

THE VELARY

a library for your clothes

By Maia Rowan,
Bachelors of Design,
Emily Carr University
2013

A critical and process documentation paper
submitted in partial fulfillment of the requirements
for the degree of | **Master of Design** | Emily Carr
University of Art and Design | 2016

© Maia Rowan
2016

TABLE OF CONTENTS

1.0 INTRODUCTION	4	5.0 DESIGN PROCESS	42
1.1 Abstract	6	5.1 User Archetypes and personas	46
1.2 Problem Statement	8	5.2 Service Design	48
1.3 Thesis Statement	8	5.3 Design Strategy	52
1.4 Design Objectives	9	5.4 Identity & Brand	56
1.5 Keywords	10	5.5 User Experience Design	58
2.0 CONTEXT	12	5.6 User Flows & Wire-framing	60
2.1 Context: Theory & Precedents	14	5.7 User Interface Design	62
2.2 What we have learned	19	6.0 THE DESIGN OUTCOME	64
3.0 METHODOLOGY	20	6.1 Concept	66
4.0 USER CENTRED RESEARCH	26	6.2 Customer Experience	69
4.1 Environmental Scan	29	6.3 A Personalized Experience	70
4.2 Survey and Insights	30	6.3 Understanding the garments	72
4.3 Ethnographic Probe	32	6.4 Garment Criteria	74
4.4 Observations	34	7.0 USER TESTING	76
4.5 Interviews	36	8.0 REFLECTION	82
4.6 Barriers	38	8.1 Effectiveness of design proposition	84
4.7 Issues with Restriction	40	8.2 Persona & Wardrobe Example	88
		8.3 Reflection on Process	90
		8.4 Reflection on Concept	92

9.0 BIBLIOGRAPHY	94
9.1 Works Cited	96
9.2 Bibliography	98
10.0 APPENDICES	102
10.1 Circular Economy Case Study	104
10.2 Secondary Research Summaries	108
10.3 REB Application & Materials	117

1.1 ABSTRACT

Existing consumption practices in the fashion industry are using excessive resources. Largely caused by the ever increasing consumer cycles, in which we are now seeing as many as 52 “seasons” a year at large fast fashion retailers. Simultaneously technology and social media have been speeding up our own cycles of identity creation and connection, and in response movements such as minimalism and essentialism that advocate for owning less, and living with more intention, have gained mainstream exposure.

Founded in contemporary contexts this thesis explores how the integration of sharing economy and circular economy principles in retail services can offer paradigm shifting user experiences. This concept engages users in considered consumption that builds off of existing personal identity and wardrobe composition. And supplements these with mid-term garment leasing that provides a sense of renewal. Considering the existing context of over consumption I set out to draw insights from personal experiences through ethnographic research methods that revealed individual behaviours, needs, and expectations. Through a process of analysis and synthesis, I identified a hybrid approach to sharing garments that allows for an integration of ownership, and shared-use to foster a transition away from highly consumptive practices.

The Velary is a library for your clothes. It is a garment sharing service that introduces a two-tiered wardrobe that consists of a core wardrobe (garments a user already owns, loves, or would invest in independently), and a renewal wardrobe (garments provided through the service that update a users wardrobe for a specific time frame, between 1 and 6 months). The two-tiered model allows users to maintain a curated and intentional core wardrobe that is personally significant, and the renewal wardrobe allows users to engage with change cycles without the wasteful outcomes of highly consumptive behaviours fostered by fast fashion.

This model is flexible and considers new modes of use and ownership within existing contexts. Building upon circular economy practices around material waste, The Velary moves beyond the product itself to explore alternative modes of consumption. The Velary considers behaviour change from an altruistic and functional perspective, it engages users in experience models that remove barriers to sharing which are based on the fear of losing control. The two-tiered wardrobe approach can be generalized as a hybrid sharing model, where users engage in both owning and sharing. This can be applied to examine behaviour on a scale of impact where we analyze the implications of consumer behaviour considering the most problematic areas (which in this case has been identified as fast fashion). The application of this model of behaviour mapping can lead to the creation of new systems that shift behaviour in key areas before introducing completely new ways of engaging in retail or consumption.

1. USERS

WHAT ARE CONSUMERS
DOING NOW



and what could they be doing if
given a new experience or way
of engaging

2. INDUSTRY

WHAT IS THE
INDUSTRY LANDSCAPE



what are fashion retailers
doing to implement
sustainability measures and
how could they innovate

3. SYSTEM

WHERE ARE THE ISSUES
WITH THE SYSTEM



what are the challenges and
opportunities within existing
systems and how might they
change in order to support
innovation

Diagram on represents questions explored during re-
search inquiry, acknowledging that the problem space
consist of multiple layers, including users, industry
landscape (practices), and systems in the industry and
how they function.

1.2 PROBLEM STATEMENT

How might offering users access to garments without the paradigm of ownership shift consumption in the clothing industry?

1.3 THESIS STATEMENT

Approaching the design of fashion retailers with a focus on shifting user behavior around consumption, can lead to the creation of a retail service that would entice customers to do so.

1.4 DESIGN OBJECTIVES

Objective 1: Offer a retail experience that facilitates renewal and shifts consumer behavior simultaneously.

Objective 2: Remove stigma from garment sharing process.

Objective 3: Utilize existing brand strategy and narrative from fashion industry to promote the adoption of garment sharing

Objective 4: Develop a retail experience that minimizes user responsibility in alternative choices

Objective 5: Demonstrate an alternative that challenges existing fashion retailers, in order to inspire change within the fashion industry.

1.5 KEY WORDS AND TERMINOLOGY

Circular Economy | Circular Economy refers to a closed loop product cycle where waste streams are circulated back into new products.

Consumption | Consumption is an economic concept and involves the purchase of goods and services by individuals.

Design Strategy | The application of design processes to big picture problems, leading to design driven decision making.

Fashion Retail | The system by which garments are sold and distributed.

Fashion | An industry that promotes self expression through garments, referred to in this thesis from a user's perspective, not as a theory

Garment | An item of clothing

Information Architecture | The structure of information in a website or digital app

Minimalism/Essentialism | A philosophy or idea that promotes living with less in order to increase meaning in one's life

Narrative | The structure of a story, or the way in which a story is told

Persona | A representation of a potential user based on primary research and synthesis

Renewal | A process of changing or updating

Research by Design | research that is conducted through the process designing and creating

Service Design | The design of services and how people engage with front or back end touchpoints

Sharing Economy | The sharing of goods and services that would otherwise be idle, enabling increased

Strategic Foresight | The use of design methods and processes such as scenario development to create a vision of the future, often applied to existing large scale businesses in order to innovate.

Sustainability | Sustainability refers to the sustainment of the natural environment, and its capacity to provide sustenance for living things including humans.

User Archetypes | A high level representation of a user base or target demographic

User Experience Design | The design of a user's experience and engagement with a product or service, often in a digital environment.

User Interface Design | The visual design of an interface with which a user interacts

Two Tiered Wardrobe | A wardrobe consisting of two entities, one that is owned, and one that is shared.

Wardrobe | A collection of garments

2.1 CONTEXT

There was a lack of initiatives addressing shopping behavior and offering alternatives to shift consumption.

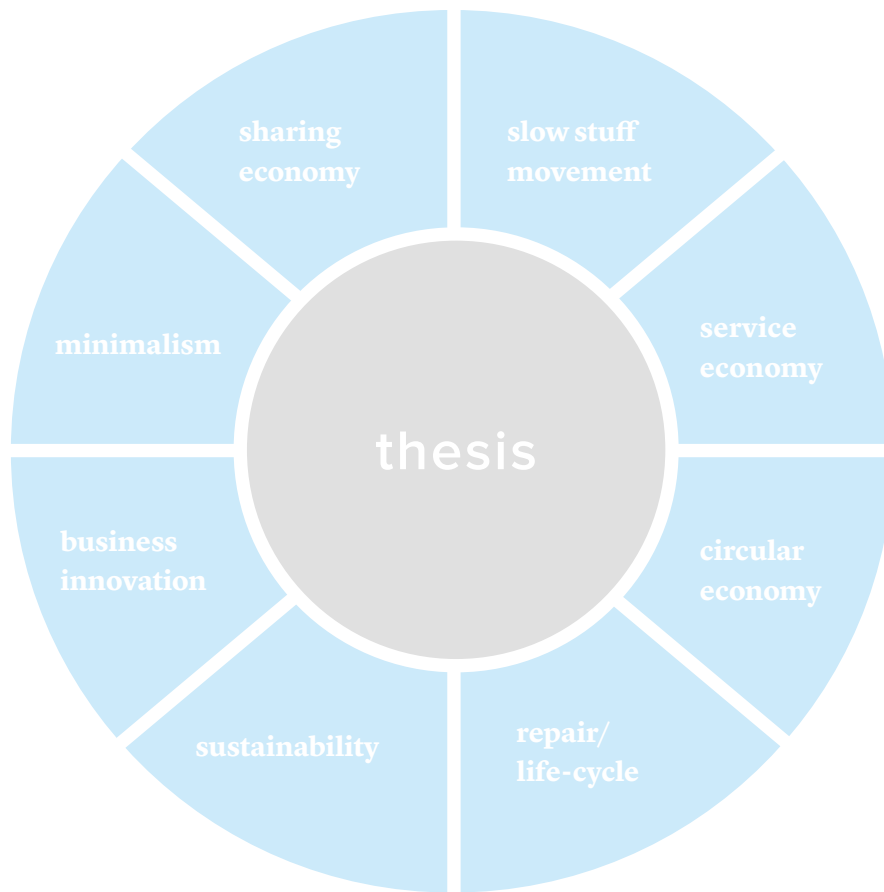
Consumption is an economic concept and involves the purchase of goods and services by individuals. It is also representative of a frame of mind and lifestyle. Existing consumption patterns are based in the development of modernity as explained by Penny Sparke. She states that “The growth of consumption was understood as a key feature of the emerging modern world” (Sparke 14, 2013). Consumerism is a significant driver in western society and has been connected with class and value for many years. It is so pervasive that it in fact has quite significant impacts on our lifestyle, and our behaviour, affecting each individual personally as well as collective communities. To further discuss the importance of our behaviours we can examine the impact that they have on our personal psyche, and collective consciousness. It has been said that “Throwing away furniture, transportation vehicles, clothing, and appliances may soon lead us to feel that marriages (and other personal relationships) are throwaway items as well” (Papanek, 1984, p. 87). Papanek highlights concerning aspects of consumerism, and how our behaviour as shaped by consumption can lead (or has led) to the decay of collectivism. Our relationship to this system however has a unique opportunity to shift at this time, as more dispersed models of consumption are gaining mainstream exposure, and as movements such as essentialism and minimalism are raising questions about our reliance on

With the rise of web-based technologies we are seeing a transition in venue for consumer activities towards online shopping. Online retail so far has largely replicated traditional retail models from brick and mortar stores. However as the industry is going through this key transition, this is an ideal time for innovation. Examining how retail functions through online platforms can lead

to new user experiences, alternative retail models, and ultimately systems that are designed for contemporary lifestyle, rather than those of post-war suburbia.

My secondary research began by looking at circular economy practices and then more broadly at sustainability practices in the fashion industry. Circular Economy Practices are based on the Cradle to Cradle framework as described by William McDonough and Michael Braungart. The circular economy is a system in which materials are continuously cycled through either technical material processes like the recycling of polymers or biological nutrient cycles where organic materials used in products decompose at the end of the lifecycle. The concept of the circular economy has been adopted by companies like H&M (who work with the Cradle to Cradle company) as a way to develop more self-sustaining product life cycles, as resource constraints continue to tighten. While Circular Economy practices provide key tools to address materials used in products, and mitigate waste streams, they tend to accommodate business as usual, by focusing on the material aspect of a product system. The Circular Economy, as it is widely understood, does not call in to question the system within which a product exists. Therefore it remains removed from exploring new possibilities consumer behaviours and retail systems (Nguyen, H., Stuchtey, M., & Zils, M. 2014).

In contrast The Sharing Economy, which has been expanded in the last five years due to increasing access to the internet, is focused on Collaborative Consumption, a method by which communities can make use of idle resources. Notable examples include Uber, AirBnB, and Rent The Runway.



“

Since corporations run the government, if you want to change the government, you have to change the corporations. If you want to change the corporations, change the consumers.

(Yvon Chouinard, CEO of Patagonia)

“

One potentially more resource-efficient way to lessen the impact of this drive to consume is to shift to a service economy, where materials and goods are used not owned.

(Fletcher 156, 2014)

“

Technology has made this possible. No longer must we hoard. Rather, with fewer physical possessions but greater access to the things that matter most, we can worry less about consuming, more about creating and experiencing.

(Fields & Nicodemus)

In an article for The New York Times Tina Rosenberg explains that “Thousands of new businesses now sell access rather than ownership...collaborative consumption is a way to live light, waste less, to protect the environment, to create and associate with a community of like-minded people” (Rosenberg, 2013). A key element of the sharing economy is that there are two main models of distribution, which allow for more divergent explorations of “retail models” The first being through a dispersed model where users are connected to each other and can exchange goods and services between themselves, with or without monetary reciprocity. This is exemplified in online platforms like Craigslist and Yerdle. The second is a universal model where a company or organization offers a service that provides access to users. This is how companies like Car2Go function. The latter is designed to require less effort on the part of the user and may be most relevant to explore from an industry perspective, as well as when attempting to change users behaviour. While the sharing economy addresses modes of access or consumption, it does not explicitly seek to shift consumer behaviour. Instead the sharing economy is at risk of adding methods of consumption rather than diverting consumer behaviour to more sustainable methods.

Highlighting the role that personal experience and expression plays in garment selection can also lead to more personal and therefore meaningful engagement with a retail system. As Kate Fletcher explains, “The complex and extremely personal nature of needs and satisfiers suggests that if a needs-based approach to promoting sustainability is pursued, then a sector has to be created that respects—and actually find business opportunity in meeting our diverse, individual needs

(Fletcher, 2014, p.149)”. This has led to the understanding that fostering renewal, opportunities for change, and personal identity is an essential component of fashion retail models.

When considering the intersection of Circular Economy Practices, Sharing Economy models, and user experience this problem space can be identified as the design of how we sell and buy things. Specifically focused on redesigning fashion retail in a way that elevates purchasing to a considered, positive, and inspirational act, while alleviating the habit of ownership and the negative aspects of a linear and ever increasing supply chain. To do this the concept draws on aspects from the use of garments, behaviour around purchasing, wearing, and disposing, and the emotional triggers associated with consumerism. This triangulation of contexts leads to design for change. Design as means for change calls upon redirective practice. Design theorist Tony Fry explains that “redirection is a profoundly political proposition. Ultimately, it implies a restructuring of habitus by design” (2008, p. 47). This illustrates the design exploration and intention to shift behaviour within the concept. It also leads to a more broad understanding of design for sustainability, which could inspire more design practitioners and researchers to address sustainability in fashion retail through Redirective Practice which “...is akin to a new kind of (design) leadership, underpinned by a combination of creating new (and gathering old) knowledge directed at advancing means of sustainability while also politically contesting the unsustainable status quo” (Fry, 2008, p. 57). The design leadership that Fry refers to demonstrates the opportunity, and necessity for design to move industries forward that are struggling to tackle issues of sustainability.

RESEARCH THEMES

SPECIFIC TOOLS/METHODS

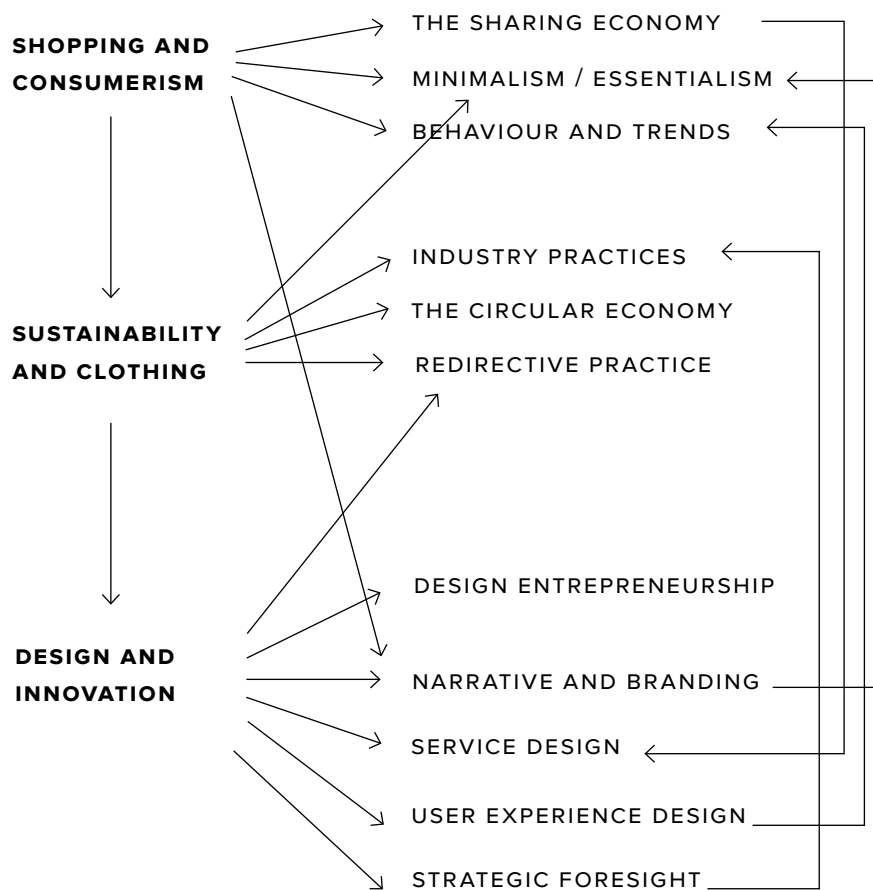


Diagram of research themes and topics of inquiry that connect to each of the research themes. Designed by Maia Rowan in 2015.

The positioning of my research has evolved throughout the project. It has become apparent that aligning the concept within one of the above frameworks, or theories leaves several gaps. In order to address this, the thesis research has incorporated context and theory from a variety of sustainable strategies. As outlined above this integration of theories and approaches enables me to propose a concept that is routed in behaviour change through service design, and viable User Experience Design but also incorporates vital sustainability and circular economy practices in the garment criteria, cleaning, and repairs required to achieve a desirable design.

My thesis design is part sharing economy, part extended producer responsibility, part circular economy, and largely focused on the user experience of shopping and consuming. The concept is titled *The Velary, a library for your clothes*. It positions itself between the familiar and the disruptive. Drawing from the more polished and familiar user experience we see in a boutique setting, along with behaviour change models that are more common in startup culture.

I have come to understand this problem space as the design of how we sell things. Specifically this thesis focuses on redesigning fashion retail in a way that elevates purchasing to a considered, positive, and inspirational act, while alleviating the habit of ownership and the negative aspects of a linear and ever increasing supply chain. To do this I look at the use of garments, behaviour around purchasing, wearing, and disposing, and the emotional triggers associated with consumerism.

2.2 WHAT WE HAVE LEARNED

Fashion retail, as all businesses, needs to make sales to be a viable industry

People need to wear clothing for physical and emotional comfort¹

The cycles of consumption in fashion are somewhat connected to seasonality but also have deep influence from arbitrary newness²

The emotional high that users get from a purchase or a new item does not last as long as the garment itself³

Sharing and owning are not opposites and can be simultaneous and complimentary behaviours⁴

1 Fashion That Helps us Flourish, Kate Fletcher and Lynda Grose p4

2 ZARA: Fast fashion, Ghemawat, Pankaj, Nueno, and Dailey.

3 Ethnographic Probe results, Maia Rowan 2015

4 Research through design explorations, Maia Rowan 2015

METHODOLOGY

The methods used in this study fall under the disciplines of service design, design strategy, and user experience design.

The methodologies in this study are grouped into three sections. Secondary research as articulated in the context section, and user centred research methods, and research through design. The combination of these methodologies form the basis of my research paradigm, acknowledging that “knowledge stems from human experience” (Collins, 38).

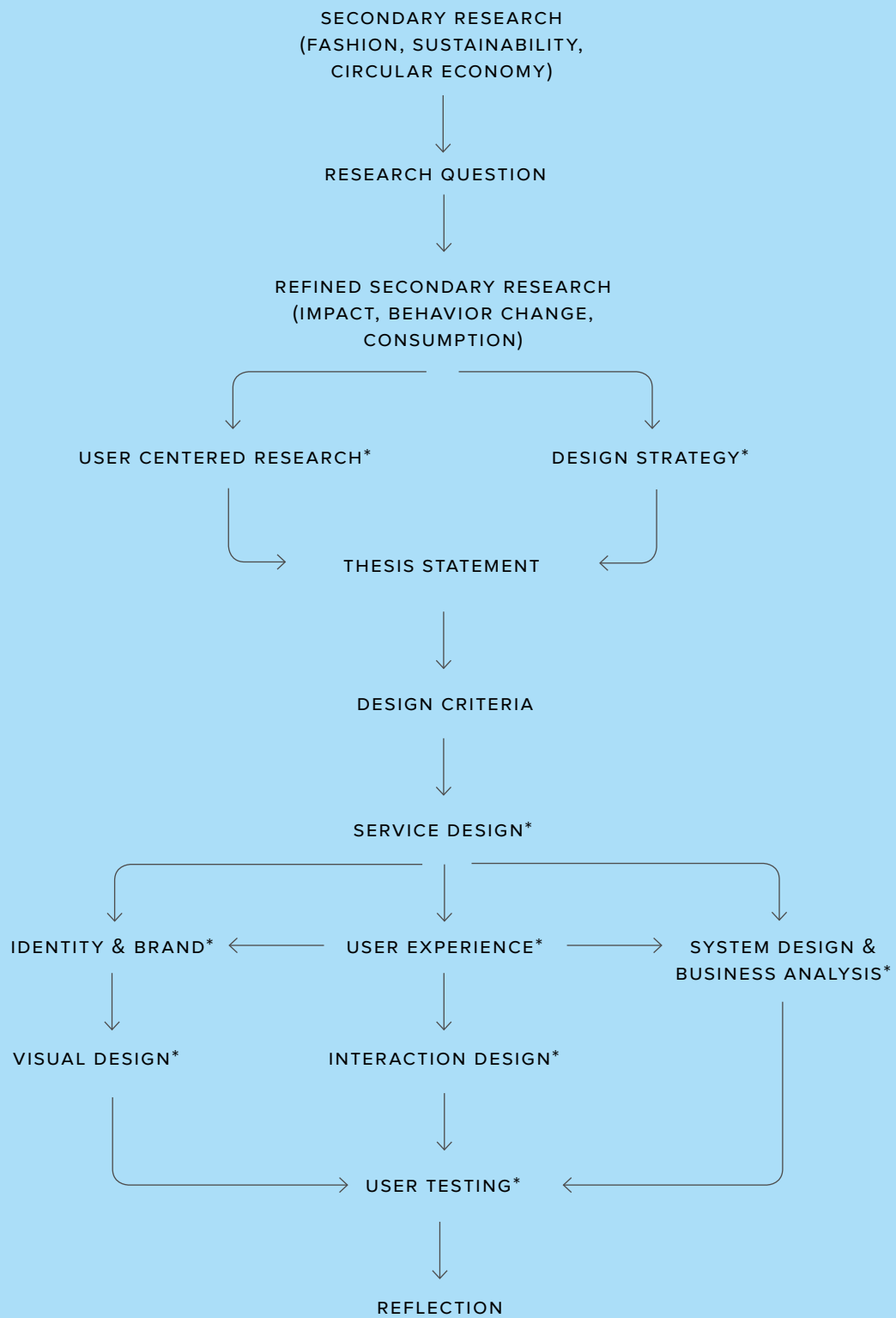
To compliment the context that was uncovered through secondary research user centred research in the form of interviews, surveys, and a probe was conducted. The purpose of the user research was to gain insight into behaviour around shopping, and identify key needs that users would require to be met in order to adopt new shopping behaviours. Discovery during this phase in the project illuminated the need for a service to provide a similar rate of renewal that users are experiencing when shopping regularly, while also slowing their rate and impact of consumption, which we achieve through extended garment life-cycles.

