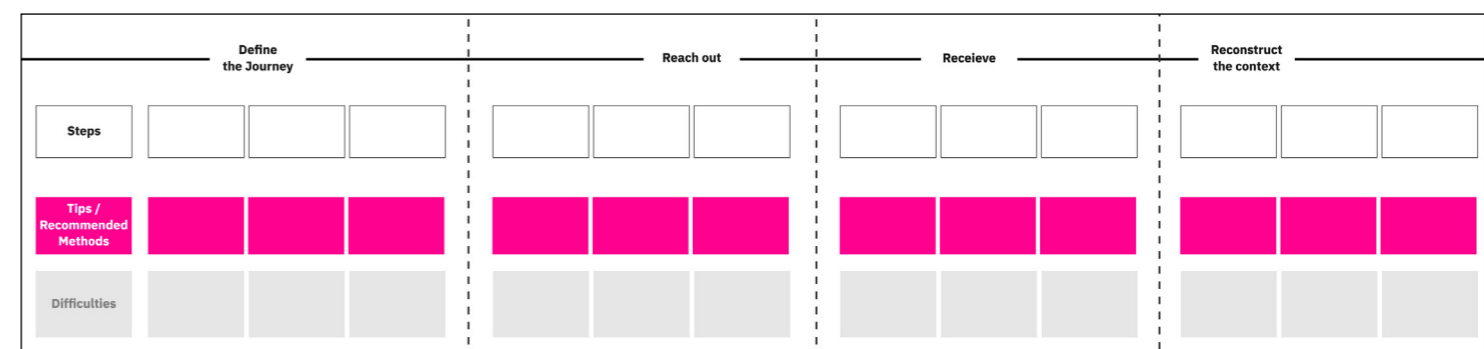

Figure C.2: Overview of the curent phase

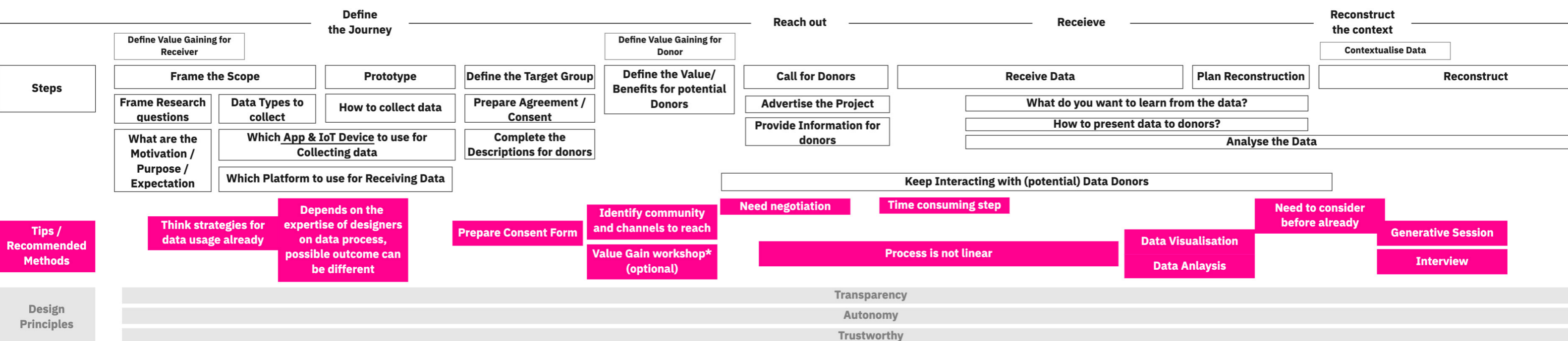Figure C.1: The journey map in Miro board used in the session

Define the journey	Reach Out & Receive	Contextualise
Read design principles	Prepare Consent materials	Plan reconstruction
Frame a research question	Complete invitation for donors	Reconstruct the context
Define the target group	Call for donors	(Optional Phase)
Define value gain	Provide information for donors	
Decide types of data to collect	Value gain event	
Decide how to collect data	Receive data	

Figure C.3: Basic flow created
based on the case studies

Figure C.3: Journey map created
during the expert research

C.2. End-User Research

C.2.1. SETUP

The UX designers of The Valley were the end-users of this project. Therefore, understanding their thoughts on the project's themes, such as design methodologies, data-centric design, and Designerly Data Donation, was a significant aspect of creating a new methodology.

In this study, the following aspects were considered: (1) Method Selection: What makes designers select a new design methodology?, (2) Expectation: What do designers imagine about Designerly Data Donation?, (3) Data usage: How do designers utilise data in practice?, (4) Missing info: What information was missing from the current instruction? (5) Difficulties: What are the difficulties in practice?

Moreover, the study aimed to share the value of Designerly Data Donation with the designers and guide them in exploring the context of this new concept before the main activities began, design challenge. Two participants were recruited from The Valley. Both were working at The Valley as a UX designer for 6 - 14 months. Both were Female and did not have much experience working with data (Figure C.5).

C.2.2. METHOD AND PROCEDURE

A semi-structured interview and a generative session were conducted for this study. Both activities took place on the same day with two UX designers who were to participate in the first design challenge (Figure C.4).

Semi-structured Interview

The interview was held with both participants and lasted for half an hour. It started with participants being asked for general information, including on their work experience, background, data expertise, and their current projects' subjects. Participant consent was requested before starting, and the whole conversation was recorded on video to be transcribed. Questions on methodology selection(RQ C-3), data usage, and (RQ C-4) expectations were asked, and the interview consisted of three focus areas: (A)Design Methodology, (B) Data-centric design, and (C) Designerly Data Donation. Participants were asked to talk spontaneously with each other in accordance with the interviewer's guidance. Full interview questions can be found in Appendix 1.

0. Semi-structured Interview	13:00 - 13:30	30 mins
1. Introduction	13:30 - 13:40	10 mins
2. Storyboard	13:40 - 13:45	15 mins
Break	13:45 - 13:50	5 mins
3.1 Brainstorm - Value Gain	13:50 - 14:05	15 mins
3.2 Brainstorm - BH Data	14:05 - 14:20	15 mins
3.3 Define your journey	14:20 - 14:40	20 mins
4. Reflection	14:40 - 15:00	20 mins

Figure C.4: Time table of the End-user Research

Generative Session

After the interview, a generative session was conducted to introduce the concept of Designerly Data Donation and its process through different types of materials. The aim was to learn about the difficulties designers face in learning a concept and trying it out for the first time before creating a prototype for the upcoming design challenge.

The session lasted for 90 minutes and started with written descriptions being provided. Then, a storyboard with three different cases was presented and a brainstorming session was held on certain key words. Paper boards was provided to participants for brainstorming and write down their thoughts (Figure C.6).

Finally, designers were asked to use all the ingredients generated through the previous activities to initiate a plan themselves. The aim was to learn about the difficulties designers face in learning a concept and trying it out for the first time before creating a prototype for an upcoming design challenge

(Appendix 2: Setup- Generative Session).

	P1	P2
Gender	Female	Female
Age	27	31
Occupation	UX Designer	UX Designer
Work experience at current job	7 months	1.5 years
Field of study	Industry design	UX design
Data expertise	Competent	Novice
Recent project	Website for Banking service	Inclusive design at design agency

Figure C.5: Information of the Participants

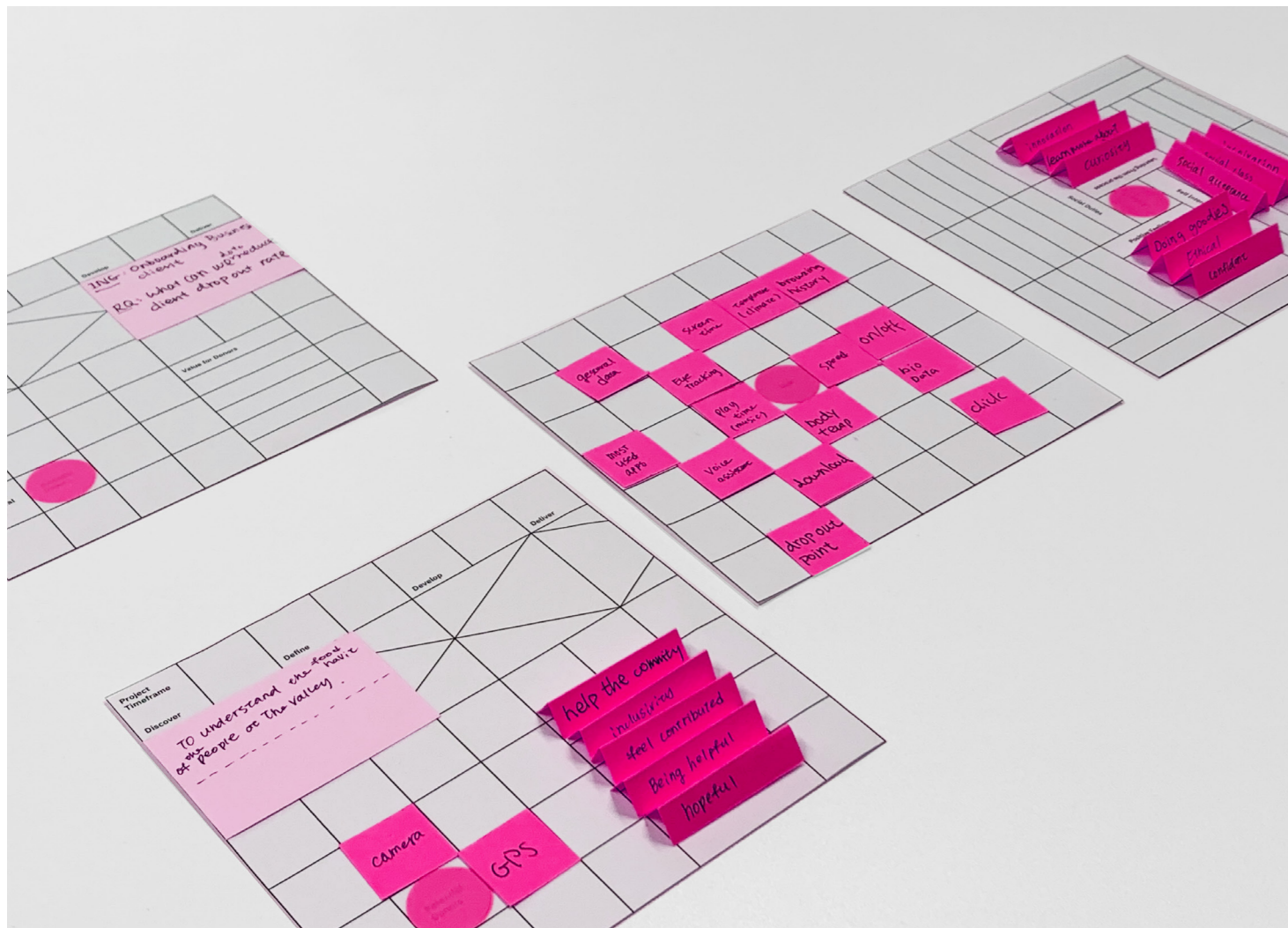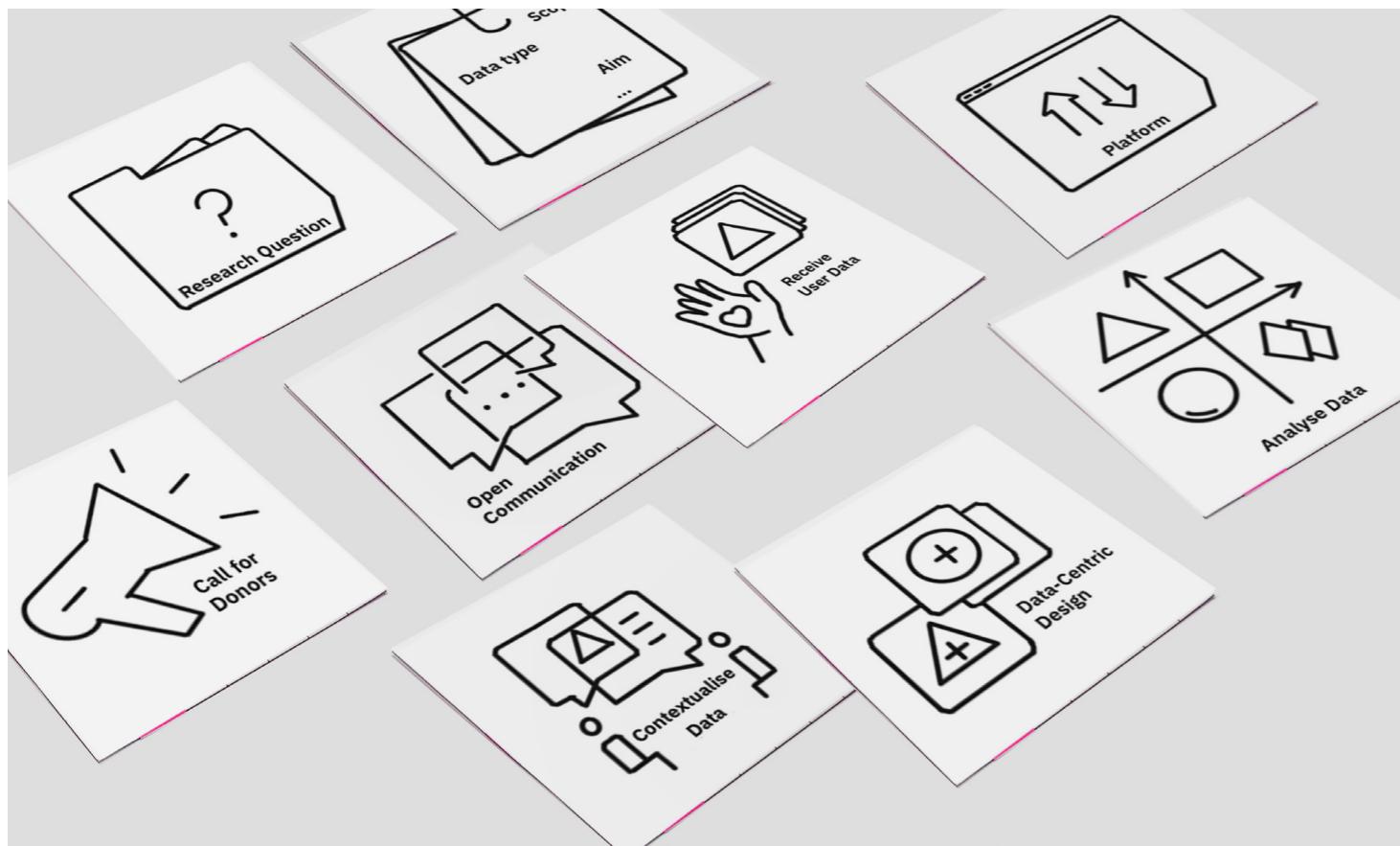
Figure C.6: Information of the Participants

