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MSc. Design and Technology Futures

Exploring Emotional Attachment to Clothing - Promoting Sustainable Fashion Consumption through Digital Storytelling

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MASTER THESIS

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THESIS TASK

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Thesis topic:
Exploring Emotional Attachment to Clothing - Promoting Sustainable Fashion Consumption through Digital Storytelling

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Thesis main objectives:

1. investigate the importance of emotions and memories related to clothing

2. Analyse the emotional and memory-related factors that influence individuals' attachment to their garments

3. Develop a design concept that seeks to contribute to a greater appreciation for the stories garments convey and the possibility of more sustainable fashion practices

Thesis tasks and time schedule:

No	Task description	Deadline
1.	Desktop research	15.02.2023
2.	Design Research, Interviews	25.04.2023
3.	Design Concept	10.05.2023

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ABSTRACT

In today's society, one issue that is becoming increasingly prominent is the excessive consumption of fashion. The fast-paced fashion industry has contributed to the rise of a disposable culture among consumers, who buy clothing at an alarming rate and dispose of it at the same speed.

Sentimental and nostalgic associations that people have with their clothing has the potential to change this tendency of excessive consumption. Highlighting the emotional value of garments through shared storytelling encourages individuals to keep and use their clothing longer and limit the amount of new clothing they buy.

This study, using qualitative methodology, investigates how storytelling of memories and related emotions can lead to more meaningful interactions and prolonged life cycles of our garments.

Our clothing holds memories and significance, resulting in many of us keeping articles that we no longer wear. While the clothes we wear daily continue to create new stories. When we find new pieces of clothing in second-hand stores, we often wonder about their past lives. Each piece of clothing has a story to tell, as we all have our own memories, encased in the clothes we've worn. Threads of Memory aims to reveal some of those tales.

The proposed solution, 'Threads of Memory' a one-of-a-kind digital platform puts clothing in the spotlight and gives users the opportunity to share significant memories that are associated with the garments they own. Threads of Memory is a platform that focuses on clothing narratives, as opposed to traditional social media channels, where users frequently share a wide variety of content about themselves.

KEYWORDS: memories – feelings - circular fashion system – storytelling – overconsumption - emotional attachment to garments

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1.INTRODUCTION

1.1 Background

Overconsumption is one of the leading global problems in the developed world today. It relates to numerous environmental, cultural, social, economic and institutional issues often not recognized or overlooked (Ellen MacArthur Foundation, 2017). Excessive consumption is our reaction to the wider underlying problem – our lost or weakened personal and meaningful connections with our environment, our communities. Meaningful connections are an important part of our overall well-being. As a substitute we seek self-confirmation and build our identity and well-being through mindless consumption.

Overconsumption in the fashion industry has become a significant problem in recent years, with consumers purchasing and discarding clothes at an alarming rate. In 2016 the average person bought 60 percent more clothing items and kept them for about half as long as in 2000 (Cobbing & Vicaire, 2016; McKinsey & Company, 2016). Per-capita consumption of textile fibers has increased from 5.9kg/capita in 1970 to 13.0 kg/capita in 2020 (CIRFS, 2021 in Bart & Ipsmiller, 2003). "As a whole, the world's citizens acquire 80 billion apparel items annually" (Thomas, 2019, n.p.). Overconsumption is spread unevenly across the world, Western Europe was the largest market for fast fashion in 2022, followed by Asia Pacific region (The Business Research Company, 2023). According to the Business Research Company's Fast Fashion Global Market Report 2023, the global fast fashion market size is predicted to grow from $106.42 billion in 2022 to $184.96 billion in 2027 at a compound annual growth rate (CAGR) of 10.7% (The Business Research Company, 2023). The average American household allocates approximately 2837 USD annually towards the purchase of clothing, footwear, and related commodities as per the data provided by the US Bureau of Labor Statistics in 2021. This fast-paced trend has led to environmental, social, and economic consequences, making overconsumption a serious issue that needs to be addressed.

One of the most significant environmental consequences of overconsumption in fashion is the amount of waste generated. According to the Ellen MacArthur Foundation, the fashion industry produces 92 million tons of waste each year, which is projected to increase by 63% by 2030 (Ellen MacArthur Foundation, 2017). 'The equivalent of one garbage truck full of clothes is burned or dumped in a landfill every second' (UNEP, 2021). This waste includes clothes that are discarded due to fast fashion trends, clothes that are poorly made and quickly deteriorate, and clothes that are not recycled or reused. Overconsumption in the fashion industry also has social and economic

consequences. Fast fashion has led to the exploitation of workers in developing countries, who are paid low wages and work in poor conditions to meet the demands of fast fashion brands (Reichart & Drew, 2019). Additionally, the fast fashion industry's emphasis on low prices has decreased the quality of clothing, making it more difficult for ethical and sustainable fashion brands to compete in the market (Pucker, 2022).