This thesis was executed using research by design. Research by Design, or more specifically research through practice, methodology as outlined by Birger Sevaldson In his paper Discussions & Movements in Design Research. Sevaldson states that “Research by Design, [is a process] where the design researcher is also a practitioner and whose investigations are conducted within a ‘first person perspective’ combined with a reflexive mode of inquiry that helps make design knowledge explicit. In this mode of research, there is great potential for both reflection and knowledge

production, but also for the further development of practice” (Sevaldson, 2010). I used design process to work through the problem space, and gained insight into the proposed outcome by designing various aspects of the project. The design explorations falls within the double diamond design process articulated by the Design Council in 2005, which demonstrates a design process that includes four phases (discover, define, develop, and deliver). However it is important to note that within the double diamond there were various divergent tangents that re-circulated throughout. The methods used in this study fall under the disciplines of service design, design strategy, and user experience design. This triangulation of design disciplines and approaches allowed for a process that involved both macro and micro design explorations.



Diagrammatic representation on following page of research process. This offers a somewhat simplified version, to best demonstrate the research trajectory. Note that within each design method I employed I went through the double diamond process, which makes this diagram more complicated and less linear than it appears., as described above.



SERVICE DESIGN

Service Design is the activity of planning and organizing people, infrastructure, communication and material components of a service in order to improve its quality and the interaction between service provider and customers. As a discipline it straddles design and business combining both processes and using them to innovate. “When we measure service performance in the right way, we can prove that service design results in more effective employment of resources—human, capital, and natural” (Polaine, 19, 2013). When approaching the consumption rates in the clothing industry it was necessary to employ a different model of design than the product centred fashion design that we currently practice. “The digital landscape of the information age has created radical enablers for new types of service delivery” (Polaine, 24, 2013). Addressing clothing through service design allows for an examination at the system around the clothing as well as the garments themselves. Designing clothing as a service permits us to provide clothing in the form of access rather than ownership, and addresses the need to be clothed, but does not have to engage in existing consumption models.

DESIGN STRATEGY

The former Helsinki Design Lab articulates design strategy by stating that “Strategic design applies some of the principles of traditional design to “big picture” systemic challenges like health care, education, and climate change. It redefines how problems are approached, identifies opportunities for action, and helps deliver more complete and resilient solutions. Strategic design is about crafting decision-making” (Helsinki Design Lab).

The idea of crafting decision making through design strategy is a key embodiment of the thesis explorations. Design strategy aided in the analysis and synthesis of user centred research, and led to the development of possible directions. Through Design Strategy methods such as environmental scanning, analysis, forecasting, and visioning were employed. Such methods are also frequently associated with Strategic Foresight which is most often considered as a method to plan the future of an organization. In this thesis research however these methods were used at a high level in the design process and were a means to an end that led to the development of the design concept. The design concept is rooted in what would be possible given contemporary systems, and calls upon existing user behaviour to project how individuals might shift their consumption habits.

USER EXPERIENCE DESIGN

User experience design focuses on creating usable, accessible, and enjoyable experiences for users interacting with a product or service. User Experience “is the experience a product creates for the people who use it” (Garrett, 2010). It moves past what a product or service does, to design how it works., and how people feel when using it. User Experience Design was employed at both macro and micro levels in this project. The development of a user experience map synthesized user research insights into a description of the experience of using The Velary, composed of five key steps which include reserve, renew, wear, return, and repeat. Then building from the UX map, key web based touchpoints were designed through UX methods, extending into Interaction Design and User Interface Design. This employment of UX process from macro to micro levels led to the implementation of cohesive design strategy throughout the various levels of the design.

User Centred Research led to an understanding of the barriers people face when transitioning to sharing garments, and highlighted insights that informed the design concept. I conducted an environmental scan, and a set of case studies, in collaboration with Dr. Lisa Papania at Simon Fraser University (SFU) Beedie School of Business. During a residency at the Brooklyn Fashion + Design Accelerator, a survey and probe were disseminated and analysed. Semi-structured interviews were conducted throughout the research to glean insight from industry experts, and observations were gathered throughout in both online and off-line environments.

THE CIRCULAR ECONOMY AS SEEN THROUGH 11 CASE STUDIES

CIRCULAR ECONOMY PROCESS	DECOMPOSITION to NEW RESOURCES	EXTRACTION AND PRODUCTION OF BIOCHEMICAL FEEDSTOCK	CASCADE	RECYCLE	REFURBISH/ RE-MANUFACTURE	REUSE/ REDISTRIBUTE	MAINTENANCE	VIEW ENVIRONMENTAL, SOCIAL AND ECONOMIC SUSTAINABILITY AS INTERDEPENDENT
DEBRAND			•		•			•
VALUE VILLAGE	•		•			•		•
ECO FASHION WEEK			•		•	•	•	•
MOUNTAIN EQUIPMENT CO-OP	•			•	•			•
NICOLE BRIDGER	•				•			•
MATTRESS RECYCLING	•	•	•	•				•
BOARDROOM ECO APPAREL		•	•	•		•		•
OUR SOCIAL FABRIC			•			•		•
THIS OPEN SPACE							•	•
COMMON THREAD					•	•		•
URBAN IMPACT	•	•		•				•

These activities in the table above are defined as Circular Economy practices in the McKinsey Quarterly article.

This activity in the column above is consistently seen across our case studies (and not depicted in the McKinsey Quarterly article).

4.1 ENVIRONMENTAL SCAN

The Environmental scan consisted of attending various sustainability and fashion events and conferences to gain insight into what dialogues were taking place within the problem space, as well as a case study conducted with Dr. Lisa Papania, circular economy researcher and faculty at SFU's Beedie School of Business. Through the events I was able to gain access to thought leadership from industry sustainability experts including organizations like Lululemon, Mountain Equipment Co-op, and Cradle to Cradle, as well as municipal leaders tackling issues of waste caused by fashion and textiles.

The Circular Economy case study I conducted examined 11 local organizations engaged in the fashion and textile industry, and explored which circular economy practices they were adopting. The case study considered how organizations in the Lower Mainland were implementing circular economy practices as outlined in the publication of McKinsey Quarterly's "Remaking the

industrial economy" (Nguyen, Stuchtey & Zils, 2014). Organizations who participated in the study were motivated by sustainability considerations as well as financial viability. They largely focused on the material aspects of the circular economy, but also frequently acknowledged the limitations within which they were operating, and identified that a focus only on material waste did not change consumer behaviour.

Image above taken from case study report. Full scale version can be found in the appendix.

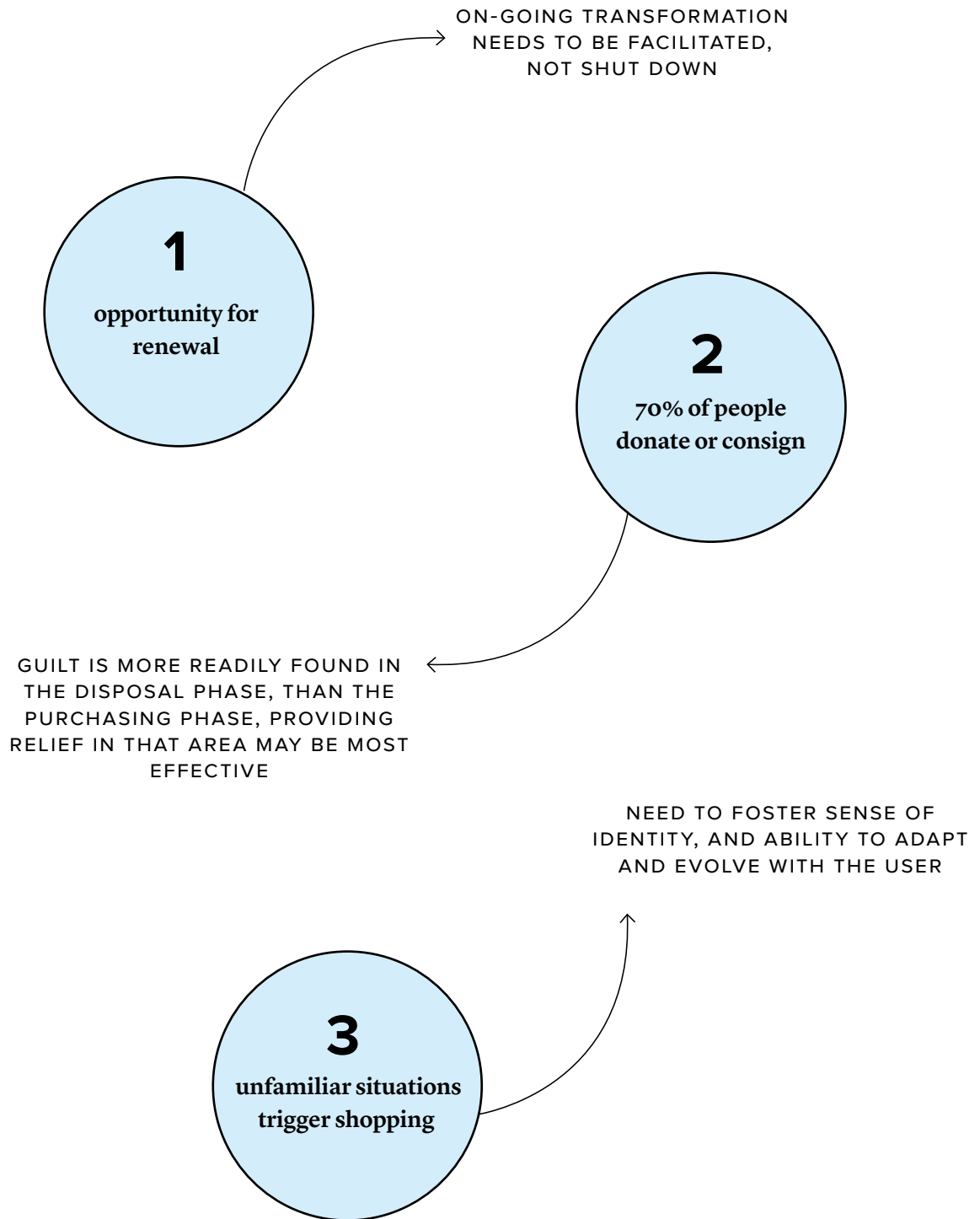
4.2 SURVEY ANALYSIS

“When i have nothing to wear i wash my clothes” - Survey response on behaviour

A survey was conducted to gain insight into how people view their shopping habits and experiences. The aim of the survey was to see how individuals self-reported, and to view commonalities emerge in terms of how people experience shopping for, and owning clothing. There were 70 respondents across an age range of 20 - 75. The survey illuminated certain assumptions that I had previously imposed. People reported spending far less than I expected. They also reported sorting their closets far less frequently than expected. But over 70% of respondents stated that they donate their garments when they get rid of them, which was a unique response previously not anticipated. This helped to inform the project in terms of maximizing this behaviour that is ingrained (to donate). The idea of returning, re-purposing, or sharing for continued use is not far from donation, which may make the on-boarding process more tangible and accessible for users.

It was notable to observe that individuals were more likely to respond with an answer that would be viewed as more socially acceptable. For example most respondents identified that they most often go shopping in order to replace a worn out garment. While this may in fact be true, it also appears to be conveniently aligned with expectations set out by an anti-consumer mindset (which my project could likely be represented/interpreted as by those who took the survey). In cases like this I felt as if individuals were providing an answer they thought might be best suited for the study. Whereas in comparison the participants in my ethnographic probe offered more intimate and anecdotal information that I am more confident is not as influenced by the participants expectation of the kind of material a thesis like this may be looking for.

Diagram on following pages synthesizes key findings from survey, including the need for renewal that is met through fashion and identity building, the opportunity to maximize existing behaviours like donation in the user experience design, and the impact of new situations on an individual's sense of identity.



4.3 PROBE ANALYSIS

Triggers were the most engaging part of the research as they informed me about different aspects needed to shift the user experience of engaging with fashion.

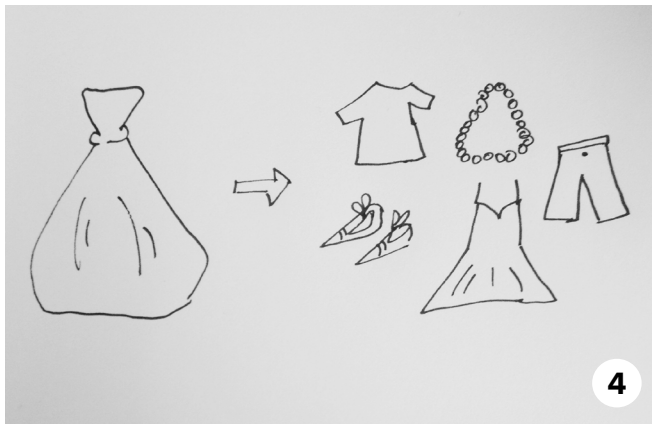
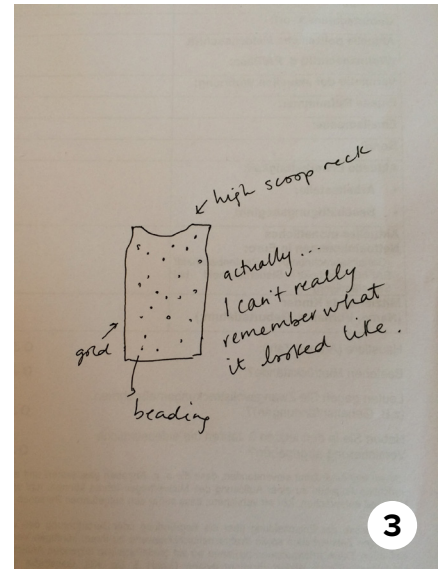
I conducted an ethnographic probe that gathered information on participants emotional and behavioural relationship to clothing. The probe was sent to 12 individuals, and 6 were completed. While the participants were all between the ages of 23 and 35 they were spread out between Canada and Europe. The insights gathered fit into three main categories. Participants provided information on their emotional and behavioural activities and experiences with garments, as well as triggers that lead to certain decision making or behaviour related either to purchasing, using, or disposing of clothing.

These triggers were the most engaging part of the research as they informed which aspects were needed to shift the user experience of engaging with fashion. Triggers included examples like having an open wardrobe influences the colours of the garments that a user buys, or that digging through an overstuffed dresser prevents a user from wearing the majority of their clothing. There was also significant reference to how external factors influence the clothing we buy and wear, including being in a new city, wanting what your friend has, and trying to acclimatize to a new experience (job, special event, etc).



EXERCISES

1. IMPULSES
2. RECENT PURCHASES
3. STORAGE
4. FAVOURITES
5. OUTFITS
6. PASSING IT ON



Images above include samples of probe responses.

- 1) an outfit for casual and work settings, influenced by the city Erich was living in
- 2) A temporary closet in a new home, highlighting the importance of place and organization
- 3) A drawing of items recently donated, exemplifying the loss of meaning once a garment is donated
- 4) A drawing of garments being donated, covering a range of types of garments
- 5) Garments organized in piles, that will be used for two weeks, and then be rotated, revealing a personal renewal cycle

4.4 OBSERVATIONS

It also inspired me to... facilitate a new experience that can shift their behaviour.

Observations were conducted in off-line and on-line environments, and focused on user behaviour in retail environments. These included brick and mortar stores, online shopping experiences, consignment stores, and user-to-user garment sharing or selling through social media platforms.

I conducted user observations in public spaces and retail stores during my residency at the Brooklyn Fashion + Design Accelerator. One of the key things that I observed in New York was an incredible abundance. There are an overwhelming amount of stores, designers, creatives, and people to engage with each of those. Being immersed in that culture challenged my thoughts about smaller scale design, production, and use, and reminded me of the challenges my thesis research faces. The fast paced and rich culture makes it difficult to envision doing things differently. But it also highlighted the importance of not requiring people to stop consuming, but to facilitate a new experience that can shift their behaviour. And to foster an awareness of their own habits that may further inspire them to engage with alternative models of fashion, garments, and design.

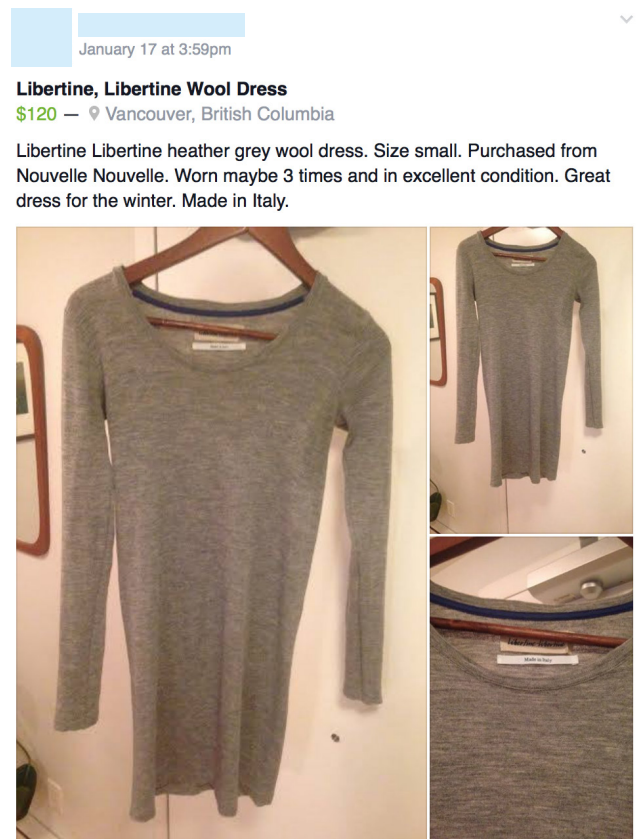
Further observations were gathered on existing consumer practices and shopping models, including the sharing economy. The sharing economy has taken root in mainstream contexts in the past five years with companies like AirBnB, Car2Go, TaskRabbit, and Uber transforming accessibility in various industries from

accommodations to transit. The concept has made a few accolades into the fashion industry namely with Rent The Runway, and several user to user sites like Grailed. However apart from Rent The Runway, there are few precedents in the form of garment sharing as a retailer model. These examples of sharing platforms demonstrate that people are already sharing garments. They just don't have access to a retailer specifically who's managing the experience for them. Users are forming groups through social media to try to connect with others who may use their garments which involves a peer-to-peer sharing model that incorporates financial exchange. Individuals are also selling used garments through consignment boutiques (both online and offline).

The engagement with sharing platforms demonstrates a need for users to engage with garments in multiple ways which move beyond a standard point of sale transaction. Users often find themselves buying new garments only to decide that in the long run the garment is not a great fit for them, and in existing retail models they are stuck with the item. It then becomes the user's responsibility to try to resell it or dispose of it, through platforms outlined above such as craigslist. All of those steps start to take away from the experience of shopping, and turn the process into more of a burden than an inspirational act that we've been taught, through marketing and post-WWII consumerism, to believe shopping provides.

This context has led to the development of the two-tiered wardrobe aspect of The Velary. Acknowledging and facilitating both ownership and sharing in one's wardrobe. In this way The Velary aligns existing user behaviours, as observed during the research phase, with a future experience that meets these user needs, and allows for a shift in consumer behaviour, along with increased retailer responsibility and participation in garment sharing.

The image to the right is a screenshot from a facebook group called Community Closet. It is a place where users are exchanging and selling their garments to each other, much like Craigslist, but with notifications when new items are added, and you can view who the seller is. A significant portion (through observation I've estimated more than half), of garments being sold are worn under five times, or tagged with BNWT (Brand New With Tags). This highlights key behaviours that I am attempting to address.



4.5 INTERVIEWS

A significant insight...was identifying that I am in fact re-designing the user—experience of shopping.

I have conducted several informal interviews with industry experts. Interviewees have included representatives from Worn Stories, Lululemon, Alison Wonderland, Lululemon Lab, Fanmail, and Purible. Each of the interviews provided insight into different aspects of the fashion industry (from writing, to sustainability departments, to designers, and finally to sales and marketing). They also revealed a variety of motivations behind the way things are being done at an given organization.

One of the most valuable aspects of the interviews was the opportunity to critique each other's process or interventions. I was able to see my project through different eyes by engaging these experts.

A significant insight that was gained from an informal interview with a designer from Lululemon Lab was identifying that this thesis is focused on re-designing the user—experience of shopping. This observation from the interviewee has greatly influenced my understanding of the project and led to the adoption of user experience design, and user experience mapping as a way to envision and explore the service through a user's perspective.



Above is a sketch created to represent responses from the survey and from interviewee's on the ever present issue of consumption. That as consumers of fashion, sometimes we just feel like we need something, and that this process of updating is very challenging to shift.

4.6 BARRIERS

Barriers have been identified through user experience mapping, and scenario development during both primary research and research through design phases.

The barriers identified refer to financial, psychological, and societal factors that might deter a user from adopting the service.

Psychological barriers have been identified through research analysis, user experience mapping, and scenario development during both primary research and research through design phases. For example a customer may not understand or see the economic value in the service. Partly this falls under psychological barriers but it also arises from the concept of the commodity and the development of consumerism as a lifestyle. Consumption is an economic concept and involves the purchase of goods and services by individuals. It is also representative of a mind frame and lifestyle. Existing consumption patterns are based in the development of modernity as explained by Penny Sparke. She states that “The growth of consumption was understood as a key feature of the emerging modern world” (Sparke 14, 2013). Consumerism is a significant driver in western society and has been connected with class and value for many years. This means that users may feel an attachment to garments and to owning them. They may associate ownership with aspects of personal freedom and choice, along with an opportunity to express their own originality. They may think that a used garment will not be clean or well cared for. They may not feel the same emotional connection to something that is not “NEW”, as it lacks the cultural constructs of

uniqueness and success. And they may not want to give the garment back at the end of reservation. In fact all of these barriers are more than likely based in past experience, not only perception, as was outlined in the responses from the ethnographic probe. However that does not mean that the validity of the service should be questioned, but rather that proper on-boarding, customer relations, communication, and patience may be required to introduce a user to the concept, and for a user to determine if the service really fills their needs.

Financial barriers are also important to keep in mind. Flexibility is an asset that this service embodies. My intent, as gleaned from the observations, is not to ask people to stop shopping altogether. The integration/creation of a two tiered wardrobe allows for both owning and sharing, which mitigates the fear of losing ownership. It is beneficial for a user to keep garments they already own in the core wardrobe because this reduces new costs. The implementation of a renewal wardrobe allows users to get the benefit of accessing something new without “consuming”. The model is not proposed to be in competition with designers of the same target demographic, but rather to elevate the quality of a “renewal” garment from a cheap fast fashion garment to a higher quality garment by disseminating the cost of a high-end garment across a set of users.

On following page: Diagramatic storyboard of existing and proposed shopping experiences.

EXISTING SHOPPING EXPERIENCE

You see a garment

You want this garment

You decide to make a purchase

You buy garment

You take the garment home

You wear it for a week straight

You integrate it into your wardrobe
and wear it once a week for 3 months

You buy something new

The previous garment gets worn less
and less and sits in your closet

You pull it out a couple months later
and wear it again

You tire of the garment

You try to consign it, it gets rejected

You try to give the garment to a
friend, it doesn't fit them

You keep the garment for another six
months

You finally take it to the thrift store
where it sits for 6 months and then
gets sent to africa

Your garment ends up in an open air
landfill and gets burned releasing tox-
ins in the air

You repeat

PROPOSED SHOPPING EXPERIENCE

You see a garment

You want the garment

You decide to make a purchase

You buy access to the garment

You take the garment home

You wear the garment for a week

You integrate the garment with your
core wardrobe and wear twice a week
for the rest of the month

You return the garment and it gets
revitalized and prepared for the next
customer

You wear garments from your core
wardrobe

You see another garment you want

You repeat

* The service takes care of repairs,
and disposal according to circular
economy practices

4.7 ISSUES WITH RESTRICTION

“I still bought plenty of stuff over the past year and I’m looking forward to getting a chance to finally wear it all, but I also got rid of even more stuff. I threw out, gave away, and sold...a truck load worth of stuff that either wasn’t worth keeping or just wasn’t my style any more.”