Figure C.7: Visual materials were used during the Generative session

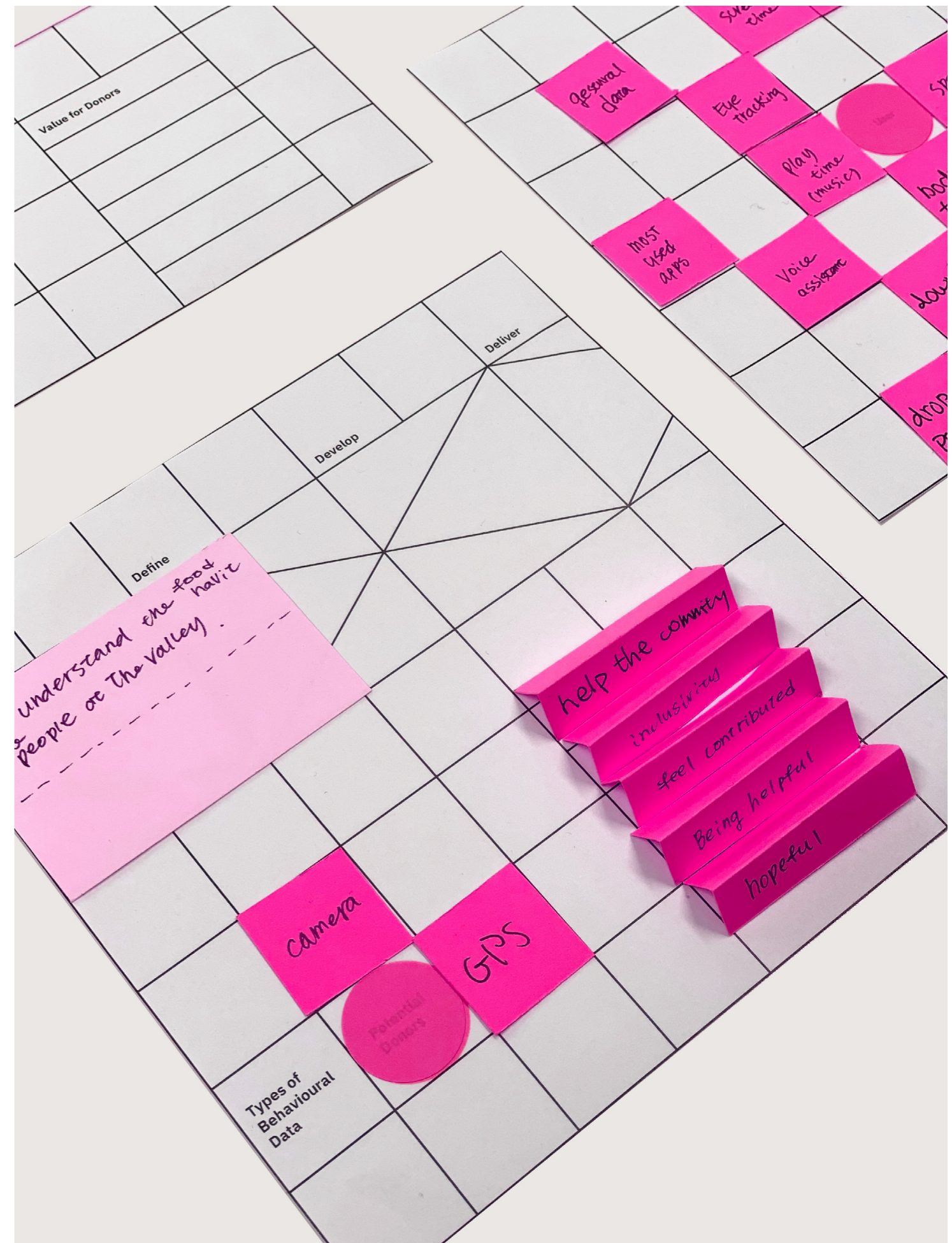Figure C.8: A Sensitising toolkit was created for the Generative Session

Figure C.8: The sensitising toolkit was completed by participants

C.2.3. RESULTS

To analyse the results of the end-user research, all the conversations and activities are transcribed with the video recordings. Each quotes led to several insights which led to design opportunities in three different categories (Figure C.9) (Appendix 3: Results- Generative Session).

RQ D-3: What makes designers to find new design methods?

• Designers use to look for design methods which is easy to adjust, rescale or combine to fit in their own project context.

• Designers find new methods when they feel lost during a design process or need to have more rational process to convince stakeholders.

RQ D-4: What are their expectation towards DDD?

• Participants were less confident in data usage ad they had lack of experience on data-centric design, for example they were confused with what is behavioural data.

• Designers believe the power of data but they were afraid of being biases on user data. Sometimes they pick data in which they need to support their argument.

• Designers think designerly data donation seems challenging because it is not familiar for them, but interesting in respect of that they know the importance of data and they expect it will open up the possibility to work with data for them.

• Difficult to assume the results as its new term and not familiar concept to them.

RQ D-5: What are the missing information?

RQ D-6: What are the difficulties?

• Designerly felt easily feel overwhelming when they had to brainstorm on types of data and possible insights.

• Some research questions was not suitable to use this method.

• With brainstorming, there was limitation to come up with connect behavioral data and expected insights themselves without input.

• Storyboard with real cases helped a lot to make them understand the concept.

• What people understand and can actually perform is different. With different types of materials to deliver the concept, participants seemed that they have understood the concept but when they actually had to plan their own journey, more difficulties were arisen.

Figure C.9: Quotes were clustered by the relevant research questions

This section outlines the setup of the design challenge and methods used for each stage.

Firstly, a prototype was designed based on the results of literature reviews and preliminary research with stakeholders and it was built with Figma, including the essential content and interactions of the design toolkit that represented the new design method.

The prototype was validated and developed through a design challenge where end-users explore the artifacts in the context of their use. This empirical research approach allowed to define the design of the toolkit and explain the strategies of the method in a broader context for the stakeholders. As the duration of the research was limited, the aim was to take the complete experience into account not just the quality of the case results.

D-
Design Challenge

D.1. Prototype

Figure D.2 shows the flow of the prototype, which are consist of three different phases; Learning - Doing - Sharing. In learning phase (A), users can learn about the concept of designerly data donation, starting from overview, case studies and ended with principles. In doing part (B), users can try to plan their own journey following the guidance with the written tips step by step. Once users have completed their planning, they can reach out to donors with the project information.Furthermore, they can plan contextualizing sessions with some donors for interesting data. Lastly, sharing part (C) is connected to the repository page which are presenting existing cases. Therefore, the tool was planned to encourage designers and researchers to contribute to the method for further users. A prototype was built up with Figma(prototyping software) following the wireframe.
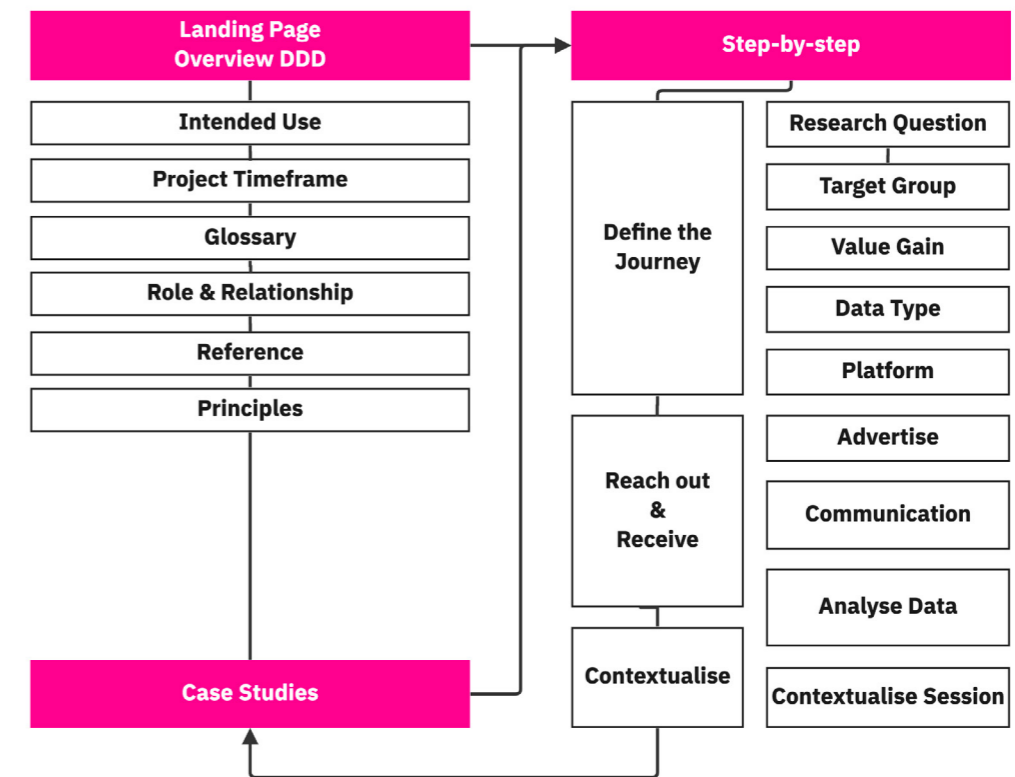
Figure D.1: An initial flow of the prototype

Figure D.2: Service Blueprintmap of the prototype

Physical Evidence	DDD Toolkit Website (Online)			DDD Toolkit Website / Data Storage / Meeting Room (On/offline)		Website (Online)
	Landing Page	Sub-Pages	Summary of the Journey	Project Information	Interview plan / questions	
User Actions	**Learn** Ⓐ		**Do: Define the Journey**	**Reach Out & Receive** Ⓑ	**Contextualise** (Optional Phase)	**Share** Ⓒ
Front-stage	Overview	Value Gain	Research Question	Complete Invitation for donors	Plan Activities with donors	
	Intended Use	Data-Centric-Design	Target group & Values	Advertise the Project	Conduct Interviews/Sessions	
	Glossary	Principles / Ethics	Types of data	Receive Data	Explore and shape data	
	Roles & Relationship	Project Repository	Tips and Tricks			*Line of Visibility*
Back-stage	Update Information / Maintain System					*Line of Internal Interaction*
Community Support	Share Knowledge & Experience					

Designerly Data Donation

Use behavioural data as creative material in collaboration with users.

→ Start Planning

What you can learn

This methodology consists of collection of methods and ideas about **Designerly Data Donation** for anyone who want to go beyond the capability of user data usage in their own work.

Designerly data donation is an efficient and ethical approach that encourages the active participation of users. Through this methodology, you will be able to **collaborate with your (potential) users** willing to contribute throughout their personal data and experience.

Behavioural data opens up a great opportunity for designers and researchers to **understand** their users, **predict** their needs and provide more targeted and personalised services.

Designerly data donation will **reduce the concerns about budget or invasion of privacy** while you are using intimate user data by enabling donors autonomously participate in their control and choice.

No matter how expert you are on data, you can adjust your own plan and ask help from data-centric design communities.

Glossary

Behavioural Data

Data from sensors, self-logging, telemetry, or social networks that represents the behaviors and patterns of individuals and groups of individuals.

Data-Centric Design

A research field integrating data science into human-centered design. While there are various methods to generate user data in traditional human-centred design approaches, current technology enables designers to collect and employ various types of user data from the ubiquity of IoT.

Participatory Design

An approach to design attempting to actively involve all stakeholders (e.g. employees, partners, customers, citizens, end users) in the design process to help ensure the result meets their needs and is usable.

When you might use DDD

As **Designerly Data Donation** aim to unlock new ideas and perspectives about users, it is recommended to use as **precursors to exploring new ideas** or for **finding the right problem** to solve.

DIVERGE — CONVERGE

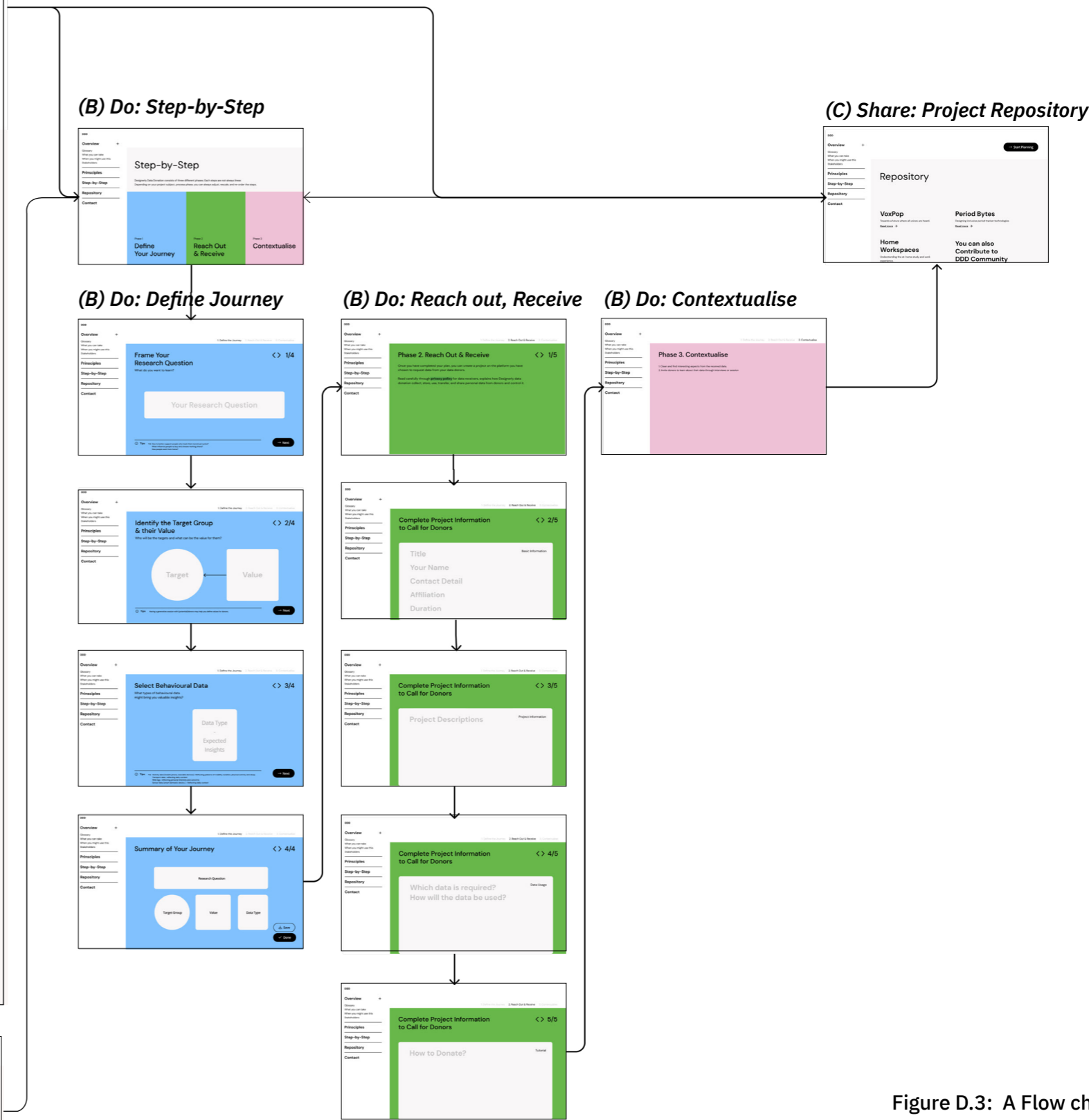## Who will be involved in

(A) Learn: Overview

(A) Learn: Principles

(B) Do: Step-by-Step

(B) Do: Define Journey

(B) Do: Reach out, Receive

(B) Do: Contextualise

(C) Share: Project Repository

Figure D.3: A Flow chart of the prototype

D.2. Setup

The design challenge aimed to give designers the experience of using designerly data donation and a prototype of the toolkit to solve design problems across a series of processes and generate insights throughout. Following aspects were considered: (1) Difficulties: What are the difficulties during the journey?, (2) Missing Information: What information needs to be included in the method?, (3) Design Opportunities: How to solve the problems?, (4) Value Define: What are the values for the stakeholders derived from the method?

The activities were planned under a semi-structured format with the aim of collecting the results in such a way that data could be explored and analysed simultaneously.

I recruited the participants recruited from The Valley, the same UX designers who participated in the preliminary research. The design challenge was conducted in three phases of generative sessions, as well as an extra session, and lasted for six weeks of two-hour sessions with the participants. I supported the participants with one-to-one guidance during the session (Figure D.5).

The 'say-do-make' technique is an approach that records and combines the entire structure of a design challenge. As the name implies, it looks at what people say, do, and make. Conducting a generative session includes those three elements. As such, the planning of activities and the consideration of different information layers can complement and reinforce each other to provide additional value. In this regard, the study was divided into three phases. First, interviewing participants to hear what they 'say' about emotions in their own words. Second, observing what people 'do' while they are using the prototype and experiencing the data donation process. Finally, examining what people 'make' or think about when trying to improve their experience. Through these activities, participants were expected to gradually explore the experience from an explicit to a latent level (Figure D.4).

During the 'say' step, participants were asked to express their emotions in detail using Premo (see Figure D.7) and explain why they felt the way they did. In the 'do' step, the facilitator provided information to guide and help the process. Finally, during the 'make' step, participants had time to talk freely about how they would improve the experience by reflecting on the emotional journeys they had made with the written promos in the 'say' stage. With the consent of participants, these processes were audio recorded so that they could be easily accessible for analysis.

(Appendix 4: Setup- Design Challenge)

Figure D.6: Premos were mapped out on the structure of a journey map

Technique	Say	Do	Make
Materials	Premo	Prototype	Miro board
Method	Interview	Observation	Session
Insights	Explicit	Tacit	Latent
Surface			Deep

Figure D.4: Say-do-make technique was the main method for design challenge

Figure D.7: Premo is Premo is a cartoon figure that can convey fourteen various emotions using her/his face, body, and voice.

With Premo, participants may easily express their emotions by pointing out one or more cartoons.

(Desmet, P.M.A., 2019).

D.4.1.
Learn & Plan

D.4.2.
Reach Out & Receive

D.4.3.
Additional Session

D.4.4.
Contextualise

Week 1 (2hrs)

Week 2-3 (2hrs)

Week 4 (2hrs)

DESIGN CHALLENGE

Figure D.5: An Overview of the Design Challenge

D.3. Procedure & Method

The design challenge consisted of three main phases in accordance with the data donation process: Plan and Learn (D.4.1.), Reach Out and Receive (D.4.2.), and Contextualisation (D.4.4). One extra session was added before the donors were called upon to check ethics (Figure D.8).

Prior to the research activities, project information was provided to both participants, which included the purpose and aim of the project and data privacy policies. As the participants were employees of a design agency, possible risks and ethical issues were checked and mitigating steps were added in advance following guidance from the Human Research Ethics Committee (HREC). After obtaining participant consent, the activities began.

The main sessions had the following structure: (A) Say: On a Miro board, an online platform for collaboration was shared to the participants, and they were given a Premo and journey map to document their emotions before starting the data donation journey. A brief 15-minute interview was conducted to ask about the participants' reasons for feeling certain emotions. (B) Do: Participants tried the journey within the online prototype built with Figma, and researchers helped by responding to difficulties or questions. Their journeys were screen recorded and lasted around 50 minutes.(A-1) Say: After the 'do' step, participants returned to the 'say' step. They were asked to express how they felt during and after the journey they had experienced with the promos and write the reasons behind their emotions. This lasted for 15 minutes. (C) Make: The participants were able to reflect on their emotions, and they recorded and discussed each way they would improve the journey for the last 30 minutes.

D.3.1. LEARN & PLAN

In this first session, participants were asked to use the information on the prototype to learn about Designerly Data Donation. Then, they started planning their own data donation journey according to the context of their actual project step by step. This included defining research questions, target groups, value gaining, and types of data to collect.

D.3.2. REACH OUT & RECEIVE

In this session, participants had time to plan calls to data donors based on the information written in the first session (D.3.1. Learn & Plan). They wrote the information, including basic information about themselves and their project and how the data donors could collect and donate data, following the steps of the prototype. When it was necessary, they were able to search information on the data they would collect.

D.3.3. ADDITIONAL SESSION

Reaching out to donors and receiving data was scheduled for a planned session; however, an additional session was conducted to tackle the practical issues related to these matters, including ethical risks per data types and thinking about how to clean the collected data.

This project had to review data ethics in full, as it dealt with intimate user data that carry the risk of privacy invasion. Therefore, when it became clear what

types of data would be collected through the research, consent materials were prepared to prevent the possible risks, which were approved by the HREC.

During the additional session, participants had time to study the appearance of the data they were collecting and think about what the ethical issues would be when they would work independently with the donor data. In consideration of preventing possible risks, consent materials for the donors were completed. Moreover, while they were reading through the data, the participants also thought about how they could utilise and analyse it for their design challenge, thereby supplementing the data collection strategy. Due to time constraints, donors were found from my personal network.

D.3.4. CONTEXTUALISE

The final step of the Designerly Data Donation was to analyse the data and find interesting or unclear parts for contextualisation. Depending on circumstances, this was optional; however, it is a unique feature of Designerly Data Donation. Participants looked at the donated data, analysed them in their own ways, and planned an interview for donors. They conducted a small interview with one of their donors to learn about the context behind the data. After the contextualising session, participants discussed insights they gained through the data donation journey and what they would do with the results moving forward.
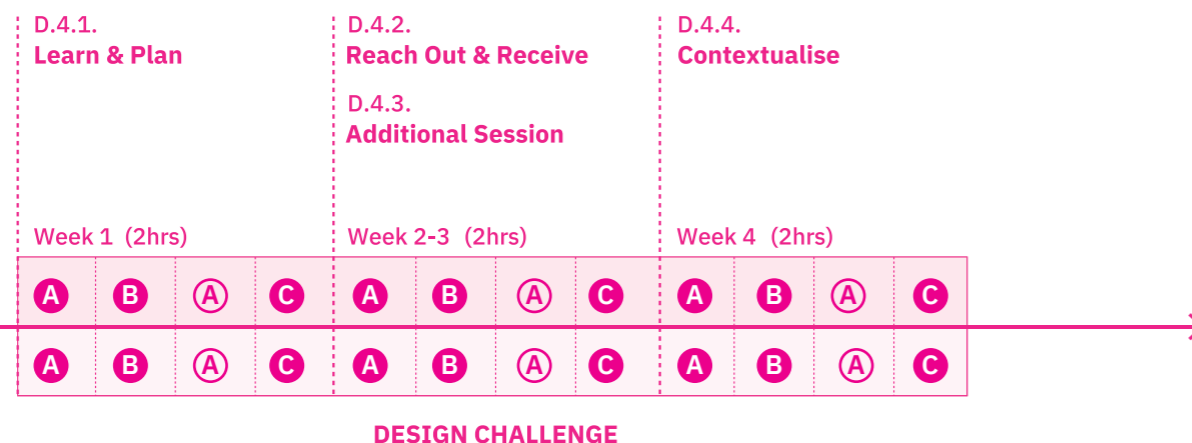

Figure D.8: Methods used in design challenge

D.4. Results

Through the design challenge, data is gathered while designerly data donation is tried out by two participants.

The types of data collected during the design challenge consisted of three different categories. (1) Emotions of participants towards the data donation journey with promos on the journey maps. (2) Quotes about the difficulties and positive experiences of participants during the journey and their opinions about how to improve the experience. (3) Results of each case, including data donation plans, data collected, and insights.

As cases were conducted in twos, I compared the differences and similarities between them to reach meaningful insights. The following sections are the highlights of the results and the full content can be found in Appendix 5.

D.4.1. LEARN & PLAN

Say- Premo (Audio record)

• Before: Particiapnts were curious, excited and hopeful for learning new methods, and P2 was a bit worried about the pressure to complete the planning during the session.

• During: Participants answered they had difficulties to come up with their research questions as they had to artificially use the method within the context they are working on. However, once research questions were defined, they said it was relatively easy to think

of a target group, and both were satisfied about it. P2, who understood the exact definition of value gaining said it was also easy to define the value for donors while it was relatively confusing for P1. P1 answered the meaning of value was unclear which made her confused. After coming up with data, P1 was satisfied while P2 was still concerning about if the data can bring valid insights for her research question.

• After: P1 was satisfied after coming up with the data and became more curious about the next step, while p2 was more confident about the next step because the process was difficult (Figure D.9).

Do- Prototype (Screen record)

• P1 defined her research question as 'How can we provide a trustworthy, relevant digital process for people who are applying for house mortgage for the first time', and set target group as 'starters who is trying to get their first house mortgage. The value for the target group was 'They would like to take care of their administrative things online and they are willing to contribute to make the service to be online'. Types of data to collect were search keywords and website log to know their interest, concerns, what is their trusted resource and where they expect they can find certain information.

• P2 defined her research question as 'How can we inspire people in international design agencies to cultivate inclusive design mindset in their working culture?'. Her target group was 'international designers at design agencies' and value for them was 'being helpful, and contribute to community'. Translate history was

the type of data to collect because she wanted to know in what phase of design process, international designers use translation and what are the words that are often translated.

• Both participants wanted to see other case studies to define their research questions, and it seemed difficult to imagine the results with only the written tips below without additional explanation.

• Both participants had to iterate the process more than three times to complete those steps, defining the research question, target group, value, and data type. Those elements were connected so the separated pages seemed inappropriate.

• Both participants had limitations in brainstorming by themselves what data could be utilised for what purpose and what insights could be expected from different data types.

• There was a limit to imagining data without looking at it directly.

• The more they felt that they lacked experience in data (P2), the less confident they were in performing the task, and kept trying to check if their plan was appropriate.

Make- Miro Board (Audio record)

• P1: "Structure of value proposition canvas can be suitable for target group page. Adding advertising slogan would be nice. I would like to add multiple data in my plan."

• P2: "Want to see the examples of what kind of projects are not suitable."

"Nice start with the potential useful data."
- P1

"... constantly worrying about if the data is useful for my project."
- P2

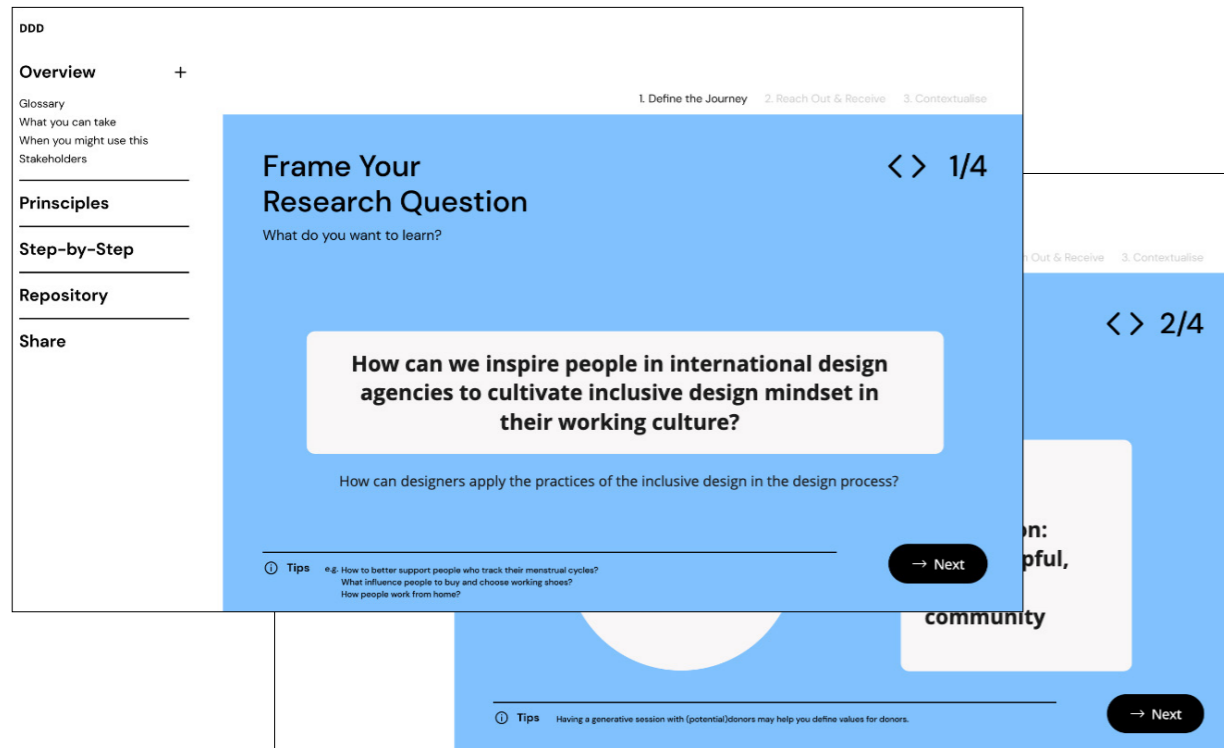Figure D.9: Premos with Quotes from Learn and Plan Phase

Figure D.10.1: Project Plan is filled in the prototype by participants

	Case 1	Case 2
RQ	How can we provide a trustworthy, relevant digital process for people who are applying for house mortgage for the first time?	How can we inspire people in international design agencies to cultivate inclusive design mindset in their working culture?
Traget group	Starters who are trying to get their first house mortgage	Designers at international design agencies
Value	Self interest: take care of their administrative things online willing to contribute to the service to be online	Self interest, Satisfaction, being helpful for the community
Data Type	Search keywords, Web log history,	Translate History
Data Usage	Their interest, concerns What is their trusted resource Where they expect to find certain information	When they use translation during working hours? - words that are often translated

Figure D.10: DDD Plan generated by both participants

D.4.2. REACH OUT AND RECEIVE

Say- Premo (Audio record)

• *Before: After the previous session, both participants had expectations for the next step. P2 who was struggling during the last steps said she was worried and not so confident toward the session.*

• *During: Both participants had no difficulty in understanding about privacy and writing project information. However, both participants had difficulties to think about how to utilise the data when they have firstly downloaded and read the data. P2 said she was concerning when she confronted with data because she did not have experience working with data so much. (Figure D.12, D.13)*

• *After: P1 said it became clear that it was about data donation and what it collects, while P2 said it was still unclear about collecting sensitive data and how this data would help the project.*

• *Both participants said they were satisfied with the information they have searched, as it was easy to find the information about what they needed and how they could collect the data.*

Do- Prototype (Screen record)

• *Without help, designers feel easily overwhelmed to make strategies for data collection.*

• *Once designer have tried to download and see the data by themselves, they realized what they need to consider to collect data from donors.*

• *When they saw the raw data, they felt less confident about how to utilize it.*

• *Designer should consider ethical issues can be caused by donation.*

• *Designer should have the plan for contextualisation before collecting data.*

Make- Miro Board (Audio record)

• *P1: "Depending on the support of data experts, the range of data utilization and insights that can be obtained varies widely, therefore I wish collaboration is possible."*

• *P2: "It would be nice if someone could give me advice when I have a hard time."*

• *P2: "It would be helpful to provide various examples. "*

"Excited to collect data!" - P1

"I wonder if donors understand why I need this data." - P2

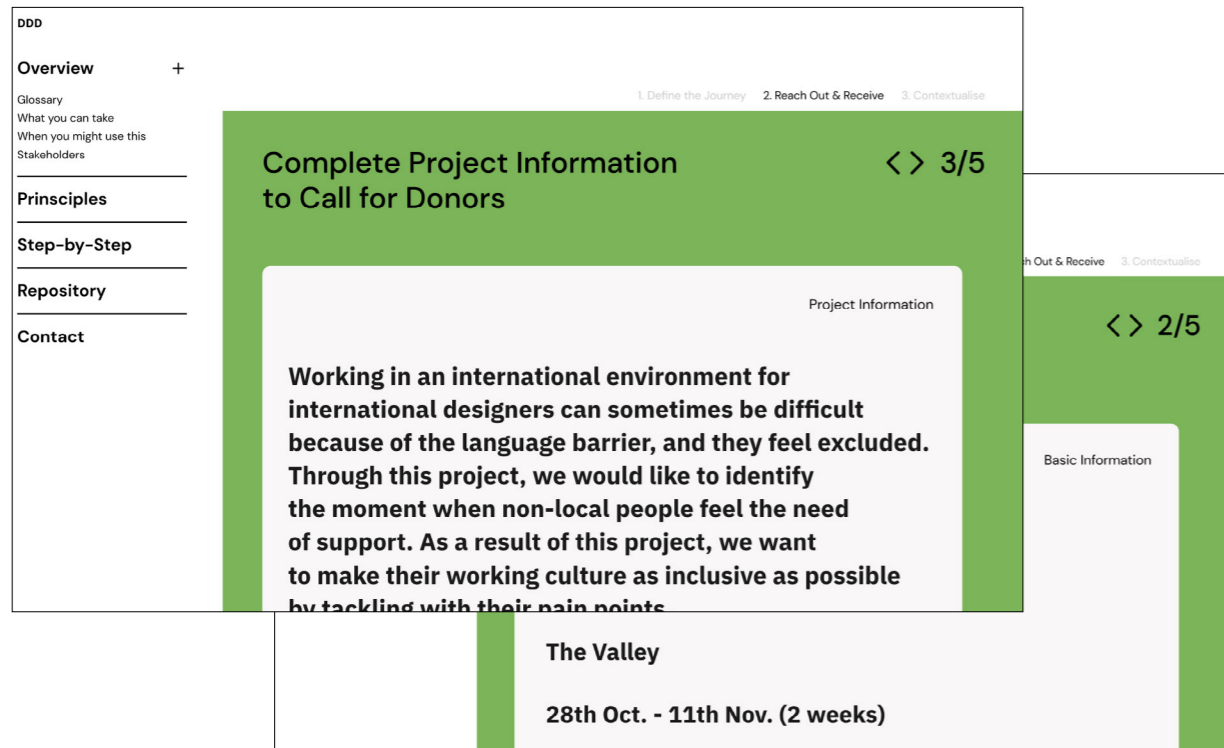Figure D.11: Premos with Quotes from Reach out and Receive

Figure D.12: Project Information is filled in the prototype by participants

Figure D.13: Completed project information

D.4.3. ADDITIONAL SESSION

After the second session, participants were able to complete the project infromation to call for donors based on the results of previous sessions. However, it was not enough to reach out to real donors as practical issues had to be considered to work with user data. As such, during this addtitional phase, I helped participants smoothly go to the next steps by tackling the following issues.