This example was taken from a blog project titled, 1-year 1-outfit, documenting one man’s journey to wear one outfit for a year. The name itself is problematic as the definition of one outfit has to allow for changing seasons and other requirements, in this case totaling fourteen garments. However the premise can be easily understood. What is most interesting about this experiment, and many others that can be easily found, is that the process of intense restriction does not last for the individuals who take it on. Here the writer, Matt, identifies a renewal process, of sorting and curating his wardrobe, and the desire to wear new items. These new items are garments that he bought, in the midst of his year wearing only one outfit, which seems rather paradoxical. Anecdotes like this have led me to consider that we need other options that foster renewal and identity creation, and do not use punishment as our only alternative to consuming.

Quote taken from 1 Year 1 Outfit:
<http://www.thisstylishlife.com/1-year-1-outfit-365-days-all-done>

My design method and process was simultaneously forward moving, and laterally connected. I was acting as project manager, design strategist, and UX designer throughout, which required me to engage in a linear process in order to accomplish various tasks and stages, while also allowing for a more divergent and iterative process within each design phase.

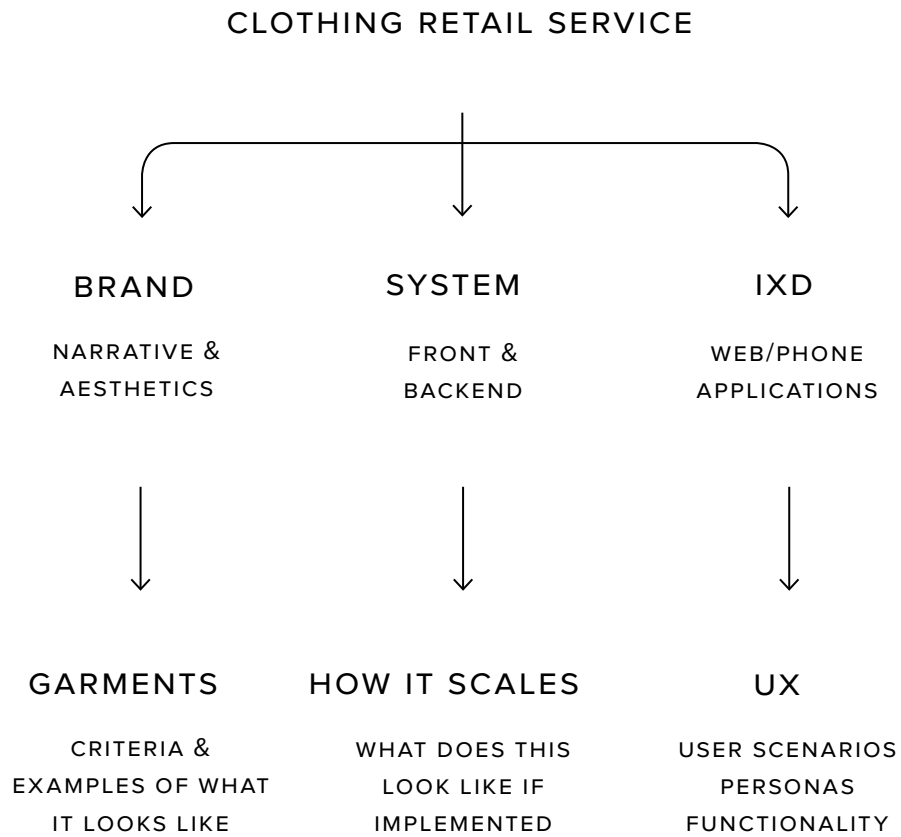


Diagram representing my design goals in early stages of the project.

5.1 USER ARCHETYPES

They are in search of a simpler life, that doesn't hinder variety and abundance.

USER ARCHETYPES

User archetypes are a method which I employed to create a high level user profile. These were developed in response to primary research including a survey and ethnographic probe. The four archetypes range from a primary user, to a late adopter. Users who are most likely to become early adopters include the “Trendy Trader” or “Habit Maker” who are likely already exploring different ways of consuming garments, and may have an interest in more ecologically sound practices, or humanitarian concerns. Whereas “The Cautious Consumer” is only likely to try sharing garments when they see a proven case for doing so, and “The Reflective Shopper” is still learning about their behaviour, and the impact they have.

THE TRENDY TRADER

Wants quality, is aspirational and follows trends, loves sharing.

THE CAUTIOUS CONSUMER

Values cleanliness and familiarity, holds onto garments.

THE HABIT MAKER

Easily influenced, rotates garments, particular about organization.

THE REFLECTIVE SHOPPER

Recently discovered an alternative, has been an obsessive shopper.

ILLUSTRATING USER MOTIVATIONS

Drawing from these archetypes we capture a set of users comprised of a younger generation aiming to design their lives differently. It embodies these users values around lower impact lifestyles, considered objects, and higher quality. However it does not negate the importance of convenience, and the power of technology. These individuals are rich in education, either traditional or self-taught. They are living within their means and seeking value in experience. They are starting careers, traveling, shifting directions, settling down, starting families, always changing. They are in search of a simpler life, that doesn't hinder variety and abundance. These broad analyses of a user group were gleaned from probe participants who were all university educated, and four of which were living internationally, and engaged or interested in participating in more conscious lifestyles. ¹

¹ Stene, A. K. (2014). Why do Norwegian Consumers Participate in Collaborative Consumption?

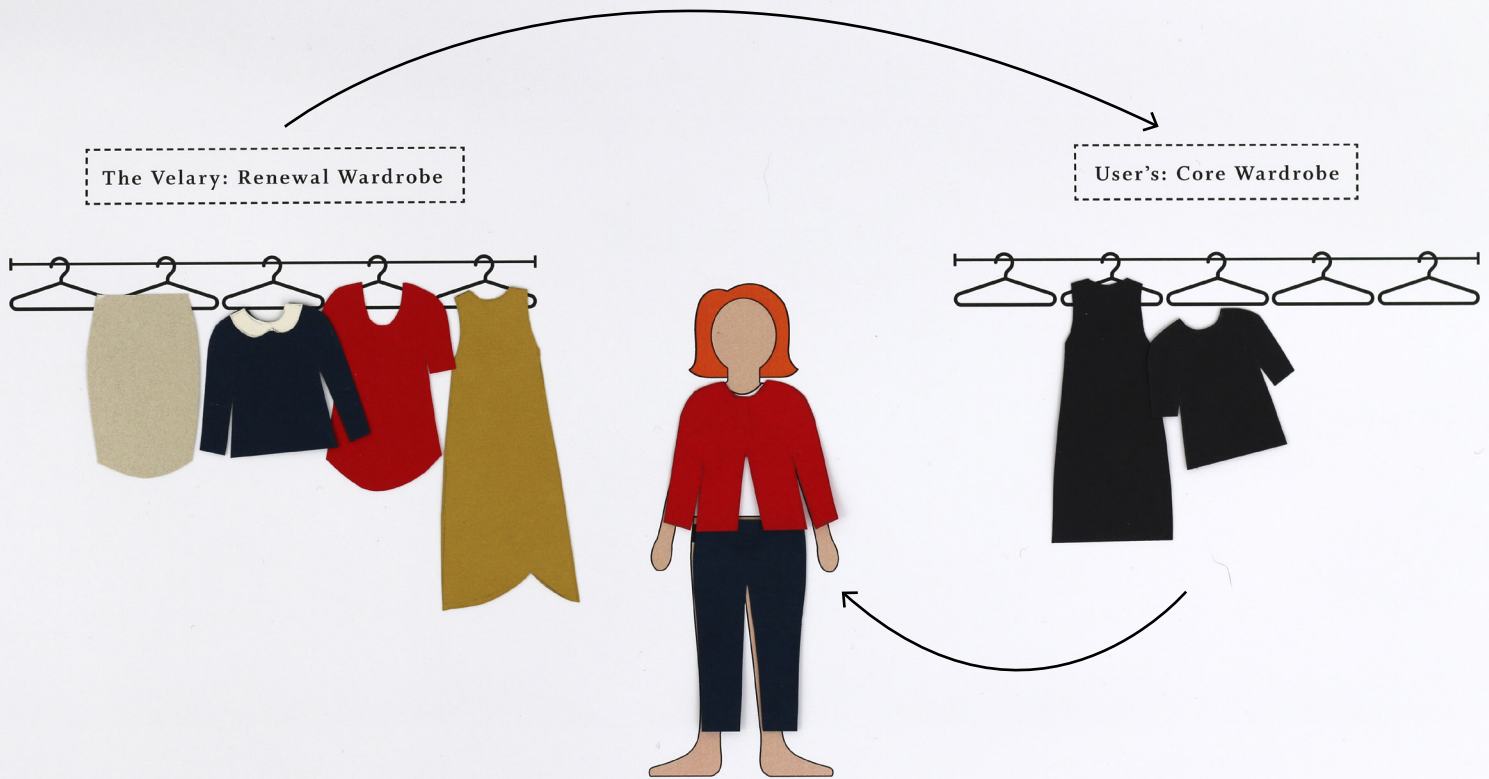
Image removed
due to copyright
restrictions*

*Above images | representation of users |
Figures have been removed due to copyright
restrictions. Images show young adults within
the targeted demographic.

5.2 SERVICE DESIGN

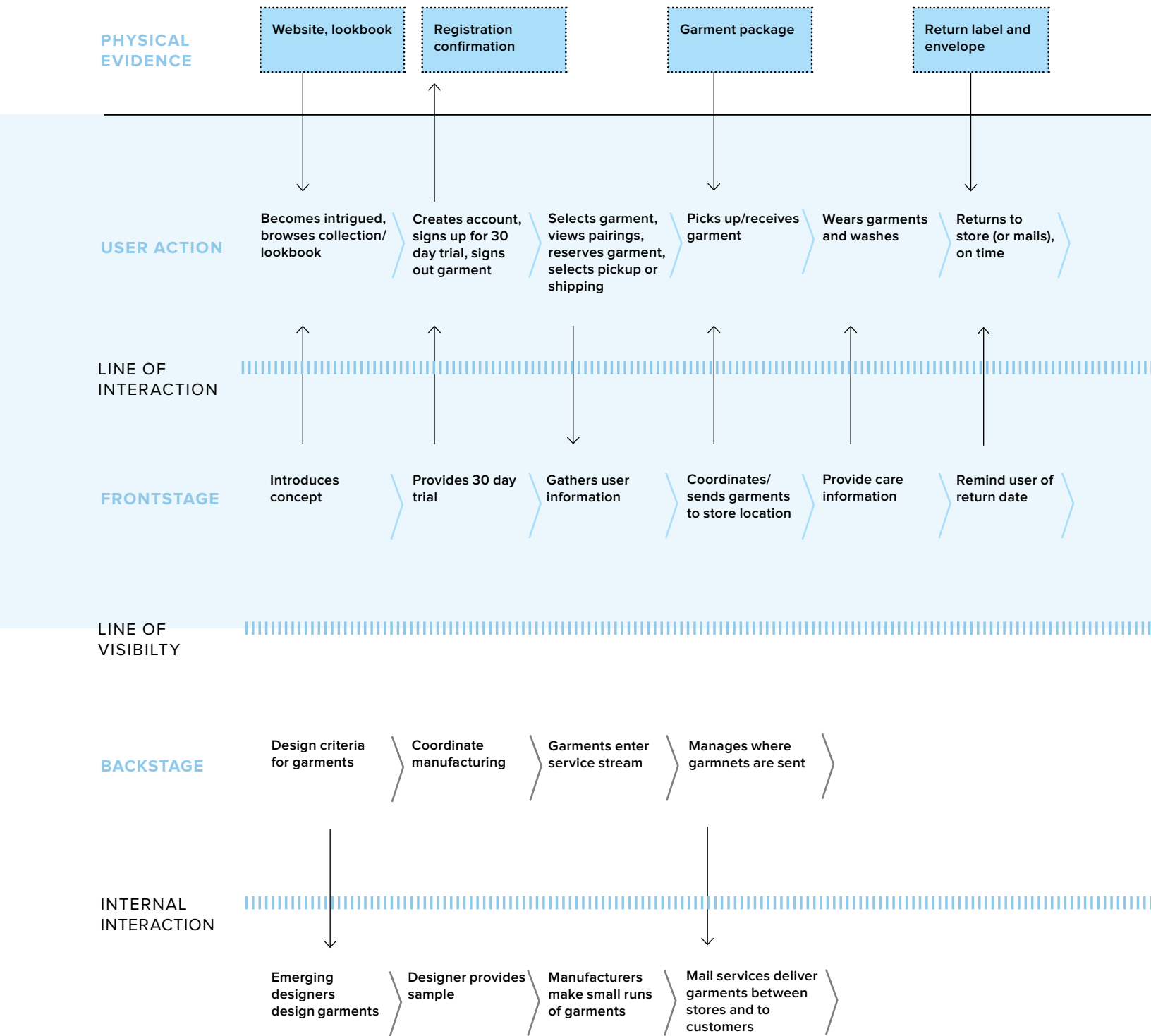
The design of the service was seminal in determining the strategy and big picture of my design concept. Service design methods including service blueprints, scenarios, mapping, and video sketching were employed to develop a clear picture of the functionality of the service.

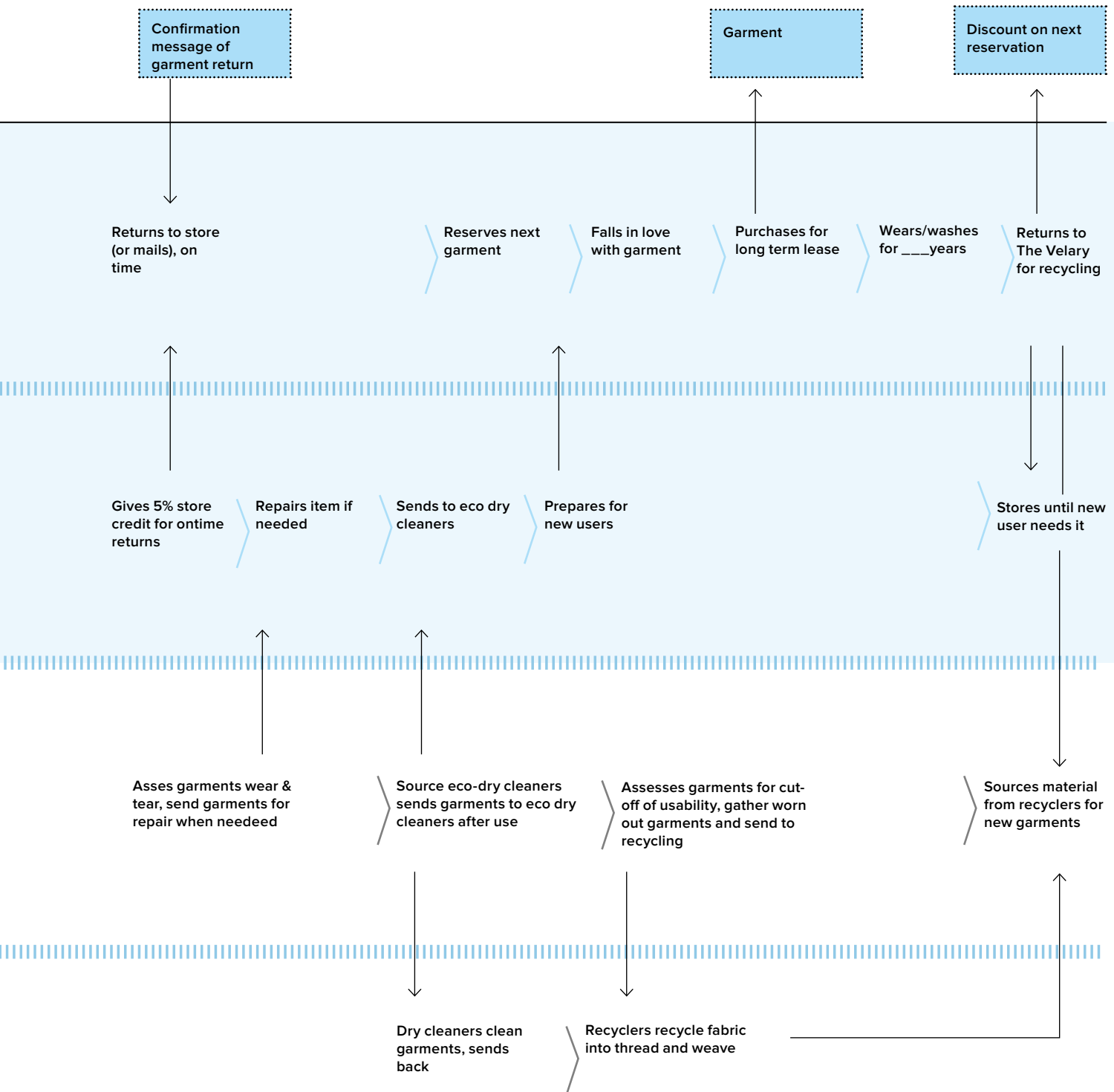
More interestingly, the service design process integrated a deep dialogic practice with faculty and external professionals during the summer and fall semesters. While this project has been rather self directed and independent, arriving at a clear articulation of the design was most effectively achieved through conversations. I was able to gather individual reactions to what I was proposing and reformulate aspects as needed. This led to a far more resolved and digestible concept. I have been able to observe the value in this dialogic process during final critiques by collecting and analyzing the feedback to the concept. The feedback I received from critiques, presentations, and user testing, as further outlined in this document, largely focused on an expansion of the work, rather than shifting anything that has been developed to date. This response intrigued me as it highlights the effectiveness of the service design, and communication. Those experiencing the work with a fresh perspective were inclined to suggest ways to deepen or expand an aspect of the project rather than comment of gaps or missing information.



Above image is a still from a video prototype used to explore how the two tiered wardrobe would function for a user. Garments reserved from The Velary are added to a user's core wardrobe, and then a user makes outfits using garments from both renewal and core wardrobes. This method helped to outline the user process and led to the development of understanding of front end and back end touchpoints needed that were further explored through a service blueprint, shown on the following page.

SERVICE BLUEPRINT





5.3 DESIGN STRATEGY

While fully implementing the service was not a priority within the scope of this thesis, being able to represent the service as a competitive retailer was necessary.

Design strategy was used in conjunction with service design methods to explore and determine elements of viability and implementation. While fully implementing the service was not a priority within the scope of this thesis, being able to represent the service as a competitive retailer was necessary. It allowed for consideration of how retailers function now, and how a concept like the one I am proposing could lead to innovation within the retail space, that has the ability to align issues of economic viability and sustainability. Among other methods such as brainstorming, scenario development, narrative building, branding, and strategic foresight, I also employed the Value Proposition Canvas and The Business Model Canvas to illustrate different aspects of how the service delivers value.

KEY PARTNERS

- Fashion brands who's garments we carry
- Textile recyclers like Evrnu
- Mail Delivery Service
- Dry Cleaners
- Sustainability & fashion writers/bloggers/
- Angel investors

KEY ACTIVITIES

- source and curate garments for users
- provide onboarding, access, inspiration through website
- mail garments to users
- quality control, repairs
- send garments to recycling

KEY RESOURCES

- garments
- website
- repair shop
- cleaning
- mail delivery

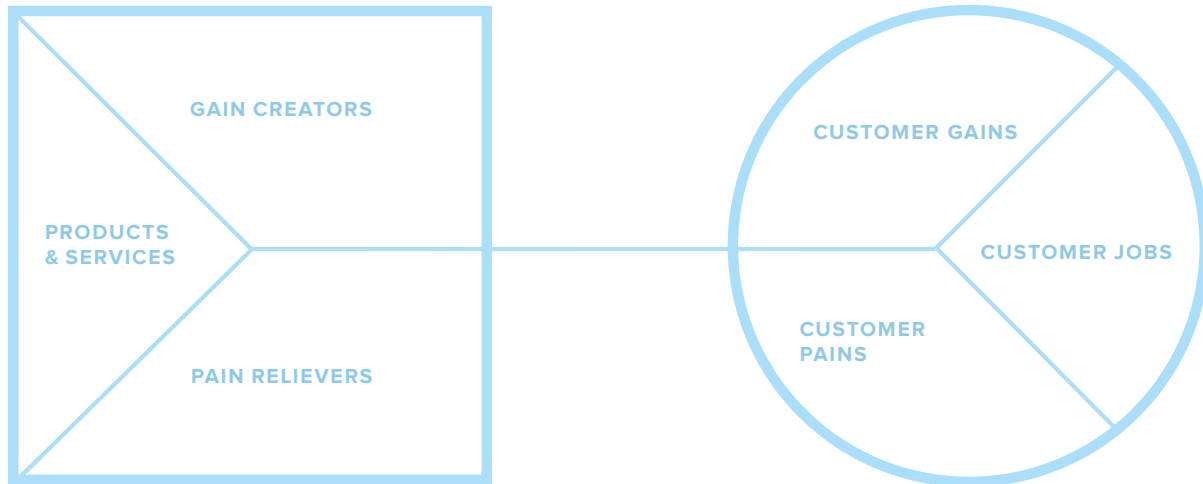
COST STRUCTURE

- garment purchasing
- shipping
- select storefronts
- staff
- web maintenance
- repairs
- recycling
- customer acquisition/ marketing
- "VALUES DRIVEN"

	<p>VALUE PROPOSITION</p> <p>This concept focuses on the development of a garment sharing service that mirrors the rate of one's evolving style. The aim is to reduce individual consumption by providing ongoing renewal for one's wardrobe while simultaneously extending the garment lifecycle. Competitiveness demands that the service remain as enjoyable and easy to use as standard point of sale purchase, at an affordable price. The Velary's purpose is to make retail suit contemporary lifestyles. We designed the user experience, and overall service, to address barriers to achieving the lifestyles of today and tomorrow such as waste, over consumption, and environmental or social impacts.</p>	<p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> - building core wardrobes <ul style="list-style-type: none"> > info on site > workshops > one on one - reservations through site - reservations in store 	<p>CUSTOMER SEGMENTS</p> <p>THE TRENDY TRADER</p> <hr/> <p>Wants quality, is aspirational and follows trends, loves sharing.</p> <p>THE CAUTIOUS CONSUMER</p> <hr/> <p>Values cleanliness and familiarity, holds onto garments.</p>
	<p>Fashion and style are constantly evolving, both within the industry, and within a user's wardrobe. We are always growing as individuals and our style reflect this, leading to an ever-increasing consumption cycle that is straining our planets resources.</p>	<p>CHANNELS</p> <ul style="list-style-type: none"> - website - storefront (key areas) - email reminders - instagram, facebook, twitter - packages (when shipped) 	<p>THE HABIT MAKER</p> <hr/> <p>Easily influenced, rotates garments, particular about organization.</p> <p>THE REFLECTIVE SHOPPER</p> <hr/> <p>Recently discovered an alternative, has been an obsessive shopper.</p>
	<p>REVENUE STREAMS</p> <ul style="list-style-type: none"> - garment reservations 		

5.3 DESIGN STRATEGY CONTINUED

The value proposition canvas is a way to identify a more micro aspect of the business model canvas which focuses on creating value that meets the customers needs. This canvas draws from user experience mapping, and probe results.



GAIN CREATORS	PRODUCTS & SERVICES	PAIN RELIEVERS	CUSTOMER GAINS	CUSTOMER PAINS	CUSTOMER JOBS
<ul style="list-style-type: none"> • a more robust connection with their core wardrobe • ongoing sense of renewal • ability to invest more in core wardrobe • higher quality in the renewal garment • engage users organically in feedback and events slowly building a community • provide trend setting garments that are well designed, unique, yet classic 	<ul style="list-style-type: none"> • garments • repair • maintenance • simplicity • freedom (eg you move to a new city and can access garments appropriate for the climate... • high quality/high end for a fraction of the price if you were to buy • unique designs • education 	<ul style="list-style-type: none"> • reduce volume of clothing stored at home • no longer have to sort closet, move clothes, dispose of clothes intermittently • provides renewal without spending lots or buying fast fashion garments • removal of seasonal expectations, so a garment can be new to a user if not new to the store • integration of sharing economy and circular economy to meet customer needs, and meet expectations of retailer responsibility 	<ul style="list-style-type: none"> • approach buying clothing with more consideration and less impulse • be able to easily make returns • connect with a community interested in essentialism and conscious living • have garments that are stylish • get garments that are like new, well cared for, and meet high quality standards • acquire garments to add to wardrobe 	<ul style="list-style-type: none"> • buying new clothing doesn't fulfill their appetite for renewal for longer than a few months • cognitive overload when trying to understand • garments wear out and lose that "new" feeling • minimalism is challenged by the need for renewal • sustainable options don't suit their style/lifestyle 	<ul style="list-style-type: none"> • spend consciously • align their values with product purchases • find garments that suit their style • appear avant-garde/on trend • make a purchase online • return a garment easily

5.4 IDENTITY AND BRAND

Identity and branding were key elements of this project, to communicate the intention behind the service. More than communicating the project itself, identity design also served to connect the project to fashion industry and practice. My intention working on the identity was to create a brand that speaks to a new way of engaging with fashion, both as a retailer, and from the users perspective. I set out to create a name that had historical and logical roots to communicate the idea of sharing garments, yet also offer new vocabulary and language that would free the concept from the confines of stigma around sharing. During critiques most reviewers, including Masters of Design students and faculty, commented positively on the brand's ability to represent sharing or garments through the anagrammed name.

The Velary branding viewed on this page includes the logo and explanation of the anogram. The image on the following page shows identity explorations.

THE VELARY

a library for your clothes

vel•a•men / velāmen / *noun*

1. A Latin word for garment or clothing.

li•brar•y /lībrerē / *noun*

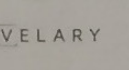
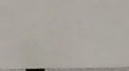
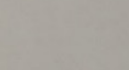
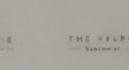
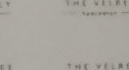
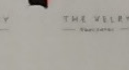
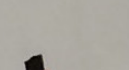
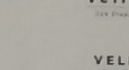
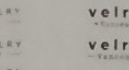
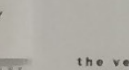
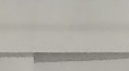
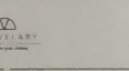
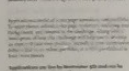
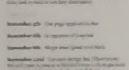
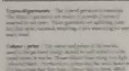
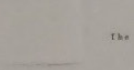
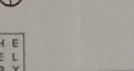
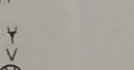
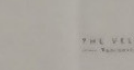
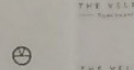
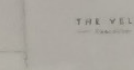
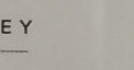
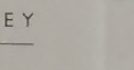
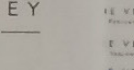
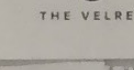
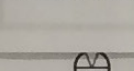
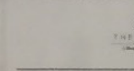
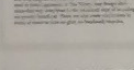
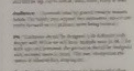
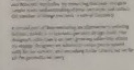
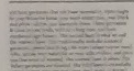
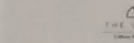
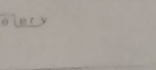
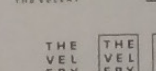
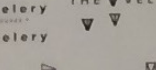
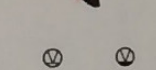
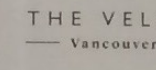
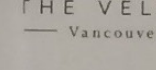
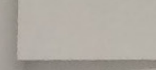
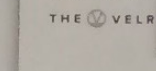
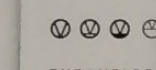
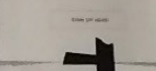
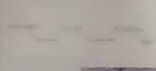
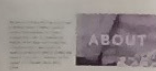
1. An organized collection of materials made accessible for use, enjoyment, or borrowing.

2. The most common form of an organization that facilitates the sharing of objects.

Call for fashion designers to create garments for MDes thesis concept: Garment Sharing Service designed to redesign fashion retail with contemporary lifestyle and sustainability criteria

The Velary is a fashion design service that will create garments for MDes thesis concept: Garment Sharing Service designed to redesign fashion retail with contemporary lifestyle and sustainability criteria

The Velary is a fashion design service that will create garments for MDes thesis concept: Garment Sharing Service designed to redesign fashion retail with contemporary lifestyle and sustainability criteria



Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

Handwritten notes and sketches on a piece of paper, including a small diagram of a person's head and shoulders.

5.5 USER EXPERIENCE DESIGN

User experience design acted as the cornerstone for design deliverables, and provided both high level strategy and grounding in user research.

User experience design was used in conjunction with service design methods to ensure the design meets user criteria derived from primary research conducted during the summer including the necessity for limited user responsibility, use of brand and experience design representative of boutique settings, and the ability to both own and share garments simultaneously. UX methods spanned both strategic and technical design outputs, delivering a user experience map used to design the service and individual touchpoints such as the website. User experience design acted as the cornerstone for design deliverables, and provided both high level strategy and grounding in user research. The nature of interdisciplinary design in this project has illuminated how service design, UX, IxD, and UI design intersect. As discussed in the methodology section service design formed the overarching strategy and intention of the design. While user experience focuses on the user flows, needs, expectations, and experiences both online and offline. Interaction design pertains to the functional design of digital products integrating both UX and UI criteria and methodologies. And finally user interface consolidates the strategy and research from the above disciplines into visual form. While each method was required to develop the concept, User Experience was the driving focus, and brought forward considerations of behavior and flow that facilitate functionality. The functionality was essential to represent in order to communicate that people really can change the way that they purchase and use garments.

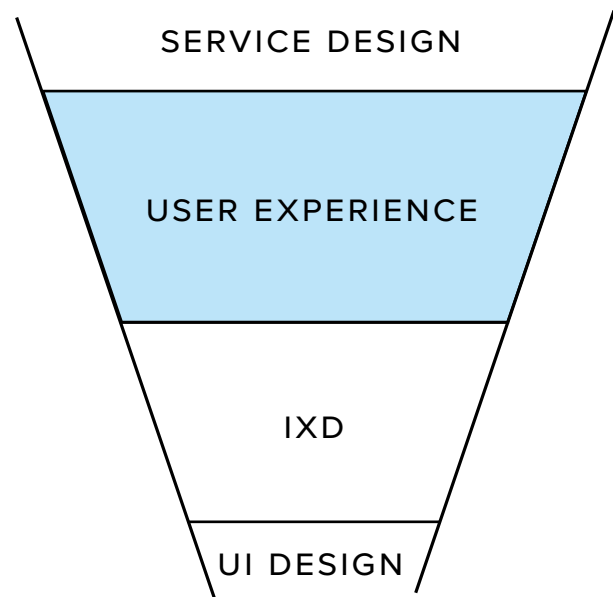
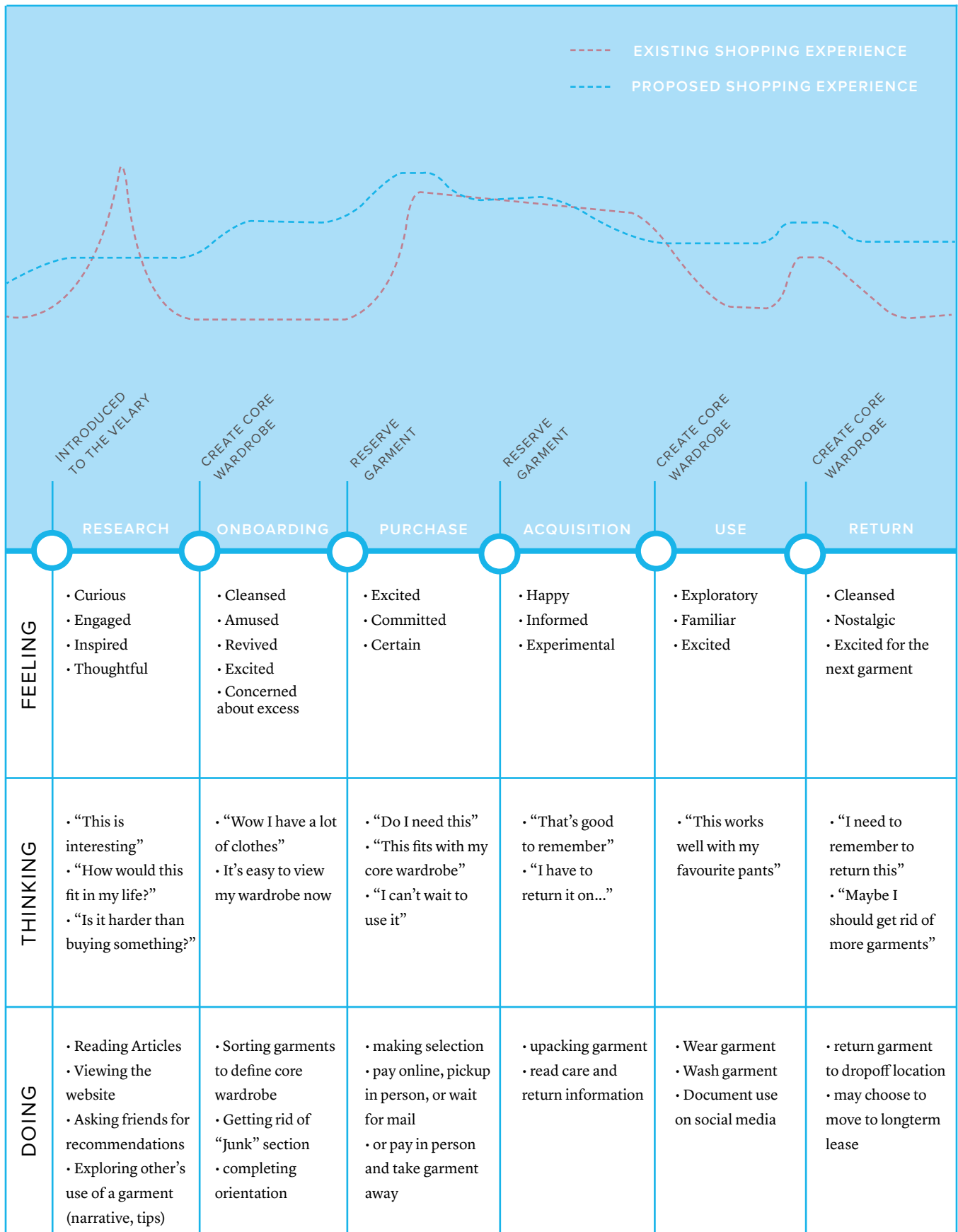


Diagram demonstrates analysis of the intersection and level of design methods employed in relation to each other, and an understanding of how information flows through from service design all the way to user interface design. User Experience map on following page.



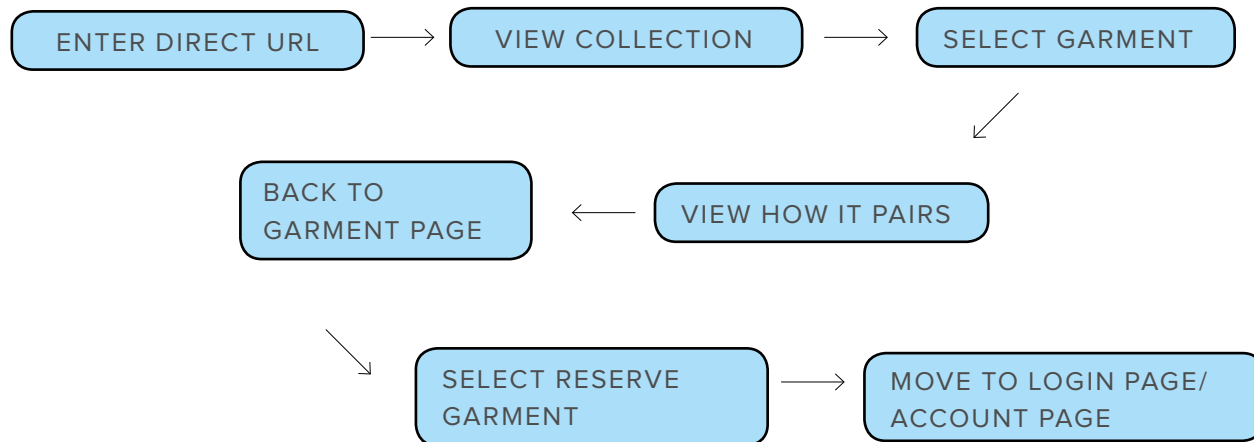
5.6 USER FLOWS AND WIRE FRAMES

Building off of user experience mapping, I moved into information architecture design, through user flows and wireframing. These methods allowed me to envision and prototype how a user would move through tasks in an online environment, and how that would connect with the broader user experience. Starting with a task analysis I identified what user tasks would be throughout the UX, these included onboarding, acquiring a garment, using a garment, and returning a garment. Then I developed user flows for each stage, and low fidelity wireframes prior to designing the user interface.

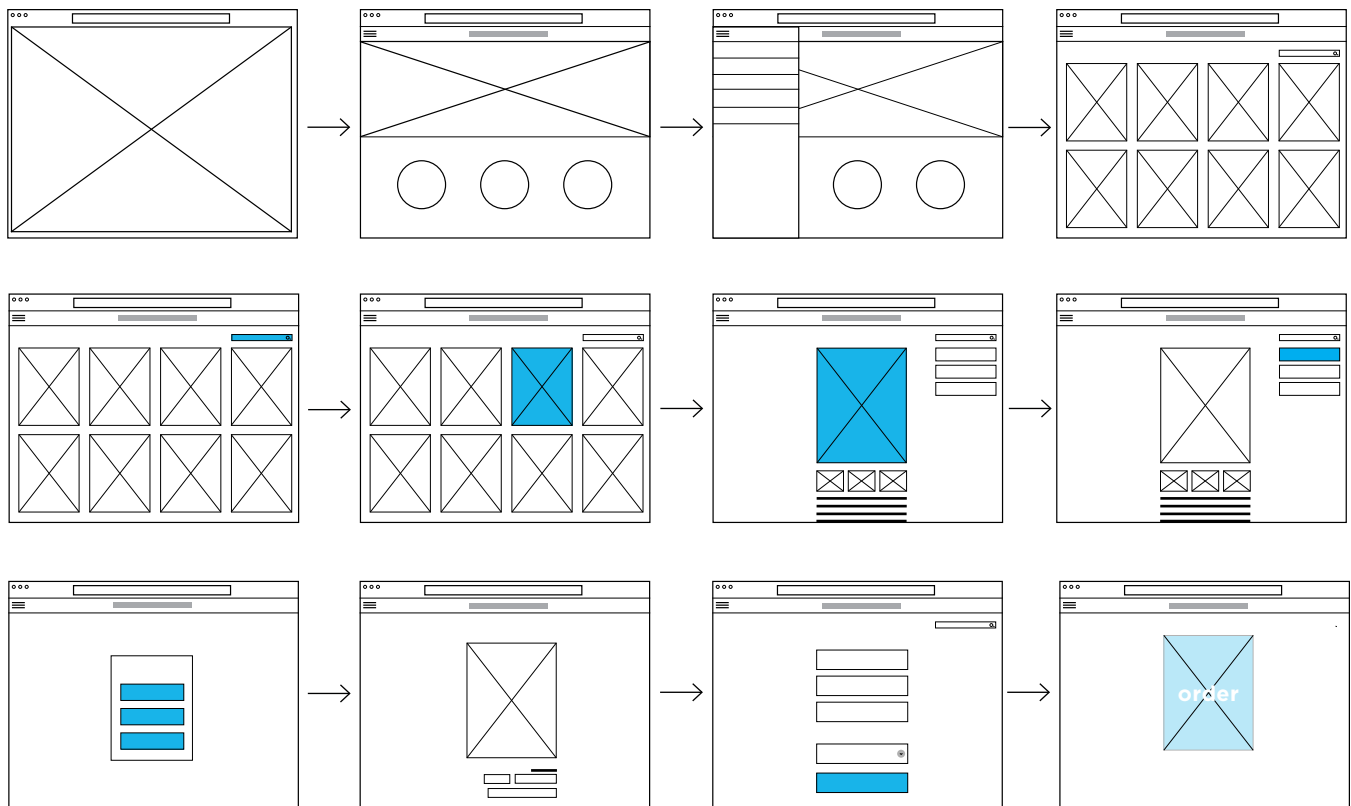
A) TASK ANALYSIS

1) ONBOARDING	2) ACQUIRE	3) USE	4) RETURN
<ul style="list-style-type: none">- Introduction to core wardrobe- criteria for evaluating wardrobe (last time you wore it, frequency, types of occasions)- view the video of how a core wardrobe works with service garments- gains understanding of service process, requirements for use and washing, and returns.	<ul style="list-style-type: none">- View garments, see how they pair with a core wardrobe- make selection- conduct transaction online, or visit a store.- pickup garment, or wait for delivery- engage with material/ trigger explaining use and return process	<ul style="list-style-type: none">- wearing garments- washing garments- monitoring frequency + duration -> understand personal patterns of renewal- garment tracking, building narrative and dedication to care and maintenance	<ul style="list-style-type: none">- return garment (dropoff in store, or mail in)- gain some momento of the garment so the user doesn't feel loss at giving the garment back * check if this is desirable

B)SAMPLE USER FLOW FOR RESERVATIONS



C)SAMPLE WIREFRAMES FOR RESERVATIONS

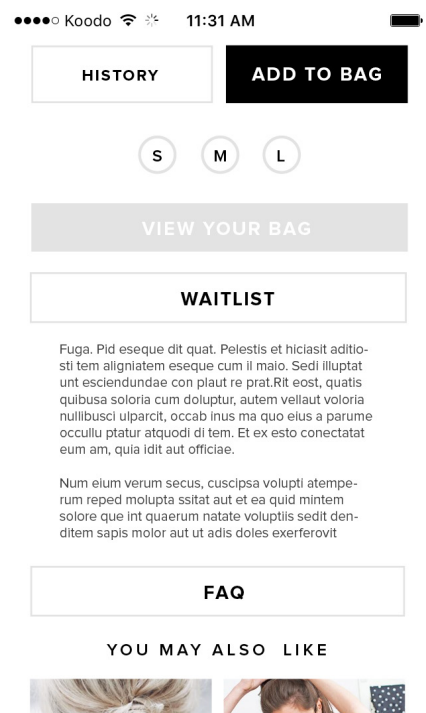
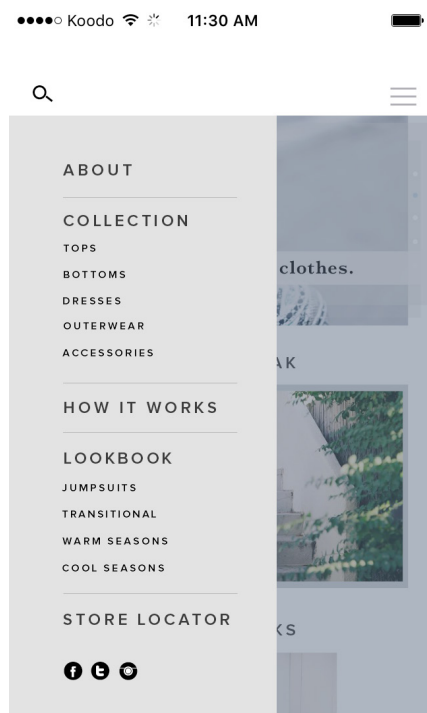
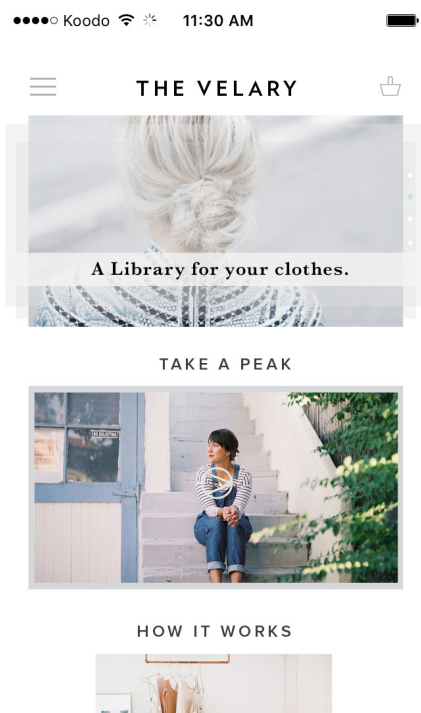
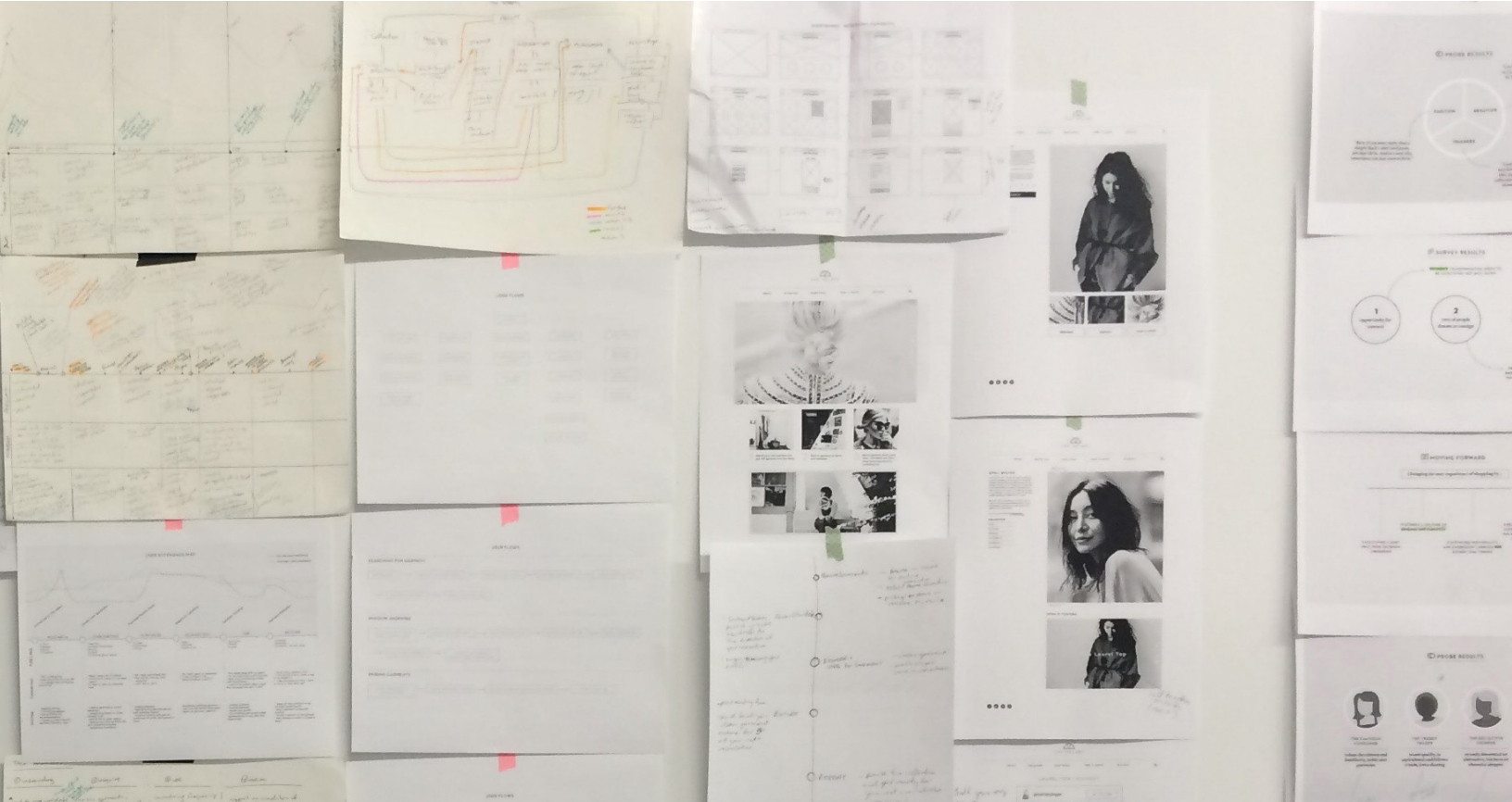