Ethics

There were mandatory steps for master's students at TU Delft to have the approval from The Human Research Ethics Committee (HREC) to work on human research in particular when they are working with data which has potential to cause ethical risks during the research. Once types of data to be collected for each cases and how they will be used for what purposes became clearer, I could prepare for the approval and required documents were as follow: (A) A completed, HREC Checklist that has been signed by the Responsible Researcher, (B) Completed Informed Consent materials, (C) Data Management Plan. While I was preparing the documents, I realised some of this process should be a part of responsibilities of data receivers. By completing the checklists and data management plan, I could imagine possible situations that could happen during the research more in detail.

Data Usage Plan

As some data took time to extract, participants could see actual data after finishing the previous session (E4.2.2. Reach out & Receive). Therefore, it was limited to imagine how to work with donated data before seeing actual data. Participants of this design challenge was UX designers who don't have much experience working with data. So, when participants have faced the raw data, they were doubting if the data could bring valuable insights without technical support. With this in mind, to proceed further in this research setting, I could get advice from data specialists from The Valley and realised cooperation with data specialists open up possibilities especially in this stage.

D.2. Main Takeaways

👁 Depending on target group,project, datatype, possible risks are diverse

👁 It is easy to overlook some ethics

✏ A lot of practical issues happen in this step, which is time consuming

✏ Need data specialists for letting donors to edit their data before donating

— Limitations

Designers couldn't try to reach out to donors by themselves,

Designers cound't take enough time to manage ethics

👁 : Observed   💬 : Said   ✏ : Written

D.4.4. CONTEXTUALISE

Say- Premo (Audio record)

• *Before: Before looking at the data, both participants were looking forward to it, and when they looked at the data, P1 was confused and P2 answered that it was "interesting" to look at the data because she could already expect how does it look like from last session (Figure D.14).*

• *During: In the process of cleaning data before contextualization activities, all participants were not confident and dissatisfied because they did not have sufficient techniques. However, in the process of discovering insights in their own way, both participants were interested, and data actually motivated for preparing sessions. Participants who found interesting points in the data answered that they were satisfied overall because it was easy to proceed through the interview with actual data(Figure C.16).*

• *After: Data donation gave more insight than expected to both participants, and both responded that they were willing to plan for the next data donation (Figure D.15).*

Do- Prototype (Screen record)

• *Data receiver should understand ethical issues to have further research with donors*

• *Data visualisation was a useful step to work with data, which is difficult to be done by designers.*

• *Both participants were good at planning extra session once they have insights about data and found interesting aspects.*

Make

• P1: "Collaboration with data experts is essential to work with the collected data, can we add an optional role of data specialists who can interact with designers?"

• P2: "How can we deal with responsibility for ethical issues that may arise in dealing with data?"

	CASE 1	CASE 2
Data type	Google translate History	Google search History
The number of donors	6	7
Project subject	Webpage for a Banking service	Inclusive design for design agency

Figure D.14: An overview of the received data

"For the next Iteration, I would like to have a clear define scenario, so participants will…"
- P1

"I was doubting in the beginning but, I will definately use it again"
- P2

Figure D.15: Premos with Quotes After the last Session

Figure C.16: A search history visualised with word cloud by P1

D.3. Main Takeaways

👁 What designers could do with data is limited without the help of data specialists

👁 Both were confident to interview people with donated data

💬 Designers eventually found the benefits of DDD when they have firstly completed the journey

💬 Designers are willing to iterate on the whole journey again

— Limitations
Technical support was not enough

👁 : Observed   💬 : Said   ✎ : Written

Through empirical research activities, this study set out to discover whether designerly data donation could be beneficial for design agencies and how this could be made possible.

For the last three months, as a master's project, a design challenge and related activities were conducted with UX designers from The Valley and the data-centric design lab at TU delft. I explored designerly data donation and followed its process with the participants. The data gathered through the journeys generated rich insights. This chapter discusses how the results are linked to design opportunities in proposing the DDD Toolkit. Lastly, I reflected on the meaning of this project and further challenges that I could not cover in this thesis.

E-Discussion

E.1. Findings - Design Opportunities

The results of the design challenge led to several design opportunities to develop a method for designers. These can be summarised as follows:

Iterative Process: The DDD journey is an iterative process.

One of the easiest ways to learn a new method is to try it out. For the novice, it is difficult to make a perfect plan. Therefore, through iteration, designers will be able to reach the solutions they need to resolve their design problems.

Project Repository: Designers tend to rely on case studies.

For data receivers, it can be unclear what kind of results can be obtained with this method. As such, the question of which situation they could use it can also be unclear. One of the most obvious yet frequent discoveries is that designers always look at various cases to get inspiration and outline possible outcomes. In particular, having various examples of which data can be used to get certain insights and how to trigger more donors to get involved was a valuable aid in planning and completing the journey. Therefore, it is important to have resources available where people can refer to many cases.

Ethics Checklists: Ethics checking is an important and time-consuming process.

While ethical issues are a crucial and practical part of data donation, designers can lack the knowledge on how to prevent ethical issues from arising during the journey. Since the data collected through data donation is diverse, it can include intimate user data, which may not be a usual source for those UX designers.

Collaboration: DDD opens up collaborations with stakeholders

The tasks involved in processing data, such as cleaning and visualising to produce meaningful information, are not within most designers' comfort zones. Therefore, cooperation with data specialists should be considered in accordance with the data type and designers' data knowledge.

Value for designers

Finally, since it can open possibilities to work with data for those who lack experience, data donation can be beneficial for designers. In other words, the toolkit can serve as a medium to make the experience of data-centric design available to more designers. When designers get closer to the data, they can discover a fund of creative material to inspire and empower their design decisions.

E.1 Design Opportunities from Design Challenges

Planning part is a non-linear process
(Participants had to iterate planning several time)

Designers tend to rely on case studies
(Participants went back to see other cases several time)

It was difficult to imagine what they could do
with certain data type

Constantly doubting about their planning

Depends on data expertise, what they
could do is vary widely

Depending on target group, project,
datatype, possible risks are diverse

It is easy to overlook some ethics

A lot of practical issues happen in this step,
which is time consuming

Need data specialists for letting donors to
edit their data before donating

What designers could do with data is
limited without the help of data specialists

Both were confident to interview people
with donated data

Designers eventually found the benefits
of DDD when they have firstly completed
the journey

Designers are willing to iterate on
the whole journey again

E.2. Reflection and Further Challenge

This research sought to explore designerly data donation through its practical application at a digital design agency. Drawing on preliminary evidence from the last research activities, I discussed the feasibility of its usage in practice and the things to be considered in the process. As a result of this project, I am proposing the initial shape of the DDD toolkit that can be used in practice, following aspects that were discussed in this phase. More detailed recommendations for the new design can be found in the next phase (G. DDD Toolkit).

Designers have their own featured role in the DDD process.

Both participants were user experience designers, and what they could perform was clear, as several features of the user experience (Micheli et al., 2018) were also beneficial for the DDD journey.

• Human-centered design Mindset

UX designers are specialists in human-centred design, and they are trained to explore user needs in a variety of ways. As such, they can be skilled at thinking from the donors' perspectives. Moreover, many of their project goals should be aligned with the results that DDD aims for.

• Interdisciplinary working environment

Designers are used to working in a multidisciplinary team. The problems they face often require innovative thinking, and people having different knowledge can provide broader insights into problems. This feature of designers will also be beneficial for the DDD journey, as the method sometimes requires collaboration with people from different sectors, such as data specialists or data donors.

• Ability to visualise

Most designers are able to visualise their thoughts or information for the purpose of communication, definition, or exploration. In the DDD journey, data visualisation is a valuable skill for analysing data and preparing for the data contextualising step with donors. Designers can come up with ideas to present the collected data using their own skills or by collaborating with data specialists.

• Blend Analysis and intuition

Design thinking is a practice combined with analysis and intuition. DDD journey can provide designers with various inspirations by enabling designers to work with data as creative material. Also, when planning a journey, coming up with which data could bring which value may require the designer's intuitions.

DDD Toolkit can make designers actively work with user data.

In this research, although both participants had a lack of experience in data usage in their design process, by following the toolkit step by step, they could actively plan their own data donation journey. By following the guidance and thinking about what kind of data can be useful in their project's context, who the targeted donors might be, and what their value is going to be, designers can expand their own capabilities to work with user data.

DDD toolkit can benefit design agencies based on the broader client context.

In this research, search history and translating history from Google were explored. However, types of data relevant to users' behaviours are varied. For example, using the sensor data of IoT appliances can bring rich insights depending on the project or client context.

DDD toolkit should support various designer contexts

The journey and results may differ depending on the data handling capacity, such as getting technical support from data specialists, or drawing on the designer's own skills in data visualisation and analysis. Further research should recruit participants with different profiles in data usage so that the toolkit will guide a more suitable journey based on the capabilities and circumstances of participants.

Ethics checking is always a priority for successful DDD journeys in practice.

On account of limited time, most of the materials for preventing ethical risks were addressed by me. However, further research should let participants manage this by themselves. As in real life, priority must be given to their considerations. To this end, enough guidelines about ethics should be provided in the DDD toolkit.

In this chapter, a plausible scenario (Dunne & Raby, 2013) will be presented with the reasons how it was derived through the insights discovered from previous activities.

Section F.1 presents the macroscopic direction the new interaction. Then, F.2 frames the difination of the toolkit and the interactions between the stakeholders, who can partake in a journey, and their roles. The service blueprint map presented in section F.3 is an advanced version of the user journey map, which shows the overall flow and structure of how stakeholders and touch points can work to complete a new interaction from a user perspective.

F-
DDD Toolkit

F.1. Visions

As a result of this graduation project, I present the strategies for the development of DDD toolkit, and I envision the new interaction will bring following values.

Explicit / Short-term impact	**Defining** the ***Roles and Relationships*** around the DDD toolkit.
	Supporting Designers in learning and trying DDD by **Connecting** business with academia.
Latent / Long-term impact	**Spreading** Knowledge on DDD that reflects the **Data-centric Design Mindset** for designers.

Figure F.1.1: Visions of the DDD Toolkit

F.2. Overview

F.2.1. STRUCTURE
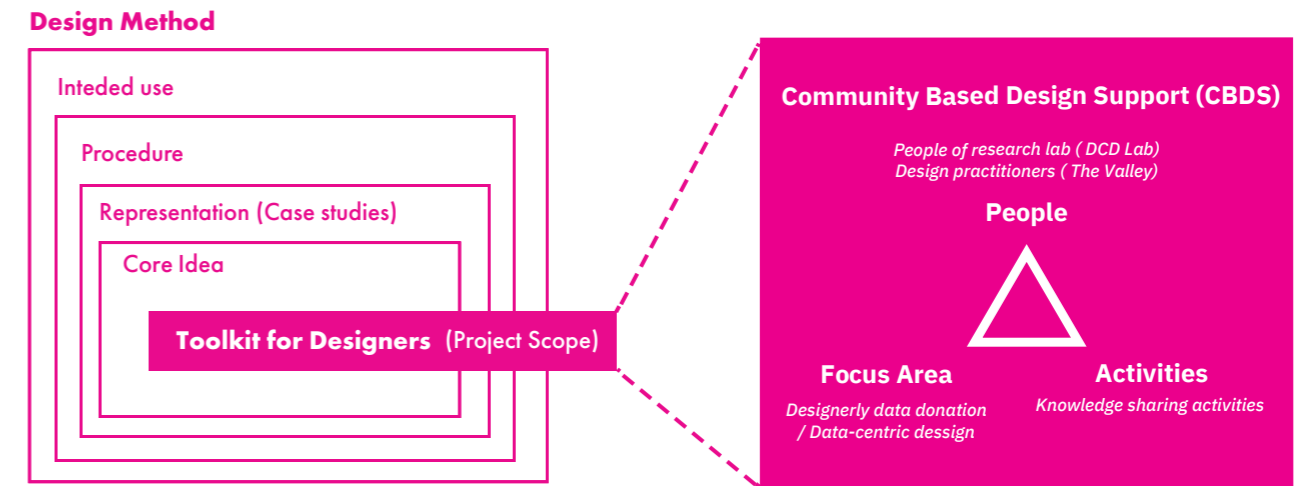
Figure F.1: Project scope and format of the DDD toolkit

F.2.2. INTERACTION: ROLES AND RELATIONSHIPS

I envision the DDD toolkit to be a medium between theory and practice. Experimental academic knowledge and educational information can be shared through the toolkits. I defined the roles in the following section, and their relationships can be found in the stakeholder map (See Figure E.2).

• Designers (Data receiver/Practitioner): Designers working in business sectors or running design projects can be the data receivers and main users of the DDD toolkit. Designers can improve their skills in data-centric design by learning DDD through the shared knowledge in the toolkit. At the same time, designers can contribute to the community by sharing their experience of their own DDD journey.

• Researchers (Data receiver/Researcher): Researchers developing the methodology in academia with the theme of data-centric design or desigenrly data donation. Researchers keep developing and updating the current knowledge and sharing its value through research projects and collaboration with third party stakeholders. Those people can encourage more designers to be involved in their research theme and get insights from broader cases.

• (Potential) Users (Data donor/Citizens): Data donors will be determined through the planning process. They can be any users or people relevant to the project context. Donors can participate in this journey with motivations of self-interest, the expectation for personalised service, or improved current service. Those values should be determined by data receivers depending on their project context.

• Employees managing ethics: The Human Research Ethics Committee (HREC) at TU Delft. Potential ethical risks can arise during the journey. As such, consent should be confirmed by employees from a company following their rules. The materials and guideline from HREC can also be a useful resource.