5.7 USER INTERFACE DESIGN

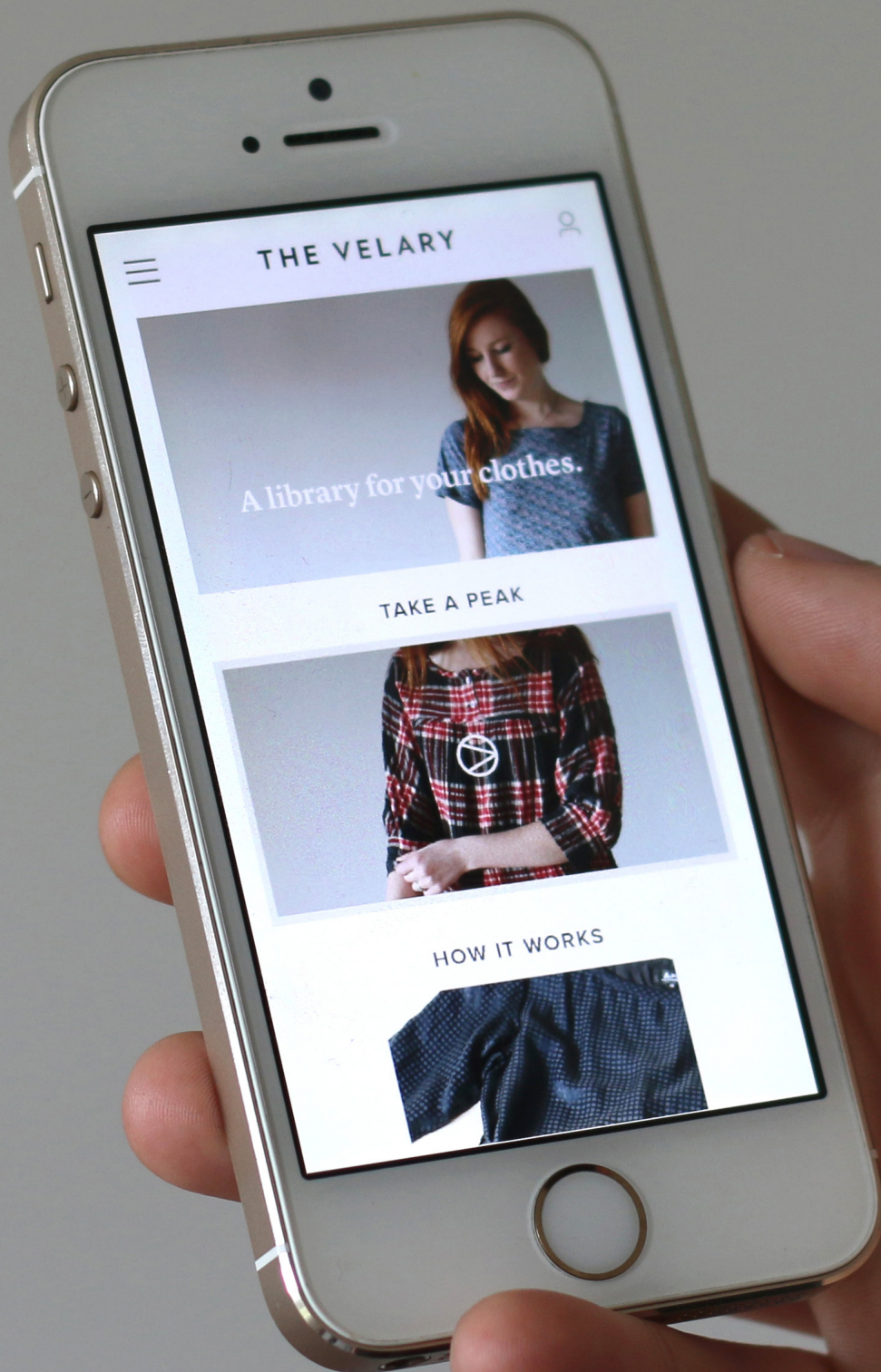
“ Deliberate color choices, edge-to-edge imagery, large-scale typography, and intentional white space create a bold and graphic interface that immerse the user in the experience. An emphasis on user actions makes core functionality immediately apparent and provides way points for the user.¹

The user interface design of the web component of this project has drawn heavily from Google’s Material Design principles. Evolving the visual design from brand to UI, the cleanliness and purpose behind material design have been vital. The design elements have been developed for accessibility, and easy on-boarding. There is a high level of functionality outlined in the visual design of the website. While this has led to an effective web prototype and clear user flows, it has also illuminated the need for an integration of layered information and story at the information architecture level, which will be executed in the form of the blog content, and garment history.

1 Google - Material Design Introduction



Images above show low fidelity to high fidelity mockups of the user interface design.





6.1 CONCEPT

This concept focuses on the development of a garment sharing service that mirrors the rate of one's evolving style.

Fashion and style are constantly evolving, both within the industry, and within a user's wardrobe. We are always growing as individuals and our style reflect this, leading to an ever-increasing consumption cycle that is straining our planets resources. The Velary focuses on the development of a garment sharing service that mirrors the rate of one's evolving style. The aim is to reduce individual consumption by providing ongoing renewal for one's wardrobe while simultaneously extending the garment life-cycle. Competitiveness demands that the service remains as enjoyable and easy to use as standard point of sale purchase, at an affordable price. The Velary's purpose is to make retail suit contemporary lifestyles. The user experience, and overall service, is designed to address barriers to achieving the lifestyles of today and tomorrow such as waste, over consumption, and environmental or social impacts.

THE VELARY

A Library for your clothes.

SELECTED BY
THE VELARY FOR A
QUALITY EXPERIENCE

WASH AND CARE FOR
THIS GARMENT LIKE
IT BELONGS TO YOUR
BEST FRIEND.

WASH COLD | HANG TO DRY
LOW IRON | NO BLEACH

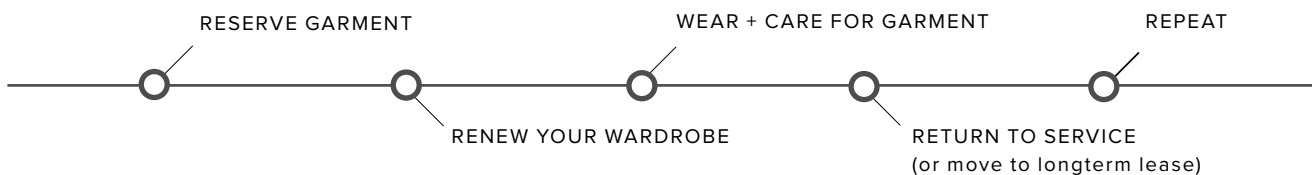


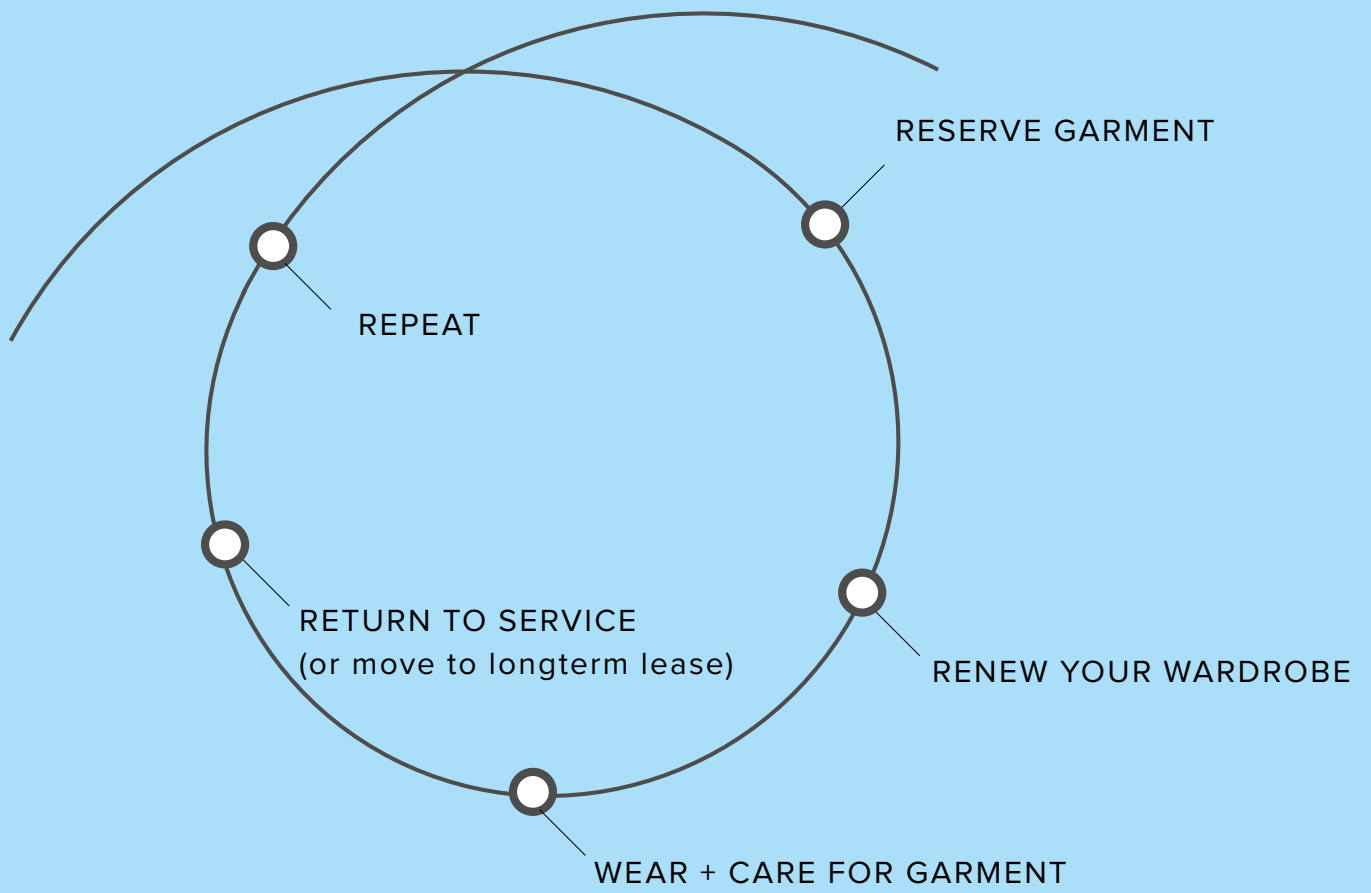
6.2 THE CUSTOMER EXPERIENCE

The user experience consists of a five stage process: reserve, renew, wear, return, and repeat.

The user experience consists of a five stage process: reserve, renew, wear, return, and repeat. This process is somewhat cyclical and allows for integration of renewal garments into the core wardrobe. These are also the five vital steps for a user to engage with in order for the service to function, and allow for prolonged interaction between the user and service leading to more continuous experience that reduces the peak and valleys of emotion identified from existing point-of-sale purchases. The Velary will have branches in key metropolitan areas along with an online store. Users may checkout garments online or in store. The user selects the duration

of their reservation (between one and six months). Users then pick up in store or have the garment delivered, and add the garment to their wardrobe for their selected duration. The Velary will remind users of their return date. Returns can be made in store or by mail. If a user becomes attached to a garment they may move to a long term lease where they own the garment, but commit to returning it to The Velary for recycling at the end of life stage. The Velary manages repairs and cleaning when needed. And all garments will be recycled back into material used in future garments for the service.





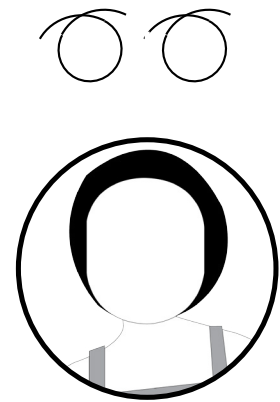
6.3 A PERSONALIZED EXPERIENCE

While the customer journey is often described in a linear way for the sake of clarity, it in fact takes a more cyclical form.

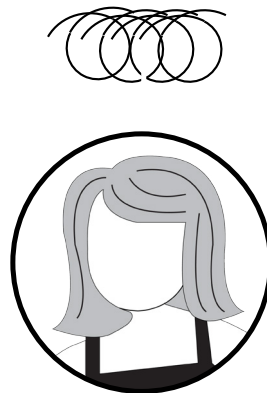
While the customer journey is often described in a linear way for the sake of clarity, it in fact takes a more cyclical form. Drawing from Circular Economy practices the flow that a user goes through is repeatable, in whichever regularity the user needs. This allows for personalization of process, including time between reservations, and duration of reservations. In combination with the renewal wardrobe the options for personalization become vast. A user may change the amount of garments they own, and have access to, along with how these items pair together. Each user archetype for example may shift the regularity of the cycle based on their preferences. Where the Trendy Trader, who is more inclined to stay on top of trends may wish to receive a garment at regular intervals, the Cautious Consumer would take long pauses between garment reservations. A customer may find that they relate to one of the user archetypes, or they may fall in between two preferences, they may also have different behaviours and routines in different contexts (eg. seasonally, or during life transitions). While The Velary draws from Minimalism as a guiding principle, to consider what we own and consume, it compliments that perspective with continuous possibility for shifts in preferences and routines, accommodating personalization and an ongoing sense of renewal.



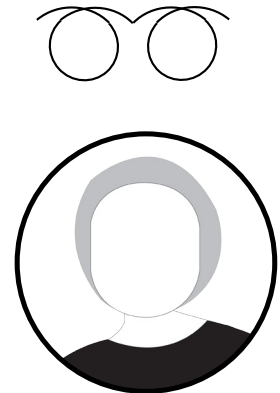
**THE TRENDY
TRADER**



**THE CAUTIOUS
CONSUMER**



**THE HABIT
MAKER**



**THE REFLECTIVE
SHOPPER**

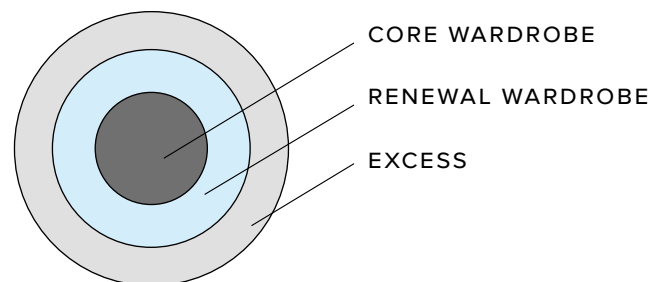
6.4 UNDERSTANDING THE GARMENTS

The Velary is designed to accommodate ongoing renewal in a users wardrobe without the effects of rampant consumption we experience with fast fashion.

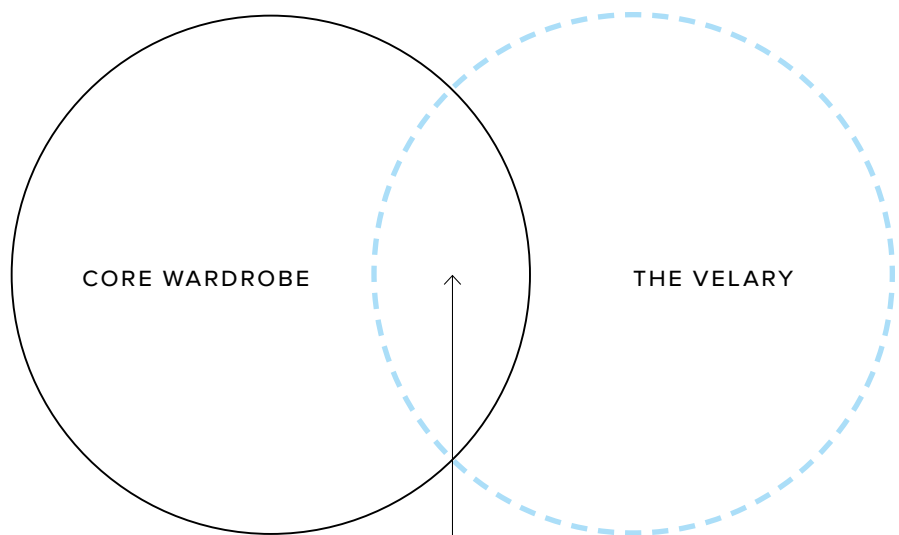
The Velary is designed to accommodate ongoing renewal in a users wardrobe without the effects of rampant consumption that we experience with fast fashion. To do this it is necessary develop an understanding of one's wardrobe in three layers. This allows for the identification of which garments fall within a core wardrobe and which fall within a renewal wardrobe, it also helps to identify areas of overconsumption in unused garments. The centre layer, or the nucleus of your wardrobe is called your core wardrobe. In the core wardrobe you have garments that you have invested in, these might be your favourite jeans, your wool winter coat, your black and white t-shirts, your favourite dress. These garments likely fit close to your body, will last a long time, and/or have emotional significance. The second layer is what we call the renewal layer. This traditionally includes seasonal garments, or pieces that bring a bit more variety to your wardrobe, update your wardrobe as your style evolves, and gives you that sense of renewal. The renewal layer is where The Velary garments are situated. The third layer is essentially excess or junk, that you don't love, don't need, or doesn't fit well. Users may wish to pair down this layer and remove it entirely, focusing their wardrobe on the Core wardrobe and Renewal wardrobe. By removing

this layer you gain a more acute understanding of your own style and reduce the number of things you own, a sort of cleansing.

A crucial part of demonstrating an alternative to existing fashion models is to innovate garment cycles. To do so The Velary works with brands and designers to integrate high-quality garments into the collection specifically suited for our service, and according to the criteria we set for all the garments we carry. These criteria ensure that the customer experience is of utmost quality, and allows for the garments to fit into a circular economy framework where materials are recycled at the end of life and turned into new material streams.



Above diagram showing layers of a wardrobe as identified through primary research. On following page diagram represents the renewal wardrobe, which exists when a users core wardrobe and The Velary intersect.



RENEWAL WARDROBE

opens up a flexible
wardrobe that allows for:
inspiration, revitalization,
responsibility, care

6.5 GARMENT CRITERIA

Garment criteria are used to evaluate garments and align them with the ethos and aims of The Velary.

Materials / Garments should be made from unblended natural fabrics (eg. 100% cotton, wool, linen, hemp or silk). 100% polyester thread may be used, as longevity is of the essence. Designs may use contrasting fabrics such as self 100% Linen, with contrast (trim etc.) in 100% silk. Considering that for the recycling process all materials need to be separated prior to recycling, which enables the integration of circular economy principles.

Audience / Garments must be geared towards women, and align with attached moodboard. (While The Velary may expand into menswear, it is currently focused on womenswear due to a natural selection of participants through the survey and probe respondents.)

Season / Garments should be selected for a transitional season, for example spring/summer, fall/winter, or fall/spring. This is vital since garments will remain in circulation for multiple seasons.

Colour + print / The colour and prints of the textiles used in the garment design should be well suited to withstand stains or marks. The service refrains from selecting garments with very light coloured fabric. Furthermore, prints may be used, however it is important that they have a classic feel to them. While it is important for users to experience a sense of renewal with the garments, the same garments may be used for many seasons, and so need to not date themselves.

	BUST	WAIST	HIP
S	32.5 - 34.5 in	25-27 in	33-37 in
M	35.5 - 37 in	28-30 in	38-40 in
L	39-40.5 in	31.5-33 in	41.5-43 in

Types of garments / The type of garment is essential. The Velary's garments are meant to provide a sense of renewal to our users. These garments are uplifting, timeless (but new), unusual, inspiring.

Construction / At the end of life of the garments, they will be sent to a recycling facility, and turned back into thread/fabric. In many cases this involves taking garments apart at the seams, and salvaging reusable fabric, or sorting fabric to be put into a recycling machine. Any design decisions that may contribute to the increased ease of recycling are greatly beneficial. Eg. sleeves that are easily detachable, seams or other ways of connecting that are strong during wear, but unravel easily for deconstruction. There are also some restrictions in terms of construction: no glue or other adhesives, no beadwork/sequins.

Fit / Garments should be selected to suited to fit different body shapes well. While we will have multiple sizes (S, M, L for both tops and bottoms), the garments should be selected with multiple users in mind. This means they may incorporate elements of adjustability, draping etc. Users will be able to learn sizing over time as we work with the same brands, and garments can always be returned easily prior to the return date, if they do not fit properly.

Above table shows sizing for the service garments. This is an attempt to bring garments from multiple brands under more universal sizing for the online store.



USER TESTING

I conducted user testing to examine the challenges and successes at both macro and micro levels within the concept and user experience /web design.

CONCEPT

Evaluating the concept was an important step to test the challenges users had with adopting the service. It also allowed potential users to provide insight into elements of the design that drew them into the service, or convinced them that it would fit their lifestyle. Here I was looking to get feedback on first impressions of the service, highlights, and challenges for each individual. This was a process to determine which barriers would be a challenge and which were addressed in the design of the service. Three key areas that were highlighted in this process were the introduction of a two tiered wardrobe, understanding the impact of participating in the service, and the narrative of and engagement with the service.

ADOPTING THE TWO TIERED WARDROBE

The two tiered wardrobe was identified as a key aspect that removes barriers to adopting the service. Respondents consisting of probe participants, fellow design students, and expert interviewees claimed that the fact that they keep their existing wardrobe and in fact curate it more and engage with it more thoughtfully would encourage them to try out the service. They also identified a need for the description of the two tiered wardrobe to be very clear, and that they may wish to see examples of how others have built out their core wardrobe and engaged with the renewal wardrobe. One suggestion was make use of designers and creatives engaged in the service to promote examples of core wardrobes, and wardrobe pairings.

MEASURING IMPACT

While my intention with the service design of this project was to eliminate the need to discuss sustainability up front due to an analysis that convenience could be a significant barrier to overcome if users are to engage. Through providing a user experience that would entice people to participate in the service whether or not they were interested in aspects of sustainability a more diverse customer base could be built. However measuring impact still remained to be one of the key questions for potential users. They wanted to know the cost implications as well as the environmental impact of adopting the service. This might not be the aspect that convinces them to try the service out but something that would encourage them and keep them engaged once they have become a user.

NARRATIVE & CONNECTION

Building off of measuring impact, narrative and connection are also aspects that users were looking for in order to feel engaged with the service. Questions that came up included how does the narrative evolve for a user over time, and how are users able to articulate their journey of involvement with The Velary either for themselves or as part of the community. And how does this connect to UX and brand. This relates to an aspect of belonging, that a user would want to identify with the brand, and that as the community connected to the service grows, there may be more opportunities to connect.

OBSERVATION



TASK BASED TESTING

UX (ENJOYABILITY & FUNCTIONALITY)

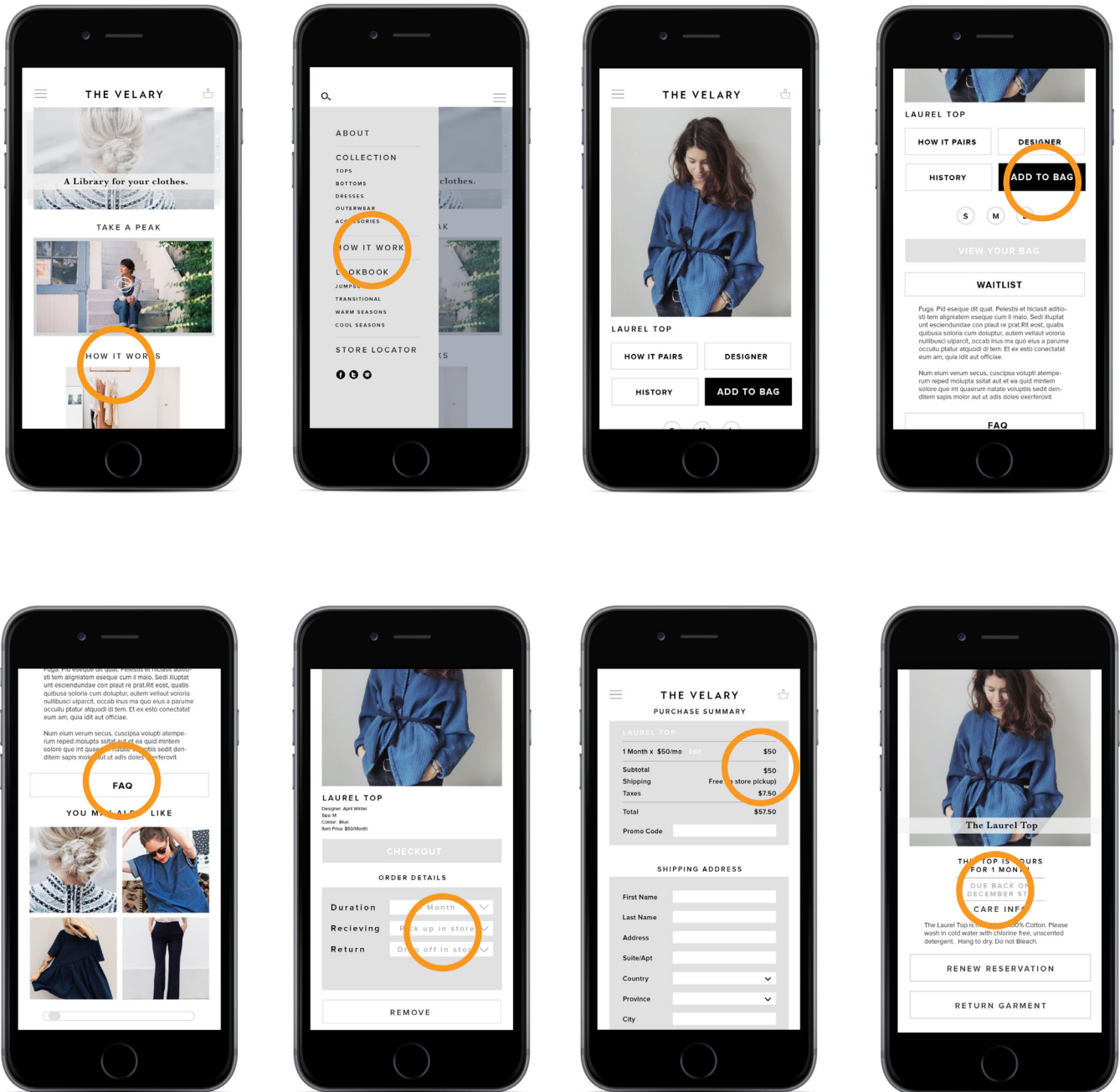
In order to gain insight into the user experience design of the website, in terms of both functionality and enjoyability, I conducted user testing with seven participants. Participants included probe respondents who had previous knowledge of the thesis research intentions, and new student participants who were less involved in the study. I was looking to determine the effectiveness of learnability and memorability, functionality and errors, and satisfaction. I conducted preliminary user testing through observing how users interacted with my first clickable prototype, and then transitioned to task based testing with a second more refined prototype. I asked participants to complete four tasks including to find a garment, check out a garment, return a garment, and login. I also asked participants to discover what the service does through website copy and summarize it in their own words.

The key insights from user testing were that in terms of functionality, there were few errors, namely in the split of the menu for navigation, and the process of logging in as a new user, as the prototype was not set up to have new information entered by users. Overall users were able to complete all tasks assigned. Users also frequently commented on the visual design, and described it as “beautiful” and refined enough that it made them feel as if the website was live, not a clickable prototype. In the user testing process they were finding moments of delight.

I tested with both designers and non-designers and found that the latter made better testing subjects as they tended to not bring fewer biases when completing tasks. I found that when testing designers they would leap to summarizing their experience or making suggestions before they had completed a task, so it was harder to glean accurate functionality from their participation.

The aspect of the site that was identified as needing the most clarity was in communicating the concept of the service, and how it works. Most users still had questions after reading the about and how it works sections, and requested either an FAQ section or more narrative forms of communicating like on-boarding videos (which had not been completed to date for this prototype).

Diagram above shows the movement from user testing through observation of how users interact with the information and prototypes, to task based testing to validate usability of certain user flows.



Above images highlight issues identified through user testing on first web prototype. These included type size, button placement, ease of forms, and issues with navigation.

USER TESTING QUESTIONS

About /Onboarding

- 1) where would you go to find out about the website?
- 2) What do you think this service does?
- 3) Is there anything you don't understand?

Checkout

- 1) Can you find a blue wrap top?
- 2) Can you check it out?
- 3) How would you confirm/make a change to the order?

Return

- 1) You're ready to return a garment how would you go about doing this on the website?
- 2) You've received an email reminder to return a garment, what do you do next?

Brand/Context

- 1) How would you describe the website?
- 2) What things seem most important to the service?
- 3) What do you still not know about the service?

8.1 EFFECTIVENESS OF DESIGN PROPOSITION

Evaluating the effectiveness of the design concept is first and foremost examined through it's ability to meet user criteria, as outlined in my primary research.

MEETING USER CRITERIA

Evaluating the effectiveness of the design concept is first and foremost examined through its ability to meet user criteria, as outlined in my primary research. This includes providing a sense of renewal, shifting consumption behaviour, and addressing key barriers to sharing as outline in the barriers section of this document. Upon reflection, it appears as if the service design succeeds in facilitating a sense of renewal, while shifting consumption behaviour, and removing barriers to engaging in the sharing of garments. This becomes apparent when viewing a synthesized user experience map. Here we see the emphasis on tasks that the service manages, removing much of the responsibility from the user.

EFFECTIVENESS OF DESIGN DELIVERY

Much of the design delivery of this project has focused on effective and clear communication of the concept and experience. In visual design, service design, and user experience design elements clarity has come through, however in the search of this clarity some nuance and narrative has been left behind. Reflecting on the design now it seems that some small tweaks in communication would allow for a more layered understanding of how the user's relationship with The Velary would progress over time, and how the narrative of the service as it grows could be highlighted. I see this playing out in possibly developing a more layered user experience map, and a strategy for highlighting user or service focused narratives on the website.



When approaching the design I intended to focus on shifting user behavior around consumption, and developing a service that would entice them to do so.

MEASURING IMPACT

When approaching the design I intended to focus on shifting user behaviour around consumption, and developing a service that would entice them to do so. I intended to focus on this aspect of the fashion industry because of the potential to shift consumption without requiring people to stop buying, which seems to be only temporarily effective given the prevalence of advertising and the rate at which the fashion industry is moving. I knew full well that it was entirely possible that the design proposition I was working on might only have marginal impacts in terms of sustainability. But that by demonstrating an effective alternative to existing consumption practices I might inspire others to create more propositions that might eventually lead to something both more sustainable and capable of changing behaviour. I was also concerned with developing a solution that might be appealing to those working in industry, and that might lead to an understanding that industry can remain profitable and address issues of behaviour change and sustainability in fashion. It often seems that we think this is an either/or problem space, which leads to little incentive for those who have the greatest impact to review their own practices.

The impact that the service will make in terms of cost and sustainability is the most fundamental impact to be measured. There are more aspects that in fact may

be more influential, including behaviour change and inspiration as mentioned in the previous paragraph. However for now I will look at a cost analysis, and garment lifetime assessment. According to a 2011 study from statistics Canada the average household expenditures on clothing are \$3364/year. With an average household size of 2.5, that means that the average Canadian is spending \$1,345/year on clothing. This is not necessarily representative of my target audience, but can be used as a base amount to project clothing expenditures. Another figure referenced for clothing expenditures is about 4% of an individual's income. Here I can extrapolate that if my user is a mid-level professional woman, in a creative industry or corporate environment (likely in an urban area), she can be expected to have an income of \$35K - \$70K/year, which means clothing expenditures would be between \$1400 - \$2800.

With these figures in mind we can start to determine the amount of garments, and the types of garments that would fit within this budget using the table on the following page. Here I compare the costs of garments between fast fashion, higher end (mid level ready to wear i.e. not couture), and The Velary. We can also begin to project the lifespan and number of user per garment in each of these categories. Fast fashion garments fit into the paradigm highlighted from Paul Hawkins 'Natural Capitalism' "that only one percent of the total North American materials flow ends up in, and is still being used within, products six months after their sale" (-

	COST OF FAST FASHION GARMENT (EG. H&M)	COST OF HIGH END GARMENT (EG. FILIPPA K)	COST OF THE VELARY GARMENT
SHIRT	\$30	\$200	\$200 (\$20/month)
SWEATER	\$70	\$300	\$300 (\$30/month)
COAT	\$129	\$600	\$500 (\$50/month)
JACKET	\$80	\$350	\$300 (\$30/month)
PANTS	\$50	\$250	\$200 (\$20/month)
SKIRT	\$20	\$200	\$200 (\$20/month)
DRESS	\$60	\$400	\$300 (\$30/month)

LIFESPAN OF FAST FASHION GARMENT	LIFESPAN OF HIGH END GARMENT	LIFESPAN OF THE VELARY GARMENT
6 Months	6 Months - 10 years	3-5 years

USERS OF FAST FASHION GARMENT	USERS OF HIGH END GARMENT	USERS OF THE VELARY GARMENT
0-2	1-3	1-20

Hawkin 81). These garments may not be necessarily disposed of at this time, they may instead be adding to the excess layer in our wardrobes, taking up space and not being used. The quality, style, and consumption rates of a typical fast fashion garment mean that it is suitable for 0-2 users (0 being when a garment is purchased and sits in a closet unused). When we look at a mid-high end garment those figures change based on cost, style (often), and consumption rates, as well as a higher commitment to the product when a user is investing more financially. Here we can project that the lifespan could be between 6 months (for a more wasteful user who won't pass on the garment) and 10 years (for a user who passes on a garment at some point, or is

committed to maintaining and using the garment for an extended period of time. Given the quality, and the use habits of this cycle we could see a higher end garment in the hands of up to three users. Considering a garment from The Velary's service with similar quality as a high end garment, plus built in repairs and maintenance, and continuous passing along of the garment to new users we can project that a garment would last 3-5 years, and would be worn by up to 20 users (depending on the length of reservations). If reservations are made for shorter periods of time, for example one month per user, this estimate of longevity may be reduced due to increased wear caused by more frequent cleaning or repairs.

8.2 PERSONA & WARDROBE EXAMPLE

Using the previous projections about cost, quality, and consumption behavior to show how The Velary's wardrobe differs from a standard wardrobe.



PRIMARY PERSONA

Name: Ayla Collins

Gender: Female

Age: 35

Occupation: Director of Marketing

Experience Goals:

Feel inspired by her wardrobe, and by the company she acquires garments from. Be able to trust the service's practices aligns with her values. Feel confident about new shopping choices that won't add stress to her life.

End Goals:

Ayla's end goal is downsize her wardrobe, removing the excess layer. She aims to adjust her purchases to focus primarily on investing in higher end pieces she is committed to. She expects using The Velary will allow her to do this, and still maintain a refreshed wardrobe.

Life Goals:

Ayla has spent a decade pretty focused on work, and desires a better integration of her personal values in her day to day habits. She is looking for ways to be mindful and to influence other to do the same.

Retailers Frequented:

Oak + Fort, Charlie + Lee, Aritzia, H&M, Gravity Pope

AYLA'S STANDARD WARDROBE

Fast Fashion Garments	10 x FF Shirt	\$300.00
	3 x FF Sweater	\$210.00
	3 x FF Jacket	\$240.00
	3 x FF Pants	\$150.00
	4 x FF Skirts	\$80.00
	5 x FF Dress	\$300.00
Subtotal	28 Garments	\$1280.00
High End Garments	3 x HE Shirt	\$600.00
	1 x HE Sweater	\$300.00
	1 x HE Coat	\$600.00
	3 x HE Pants	\$750.00
	2 x HE Skirts	\$400.00
	3 x HE Dress	\$1200.00
Subtotal	13 Garments	\$3850.00
Total	41 garments	\$5,130.00

AYLA'S VELARY WARDROBE

Core Wardrobe	3 x HE Shirt	\$600.00
	3 x FF Shirt	\$90.00
	1 x HE Sweater	\$300.00
	1 x FF Sweater	\$70.00
	1 x HE Coat	\$600.00
	1 x FF Jacket	\$80.00
	3 x HE Pants	\$750.00
	2 x HE Dress	\$800.00
	1 x FF Dress	\$60.00
Subtotal	16 Garments	\$3350.00
Renewal Wardrobe	3 x Shirt x 4 months/each	\$240.00
	2 x Sweater x 2 months each	\$120.00
	1 x Coat x 2 months	\$100.00
	1 x Jacket x 2 months	\$60.00
	2 x pants x 4 months each	\$160.00
	2 x skirts x 3 months each	\$120.00
	2 x Dress x 3 months each	\$180.00
Subtotal	13 Garments	\$980.00
Total	29 Garments	\$4330.00

8.3 REFLECTION ON PROCESS

In order to address the problem space in a comprehensive way I felt as if I needed to approach it from a systemic and strategic level.

This however naturally expanded the scope of the project quite considerably. The larger scope of the project meant that as a designer I had to fill many roles including design strategy, art direction, user experience design, interaction design, visual design, design research, and project management. In order to move the project along and involve each of these roles the depth which I could go into each design phase was limited. It was as if I was running a one person startup, attempting to get a Minimum Viable Product to market. The roles I filled and methods I used fall into three main categories and themes within the thesis. These include Design Strategy, User Experience, and Service Design.

This project is a concept. Given that I was designing within an academic environment remaining within the concept realm was necessary. I found that I was challenged to align my design process, motives, and research within the requirements and framework of Emily Carr's Graduate Studies program and in order to do so it was most logical to remain within an exploratory framework. There were advantages in doing so in that it allowed me to propose a design that might make users and retailers consider different modes of behaviour. In order to represent and further inspire new user behaviours I focused first on

I strived to create a design proposition that was believable enough that a user would be able to identify with the experience, and envision whether or not they might

engage with such a service. This thesis research does not extend to the point of implementation, it focuses on a merging of theoretical context, design research, and design exploration. Launching the design falls beyond the scope of the Masters, as it would require an agile and rapid approach that competes with my exploratory research practice in the given academic context, which follows a much slower timeline, allowing for research synthesis to occur naturally, and in an ongoing basis. However if I were to consider implementation there are several areas of the project that would need to be revisited or further developed. These include building relationships with Brands whose garments would be sold through the service. Developing an acquisition and on-boarding process for customers. And evaluating different scalability models.

DESIGN STRATEGY

I have come to think of Design Strategy as Art Direction for problem spaces. This big picture visioning and simultaneous project evaluation became a primary activity throughout the thesis. It was challenging to essentially be managing myself through this role. In several cases it would have been ideal to have a team to provide feedback, ideate with, and execute design production.

USER EXPERIENCE

The User Experience Design and methods used in my thesis were implemented at both micro and macro levels. These methods formed the a continuous thread at each stage of the thesis design, from discovery and research, all the way to visual design and user testing. My understanding of UX has grown immensely and I see it as one of the few design disciplines that really has the capacity to deliver on all aspects of a design project. I also see there being significant benefit in a designer having their hands in all aspects of a UX led project as it allows for the essence of a design direction to be maintained throughout the process. Something which can often risk being lost in a more segregated workflow.

SERVICE DESIGN

When I began conducting research for this thesis project I had envisioned that Service Design would be the main design methodology and process that I would employ. Instead I found that while Service Design can help us to design for the bigger picture, the methods used throughout the process felt more disjointed than following a UX methodology. In the end my design outcome is a retail service concept, with a focus on e-commerce and UX for fashion retail.

8.4 REFLECTION ON CONCEPT

In order to address the problem space in a comprehensive way I felt as if I needed to approach it from a systemic and strategic level.

Tackling the issue of sustainability in relation to clothing consumption is a complex endeavour. There are several connected issues within the fashion system, and how we buy and use garments. Due to my own constraints of time, capacity, interest, and problem identification, this project focused on a sliver of the problem, specifically addressing the way we buy and rotate garments. The above limitations allowed me to maintain a specific focus, but they also required me to not explore many other related issues, leaving gaps in how the system might be implemented, or how it may impact existing retailer and consumer practices.

There is a double edged sword when proposing systems to share assets. It often allows for new models of thinking and using a given resource, but they also have a tendency to snowball, and begin to epitomize the very things they were attempting to shift upon their creation.

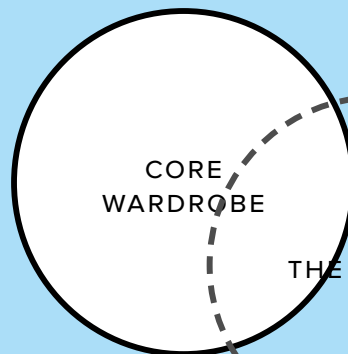
Michel Bauwens, peer-to-peer theorist, describes that the sharing economy succeeds in using idle resources more effectively, but the way that they capture value is problematic because they are not creating at the same time, which leads to an increase in demand for limited resources (Bauwens 2016). A strong example of this is how AirBnB has been impacting local rental markets. In Vancouver we are seeing AirBnB listings far outpace vacant rentals, with as many as 15 times as many AirBnB listings in neighbourhoods like Kensington-Cedar Cottage (McLellan, 2016)

This example has several implications, the rental market, in which many metropolitan areas are already tight for renters, has been made even more challenging through services like AirBnB. What originated as a way for users to share and access more affordable accommodations than the hotel industry, has instead increased pressure on rental markets and decreased regulation for hotel-like accommodations, for which AirBnB is now mostly used.

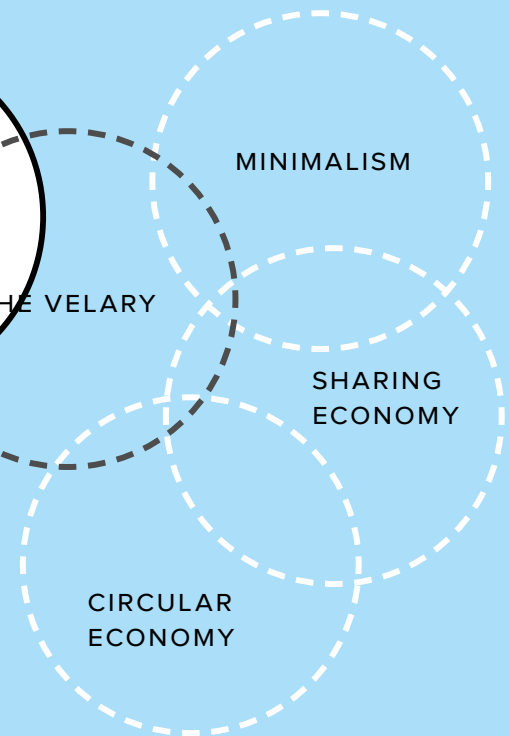
Implementation of a concept like The Velary could result in similar conflicts. Although garments themselves are arguably less of a 'vital' need, than shelter, the cost of sharing could lead to an increase in the price of garments that are used in The Velary, or are in competition with the service. More likely however is that The Velary would grapple with its own paradoxical conflict. The service is designed to increase garment lifecycle and decrease personal consumption for each user. However because The Velary is not in a position to replace existing fashion retail it instead would exist alongside a multitude of other fashion retail models including fast fashion, pret-a-porter, second-hand, consignment, and more. And in the event that a user does not adopt the intended behaviour of The Velary's two-tiered wardrobe, where a user has a personal core wardrobe along with access to shared garments through the service, then rather than decreasing that customers consumption rate, The Velary would instead be adding another mode of consumption that could be used on top of all



**THE TRENDY
TRADER**



THE VELARY



the other ways that people consume clothing. This is ultimately problematic, and has been considered in the way that the service is designed. For example the Velary allows users to self select the number of garments and length of reservations, it does not provide a subscription which could easily lead to sending a user garments they do not in fact need. But even with these types of guidelines, there remains a significant risk.

Considering this, what The Velary succeeds in is illustrating a hybrid sharing-owning model, that invites customers to move slowly into a more conscious and intentional way of using garments. And given the usability of the prototyped touchpoints, and user experience mapping, it is designed to be engaging and un-intimidating for the user. However a full understanding of the industry implications is not yet complete. The Velary sits within a conceptual space that allows us to imagine and discuss alternate behaviours. It does not allow for us to know what would happen, in the surrounding systems if The Velary was implemented.

Diagram above illustrated the indirect exposure to Circular Economy Practices, the Sharing Economy, and Minimalist philosophies that a user will experience. It shows that The Velary draws from multiple theories and practices aimed at addressing sustainability.

9.1 WORKS CITED

1-year 1-Outfit, http://www.thisstylishlife.com/1-year-1-outfit-365-days-all-done/?utm_content=buffer1430a&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer

Collins, H. (2010). *Creative research the theory and practice of research for the creative industries*. Lausanne: AVA Academia.

Design Council. (2006). Double diamond design process, http://www.designcouncil.org.uk/documents/document s/publications/eleven%20lessons/elevenlessons_design_council.pdf, Jacob, R. J. K.: 1995, *Virtual environments and advanced interface design*, pages 258–288. Oxford University Press, Inc. 1995

E-commerce: Shopping on the Internet. (2006, November 1). Retrieved April 4, 2015, from <http://www.statcan.gc.ca/daily-quotidien/061101/dq061101a-eng.htm>

Fields Millburn, J., & Nicodemus, R. (2014, November 16). *Shifting from a Culture of Excess to a Culture of Access | The Minimalists*. Retrieved April 4, 2015, from <http://www.theminimalists.com/access/>

Fletcher, Kate. (2008). *Sustainable Fashion and Textiles: Design Journeys*. London: Earthscan.

Fletcher, K., Grose, L., & Hawken, P. (2012). *Fashion & sustainability: design for change*. London: Laurence King.

Fry, Tony. (2009). *Design Futuring: Sustainability, Ethics, and New Practice*. Oxford: Berg.

Garrett, J. J. (2010). *Elements of user experience, the: user-centered design for the web and beyond*. Pearson Education.

Hawken, P., Lovins, A. B., & Lovins, L. H. (1999). *Natural capitalism: Creating the next industrial revolution*. Boston: Little, Brown and Co.

“Introduction - Material Design - Google Design Guidelines.” Google Design Guidelines. N.p., n.d. Web. 02 Feb. 2016.

McLellan, W. (2016, February 19). Airbnb listings outnumber available monthly rentals 10-1 in downtown Vancouver, stats show | The Province. Retrieved March 31, 2016, from <http://blogs.theprovince.com/2016/02/19/airbnb-listings-outnumber-monthly-rentals-10-to-1-in-downtown-vancouver-stats-show/>

Nguyen, H., Stuchtey, M., & Zils, M. (2014). Remaking the industrial economy. *McKinsey Quarterly*, 1, 46-63.

Papanek, V. (1972). *Design for the real world; human ecology and social change*. New York: Pantheon Books.

Polaine, Andrew, Lavrans Løvlie, and Ben Reason. (2013). *Service Design: From Insight to Implementation*. New York: Rosenfeld Media.

Rosenberg, T. (2013, June 5). It's Not Just Nice to Share, It's the Future. Retrieved April 4, 2015, from http://opinionator.blogs.nytimes.com/2013/06/05/its-not-just-nice-to-share-its-the-future/?_r=1

Sevaldson, B. (2010). Discussions and Movements in Design Research: A Systems Approach to Practice Research in Design. *FORMakademisk*, 3(1), 8-35.

Sparke, P. (2004). *An introduction to design and culture: 1900 to the present* (2nd ed.). London: Routledge.

Stene, A. K. (2014). *Why do Norwegian Consumers Participate in Collaborative Consumption?* (Doctoral dissertation, NORWEGIAN SCHOOL OF ECONOMICS).

9.2 BIBLIOGRAPHY

1-year 1-Outfit, http://www.thisstylishlife.com/1-year-1-outfit-365-days-all-done/?utm_content=buffer1430a&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer

Ackoff, R. L. (1981). *Creating the corporate future: Plan or be planned for*. University of Texas Press.

Armstrong, C. M., Niinimäki, K., Kujala, S., Karell, E., & Lang, C. (2015). Sustainable product-service systems for clothing: exploring consumer perceptions of consumption alternatives in Finland. *Journal of Cleaner production*, 97, 30-39.

Brownstone, S. (2014, November 4). Millennials Will Become The Majority In The Workforce In 2015. Is Your Company Ready? Retrieved April 4, 2015, from <http://www.fastcoexist.com/3037823/millennials-will-become-the-majority-in-the-workforce-in-2015-is-your-company-ready> SYDNEYBROWNSTONE

Collins, H. (2010). *Creative research the theory and practice of research for the creative industries*. Lausanne: AVA Academia.

Cornish, E. (2004). *Futuring: The exploration of the future*. World Future Society.

Curry, A., & Hodgson, A. (2008). Seeing in multiple horizons: connecting futures to strategy. *Journal of Futures Studies*, 13(1), 1-20.

Design Council. (2006). Double diamond design process, [http://www.design-council.org.uk/documents/document s/publications/eleven%20lessons/elev-enlessons_design_council.pdf](http://www.design-council.org.uk/documents/document%20s/publications/eleven%20lessons/elev-enlessons_design_council.pdf), Jacob, R. J. K.: 1995, *Virtual environments and advanced interface design*, pages 258-288. Oxford University Press, Inc. 1995

E-commerce: Shopping on the Internet. (2006, November 1). Retrieved April 4, 2015, from <http://www.statcan.gc.ca/daily-quotidien/061101/dq061101a-eng.htm>

Fields Millburn, J., & Nicodemus, R. (2014, November 16). Shifting from a Culture of Excess to a Culture of Access | The Minimalists. Retrieved April 4, 2015, from <http://www.theminimalists.com/access/>

Fletcher, Kate. (2008). *Sustainable Fashion and Textiles: Design Journeys*. London: Earthscan.