• Clients: Clients of design agencies will be an indirect stakeholder. Although designers are using DDD for a client's project, depending on its planning, the client's agreement is not mandatory. DDD can be an independent exercise for designers, and this can be an efficient way to gather data outside of their own products or services.

• Data specialist: Data specialists can cooperate with designers for planning the DDD journey, cleaning and reshaping the data for the analysis and contextualising phase. While it is not mandatory to involve these people, their help will open up more possibilities for designers to work with data.
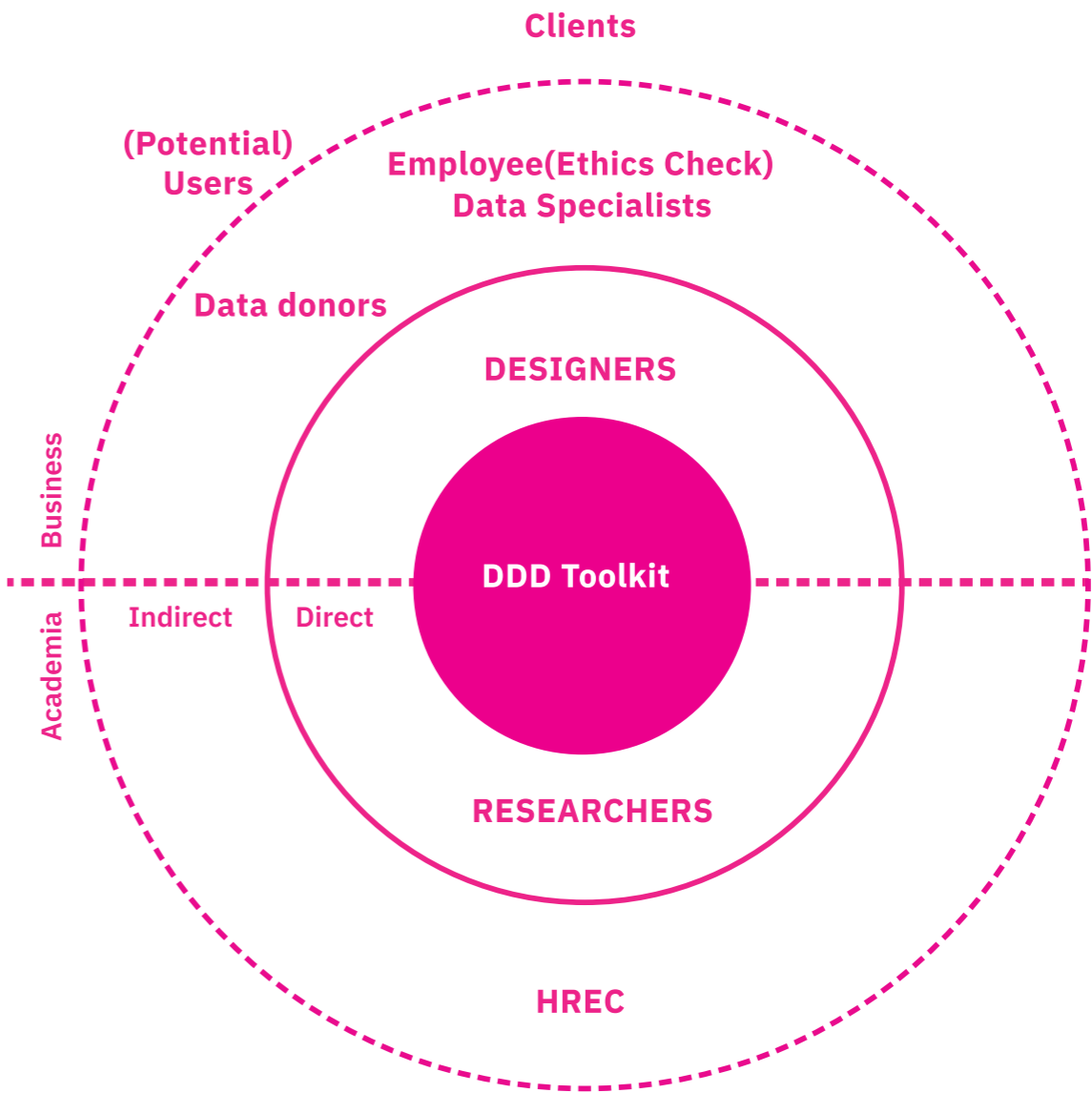
Figure F.2: A stakeholder map of the DDD toolkit

F.3. Service Blueprint Map

Figure F.3. presents how the initial journey is developed through the previous research activities. The initial journey map is integrated into the prototype 1. In the new scenario, the journey is divided into three phases; Discover and Learn, Do: Step-by-step, and Share the Journey. When a result is shared with the platform, the community could share it on the case study page.

The overall structure is similar to the previous interaction but some parts have been reinforced which is highlighted on the blueprint map. First of all, case studies became a project repository (A), which is an efficient structure to upload and find information. In doing part, as iterations happened a lot, the structure became easier to create, edit and save (B). Also, results or plans, written in the platform can be directly shared with the repository to encourage more users to contribute to the platform and community. Moreover, it is important to read the ethics before and after conducting DDD, however, it gets clearer about what designers need to consider when the types of data to collect are defined or the project plan is completed. Therefore, ethics checks (C) will be a mandatory step to force designers to consider before reaching out to donors. Finally, cooperating with data specialists (D) will open more possibilities to work with donated data.

F.3.1. FEATURED CONTENT

(A) Project Repository: Shares case studies.

DDD toolkit shares case studies shared by other users. The case studies can give outline of the DDD to users. Project repository exists between learning and doing steps where are accessible at any stage of the journey.

(B) Iterative Process

DDD toolkit supports Iterative process by providing 'project editor' that designers are easily create, edit and share their own DDD journey.

(C) Ethics Checklists: Reminds ethical risks.

DDD toolkit will force users (data receivers) to check ethical risks that could caused during the DDD journey. It can be read in detailed page, but it will be shown once again after completing the planning and before reaching out to donors

(D) Collaboration: Encourage collaboration.

DDD toolkit encourages collaboration with stakeholders. For example, working with data specialists will open more possiblities. Also, community activities such as feedback sessions among users can happen through the platform.

Figure F.3: Service Blueprintmap of the DDD Toolkit

Physical Evidence	DDD Toolkit Website (Online)						DDD Toolkit Website / Data Storage / Meeting Room (On/offline)		Website (Online)
	Landing Page	Sub-Pages	Project Repository	Project Editor		Ethic Checklist Ⓒ	Project Editor	Received Data	Sharing Form
				Summary of the Journey			Consent Materials	Interview plan / questions	
User Actions	**Discover & Learn DDD**		Ⓐ	**Do: Create - Edit - Save a DDD Journey**				Ⓑ	**Share the Journey**
				Define the Journey		**Check Ethics**	**Reach Out & Receive**	**Contextualise** (Optional Phase)	
Front-stage	Overview	Value Gain	Case studies	Research Question		Ethics	Plan data management strategy	Plan Activities with donors	Fill in the form
	Intended Use	Data-Centric-Design		Target group & Values			Prepare Consent Materials	Conduct Interviews/Sessions	
	Glossary	Principles		Types of data			Complete Invitation for donors	Explore and shape data	
	Roles & Relationship	Ethics		Tips and Tricks			Advertise the Project		
							Receive Data		
				Collaborate with Data Specialists				Ⓓ	*Line of Visibility*
Back-stage	Update Information / Maintain System								*Line of Internal Interaction*
Community Support	Share Knowledge & Experience / Communiti Activities								

This graduation project explored how the concept of designerly data donation can be reshaped as a design method that the designers of The Valley can actively integrate into their design process.

A literature review and end-user research were conducted, and the entire journey of the designerly data donation was developed through the activities from the perspective of the designers. The first prototype for the design challenge was outlined based on the insights generated. This is a representation of an online toolkit that delivers knowledge and guidance about the designerly data donation. In the design challenge, two UX designers were asked to participate in validating and developing the new interaction within the real-world context. Through this process, it was found that the new interaction should have a flexible structure to accommodate frequent editing, modifying, and sharing. In addition, it should be easy to access project repositories and ethics, and it should encourage collaboration with stakeholders around user data.

The findings from this research defined the roles and relationships around the DDD toolkit. The toolkit aims to support designers in learning and trying DDD by connecting business with academia. Finally, as a by-product, it aims to spread knowledge on DDD that reflects the data-centric design mindset for designers and their teams.

G-Conclusion

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Contents

Semi-structured Interview

Research Questions

1. What makes designers to select a new methodology? (What are the difficulties/ limitations/benefits of using design methodologies?)

2. How are the UX designers of The Valley currently using user data in their design process?

3. What do UX designers of The Valley expect from DDD?

Focus Area	Question
A. Design methodology Motivation / Experience / Difficulties / Limitations / Mindset cut off time	1. Do you use any design methodologies in your design process? 1-1. If yes, share your experience. 1-2. If no, tell me why you don't use. 2. What will be the benefit of using design methodologies? 3. What are the difficulties and/or limitations of using design methodologies in practice? 3-1. What makes you feel that? 4. If you consider to use new design methodologies, what would be _your reasoning_ you to select them? 5. What would you expect from a new design methodology?
B. Data-centric design Experience / Difficulties / Limitations / Mindset, Behavioural data	1. Share your experience of designing with user data - (clearly define) 1-1. How do you use data in your design process? 1-2. What are the difficulties / limitations. 1-3. What user data means to you? 2. Can you explain what is behavioural data in one sentnce? 2-1. Do you use Behavrioural data in your design process? 2-2. If yes, what types of BD, what can you learn from it? 2-3. If no, what is the reason? 2-4. What are the limitations/ difficulties of utilising behavrioual data? 3. What do you expect from user data? 4. What would you like to learn more about users?
C. Designerly Data donation First impression / Expectations	1. What is your first impression when you first heard the concept 'Designerly data donation? working in your daily task get opinion of it project in mind you could probably use it? 1-1. What do you imagine? 1-2. What do you expect from it? 1-3. Are you interested in? What are the reasons - for both answers

Appendices

Appendix 2: Setup- Generative Session

(D.2. End-User Research)

Designerly Data Donation

Internet of Things (IoT) traces countless human behaviours that occur in our daily lives. <mark>Behavioural data that shows how, why, and what people do</mark> could help designers unlock new ideas and perspectives about users. This presents a great opportunity for designers and researchers to understand their users, predict their needs and provide more targeted and personalised services.

However, collecting those data is expensive, time-consuming, and ethical concerns inevitably arise because the data often contains personal information. As such, users should be more reluctant to provide their data, which can be a major obstacle because their cooperation will be indispensable for further data activities.

Designerly data donation is an efficient and ethical approach that encourages the active participation of users to obtain the contextualised data. This subtle switch of the attitude toward data collection will help designers reduce the concerns about budget or invasion of privacy while they are using intimate user data. Instead of putting efforts into finding the right participants for interviews or struggling with limited access to data, designers can <mark>build up proper triggers</mark> to inspire users to donate their data and provide enough information to enable the donors autonomously participate in their control and choice.

The data is neither big nor multi-scaled, it has the potential to be highly contextualised through the active collaboration of data donors

Storyboard

1. James is a UX designer. He (1)<u>was working</u> on a project about (2)<u>Remote work</u>.
2. (3)<u>To understand the people's daily routines while they are working from home</u>, he decided to plan a designerly data donation. Because he wanted to (4)<u>support his idea with the insights from user's behavioural data</u>.
3. Then, he decided to collect (5)<u>pictures of people's daily home settings when they work from home</u>.
4. After completing the planning for DDD campaign, he defined the target group and reached out to (6)<u>People working from home (Community)</u>.
5. He thought this will value for donors' (7)<u>well being by providing personalised insights about their daily working habits</u>.
6. He shared all information (Project scope, purpose, required datatypes, donor's rights, value) to call for donors.
7. While he'd receiving user data, he maintained open communication channels to keep data donors up-to-date with regards to collecting data and at the same time, looked for participants to join in the Reconstruction session.
8. He found interesting figures while analysing the donated data and visualised them for a reconstruction session.
9. He invited to a few donors and asked about the meaning of their behavioural data following the interesting figures.
10. With the data, he could (8)<u>identify common elements and pain points around people's home setting</u>

|	Case A	Case B	Case C
1. Project Timeframe	Discover & Define	Define & Develop	Define & Develop
2. Project Subject	Menstrual Tracking Technology	Remote work	Working Shoes Brand
3. Research Question (What do you want to learn about users)	How to better support people who track their menstrual cycles?	How people work from home?	What influence people to buy and choose working shoes?
4. Data Usage	Explorative Material	Construction Material	Evaluative Material
5. Scope (What types of Data and how will you collect?)	Context of menstrual logs. (Clue app: a menstrual tracking app. can log 31 types of data such as sleeping duration, pain …)	Photos of their desk when people work from home	Step Count, Location from Smart watch
6. Targeted donors' group	Communities around menstruation and institutions that work around menstruation	People working from home	People buying working shoes
7. Value for Donors	Community feeling, Personalized insights and feedbacks	Well being of home workers, Personalized insights	Personalized insights and feedbacks
8. Results	Better understand about menstrual cycles of women	Identify common elements and pain points around people's home setting, daily routines.	Insights for product detail page, filtering , navigation

Project Timeframe						
Discover		Define		Develop		Deliver

Project

Value for Donors

Types of Behavioural Data

Potential Donors

Learning From the process

Self Interest

Donor

Positive Feelings

Social Duties

User

Platform

Research Question

Scope
Data type
Aim
...