Fletcher, K., Grose, L., & Hawken, P. (2012). *Fashion & sustainability: design for change*. London: Laurence King.

- Fletcher, K. T., & Goggin, P. A. (2001). The dominant stances on ecodesign: a critique. *Design Issues*, 17(3), 15-25.
- Fogg, B. (2009). A Behavior Model for Persuasive Design. In *Proceedings of the 4th International Conference on Persuasive Technology* (pp. 40:1- 40:7). New York, NY, USA: ACM. doi:10.1145/1541948.1541999
- Foucault, M., Morris, M., & Patton, P. (1979). *Michel Foucault Power, Truth, Strategy*.
- Frascara, J., Meurer, B., van Toorn, J., & Winkler, D. (1997). *User-centred graphic design: Mass communication and social change*. CRC Press.
- Fry, Tony. (2009). *Design Futuring: Sustainability, Ethics, and New Practice*. Oxford: Berg.
- Garrett, J. J. (2010). *Elements of user experience, the: user-centered design for the web and beyond*. Pearson Education.
- Giaccardi, E. (2005). Metadesign as an emergent design culture. *Leonardo*, 38(4), 342-349.
- Ghemawat, P., Nueno, J. L., & Dailey, M. (2003). *ZARA: Fast fashion* (pp. 1-35). Boston, MA: Harvard Business School.
- Hawken, P., Lovins, A. B., & Lovins, L. H. (1999). *Natural capitalism: Creating the next industrial revolution*. Boston: Little, Brown and Co.
- Hines, A., & Bishop, P. J. (Eds.). (2006). *Thinking about the future: Guidelines for strategic foresight*. Washington, DC: Social Technologies.
- Hirsch, A. (n.d.). *The Tipping Point of Fast Fashion: Are We There Yet?* Retrieved April 4, 2015, from <http://www.miscmagazine.com/the-tipping-point-of-fast-fashion-are-we-there-yet/>
- Homer-Dixon, T. F., & Homer-Dixon, T. (2002). *The Ingenuity Gap: Facing the Economic, Environmental, and Other Challenges of an Increasingly Complex and Unpredictable World*. Vintage Books.
- “Introduction - Material Design - Google Design Guidelines.” Google Design Guidelines. N.p., n.d. Web. 02 Feb. 2016.
- Kress, G. R. (2010). *Multimodality: a social semiotic approach to contemporary communication*. London; New York: Routledge.

Kahneman, D. (2011). *Thinking, fast and slow*. Macmillan.

Kelley, David, and Tom Kelley. (2013). *Creative Confidence: Unleashing the Creative Potential within Us All*. New York: Crown Business.

Leonard, A. (2010). *The story of stuff: How our obsession with stuff is trashing the planet, our communities, and our health-and a vision for change*. Simon and Schuster.

MacArthur, E. (2013). Towards the circular economy. *Journal of Industrial Ecology*.

Martin, B., Hanington, B., & Hanington, B. M. (2012). *Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions*. Rockport Publishers.

Manzini, E., & Jégou, F. (2003). Sustainable everyday. *Design Philosophy Papers*, (4).

McDonagh, D., & Thomas, J. (2011). Design + Empathy = Intuitive Design Outcomes. *The Design Journal*, 14(2), 147-150. doi:10.2752/175630611X12984592779881

McLellan, W. (n.d.). Airbnb listings outnumber available monthly rentals 10-1 in downtown Vancouver, stats show. Retrieved March 20, 2016, from <http://blogs.theprovince.com/2016/02/19/airbnb-listings-outnumber-monthly-rentals-10-to-1-in-downtown-vancouver-stats-show/>

Miller, H. (2013, March 1). Patagonia founder takes aim: 'The elephant in the room is growth' Retrieved April 4, 2015, from <http://www.greenbiz.com/news/2013/03/01/patagonia-founder-takes-aim-elephant-room-growth>

Morgan, L. R., & Birtwistle, G. (2009). An investigation of young fashion consumers' disposal habits. *International journal of consumer studies*, 33(2), 190-198.

Nguyen, H., Stuchtey, M., & Zils, M. (2014). Remaking the industrial economy. *McKinsey Quarterly*, 1, 46-63.

Niinimäki, K. (2010). Eco-clothing, consumer identity and ideology. *Sustainable Development*, 18(3), 150-162.

Niinimäki, K., & Hassi, L. (2011). Emerging design strategies in sustainable production and consumption of textiles and clothing. *Journal of Cleaner Produc-*

tion, 19(16), 1876-1883.

Osterwalder, A., & Pigneur, Y. (2013). *Business model generation: a handbook for visionaries, game changers, and challengers*. John Wiley & Sons.

Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2015). *Value Proposition Design: How to Create Products and Services Customers Want*. John Wiley & Sons.

Papanek, V. (1972). *Design for the real world; human ecology and social change*. New York: Pantheon Books.

Polaine, Andrew, Lavrans Løvlie, and Ben Reason. (2013). *Service Design: From Insight to Implementation*. New York: Rosenfeld Media.

Rosenberg, T. (2013, June 5). It's Not Just Nice to Share, It's the Future. Retrieved April 4, 2015, from http://opinionator.blogs.nytimes.com/2013/06/05/its-not-just-nice-to-share-its-the-future/?_r=1

Sevaldson, B. (2010). Discussions and Movements in Design Research: A Systems Approach to Practice Research in Design. *FORMakademisk*, 3(1), 8-35.

Slaughter, R. A. (1990). The foresight principle. *Futures*, 22(8), 801-819.

Sparke, P. (2004). *An introduction to design and culture: 1900 to the present* (2nd ed.). London: Routledge.

Stene, A. K. (2014). *Why do Norwegian Consumers Participate in Collaborative Consumption?* (Doctoral dissertation, NORWEGIAN SCHOOL OF ECONOMICS).

Swann, C. (2002). Action research and the practice of design. *Design issues*, 18(1), 49-61.

Walter, Aaron, and Jared M. Spool. *Designing for Emotion*. New York, NY: Book Apart/Jeffrey Zeldman, 2011. Print.

Wendel, S. (2013). *Designing for Behavior Change: Applying Psychology and Behavioral Economics* (1 edition). Sebastopol, California: O'Reilly Media.

Zimmerman, J., Forlizzi, J., & Evenson, S. (2007). Research Through Design as a Method for Interaction Design Research in HCI. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 493-502. Retrieved April 4, 2015, from <http://dl.acm.org/citation.cfm?id=1240704>

10.1 THE CIRCULAR ECONOMY AS SEEN THROUGH 11 CASE STUDIES

CIRCULAR ECONOMY PROCESS	DECOMPOSITION TO NEW RESOURCES	EXTRACTION AND PRODUCTION OF BIOCHEMICAL FEEDSTOCK	CASCADE	RECYCLE
DEBRAND			●	
VALUE VILLAGE	●		●	
ECO FASHION WEEK			●	
MOUNTAIN EQUIPMENT CO-OP	●			●
NICOLE BRIDGER	●			
MATTRESS RECYCLING	●	●	●	●
BOARDROOM ECO APPAREL		●	●	●
OUR SOCIAL FABRIC			●	
THIS OPEN SPACE				
COMMON THREAD				
URBAN IMPACT	●	●		●

These activities in the table above are defined as Circular Economy practices in the McKinsey Quarterly article.

	REFURBISH/ RE-MANUFACTURE	REUSE/ REDISTRIBUTE	MAINTENANCE	VIEW ENVIRONMENTAL, SOCIAL AND ECONOMIC SUSTAINABILITY AS INTERDEPENDENT
	●			●
		●		●
	●	●	●	●
	●			●
	●			●
				●
		●		●
		●		●
			●	●
	●	●		●
				●

This activity in the column above is consistently seen across our case studies (and not depicted in the McKinsey Quarterly article).

10.1 THE CIRCULAR ECONOMY AS SEEN THROUGH 11 CASE STUDIES

WHAT IS THE CIRCULAR ECONOMY

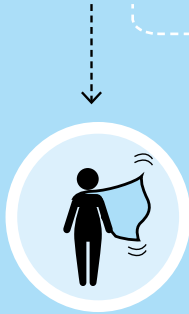
The circular economy is a move away from linear economic models to new ways of doing business that are conscientious towards the environment.

The idea of using waste as a production input mostly based on “Cradle-to-Cradle” principles is one of the most prominent aspects of the circular economy.



WHAT ARE WE WORKING TOWARDS

We are working towards unknown spaces, driven by values and missions to make business and sustainability work in unison.



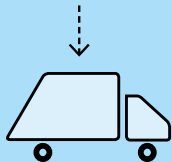
DEBRAND

Debrand diverts waste into recycling streams that their clients would not otherwise do themselves.



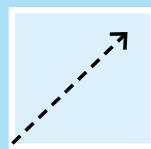
BOARDROOM ECO APPAREL

BEA offers design, take back, and recycling services for corporate promotional products, taking full responsibility for the goods they create.



URBAN IMPACT

Urban Impact has been offering multi materials recycling for 25 years.



NICOLE BRIDGER

Social and environmental equity as seen in Nicole Bridger's practices.



MATTRESS RECYCLING

Complete reuse of materials as seen in MattressRecycling.ca's push to recycle 100% of the materials that come across their door



COMMON THREAD

New models for employment and production as pioneered by Common Thread.



TO FIND OUT
MORE ABOUT AN
ORGANIZATION CLICK ON
THEIR ICON

VALUE VILLAGE

Value Village resells used clothing and keeps it in circulation.

WHERE DO WE WANT TO BE WORKING

We are striving to be making change in industries that do not exist yet. We are longing for collaborators and competitors to help us innovate and contribute to these new endeavors.



THIS OPEN SPACE

This openspace is removing barriers of entry for new ventures in need of an audience, and storefront.

WHERE ARE WE NOW

Organizations working in this space have already accomplished incredible feats including diverting waste, and recirculating materials.



ECO FASHION WEEK

Eco Fashion Week is the only sustainable fashion show in all of North America.



OUR SOCIAL FABRIC

Our Social Fabric sells donated fabric to local designers at reduced cost, and keeps it out of waste streams.

WHAT ARE THE BARRIERS

There are several barriers including a need for widespread uptake and demand for sustainably produced products, new technologies, more funding, and more people working in the circular economy.



MOUNTAIN EQUIPMENT CO-OP

MEC is in need of new technology to be able to move forward with recycling their textiles and getting materials back to thread.

The complex and extremely personal nature of needs and satisfiers suggests that if a needs-based approach to promoting sustainability is pursued, then a sector has to be created that respects - and actually find business opportunity in meeting - our diverse, individual needs. (Fletcher, 2014, p.149)

Sustainability refers to the sustainment of the natural environment, and it's capacity to provide sustenance for living things including humans.

Discourse around sustainability brings our awareness of the world into a more macro perspective where we can consider the value and influence of humans on the natural world. This is essential in order for individuals to position themselves in a larger perspective. Scale can play a key role as when "in small communities people [can] see and sense the effects of their own actions on each other and the environment and are quicker to enjoy the benefits of change" (Fletcher, 2014, p. 167).

We must then position design as an agent of change that not only mediates current practices, but rather envisions and directs us towards new practices.

Deriving the lessons from our examination of Cradle to Cradle. We must then position design as an agent of change that not only mediates current practices, but rather envisions and directs us towards new practices. Design as means for change can call upon redirective practice. Fry explains that “redirection is a profoundly political proposition. Ultimately, it implies a restructuring of habitus by design” (2008, p. 47). As I am addressing an industry which is somewhat outside of my realm it is essential to consider and communicate that I am well positioned to so through design process and practice as an agent of change.

sign) leadership, underpinned by a combination of creating new (and gathering old) knowledge directed at advancing means of sustainability while also politically contesting the unsustainable status quo (Fry, 2008, p. 57). The design leadership that Fry refers to demonstrates the opportunity, and necessity for design to move industries forward that are struggling to tackle sustainability.

Redirective practice...is akin to a new kind of (de-

“The growth of consumption was understood as a key feature of the emerging modern world” (Spark, 14, 2013)

Consumption is an economic concept and involves the purchase of goods and services by individuals. It is also representative of a mind frame and lifestyle. Existing consumption patterns are based in the development of modernity as explained by Penny Sparke. She states that “The growth of consumption was understood as a key feature of the emerging modern world” (Spark, 14, 2013). Consumerism is a significant driver in western society and has been connected with class and value for many years. It is so pervasive that it in fact has quite significant impacts on our lifestyle, and our behaviour, affecting each individual personally as well as collective communities. To further discuss the importance of our behaviours we can examine the impact that they have on our personal psyche, and collective consciousness. It has been said that “Throwing away furniture, transportation vehicles, clothing, and appliances may soon lead us to feel that marriages (and other personal relationships) are throwaway items as well” (Papanek, 1984, p. 87). Papanek highlights concerning aspects of consumerism, and how our behaviour as shaped by consumption can lead (or has led) to the decay of collectivism. Our

relationship to this system however has a unique opportunity to shift at this time.

With the rise of web-based technologies we are seeing a transition in venue for this consumption towards online shopping. According to Statistics Canada, in 2005 16.8 million people in Canada were making purchases online, which is equal to 41% of all Canadian internet users at the time. In 2007, 30% of clothing and accessories sold in Canada were purchased through online retail.

Online retail so far has largely replicated traditional retail models from brick and mortar stores. However as the industry is going through this key transition, this is an ideal time for innovation. Examining how retail functions through online platforms can lead to new user experiences, alternative retail models, and ultimately systems that are designed for contemporary lifestyle, rather than that of post war suburbia.

Collaborative consumption, while not an entirely new concept, as we have had libraries for millennia, is being made more accessible through technology, and offers the potential to revolutionize how we consume.

The sharing economy, or collaborative consumption, is a socio-economic phenomenon that evolves around the sharing of goods and services. Often this involves peer-to-peer transactions, either through the selling of stuff from one person to another using platforms like Craigslist or Yerdle. Other times this involves using items of a peer, such as ones home through Air BnB. Tina Rosenberg explains that “Thousands of new businesses now sell access rather than ownership...collaborative consumption is a way to live light, waste less, to protect the environment, to create and associate with a community of like-minded people” (Rosenberg, 2013). Collaborative consumption, while not an entirely new concept, as we have had libraries for millennia, is being made more accessible through technology, and offers the potential to revolutionize how we consume. Books aren’t the only thing available for sharing. A key element of the sharing economy is that there are two main categories of how it works. The first being through a dispersed model where users are

connected to each other and can exchange goods and services between themselves, with or without monetary reciprocity. This is exemplified in Craigslist and Yerdle. The second is a universal model where a company or organization offers a service that provides access to users. This is how companies like Car2Go function. The latter requires less effort on the part of the user and may be most relevant to explore from an industry perspective, as well as when attempting to change users behaviour seeing as they are required to do less.

“When we measure service performance in the right way, we can prove that service design results in more effective employment of resources—human, capital, and natural” (Polaine, 19, 2013).

Service design is the activity of planning and organizing people, infrastructure, communication and material components of a service in order to improve its quality and the interaction between service provider and customers. As a discipline it straddles design and business combining both processes and using them to innovate.

“When we measure service performance in the right way, we can prove that service design results in more effective employment of resources—human, capital, and natural” (Polaine, 19, 2013).

When approaching the consumption rates in the clothing industry it seems necessary to employ a different model of design than the product centred fashion design that we currently practice. “The digital landscape of the information age has created radical enablers for new types of service delivery” (Polaine, 24, 2013). Addressing clothing through service design allows us to look at the system around the clothing as well as the objects themselves. Designing clothing as a service permits us to provide clothing in the form of access rather than ownership, and addresses the need to be clothed, but does not have to engage in existing consumption models.

“No longer must we hoard. Rather, with fewer physical possessions but greater access to the things that matter most, we can worry less about consuming, more about creating and experiencing (Fields & Nicodemus)”.

Minimalism is a movement to reduce excess and include only the essentials. It is derived from zen philosophy. Minimalism is a movement in art, design, architecture, literature, and is now being adopted as a lifestyle. We are seeing the movement grow mostly through blogs like theminimalists.com, mrmoneymustache.com, and ouopenroad.com. It is a movement in response to the rapidity of contemporary life, the expense of mainstream lifestyles, and the debt required to keep up. It is a movement that advocates for freedom, from excessive work, from debt, from stress, and from stuff. And it offers opportunity for wealth in experiences, relation-

ships, pleasure, choice, and renewal. Minimalism is predicated on the ability to access, and not own. The minimalists have explained that “no longer must we hoard. Rather, with fewer physical possessions but greater access to the things that matter most, we can worry less about consuming, more about creating and experiencing (Fields & Nicodemus)”. The movement works seamlessly with service design and interaction design to develop, offer, and communicate how we can engage in new experiences and new ways of use.

“What is missing from this dialogue is really the branding opportunity of a lifetime”

My secondary research has led me to question the way we talk about sustainability, circular economy, or other alternative means of design, business, and consumption. When we discuss sustainability we tend to use guilt as the main motivator. This is problematic when we compare sustainability narratives with our communication styles around consumption which celebrate desire, aspiration, and success. If we are to bring sustainability to the mainstream we need to alter our narratives and find more inspiring modes of motivation. Andrea Hirsch writes that “what is missing from this dialogue is really the branding opportunity of a lifetime” (Hirsch, 2014). This is a key element to the development of alternative consumption models, and especially important in looking at garments through the lens of access rather than ownership. “The opportunity now exists for someone or some brand in the fashion industry

to do the same – to remove the complexity around making the responsible decision. Instead of focusing on the paralyzing task of uprooting an entire production industry or the complicated reliance on third world factory workers, start small. Start with simplicity and defining what it is we are working towards. Find the balance” (Hirsch, 2014). Not only can this branding piece communicate a vision of where we can move towards, but also the details, the function, and the reason for changing consumption behaviours.

This shift towards embracing creativity and design is an asset for those of us addressing sustainability, as it provides new tools to tackle complex problems in interdisciplinary relationships.

Creativity and design are being recognized more and more as leaders of innovation across subjects and industries, as seen through the success of Stanford's D. School, and the adoption of design thinking in the business sector. Before this shift "the so-called "creative types"...were relegated to the kids table, far from serious discussions. Meanwhile, all the important business conversations took place among the "grown-ups" in boardrooms and meeting spaces down the hall" (Kelly & Kelley, 2013, p. 3). This shift towards embracing creativity and design is an asset for those of us addressing sustainability, as it provides new tools to tackle complex problems in interdisciplinary relationships.

Much of the reaction towards sustainability is often one of daunting failure. The issues are so interconnected it can feel difficult to address them in any effective way. However through adopting creative confidence "people transcend the fears that block their creativity, all sorts of new possibilities emerge" (Kelley & Kelley, 2013, p. 10). In order to innovate, especially in the realm of sustainability, we need to embrace creativity, and engage our stake holders, allowing them to begin to vision a sustainable future

rather than being paralyzed by the way things are.

At it's core, creative confidence is about believing in your ability to create change in the world around you. It is the conviction that you can achieve what you set out to do...this belief in your creative capacity, lies at the heart of innovation (Kelley & Kelley, 2013, p. 2).

As designers the language of creative confidence is a tool for relating to other industries. Not only does this concept aid us in empowering our clients and partners on the road to innovation, it also provides inspiration and can remove stigma in addressing complex problems.

“For the modern-era business to succeed, design has to be built in from the ground up.”



The notion of the design entrepreneur has been growing in the past few years. Partly it is being driven by startup culture with the success of companies like Air BnB, and partly it is driven out of necessity for designers. It seems as if this spurt of entrepreneurial activity is connected to the way that design education is preparing students for the real world. With design students fine tuning their ability to find unique problem spaces, and enlist user centered design methodologies many existing designer roles seem mundane in comparison to what they can do at school. This is leading to a desire for more involvement in the product development side of a business, which in many cases requires that the designer found the business that will create that product. Another aspect of the rise of design entrepreneurship is linked to security. Being concerned with

job security is one avenue to consider, however for millennials we are now looking at more creative and personally responsible ways of attaining income. As explained in an article on millennials joining the workforce, FastCo explains that “job security is being replaced by income security...It is a more merciless corporate environment, actually, and individuals protect themselves by creating these different streams of income” (Bisharat aqi Brownstone). Being able to freelance, or sell your products and services on the side of your 9 to 5 job can lead to an added level of financial security and opportunity.



1399 Johnston Street, Vancouver, BC, Canada V6H 3R9

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

FORM 201 Research Ethics Application

This application form is used for ethics review of *all* participant research activity at Emily Carr University *except* for the following:

- For courses that include participant research, use **Form 208.1 Application Form (Course-Based Research)**.
- For participant research by undergraduate students, use **Form 208.2 Student Application Form (Course-Based Research)**.
- For externally approved research, use **Form 202 Application for Externally Approved Research (from another institution)**.

This form is to be submitted by the Principal Investigator (PI), which at Emily Carr University refers to the person who leads the research, supervises the other researchers, and is responsible for the financial administration of the project. Students and graduate students cannot be listed as PI. Principal Student Investigators and Co-investigators will receive all of the correspondence concerning the application, and can be the named contact for revisions and communications. All of the investigators listed have exclusive access to the file and any materials stored with the file after the project's conclusion.

Deliver complete and signed applications to the Research Ethics mailbox or to ethics@ecuad.ca. (Do not ask Security or Front Desk personnel to handle confidential materials.) **Incomplete applications will not be reviewed.**

No research with human participants at Emily Carr University shall commence prior to approval of the ECU-REB.

(ECU-REB Use Only) ▶ File #:	
Date Received:	Date Reviewed:
Reviewers:	
Status/Date:	

SECTION A – GENERAL INFORMATION

1. PROJECT TITLE:	Intervening in Consumption			
2. PROJECT DATES: (Commencement to Completion)	March 2014 - March 2015			
3. RESEARCHERS:	Name	Faculty/Prgm	Phone	E-Mail
Principal Investigator(s)	Haig Armen	DDM/IXD		harmen@ecuad.ca
Principal Student Researcher	Maia Rowan	GS/MDES		mrowan@ecuad.ca
Co-Investigators				
4. SCOPE OF PROJECT:	<input checked="" type="checkbox"/> Graduate Thesis Project or Dissertation <input type="checkbox"/> Other (describe) <div style="margin-top: 5px;"> <input type="checkbox"/> Faculty Research <input type="checkbox"/> Administrative Research </div>			

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

<p>5. PARTNERS & COLLABORATORS: List the individuals, organizations or companies that will be involved in this research project. Attach any agreements that are available.</p>	<p>Contact Persons -</p> <p>Debera Johnson (collaboration pending)</p> <p>Lisa Papania (collaboration pending)</p>	<p>Organizations (name and address) –</p> <p>Pratt Institute - Brooklyn Fashion + Design Accelerator 630 Flushing Ave, Suite 704, Brooklyn, NY 11206</p> <p>National Zero Waste Council - Circular Economy Working Group (no address available, this is a dispersed organization)</p>
<p>6. OTHER ETHICS CLEARANCE: List the other institutional research ethics boards that have approved this project, or that will review this project.</p>	<p>Institutional REBs -</p>	<p>Application Numbers and approval dates (as available) –</p>
<p>7. PROJECT FUNDING: Describe all of the sources of funding for this project. Include sources of in-kind contributions.</p>	<p><input type="checkbox"/> CIHR <input type="checkbox"/> NSERC <input type="checkbox"/> SSHRC</p> <p>Funding / Agency file # (not your Tri-Council PIN) -</p>	<p><input type="checkbox"/> Other (including Canada Council, BC Arts Co., foundations, donors, etc.)</p>
<p>8. CONFLICTS OF INTEREST: Describe any non-academic benefits (e.g. financial remuneration, patent ownership, employment, consultancies, board membership, share ownership, stock options, etc.) expected by the researchers, partner organizations, or collaborators as a result of the academic credit. Describe any restrictions to the results of the research requested or agreed upon by any of the researchers, partner organizations, or collaborators.</p>	<p>This research project is positioned between clothing and sustainability, design entrepreneurship, and service design. Inspiration, methodologies, and elements of design developed during the process may be used in further projects post-graduation.</p>	

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

SECTION B – SUMMARY OF PROPOSED RESEARCH

<p>1. RATIONALE Briefly describe the purpose and aims of the proposed research project in non-technical language. This should be consistent with, and an elaboration on, the aims or purpose of research on the consent materials.</p> <p>If available, attach the project proposal from funding applications and the thesis proposal.</p>	<p>This thesis project is looking at alternative models of consumption for clothing. The principle investigators literature reviews and secondary research has revealed the impact over consumption has on the environment, and consumers alike. To explore, strategize, and design new ways of working in this space the principle investigator must engage with users of clothing, as well as designers, producers, and retailers of clothing.</p> <p>Users will be consulted regarding their existing consumption habits, shopping behavior, and issues of use with clothing they own.</p> <p>Existing producers will be consulted on how they are approaching the development of more sustainable practices in their organization, and challenges they have identified in relation to clothing and sustainability.</p> <p>Emerging ventures will be approached to tell their story of working towards addressing issues of consumption.</p>	
<p>2. METHODOLOGY: Check all that apply and describe sequentially how the various research procedures or methods will be used.</p>	<p>Check all that apply -</p> <ul style="list-style-type: none"> <input type="checkbox"/> Computer administered tasks <input type="checkbox"/> Ethnographic documentation <input type="checkbox"/> Focus Groups <input type="checkbox"/> Interview(s) (telephone, Skype) <input checked="" type="checkbox"/> Interview(s) (in person) <input type="checkbox"/> Journals/diaries/personal correspondence <input type="checkbox"/> Non-invasive physical measurement <input type="checkbox"/> Observational field notes <input type="checkbox"/> Oral history <input checked="" type="checkbox"/> Participatory design (probes, co-creation activities, storytelling) <input checked="" type="checkbox"/> Photo/audio/video recording <input type="checkbox"/> Questionnaire/survey (mail, email/web) <input type="checkbox"/> Questionnaire/survey (in person) <input checked="" type="checkbox"/> Secondary Data <input type="checkbox"/> Unobtrusive observations <input type="checkbox"/> Other 	<p>Describe</p>

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

3. PROFESSIONAL EXPERTISE / QUALIFICATIONS: If any of the research activities require professional expertise or recognized qualifications (e.g., first aid certification, registration as a clinical psychologist or counselor), describe here.		
4. PARTICIPANTS: Indicate the groups that will be targeted in recruitment for participation in the proposed research.	Check all that apply - <input checked="" type="checkbox"/> Undergraduate students of Emily Carr University <input checked="" type="checkbox"/> Graduate students of Emily Carr University <input checked="" type="checkbox"/> Faculty or staff of Emily Carr University <input type="checkbox"/> People recruited by the industry partner <input type="checkbox"/> Patients of a health care organization <input type="checkbox"/> Students of another educational institution (specify) <input checked="" type="checkbox"/> Members of specific groups or organizations (specify) <input type="checkbox"/> People who identify as Aboriginal <input type="checkbox"/> People who do not have full capacity to offer free and informed consent (describe) <input type="checkbox"/> Children or adolescents (specify) <input checked="" type="checkbox"/> Adults <input type="checkbox"/> Elders <input type="checkbox"/> Other (specify)	Describe any specific inclusion criteria (affiliations, gender, age ranges, capacity for consent, other) - Participants to be included in the research will be 19 years of age or older. Participants will have capacity to offer free and informed consent.
Describe any exclusion criteria -		What is the expected number of participants? The expected number of participants that will be engaged is 30 - 60 across all activities.
5. RECRUITMENT: Describe how the participants will be recruited. Attach any materials that might be used for recruitment (e.g., Email texts, posters, flyers, advertisements, letters, telephone scripts). Describe the rationale for incentives offered to the participants.	Participants will be recruited through email and posters which will contain details about time, location, and description of the research as seen in the invitation to consent. Email will be used mostly for targeted recruitment of individuals the principal researcher identifies would be ideal participants in the research. Posters will be used to recruit specifically for user testing, and will serve the purpose of inviting individuals who may be interested in the research.	
6. INCENTIVES: Will participants be offered incentives to encourage their participation? If yes, describe the incentive plans and the rationale for using incentives.	Participants will not be offered incentives.	

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

6. SETTINGS OF RESEARCH:	Check all that apply - <input checked="" type="checkbox"/> Emily Carr University <input type="checkbox"/> Community Site <input type="checkbox"/> School <input type="checkbox"/> Hospital <input type="checkbox"/> Company <input checked="" type="checkbox"/> Other	Specify the locations of research - Research will be conducted at Emily Carr University for the user testing and survey portion. Interviews will be conducted at the Brooklyn Fashion + Design Accelerator.
7. FEEDBACK TO PARTICIPANTS:	Describe your plans for providing or offering to share the results of your research with the participants. This might include invitations to final presentations or exhibitions or copies of publications. This should be consistent with the description on the consent form. – Participants will be invited to the graduation exhibition.	

SECTION C – PROPOSED RISK / BENEFIT RATIO

1. BENEFITS TO PARTICIPANTS:	Describe any known or anticipated direct or indirect benefits that the participants might gain from their participation in the research activities. This description should match the description on the invitations or consent materials. – Possible benefits include insight into one's own consumer behaviour, inspiration to approach consumption and use in a new way, shared knowledge and potential collaboration/future conversation for those who are researching or working in the space, and an understanding of creative research.
2. BENEFITS TO SOCIETY:	Describe any known or anticipated direct or indirect benefits to the research community or society from the proposed research. This description should match the description on the invitations or consent materials. – This research may contribute to new developments in sustainability and clothing, understanding of less consumptive lifestyles, and more experimentation in collaboration between design and business processes or sectors to find alternative models for consumption.

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

<p>3. RISKS: Indicate any risks that are likely to happen to the participants as a result of the research. Describe if the risks identified are greater or less than the risks that the participants might encounter in similar activities in their everyday lives.</p>	<p>Check any that apply -</p> <p><input type="checkbox"/> Physical risks</p> <p><input checked="" type="checkbox"/> Psychological or emotional risks</p> <p><input checked="" type="checkbox"/> Social risks (including privacy issues, economic position, status, relations with others)</p> <p><input type="checkbox"/> The research involves an element of deception (describe in detail)</p> <p><input type="checkbox"/> The research involves the disclosure of information that is intimate or sensitive in nature</p> <p><input type="checkbox"/> Other (describe)</p>	<p>Describe –</p> <p>1. Users participating in the study may find that reflecting on their consumption habits leads to a disappointment in themselves, or concern for the environment if they make connections between consumption and environmental concerns, or societal issues (labour laws etc).</p> <p>2. Clothing producers, researchers, and emerging ventures participating in the study may be at risk of sharing proprietary information.</p>
<p>4. MITIGATING RISKS:</p>	<p>Describe how the researchers will mitigate the risks described above. Describe the resources that can be offered to the participants and if the researchers are skilled and equipped to deal with the identified risks.</p> <p>1. Users will be notified prior to participation that the above risks are possible. They will be informed that they may withdraw their participation at any time.</p> <p>2. Clothing producers, researchers, and emerging ventures will be asked to only share information they are comfortable with being made public. They will be reminded at the time of any interaction or conversation to not disclose any proprietary information. They will be informed that they may withdraw their participation at any time.</p>	

SECTION D – THE CONSENT PROCESS

<p>1. CONSENT FORMS: Indicate and describe the consent materials and processes that will be used.</p> <p>The following forms can be modified to match the needs of the research:</p> <ul style="list-style-type: none"> - Template 201.1 Invitation / Consent Form - Template 201.2 Media Release Form - Template 201.3 Online Survey Preamble <p>If other consent or release forms are used, explain in detail.</p> <p>Attach all of the consent and release materials that will be used in this research.</p>	<p>Check all that apply -</p> <p><input type="checkbox"/> Information letter with a consent form</p> <p><input checked="" type="checkbox"/> Media release form</p> <p><input checked="" type="checkbox"/> Combined invitation and consent form</p> <p><input type="checkbox"/> Combined invitation, consent and media release form</p> <p><input type="checkbox"/> Assent processes for those who do not have the capacity to provide free and informed consent.</p> <p><input type="checkbox"/> Non-written consent (describe in detail)</p> <p><input type="checkbox"/> This research requires an exemption from the consent process (describe in detail)</p>	<p>Describe –</p>
--	---	-------------------

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

SECTION E – CONFIDENTIALITY & SECURITY

<p>1. PRIVACY: Indicate the level of confidentiality built into the research design. Describe the rationale for the collection of identifiable research materials (data).</p>	<p>Check all that apply -</p> <p><input checked="" type="checkbox"/> Directly identifiable – the research materials (data) will identify specific participants through direct identifiers like name, phone number, address, social services numbers. (Describe)</p> <p><input type="checkbox"/> Indirectly identifiable - the research materials (data) can reasonably be expected to identify specific participants through a combination of indirect identifiers like place of residence and date of birth. (Describe)</p> <p><input type="checkbox"/> Coded – direct identifiers are removed from the research materials (data) and replaced by a code. There exists a possibility that with access to the code, it may be possible to re-identify the participant.</p> <p><input type="checkbox"/> Anonymized – the research materials (data) are irrevocably stripped of direct identifiers. There is no way to link a code to the data in the future.</p> <p><input checked="" type="checkbox"/> Anonymous – the research materials (data) never has identifiers associated with it (for example, anonymous surveys) and the risk of identification is very low.</p>	<p>Describe –</p> <p>Directly identifiable: Participants will have the option of being directly identifiable or anonymous. Those who are directly identifiable will contribute to the building of narrative around individual consumer behavior, and organizations working within the research area.</p> <p>Anonymous: Participants who wish to remain anonymous will not have identifiers associated with them. On surveys they will have the option of not entering any identifiable information. And in interviews they may request to not be named in any of the research.</p>
<p>2. STORAGE AND HANDLING DURING RESEARCH:</p>	<p>If identifiable research materials (data) will be collected, describe in detail how these materials will be stored and handled during the course of research.</p> <p>Data collected will be stored on a hard drive accessible only by Maia Rowan and Haig Armen. Participants who withdraw from the study will have their data deleted upon notifying the principle investigator of their withdrawal.</p>	
<p>3. STORAGE AND ACCESS AFTER THE CONCLUSION OF RESEARCH:</p>	<p>Research data and confidential materials will be submitted to the instructing Faculty Member at the conclusion of the project, for secure storage at Emily Carr University.</p> <p>If the researchers require that the data or confidential materials be stored or shared outside of the university following the conclusion of the research, describe these plans in detail.</p>	

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

4. WITHDRAWAL:	<p>Describe if there are any restrictions to the participants' right to fully withdraw their participation and data during the course or after the conclusion of the research activities.</p> <p>Participants will be informed that they may withdraw at any time.</p>
-----------------------	--

SECTION F – MONITORING OF RESEARCH

1. ECU-REB MONITORING: Is it expected that the research will require additional monitoring, beyond the minimum yearly requirement? If yes, describe the plans for this.	No
2. ANTICIPATED ADDITIONAL RESEARCH: Is it expected that any of the research described in this application will continue beyond the conclusion of this project? If yes, describe in detail.	No
3. POST APPROVAL REPORTING & MONITORING: Serious adverse events (unanticipated negative consequences or results affecting participants) of research must be reported to the ECU-REB ethics@ecuad.ca using Form 207 Adverse Report Form . NOTE - Incidents involving accidents (including near misses), illness, property damage happening on university premises or involving employees, contractors, visitors or volunteers must be reported <i>immediately</i> to supervisors and security for first aid (if necessary), mandatory investigations, and mandatory reporting. Any changes to the approved research must be reported in advance. Changes can also be proposed during the annual review. In both situations, use Form 206.1 Annual Review or Request to Modify Previously Approved Research . The ECU-REB file is closed when the participant activities are finished. Use Form 206 Completion of Participant Research to report on the number of participants and the project materials' secure storage. Will monitoring of the participant research activities by the ECU-REB be required more than yearly? No	



1399 Johnston Street, Vancouver, BC, Canada V6H 3R9

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

TEMPLATE 201.4 - Research Invitation & Consent Form

Date: **February 10, 2015**
Project Title: **Intervening in Consumption**

Principal Investigator:
Haig Armen, faculty supervisor

Emily Carr University of Art and Design
harmen@ecuad.ca

Other Researchers:
Maia Rowan, MDes Candidate

Faculty of **Graduate Studies**

Emily Carr University of Art and Design
mrowan@ecuad.ca

INVITATION

You are invited to participate in a research study. The purpose of this study is **to look** at alternative models for purchasing, owning, and using clothing. In particular, what is the role of service design in transforming the way we purchase and use clothing. The principle researcher's literature reviews and secondary research has revealed the impact over consumption has on the environment, and consumers alike. To explore, strategize, and design new ways of working in this space the principle researcher must engage with users of clothing, as well as designers, producers, and retailers of clothing.

Users will be consulted regarding their existing consumption habits, shopping behaviour, and issues of use with clothing they own.

Existing producers will be consulted on how they are approaching the development of more sustainable practices in their organization, and challenges they have identified in relation to clothing and sustainability.

Emerging ventures will be approached to tell their story of working towards addressing issues of consumption.

WHAT'S INVOLVED

As a participant, you will be asked to take part in one of the following sections of research. Please find detailed description below.

PARTICIPANT'S/GUARDIAN'S INITIALS _____

Page 1 of 5



1399 Johnston Street, Vancouver, BC, Canada V6H 3R9

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

This research looks at the role of service design in transforming the way we purchase clothing. If we change ownership models, through the use of service design, will it be possible to reduce our impact and curbing production and consumption rates while still creating economically viable businesses? This research project is positioned between clothing and sustainability, design entrepreneurship, and service design.

Section 1: May 2015

Ethnographic Probe

Research Area: This ethnographic probe will explore user's needs in terms of clothing, how might those needs differ if they were to use a garment for a shorter amount of time, and if they were to be using a product that will have already interacted with a previous user. Users will also be invited to explore how the dissemination of/access to garments could function through a service model. This research phase will help the principle investigator understand user behaviours, what they are willing to change, and how to support them in that transition.

Activity: Ethnographic Probe

This research phase will engage users in generative research to reveal existing consumer behaviours, as well as needs and desires. Secondly participants will be involved in visioning how their behaviours, needs, and desires may change if they were to use clothing as part of a system or service rather than a standard ownership model with one point of sale.

Duration: Probes will last one week, and will consist of a diary study that walks the participant through a reflection phase, and a visioning phase as pertains to the description above.

Section 2: June 2015

Interviews

Research Area: Interviews will be conducted with students, researchers, and professionals working with clothing and sustainability. This research phase will be primarily focused in Vancouver BC and Brooklyn NY as part of a one month residency at the BF+DA. This research phase will put me in touch with others conducting research in similar areas. I will be able to learn from their experiences and incorporate that discovery in my thesis.

Activity: Interviews/conversation with students, researchers, and professionals working with clothing and sustainability. Interviews will explore these individual's experiences working with sustainability in the fashion industry, as well as challenges and opportunities for emerging designers studying in this area. These interviews will be documented and will include a follow up reflective phase where the principle investigator will analyze and compare the narratives of each of the researchers/ventures. Interviews will be conversational in nature. I will ask participants about the work that they do,



1399 Johnston Street, Vancouver, BC, Canada V6H 3R9

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

their experience working within design/clothing and sustainability, any challenges they face, and any learning they wish to share.

Duration: Interviews are expected to take up to one hour each.

Section 3: September 2015

User Testing

Research Area: After completing the first design iteration of this thesis project the principle researcher will engage participants in user testing to examine the successes, pain-points, and gaps in the design to date.

Activity: Participants will take part in a desktop walk through of the service designed, and provide verbal feedback on their experience throughout. Materials that may be included in the walkthrough are visual design elements, user interface mockups, service maps, and product design elements.

Duration: User Testing is expected to take one hour per user. Participants will be asked to meet at Mitchel Press Studios at 1706 West 1st Avenue, Vancouver, BC. Date TBA.

POTENTIAL BENEFITS AND RISKS

Possible benefits of participation in this research include Possible benefits include insight into one's own shopping behaviour, inspiration to approach consumption and use in a new way, shared knowledge and potential collaboration/ future conversation for those who are researching or working in the space, and an understanding of creative research. This research may contribute to new developments in sustainability and clothing, understanding of less consumptive lifestyles, and more experimentation in collaboration between design and business processes or sectors to find alternative models for consumption. There also may be risks associated with participation 1) Users participating in the study may find that reflecting on their shopping habits leads to a disappointment in themselves, or concern for the environment if they make connections between consumption and environmental concerns, or societal issues (labour laws etc). Users will be notified prior to participation that the above risks are possible. They will be informed that they may withdraw their participation at any time. 2) Clothing producers, researchers, and emerging ventures participating in the study may be at risk of sharing proprietary information. Clothing producers, researchers, and emerging ventures will be asked to only share information they are comfortable with being made public. They will be reminded at the time of any interaction or conversation to not disclose any proprietary information. They will be informed that they may withdraw their participation at any time.

PARTICIPANT'S/GUARDIAN'S INITIALS _____

Page 3 of 5



1399 Johnston Street, Vancouver, BC, Canada V6H 3R9

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

VOLUNTARY PARTICIPATION

Participation in this study is voluntary. The researchers aim to provide information for you about what to expect at all stages of the research. If you wish, you may decline to answer any questions or decline to participate in any component of the research. Further, you may decide to withdraw at any time, or to request the withdrawal of your contributions to the data. You may do so without any penalty or loss of benefits to which you were entitled to receive prior to the start of the research.

PUBLICATION OF RESULTS

Results of this study may be published in **reports, professional and scholarly journals, students theses, and/or presentations to conferences**. In any publication, data will be presented in aggregate forms. Quotations from interviews or surveys will not be attributed to you without your permission. Images or recordings of you or your property will not be published without your permission (see the attached media release agreement).

You will be able to access the results of the study by contacting Maia Rowan or Haig Armen.

CONTACT INFORMATION AND ETHICS CLEARANCE

If you have any questions about this research, you are invited to contact the Principal Investigator using the contact information provided above.

This study has received ethics clearance through the Emily Carr University Research Ethics Board [**insert ECU-REB # and date of full approval**]. If you have any comments or concerns about ethical issues in the research, you are invited to contact Jacqueline Davidson, REB Coordinator, at ethics@ecuad.ca or (604) 844-3800 ext 2848.

CONFIDENTIALITY

All of the information that you provide to this study is considered to be confidential. It will be grouped with responses from other participants in an "aggregate data set". During the course of this research the research team will only retain your name and contact information for the purpose of contacting you. Your name and contact information will not be linked to the aggregate data set.

During the course of the research and for 5 years following the conclusion of this study, the confidential materials (your name, contact information, and any identifiable data) will be securely stored on the university premises. These materials will only be accessible to the researchers listed above. Unless another agreement is made with you, the confidential materials will be destroyed in a secure manner after 5 years.

PARTICIPANT'S/GUARDIAN'S INITIALS _____

Page 4 of 5



1399 Johnston Street, Vancouver, BC, Canada V6H 3R9

Office of Director of Research
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

Only the non-identifiable aggregate data set will be circulated to the partners, sponsors, or used in publications.

Due to the nature of this research, it may be useful for the researchers to collect recordings (video or audio), photographs, and quotations of you or concerning your property. The release to the researchers of your identity or property in recordings or published quotations is a choice that you can make separate from your participation in this study. Identifiable materials like recordings, photos or quotations will be securely handled and stored, in the same way as the confidential materials described above. No identifiable materials will be included in the circulation of the research results without your agreement. A separate Media Release Agreement describes this request.

CONSENT AGREEMENT

I agree to participate in this research that is described above. I have made this decision based on the information I have read here. I have had the opportunity to get more information about the research from the researchers. I understand that I may ask questions at any time.

I understand that my participation is voluntary, and that I may withdraw this consent at any time by contacting any of the people listed on this form.

Name: _____

Signature: _____ Date: _____

Thank you for your assistance in this project.

PARTICIPANT'S/GUARDIAN'S INITIALS _____

Page 5 of 5



emily carr
university of art+design

1399 Johnston Street, Vancouver, BC, Canada V6H 3R9

Office of Research & Industry Liaison
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

TEMPLATE - Photo/Digital Image/Video/DVR/Audio/Digital Audio Recording

RELEASE AGREEMENT

Date: February 10, 2015
Project Title: Intervening in Consumption

Principal Investigator:
Haig Armen, faculty supervisor

Emily Carr University of Art and Design
harmen@ecuad.ca

Other Researchers:
Maia Rowan, MDes Candidate

Faculty of Graduate Studies
Emily Carr University of Art and Design
mrowan@ecuad.ca

PROJECT DESCRIPTION You are invited to participate in a research study. The purpose of this study is to look at alternative models for purchasing, owning, and using clothing. In particular, what is the role of service design in transforming the way we purchase and use clothing. The principle researcher's literature reviews and secondary research has revealed the impact over consumption has on the environment, and consumers alike. To explore, strategize, and design new ways of working in this space the principle researcher must engage with users of clothing, as well as designers, producers, and retailers of clothing.

Users will be consulted regarding their existing consumption habits, shopping behaviour, and issues of use with clothing they own.

Existing producers will be consulted on how they are approaching the development of more sustainable practices in their organization, and challenges they have identified in relation to clothing and sustainability.

Emerging ventures will be approached to tell their story of working towards addressing issues of consumption.



emily carr

university of art + design

1399 Johnston Street, Vancouver, BC, Canada V6H 3R9

Office of Research & Industry Liaison
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

CONTACT INFORMATION AND ETHICS CLEARANCE If you have any questions about this study or require further information, please contact **Maia Rowan or Haig Armen** using the contact information provided above. This study has been reviewed and received ethics clearance through the Research Ethics Board at the Emily Carr University of Art and Design **[insert ECU-REB# and date of full approval]**. If you have any comments or concerns, please contact REB Assistant, Lois Klassen at ethics@ecuad.ca.

RELEASE STATEMENT In signing this release it is my understanding that the material is to be used solely for educational purposes and that the major outcome will be public critique of the final project. The critique will involve members of the University community. Dissemination of the research results may also be published in a thesis paper, and appear in an online portfolio.

I understand the risks and contributions of my participation in this project and agree to participate.

I agree to allow use of images, clips of video footage and/or audio clips for documentation and display of the project results as identified below. Please check all that apply:

ANONIMITY -

- ☐ Yes, I consent to the inclusion of my identity (name) in all documentation and publications
- ☐ No, I do not consent to the inclusion of my identity (name) in all documentation and publications. I choose to remain anonymous.

DIRECT QUOTATIONS -

- ☐ Yes, I consent to being quoted in all documentation and publications
- ☐ No, I do not consent to being quoted in the documentation and publications

IMAGES AND RECORDINGS OF ME OR OF MY PROPERTY -

- ☐ Yes, I consent to the use of digital images (photos or video) or audio recordings taken during the research user trials to be used for research and publication purposes.
- ☐ No, I do not consent to the digital images (photos or videos) or audio recordings taken during the research user trials to be used for research and publication purposes.
- ☐ Yes, I consent to my photo being published in any of the final publications
- ☐ No, I do not consent to my photo being published in any of the final publications



Office of Research & Industry Liaison
EMILY CARR UNIVERSITY RESEARCH ETHICS BOARD (ECU-REB)

___ Yes, I consent to my photo being converted to a line drawing, with all personal identifiers removed, as seen in the example provided below.

___ No, I do not consent to my photo being converted to a line drawing, with all personal identifiers removed, as seen in the example provided below.



I will indemnify and hold the student, and the University, and its employees safe and harmless against any legal prosecution or suit arising from or prompted by the use of all or any portion of the material in which I am quoted or appear.

I am signing this release freely and voluntarily and in executing this release do not rely on any inducements, promises or representations made by said student or Emily Carr University of Art and Design.

Name: _____ Date: _____

Signature: _____

Witness Name: _____ Date: _____

Signature: _____

Thank you for your assistance in this project.