Call for Donors

Open Communication

Receive User Data

Analyse Data

Contextualise Data

Data-Centric Design

Appendix 3: Results- Generative Session
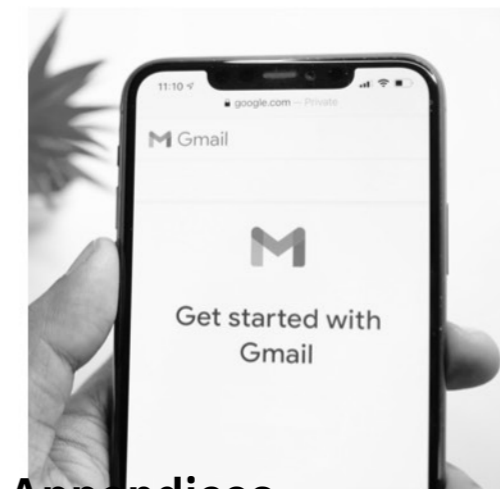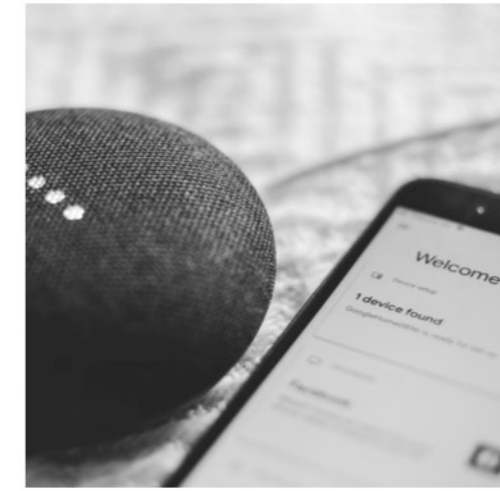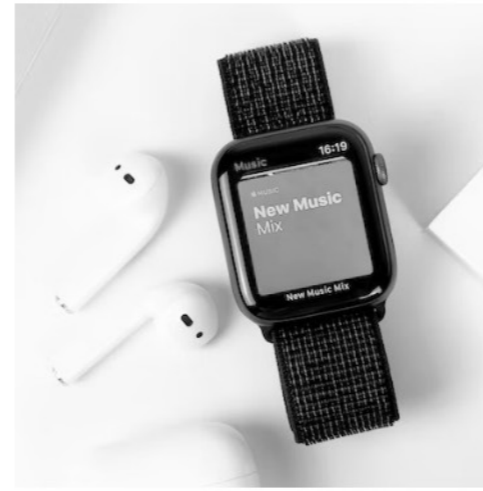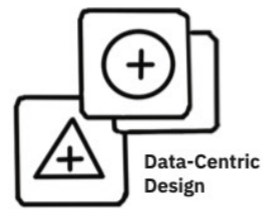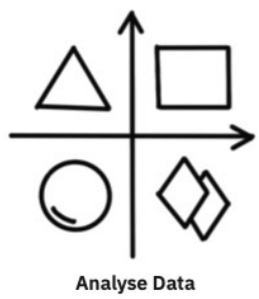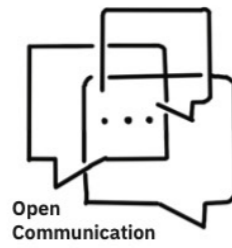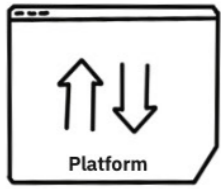
(D.2. End-User Research)

Quote	Insight	Theme Detail	Theme
P1: *"We try to adjust and integrate methods into our design process ..."*	Designers use to adjust/ rescale, combine methods		
P2: *"When I feel I am lost, I look for new design methods."*	Designers look for new methods when they feel lost or need to support ideas	*Flexiblity of method*	**Format**
P1: *"Could you explain what is Behavioural data?"*	Different understanding on certain terms e.g. behavioural data	*Learning by Doing*	
P2: *"I don't have the skills to explore user data, my background is not very technical–"*	Participants are less confident in data usage.		
P1: *"Even the numbers of Google Analytics, I pick the data I need."*	Designers use to be Biased on user data		
P1: *"Number is so powerful to convince stakeholders."*	Designers believe the power of data	*Clarify Terms*	
P2: *"I would probably use data donation more in an explorative stage."*	Designers expect DDD fits in diverging phase of design process	*Deliver its Value* *Project Phase*	**Content**
P2: *"It seems quite challenging but also very interesting to me."*	Designers think DDD is challenging, but interesting	*Share more Cases*	
P1: *" It is difficult to imagine direct benefits to my project."*	Difficult to assume what they can can expect from DDD		
Observed: Easily feel overwhelming with unfamiliar concept	Easily feel overwhelming with unfamiliar concept		
Observed: Some research questions don't fit in DDD	Some research questions don't fit in DDD		
Observed: Difficult to ideate types of behavioral data and possible insights	Difficult to ideate types of behavioral data and possible insights	*Autonomous* *Guided*	**Interaction Vision**
Observed: Understanding the concept and you can actually do is different	Understanding the concept and you can actually do is different	*Supported*	
Observed: Storyboard with real cases help understanding the concept	Storyboard with real cases help understanding the concept		
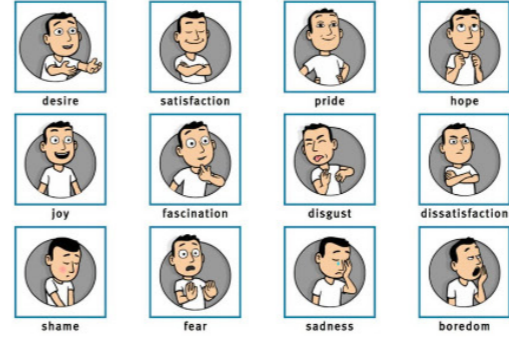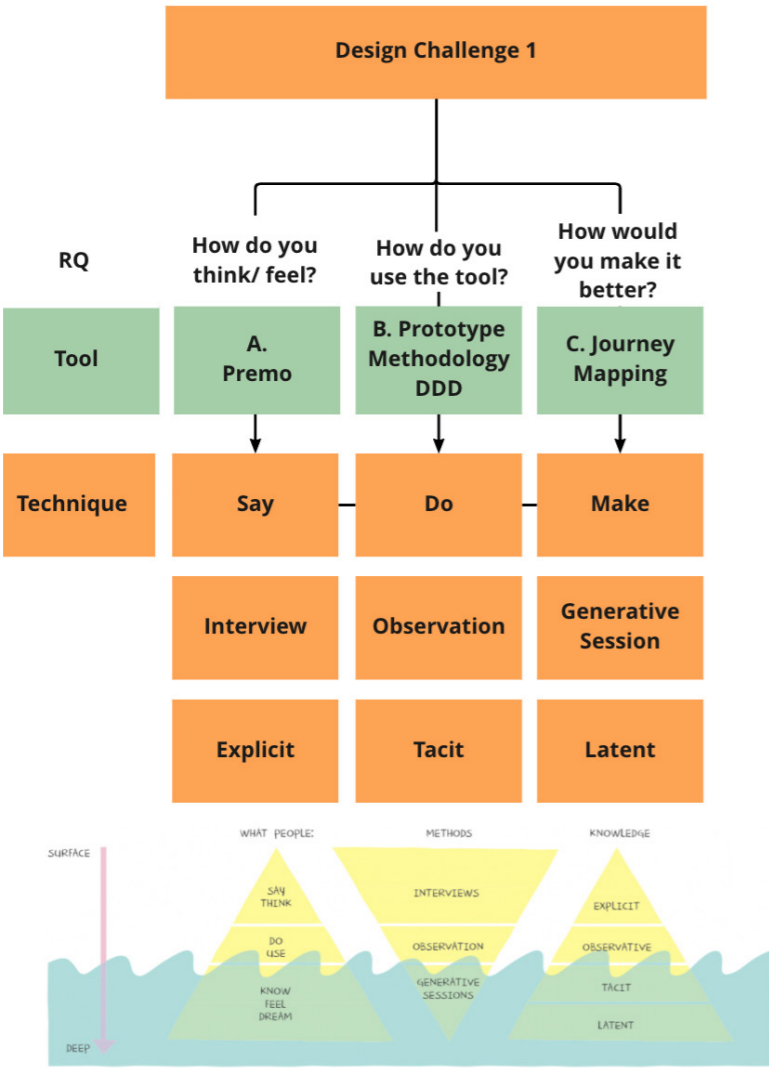
2:20-3:00

Make   How would you make it better?

Designerly Data Donation

Use behavioural data as creative material of your design process in collaboration with potential users.

Glossary

- Behavioural data: Data from sensors, self-logging, telemetry, or social networks that represents the behaviors and patterns of individuals and groups of individuals.

- Data-centric design: A research field integrating data science into human-centered design. While there are various methods to generate user data in traditional human-centred design approaches, current technology enables designers to collect and employ various types of user data from the ubiquity of IoT.

- Participatory design: An approach to design attempting to actively involve all stakeholders (e.g. employees, partners, customers, citizens, end users) in the design process to help ensure the result meets their needs and is usable.

What you could take

This methodology consists of collection of methods and ideas about Designerly data donation for anyone who want to go beyond the capability of user data usage in their own work.

Designerly data donation is an efficient and ethical approach that encourages the active participation of users. Through this methodology, you will be able to collaborate with your (potential) users willing to contribute throughout their personal data and experience.

Behavioural data opens up a great opportunity for designers and researchers to understand their users, predict their needs and provide more targeted and personalised services.
Designerly data donation will reduce the concerns about budget or invasion of privacy while you are using intimate user data by enabling donors autonomously participate in their control and choice.

No matter how expert you are on data, you can adjust your own plan and ask help from data-centric design communities.

Why designerly data donation?

Understanding people as both citizens and consumers is very important as each will bring different effects to the future. The decision made by consumers will determine the direction of the future. With this in mind, people's behaviours that represent people's habits and lifestyles will be neutral evidence about the social and natural world.

It is impossible to utilize intimate user data without active participation of people. People have the right and power to autonomously drive towards their preferable future, and they are a primary domain that can give valuable insights as experts about their behavioural data. Therefore, designerly data donation is not only valuable for the project but also for donors themselves from a macro perspective.

When you might use this

As Designerly Data Donation aim to unlock new ideas and perspectives about users, it is recommended to use as precursors to exploring new ideas or for finding the right problem to solve. The received data can be used as *Explorative/ Construction / Evaluative Material.* Depends on your research phase, you can plan different strategies.

Actors

- Data Receivers: Any person, group of people, or institution, running a design or research project who could benefit from having access to data and insights from potential contributors.

- Data Donors: Any person willing to contribute with their personal data to a specific project or context.

Principles of Designerly data donation

- Valuable Collaboration: Data is an incredible resource. However, it is limited without the unique experiences and expertise of those represented by the data. Through Designerly Data Donation we aim to develop trusted and valuable collaborations that start with data, but go way further.

- Actionable Control: Our main objective is to enable collaborations through data. For this, it is key that people not only have control of their personal data but also the mechanisms to exercise this control. Through Designerly Data Donation we give the first step in this direction.

- Accessible Information: Information flow is at the core of any successful collaboration. Through Designerly Data Donation, we aim to ensure that information flows openly and is accessible to both Data donors and Data Receivers.

Step-by-step

DDD consists of three different phases. Each steps are not always linear, depends on your circumstances you can always adjust, rescale, and reorder them.

Phase 1. Define The Journey
In this phase, you will be able to define your own DDD Journey. By considering what would you like to learn from user data, you can specify what and how to receive.

1. Begin the activity by defining the scope of your design challenge.

- Research Question
- Potential Data donor group / Types of Behavioural data - *What types of behavioural data from whom may bring valuable insights?*
- Value for donors - *How to provide value to donors?*
- Platform - currently only available *DDD Platform*

*tips
e.g. You can Frame them by writing the following prompt:
You can reach out to experts to ask for reviewing your plan
*recommended methods
- *A generative session with (potential) donors may help you define values for donors by themselves.*
- *Brainstorming*

Appendices

Define the journey	Reach Out & Receive	Contextualise
Read design principles	Prepare Consent materials	Plan reconstruction
Frame a research question	Complete invitation for donors	Reconstruct the context
Define the target group	Call for donors	(Optional Phase)
Define value gain	Provide information for donors	
Decide types of data to collect	Value gain event	
Decide how to collect data	Receive data	

Physical Evidence	DDD Toolkit Website (Online)			DDD Toolkit Website / Data Storage / Meeting Room (On/offline)		Website (Online)
	Landing Page	Sub-Pages	Summary of the Journey	Project Information	Interview plan / questions	
User Actions	**Discover & Learn DDD**		**Define the Journey**	**Reach Out & Receive**	**Contextualise** (Optional Phase)	**Share the Journey**
Front-stage	Overview	Value Gain	Research Question	Complete Invitation for donors	Plan Activities with donors	
	Intended Use	Data-Centric-Design	Target group & Values	Advertise the Project	Conduct Interviews/Sessions	
	Glossary	Principles / Ethics	Types of data	Receive Data	Explore and shape data	
	Roles & Relationship	Project Repository	Tips and Tricks			*Line of Visibility*
Back-stage	Update Information / Maintain System					*Line of Internal Interaction*
Community Support	Share Knowledge & Experience					

Physical Evidence	DDD Toolkit Website (Online)					DDD Toolkit Website / Data Storage / Meeting Room (On/offline)		Website (Online)
	Landing Page	Sub-Pages	Project Repository	Project Editor	Ethic Checklist	Project Editor	Received Data	Sharing Form
				Summary of the Journey		Consent Materials	Interview plan / questions	
User Actions	**Discover & Learn DDD**			**Do: Create - Edit - Save a DDD Journey**				**Share the Journey**
				Define the Journey	**Check Ethics**	**Reach Out & Receive**	**Contextualise** (Optional Phase)	
Front-stage	Overview	Value Gain	Case studies	Research Question	Ethics	Plan data management strategy	Plan Activities with donors	Fill in the form
	Intended Use	Data-Centric-Design		Target group & Values		Prepare Consent Materials	Conduct Interviews/Sessions	
	Glossary	Principles		Types of data		Complete Invitation for donors	Explore and shape data	
	Roles & Relationship	Ethics		Tips and Tricks		Advertise the Project		
						Receive Data		
				Cooperate with Data Specialists				*Line of Visibility*
Back-stage	Update Information / Maintain System							*Line of Internal Interaction*
Community Support	Share Knowledge & Experience							

Appendices

Designerly Data Donation

Use behavioural data as creative material in collaboration with users.

What you can learn

This methodology consists of collection of methods and ideas about **Designerly Data Donation** for anyone who want to go beyond the capability of user data usage in their own work.

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Behavioural data opens up a great opportunity for designers and researchers to **understand** their users, **predict** their needs and provide more targeted and personalised services.

Designerly data donation will **reduce the concerns about budget or invasion of privacy** while you are using intimate user data by enabling donors autonomously participate in their control and choice.

No matter how expert you are on data, you can adjust your own plan and ask help from data-centric design communities.

Glossary

Behavioural Data

Data from sensors, self-logging, telemetry, or social networks that represents the behaviors and patterns of individuals and groups of individuals.

Data-Centric Design

A research field integrating data science into human-centered design. While there are various methods to generate user data in traditional human-centred design approaches, current technology enables designers to collect and employ various types of user data from the ubiquity of IoT.

Participatory Design

An approach to design attempting to actively involve all stakeholders (e.g. employees, partners, customers, citizens, end users) in the design process to help ensure the result meets their needs and is usable.

When you might use DDD

As **Designerly Data Donation** aim to unlock new ideas and perspectives about users, it is recommended to use as **precursors to exploring new ideas** or for **finding the right problem** to solve.

DIVERGE CONVERGE

Who will be involved in

Data Receivers (You)
Any person, group of people, or institution, running a design or research project who could benefit from having access to data and insights from potential contributors.

Data Donors
Any person willing to contribute with their personal data to a specific project or context.

Principles

Valuable Collaboration

Data is an incredible resource. However, it is limited without the unique experiences and expertise of those represented by the data. Through Designerly Data Donation we aim to develop trusted and valuable collaborations that start with data, but go way further.

Actionable Control

Our main objective is to enable collaborations through data. For this, it is key that people not only have control of their personal data but also the mechanisms to exercise this control. Through Designerly Data Donation we give the first step in this direction.

Accessible Information

Information flow is at the core of any successful collaboration. Through Designerly Data Donation, we aim to ensure that information flows openly and is accessible to both Data donors and Data Receivers.

Repository

VoxPop

Towards a future where all voices are heard.

Read more →

Period Bytes

Designing inclusive period tracker technologies

Read more →

Home Workspaces

Understanding the at-home study and work experience.

You can also Contribute to DDD Community

DDD

Overview +

Glossary
What you can take
When you might use this
Stakeholders

Prinsciples

Step-by-Step

Repository

Contact

Step-by-Step

Designerly Data Donation consists of three different phases. Each steps are not always linear.
Depending on your project subject, process phase, you can always adjust, rescale, and re-order the steps.
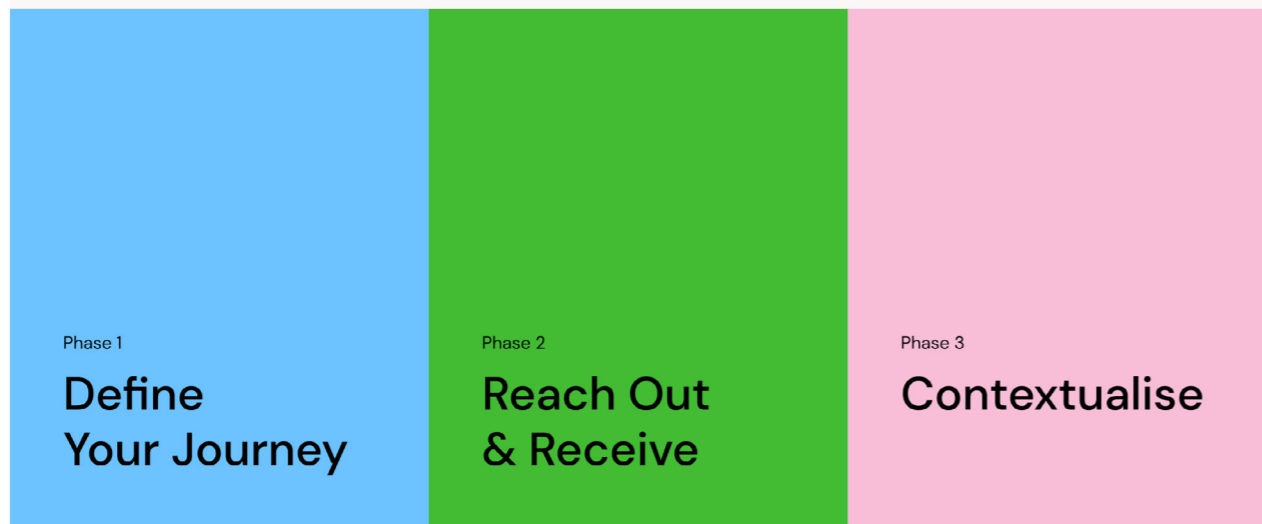
Phase 1
Define
Your Journey

Phase 2
Reach Out
& Receive

Phase 3
Contextualise

DDD

Overview +

Glossary
What you can take
When you might use this
Stakeholders

Prinsciples

Step-by-Step

Repository

Contact

Identify the Target Group & their Value

Who will be the targets and what can be the value for them?

⟨ ⟩ 2/4

Target ← Value
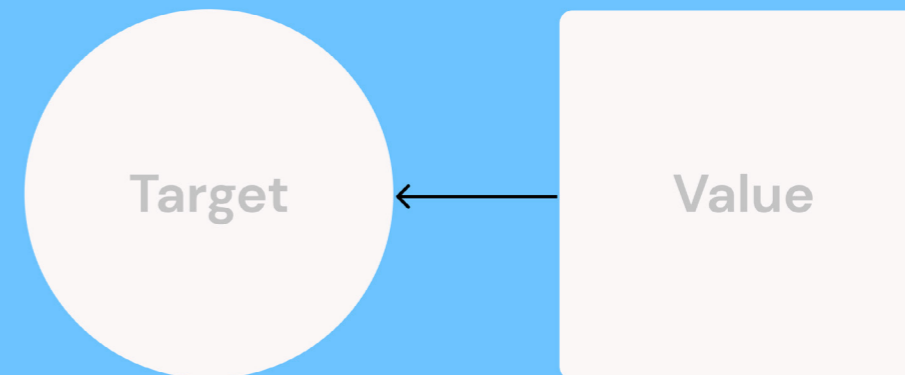
ⓘ Tips   Having a generative session with (potential)donors may help you define values for donors.

→ Next

DDD

Overview +

Glossary
What you can take
When you might use this
Stakeholders

Prinsciples

Step-by-Step

Repository

Contact

Frame Your Research Question

What do you want to learn?

⟨ ⟩ 1/4

Your Research Question

→ Next

DDD

Overview +

Glossary
What you can take
When you might use this
Stakeholders

Prinsciples

Step-by-Step

Repository

Contact

Select Behavioural Data

What types of behavioural data might bring you valuable insights?

⟨ ⟩ 3/4

Data Type
-
Expected
Insights

ⓘ Tips   e.g. Activity data (mobile phone, wearable devices) : Reflecting patterns of mobility, isolation, physical activity and sleep.
Transport data : reflecting daily context
Web logs : reflecting personal interests and concerns
Sensor data (smart domestic device,) : Reflecting daily context

→ Next

DDD

Phase 2. Reach Out & Receive

⟨ ⟩ 1/5

Once you have completed your plan, you can create a project on the platform you have chosen to request data from your data donors.

Read carefully through **privacy policy** for data receivers, explains how Designerly data donation collect, store, use, transfer, and share personal data from donors and control it.

DDD

Complete Project Information to Call for Donors

⟨ ⟩ 3/5

Project Descriptions

Project Information

DDD

Complete Project Information to Call for Donors

⟨ ⟩ 2/5

Title

Your Name

Contact Detail

Affiliation

Duration

Basic Information

DDD

Complete Project Information to Call for Donors

⟨ ⟩ 4/5

Which data is required?
How will the data be used?

Data Usage

Appendix 5: Results- Design Challenge

(E.4)

Make   40 min

How would you make it better?

Missing info   **Difficulties**   **Idea**

Phase 2. Reach Out & Receive   <> 1/5

Complete Project Information to Call for Donors   <> 2/5

Title
Your Name
Contact Detail
Affiliation
Duration

No difficulties :)

Complete Project Information to Call for Donors   <> 4/5

Which data is required?
How will the data be used?

would be nice if I can select from some of the suggestions (this was for me too open and difficult to come up with the possibilities)

I was constantly doubting with the data I want to collect because I couldn't imagine enough how I can use the collected data

I felt pressured to find the right method, right way for collecting data

Complete Project Information to Call for Donors   <> 3/5

Project Descriptions

Maybe good to have keywords to help the description more attractive to donors (for example, goals, reasons, emotions, values, benefit)

Complete Project Information to Call for Donors   <> 5/5

How to Donate?

The file was overwhelming

the duration of the translation history seems to be too long

difficult to find out how to download the history

very difficult for what to check or find what is needed as data

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Select data to include
1 of 1 selected

Products
Deselect all

My Activity
Records of your activity data, along with image and audio attachments. More info

Multiple formats   All activity data included

Show more products   Next step

Results

Q: What did you learn through this method? Please write down the insights you've got from the DDD journey.

Insight 1
got **her work contract in dutch** which makes her very uncertain and horrible about not immediately knowing what's written.

Insight 2
worked in an International client where she needed to translate documents **in order to conduct research in the early design phase**

Conclusion / Further steps
(What would be your next steps?)
Overall the translation data from Google Translate worked well. I see a couple of limitations:
- the way of translating may differ (some use the Google platform, some use on-site translation) that means I would not get all the latest data?
- visualising the translation data is somewhat biased as I needed to delete a lot of "unnecessary words"

However, I got the type of document she needs to translate and the timing of design process where she translates the most.
For the next step, I would like to continue the current way and see if there are any patterns on type of document and design phases.

My Activity content options
Choose specific activity data for your export
Select all
- Ads
- Books
- Chrome
- Discover
- Drive
- Gmail
- Google Apps
- Google Play Store
- ☑ Google Translate
- Help
- Image Search
- Maps
- Search
- Shopping
- Takeout
- Video Search

Cancel   OK

← Google Takeout

Choose file type, frequency and destination

Destination

Transfer to:
Send download link via email

When your files are ready, you'll get an email with a download link. You'll have one week to download your files.

Frequency:
- ● Export once
  1 export
- ○ Export every 2 months for 1 year
  6 exports

File type & size

File type:
.zip

Zip files can be opened on almost any computer.

File size:
1 GB

Exports larger than this size will be split into multiple files.

Create export

Export progress

Google is creating a copy of files from My Activity
This process can take a long time (possibly hours or days) to complete. You'll receive an email when your export is done.
Created: 4 November 2022, 16:12

Cancel export   Create another export

Bank is still the primary information source

besides hard numbers, people also interested in supportive information on the topic

number is important, not just how much mortgage I can get, but more on how and how much I need to pay back

information from this data donation is not providing the right data. When the participant is doing research around the topic, she didn't have the mindset that she needed to get enough info to make the final decision, she was counting too much on the in person consultant session. For next iteration, I would like to have a clear define scenario, so the participant will be aware that she needs to get all the information that she needs before she takes a mortgage

Call for data donors : Inclusivity in Working Culture

Main Researcher(s): ▮▮▮▮▮▮▮, Sinyoung Ahn
Contact Email: ▮▮▮▮▮▮▮▮▮▮
Affiliation: ▮▮▮▮
Duration: 28th Oct. - 11th Nov. (2 weeks)

Project Description
Working in an international environment for international designers can sometimes be difficult because of the language barrier, and they feel excluded. Through this project, we would like to identify the moment when non-local people feel the need of support. As a result of this project, we want to make their working culture as inclusive as possible by tackling with their pain points.

Which data is required?
Translation history on Google for 1 week (working days)

How will the data be used?
We will use a visualization tool to identify common elements around people's workspace and work routine.

How to donate?
1. Log in to your Google account
2. Go to google translation
3. Go to "History"
4. Go to "Manage all activity"
5. Go to "Saving to Web & activity"
6. Go to "...more" from the navigation on the left
7. Select "Download your data" > you will go to the "Google Takeout" screen
8. Select "data to include" > Multiple formats > Select "JSON" > OK
9. Select "All activity data included" > Deselect all > Select Google Translate > OK
10. Go to "Next Step"
11. Select File Size to "1GB"
12. Create Export
13. Download the data when it is sent to your email, and open with a text viewer.
14. Check the data. After "title"s, you can find the translated sentences And after "time" you can find when it's translated(See the next page). Please delete the part that you don't want to share.
15. Save the JSON file and send it via email: chiho.shinozaki@thevalley.nl

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  "activityControls": ["Web \u0026 App Activity"]
},{
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  "titleUrl": "https://translate.google.com/?sl\u003dnl\u0026tl\u003den\u0026q\u003de+huis+verduurzamen+ingewikkeld%3F%0ABegin+met+de+huisscan+en+krijg+inzicht+in+de+beste+oplossing+om+te+verduurzamen,+de+kosten+en+terugverdientijd+en+de+mogelijke+besparing.+%0A%0A",
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  "products": ["Google Translate"],
  "activityControls": ["Web \u0026 App Activity"]
```

Call for data donors :
Improve digital experience for housing mortgage application

Main Researcher(s): ███████████████

Contact Email: ███████████

Affiliation: ██████████████

Duration: 28th Oct. - 11th Nov. (2 weeks)

Project Description

Getting your house mortgage is existing , but the process itself can be difficult and confusing for the first timers. For this project, we are trying figure out what will make or break the digital experience of housing mortgage application and we need you help. Are you someone will/in the process of applying for your first housing mortgage and you believe the benefit of digitalising such process? Reach out to us!

Which data is required?

Search history and Web browsing history with Chrome for 15 mins

How will the data be used?

- Search history

From this data we would like to know how what interest you/what you want to know regards getting a house mortgage

- Web browsing history

From this data we would like to get more insight on which sources you use to get information on house mortgage.

How to donate?

1. Imagine you are trying to find information for your house mortgage, and try to find information for 15 mins with Chrome.
2. Go to "Google Takeout" and log in with your account that you've used for the step 1.
   Link: https://takeout.google.com/settings/takeout
3. Under "1.Select data to include", click "Deselect all"
4. Select "My Activity" > Click "All activity data included" > "Deselect all" > Select "Search" and "Chrome" > OK
5. Click Multiple formats > Select "JSON" > OK
6. Go to "Next Step"
7. Select File Size to "1GB"
8. Create Export
9. Download the data when it is sent to your email, and open with a text viewer.

10. Check the data. After "header" and "title"s, you can find your Browsing History & Search keywords And after "time" you can find when it's translated(See below). Please copy the relevant parts (15mins that you were browsing about house mortgage) only and paste into any text editors you have.
11. Save the file and send it via email: fzhurui@hotmail.com

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  "products": ["Chrome"]
},{
  "header": "myactivity.google.com",
  "title": "Visited Google – My Activity",
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  "products": ["Chrome"]
},{
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Opening Statement for a Master's Research: Practical implication of designerly data donation

You are being invited to participate in a research study titled **Design Challenge.** This study is being done by **Sinyoung Ahn** from the TU Delft.

The purpose of this research study is **to reframe the concept of *designerly* data donation as a design methodology that designers of The Valley can actively integrate into their design process.** When you donate your data to a project you are agreeing to your data being used by the project Data Receiver(Zoe Hu) and corresponding researcher(Sinyoung Ahn) for the duration of the project and as described in the project details.

You have the right:
- to request information about any and all personal information that we hold about you, to access all your personal data and receive a copy of it.
- to ask us (Data Receiver and corresponding researcher) to correct any inaccuracies reflected on your personal data and to update any out of date information.
- to erase your personal data, to withdraw your consent to processing and to revoke access to Data Receivers.

It will take you approximately **30** minutes to complete to donate and **15** minutes for an interview to learn about your data(when it is agreed). The data willl be used to have insights for **creating a design method, including a Master's thesis and Presentations.**

Your participation in this study is entirely voluntary and you can withdraw at any time. You are free to omit any questions.

I believe there are no known risks associated with this research study; however, as with any online related activity the risk of a breach is always possible. To the best of my ability, your data and answers in this study will remain confidential. We will minimize any risks by **anonymising your name, and safely storing your data.**

Contact:
Sinyoung Ahn

Consent Form for Design Challenge

Please tick the appropriate boxes   Yes   No

Taking part in the study

I have read and understood the study information dated [08/11/2022], or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.   ☐   ☐

I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason.   ☐   ☐

I understand that taking part in the study involves an interview and data donation. The donated data will be destroyed after the project is finished [01/2023].   ☐   ☐

Use of the information in the study

I understand that information I provide will be used for reports and presentations for our project.   ☐   ☐

I understand that personal information collected about me that can identify me, such as [e.g. my name or where I live], will not be shared beyond the study team.   ☐   ☐

I agree that my information can be quoted in research outputs   ☐   ☐

Signatures

_____   _____ _____
Name of participant [printed]   Signature   Date
For participants unable to sign their name, mark the box instead of sign

I have accurately read out the information sheet to the potential participant and, to the best of my ability, ensured that the participant understands to what they are freely consenting.

_____   _____   _____
Researcher name [printed]   Signature   Date

Study contact details for further information: Sinyoung Ahn, +31638958280, Sinyoung.ahn@thevalley.nl

Appendix 6: Plan

GRADUATION PLANNING

Month	Week	Mon	Tue	Wed	Thu	Fri	Phase	Purpose	Task	Method
Aug	2	22	23	24	CM	26		Get Inspiration	Discover existing design methods	#Literature Review
	3	29	30	31	CM	PM		Understand the process of 'Designerly data donation'	Interview @Data-centric design lab	#Interview
Sep	4	5	6	7	CM	PM	Phase 1 :: Discover & Define	Prepare the DC 1	Plan the D&R activities for DC 1	
	5	12	13	14	CM	PM		Define the right design challenges for phase 2	A Session to find right projects for the Design challenge 1/2 @The Valley	#Generative Session
	6	19	20	21	CM	PM		Complete the draft guidance*	Define instructions for the 'DC 1'	#Prototype
	7	26	27	28	CM	PM		Initiate the DC1	Design Challenge 1-1 @The Valley	#Ethnographic Research
	8	3	4	5	M*	PM		Wrap up the phase 1	Prepare midterm meeting, Write thesis (30%)	
Oct	9	10	11	12	13	14	Midterm		Midterm Meeting : Deliver the outcome and get feedbacks	
	10	17	18	19	CM	PM		Finish the DC 2	Design Challenge 1-2 @The Valley	#Ethnographic Research
	11	24	25	26	CM	PM		Develop the 2nd guidance**	Adjust the design and prepare the 'Design challenge 2'	#Prototype
	12	31	1	2	CM	PM	Phase 2 :: Test & Evaluate	Try the 2nd guidance** in practice and get insights	Design Challenge 2 @The Valley	#Ethnographic Research
Nov	13	7	8	9	CM	PM				
	14	14	15	16	CM	PM		Finalise the guidance***	Complete the design with all findings	#Prototype
	15	21	22	23	CM	PM				
	16	28	29	30	G*	PM		Wrap up the phase 2	Prepare green light meeting, Write thesis (80%)	
Dec	17	5	6	7	8	9	Green Light		Green Light Meeting: Deliver the outcome and get feedbacks	
	18	12	13	14	CM	PM	Phase 3 :: Deliver	Finalise thesis	Complete writing, Improve details (100%)	
	19	19	20	21	CM	PM				
		26	27	28	29	30			*Christmas*	
		2	3	4	5	6				
	20	9	10	11	12	13	Deliver		Final Presentation	

GRADUATION PLANNING

Month	Week	Mon	Tue	Wed	Thu	Fri	Phase	Purpose	Task	Method
Aug	2	22	23	24	CM	26		Get Inspiration	Discover existing design methods	#Literature Review
	3	29	30	31	CM	PM		Understand the process of 'Designerly data donation'	Interview @Data-centric design lab	#Interview
Sep	4	5	6	7	CM	PM	Phase 1 :: Discover & Define	Prepare the DC 1	Plan the D&R activities for DC 1	
	5	12	13	14	CM	PM		Define the right design challenges for phase 2	A Session to find right projects for the Design challenge 1/2 @The Valley	#Generative Session
	6	19	20	21	CM	PM		Complete the draft guidance*	Define instructions for the 'DC 1'	#Prototype
	7	26	27	28	CM	PM		Initiate the DC1	Design Challenge 1 @The Valley	#Ethnographic Research
	8	3	4	5	M*	PM		Wrap up the phase 1	Prepare midterm meeting, Write thesis (30%)	
Oct	9	10	11	12	13	14	Midterm		Midterm - Adjust Planning, Write thesis	
	10	17	18	19	CM	PM		Support DC 2	Design Challenge 2 @The Valley	#Say-Do-Make
	11	24	25	26	CM	PM		Document	Analyse the results & Documentation	#Say-Do-Make
	12	31	1	2	CM	PM	Phase 2 :: Test & Evaluate	Support DC 3	Design Challenge 3 @The Valley	#Context mapping
Nov	13	7	8	9	CM	PM		Support DC 4	Design Challenge 4 @The Valley	#Rapid Prototype
	14	14	15	16	CM	PM		Evaluate	Complete the design with all findings End-User Interview - @The Valley	#User test #Interview
	15	21	22	23	CM	PM		Finalise the toolkit**	Analyse the results & Documentation	
	16	28	29	30	G*	PM		Wrap up the phase 2	Prepare green light meeting, Write thesis (80%)	
Dec	17	5	6	7	8	9	Green Light		Green Light Meeting: Deliver the outcome and get feedbacks	
	18	12	13	14	CM	PM	Phase 3 :: Deliver	Finalise thesis	Iterate on writing, Improve details with visual materials (100%)	
	19	19	20	21	CM	PM				
		26	27	28	29	30			*Christmas*	
		2	3	4	5	6				
	20	9	10	11	12	13	Deliver		Final Presentation	

IDE Master Graduation

Project team, Procedural checks and personal Project brief

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

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

ⓘ **USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT**
Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME

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

family name	Ahn 5873
initials	SA given name Sinyoung
student number	5437148
street & no.	
zipcode & city	
country	
phone	
email	

Your master programme (only select the options that apply to you):

IDE master(s): ( ) IPD (★) DfI ( ) SPD

2nd non-IDE master: _____

individual programme: ___ - ___ - ___ (give date of approval)

honours programme: (Honours Programme Master)

specialisation / annotation: (Medisign)
(Tech. in Sustainable Design)
(Entrepeneurship)

SUPERVISORY TEAM **

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

** chair	Jacky Bourgeois	dept. / section: SDE
** mentor	Christina Schneegass	dept. / section: HCD
2nd mentor	Remco Appel	
	organisation:	The Valley
	city: Amsterdam	country: The Netherlands

comments (optional)

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

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

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

APPROVAL PROJECT BRIEF
To be filled in by the chair of the supervisory team.

chair   Jacky Bourgeois   date   18 - 08 - 2022   signature

Jacky Bourgeois jbourgeois@tudelft.nl
Digitally signed by Jacky Bourgeois jbourgeois@tudelft.nl
Date: 2022.08.18 14:55:41 +02'00'

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

Master electives no. of EC accumulated in total: __12__ EC

Of which, taking the conditional requirements into account, can be part of the exam programme __12__ EC

(★) YES   all 1st year master courses passed

( ) NO   missing 1st year master courses are:

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

name   C. van der Bunt   date   22 - 08 - 2022   signature

C. van der Bunt
Digitally signed by C. van der Bunt
Date: 2022.08.22 14:26:12 +02'00'

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

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

Content: (★) APPROVED   ( ) NOT APPROVED

Procedure: (★) APPROVED   ( ) NOT APPROVED

comments

name   Monique von Morgen   date   06 - 09 - 2022   signature

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30   Page 2 of 7
Initials & Name   SA   Ahn 5873   Student number 5437148
Title of Project   Reframing Designerly data donation as a new design methodology

Reframing Designerly data donation as a new design methodology

project title

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

start date   17 - 08 - 2022   18 - 01 - 2023   end date

INTRODUCTION **

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

Ortega presents designerly data donation as an efficient and ethical approach that encourages the active participation of users to obtain contextualised data(Ortega et al., 2021). This subtle switch of the attitude toward data collection will help designers reduce the concerns about budget or invasion of privacy while they are using intimate user data. Instead of putting efforts into finding the right participants for interviews or struggling with limited access to data, designers can build up proper triggers to inspire users to donate their data and provide enough information to enable the donors autonomously participate in their control and choice. Within this process, users are able to protect their privacy by deciding the conditions for donating and giving their consent for transparently informed purposes and usages. The data is neither big nor multi-scaled, it has the potential to be highly contextualised through the active collaboration of data donors. Moreover, this collaborative approach for user data collection can make a great synergy when it is interpreted with the current big dataset (Ortega et al., 2021).

Whereas its potential has been defined, there are a few challenges to further integrating this concept in practice. Diverse factors such as individual project circumstances, suitable donor incentives, useful data types, and ethical concerns must be taken into consideration. Therefore, designers must understand the whole system to plan the right strategies to call for donors, taking the right action at the right time. In other words, the ability of designers to manage the whole process of designerly data donation is one of the crucial parts of a successful collaboration. However, compared to its importance, there is a lack of approachable information and guidance for designers yet, which makes it difficult to implement this new concept in more cases.

With this in mind, the main focus of this project will be how to deliver the concept of designerly data donation as a new design method for designers (figure 1). The Valley, a digital design agency based in Amsterdam, will be involved. With their resources and the cooperation of their designers, the concept of designerly data donation will be repackaged in a more communicative format so that designers can actively try and adjust in their process. In addition, this new method could be a great strategy for design agencies to promote their methodological capabilities as an expanded usage of user data to their clients. (Van Boeijen et al., 2014)

Reference:
Gomez Ortega, A., Bourgeois, J. and Kortuem, G., 2021. Towards Designerly Data Donation.
Gomez Ortega, A., van Kollenburg, J., Shen, Y., Murray-Rust, D., Nedić, D., Jimenez, J.C., Meijer, W., Chaudhary, P.K.K. and Bourgeois, J., 2022, April. SIG on Data as Human-Centered Design Material.
Bornakke, T. and Due, B.L., 2018. Big–Thick Blending: A method for mixing analytical insights from big and thick data sources.
Van Boeijen, A., Daalhuizen, J., van der Schoor, R. and Zijlstra, J., 2014. Delft design guide: Design strategies and methods.

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introduction (continued): space for images
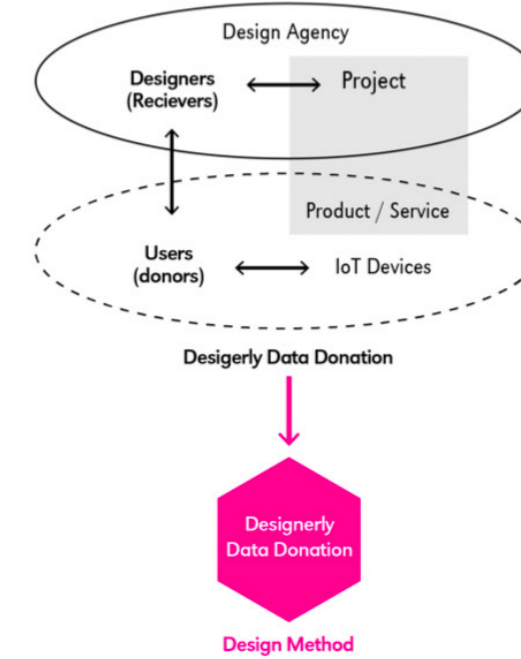

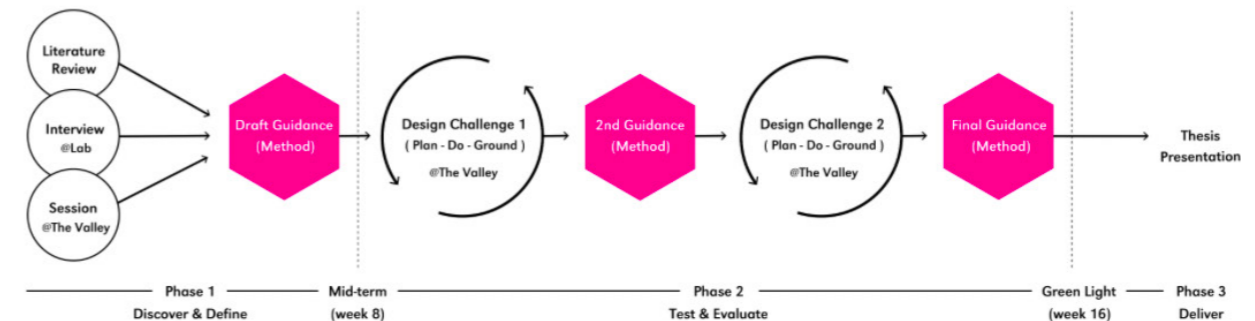image / figure 1:   The scope of the project is to deliver the Designerly data donation as a design method.

image / figure 2:   An overview of the project plan

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

The concept of designerly data donation opens up opportunities for designers and researchers to utilize behavioural data in their design process, but this can still lead to practical challenges for further integration. The following problems will be considered during the project.

Lack of information: Designers do not appreciate the benefits of designerly data donation.
Although its potential has been discovered, data donation is a new concept for designers, and it is difficult for them to recognise the benefits. To make them appreciate its value, there is a lack of inspiration that encourage designers to consider this new approach in more design cases.

Lack of guidance: Designers do not know how to integrate designerly data donation into their projects.
For a successful data donation, designers must fully understand the multiple interactions that occur during the process of data donation. This is necessary because it is the designer's responsibility to manage the whole process and communicate with donors, providing the right information at the right time (Ortega et al., 2021). There is currently not enough guidance in a format accessible to designers.

Limited data context: Designers often interpret user data through their own subjective biases.
The Valley, a digital design agency, can easily trace users' digital interactions with data analytics tools such as Google Analytics and customer data platforms. However, numerous interactions are still overlooked due to the lack of context behind and limited accessibility of user data. Often, designers will rely on their intuitions or make their own assumptions. Even if more accurate data from data specialists were available, it would not be flexible enough to use as creative material.

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

The final outcome will be guidance on a design method that will encourage more designers to actively utilise the concept of designerly data donation. The scope of the project will be limited to the perspectives of the user experience (UX) designers who will use the new method in their design process.

The main challenge of this project is to solve the research question (RQ) and the following sub-questions:

RQ. How can the concept of designerly data donation be reshaped as a design methodology that designers of The Valley can actively integrate into their design process?

1) What information needs to be included in the guidance?
2) What is the right format to deliver the new design method to designers?
3) How can designers integrate the methodology in different time frames of their projects?

The final deliverable will be the guidance on a testable prototype of a webpage that explains the concept and its context in use. This will include the answers and recommendations of the following questions:
When, and why do you need this method? / What is the process? / What activities can be considered in each phase?
e.g. Participatory sessions with donors with donated data
What are the considerations in each phase?
e.g. List of information needs to be shared with donors, Possible triggers to encourage users to donate
What are the expected outcomes of the activities? / What can designers do with the outcomes?

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

start date 17 - 8 - 2022   18 - 1 - 2023 end date

	Week	Mon	Tue	Wed	Thu	Fri	Phase	Purpose	Task	Method
Aug	2	22	23	24	25	26		Get Inspiration	Discover existing design methods	#Literature Review
	3	29	30	1	2	3		Understand the process of 'Designerly data donation'	Interview @Data-centric design lab	#Interview
Sep	4	5	6	7	8	9	Phase 1 : Discover & Define	Prepare the session	Prepare the materials for the session	
	5	12	13	14	15	16		Define the right design challenges for phase 2	A Session to find right projects for the Design challenge 1/2 @The Valley	#Generative Session
	6	19	20	21	22	23		Complete the draft guidance*	Define tasks and instructions for the 'Design Challenge 1' in Phase 2	#Prototype
	7	26	27	28	29	30				
	8	3	4	5	6	7		Wrap up the phase	Prepare midterm meeting, Write thesis (30%)	
Oct	9	10	11	12	13	14	Midterm	Midterm Meeting : Deliver the outcome and get feedbacks		
	10	17	18	19	20	21		Try the draft guidance* in practice and get insights	Design Challenge 1: Planning - Doing - Grounding @The Valley	#Ethnographic Research
	11	24	25	26	27	28				
	12	31	1	2	3	4	Phase 2 : Test & Evaluate	Develop the 2nd guidance**	Adjust the design and prepare the 'Design challenge 2'	#Prototype
Nov	13	7	8	9	10	11		Try the 2nd guidance** in practice and get insights	Design Challenge 2: Planning - Doing - Grounding @The Valley	#Ethnographic Research
	14	14	15	16	17	18				
	15	21	22	23	24	25		Finalise the guidance***	Complete the design with all findings	#Prototype
	16	28	29	30	1	2		Prepare green light meeting, Write thesis (80%)		
Dec	17	5	6	7	8	9	Green Light	Green Light Meeting: Deliver the outcome and get feedbacks		
	18	12	13	14	15	16	Phase 3 : Deliver	Finalise thesis	Complete writing, Improve details (100%)	
	19	19	20	21	22	23				
		26	27	28	29	30			Christmas	
		2	3	4	5	6				
	20	9	10	11	12	13	Deliver	Final Presentation		

In Phase 1, the resources and infrastructure of the data-centric lab at Delft University of Technology will be used to initiate guidance. A session with the designers of The Valley is planned to define the right tasks for Design Challenge 1 during Phase 2.

The main activity of this project will be two Design Challenge cycles in Phase 2. These will be conducted with the cooperation of the UX designers of The Valley. The designers will attempt to use designerly data donation in their design process following the given guidance. With an empirical approach and the insights from the designers, the guidance will be developed during the two iterations.

Initials & Name SA   Ahn   5873   Student number 5437148

Title of Project Reframing Designerly data donation as a new design methodology

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

I would like to achieve following goals during the graduation project:

- Learn data-centric design mindset and share its value
For designers, design and research methodologies are tools that help them understand users and inform numerous decisions that must be made in the design process. In a world where nearly everything is digitalised, data is a powerful resource. The ability to handle it well is also a driving force for creativity. In this project, I would like to find a way to share the value of designerly data donation with more designers, thus inspiring and enabling them to consider this approach in practice going forward.

- Develop Communication skills
The ability to communicate plays a important role for designers. Through the opportunities to initiate the meetings and sessions, I would like to improve it and be more confident in facilitation.

- Keep proactive attitude
With the responsibilities to carry on a project, I will try not to hesitate to share the project, ask for feedback and act on it.

- Bring Academic knowledge into practice
On a personal note, this graduation project is a great opportunity to tackle both academic and practical design challenges in a project initiative. While doing internships in The Valley, I often wondered how I could bring academic knowledge into practice. I look forward to starting this project to find answers to the research question.

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