There are several reasons why overconsumption in fashion has become a problem. Firstly, the rise of social media has made it easier for individuals to compare themselves to others and feel pressure to keep up with the latest trends (Xue, Li, & Zeng, 2023). Secondly, the low prices of fast fashion make it more accessible to a wider range of consumers, leading to a culture of disposability and a lack of value placed on clothing (Fletcher, 2016). Finally, the need for more transparency in the fashion industry makes it difficult for consumers to make informed choices about their purchases (McNeill & Moore, 2015).

1.2 Relevance of the research

The increased availability, affordability, and disposability of fast fashion, which refers to the production of clothing in large quantities at low quality and low prices, is a significant cause for concern (Cachon & Swinney, 2011). This consumption pattern is especially obvious in the Western world and has resulted in a significant reduction of time a clothing product is worn or often can be worn before needing to be replaced (Bianchi & Birtwistle, 2010). The study of overconsumption in the fashion business is immensely important, as rapid increases in fast fashion and consumerism are at an all-time high (Bart & Ipsmiller, 2023; The Business Research Company, 2023). In the fashion industry, excessive consumption can result in various unfavorable outcomes, such as damage to the natural environment, the exploitation of people, and the build-up of garbage.

> "Fast fashion is now a large, sophisticated business fed by a fragmented and relatively low-tech production system. This system has outsize environmental effects: making clothes typically requires using a lot of water and chemicals and emitting significant amounts of greenhouse gases. Reports also continue to emerge about clothing-factory workers being underpaid and exposed to unsafe—even deadly—workplace conditions'' (Cobbing & Vicaire, 2016, p.3).

Often consumers are made to believe that the majority of our clothes are recycled or reused which could even be increasing our consumption. One of the myths of the fast fashion industry is the claim of using a circular fashion system (CFS) - recycling and

reusing materials, creating "green jobs" (Bartl & Ipsmiller, 2023). As stressed by Bartl & Ipsmiller (2023) the high rate of fast fashion industry growth due to the lucrative business model leads to high consumption of resources as well as the use of cheap, non-durable materials, which overtakes recirculation system progress and in essence is not compatible with the true essence of circular economy. Thus, recycling in the fast fashion industry can only combat the symptoms, not the cause of the problem. Instead of throwaway materialism, we need "true materialism": "a switch from an idea of a consumer society where materials matter little, to a truly material society, where materials – and the world they rely on – are cherished" (Fletcher, 2016, p.141). As concluded by Bartl and Ipsmiller (2023) in order to achieve the reduction of resource consumption we need to achieve extension of the useful life of garments and reuse applying different business models, and one of the much-needed steps is to increase the second-hand clothing sales.

Emotions and memories have the potential to play a significant part in the fight against excessive consumerism in the fashion business (Niinimäki & Koskinen, 2011; Schifferstein & Zwartkruis-Pelgrim, 2008;). We may encourage more conscious and intentional consumption habits among people by appealing to their emotions and memories. Memories can be an effective method for cutting back on overconsumption. We can urge people to be more thoughtful about what they buy in the future by bringing up their previous experiences and choices in the realm of fashion and reminding them of them. Research by Niinimäki and Koskinen (2011) note that cherished clothing is frequently cared for in the form of maintenance and repair and that this attention to detail is one of the contributing factors that results in an increased lifespan. When we develop a sentimental attachment to an article of clothing, we are less likely to discard it hastily or on the spur of the moment. This, in turn, may lead to a reduction in waste and fashion business that is more environmentally friendly.

1.3 Problem statement

Given the context of overconsumption in fashion and presumed significance of memories and emotions to increase more sustainable consumption of clothing, this research explores the following central question:

How can emotional attachment and storytelling be leveraged to promote more sustainable fashion consumption patterns?

This study examines evolving themes of emotional attachment to garments within a framework of memories and meaningful connections between people, places and items via qualitative research. The significance of the emotional bond that can exist between persons and their items of clothing is the primary focus of this research. The idea behind this notion is that emotional connection to one's wardrobe can result in increased longevity in both ownership and use of one's apparel. The purpose of the study is to investigate how meaningful emotional connections can be fostered through the design process and help to increase the lifespan of garments through collaborative fashion consumption.

1.4 Outline of the study

This paper is organized as follows. The first chapter provides some background information that leads up to the problem that the study investigates. Overview of the research methodology, data acquisition methods, and data analysis techniques is presented in chapter two. A literature review of both theoretical and empirical studies on the meanings of memories, emotions and meaningful interactions, as well as overconsumption in the fashion industry is presented in the third chapter. Chapter four focuses on the research design, the research's overall purpose is laid out, along with methods and research findings. Chapter 5 provides the research conclusion. Chapter six covers the concept development and chapter seven introduces Threads of Memory, the design concept for a proposed digital storytelling platform, followed by the summary.

2. METHODOLOGY

This chapter provides an overview of the research methodology, data acquisition methods, and data analysis techniques. This study will use qualitative research methodology to reveal the emerging themes in the complex nature of people- product interactions and to foster understanding of the role of emotional memories in garment ownership. This study aims to explore how emotional memories related to our garments can increase the meaningful connections in fashion consumption, leading to extended lifetime of garments.

2.1 Methods

A holistic-inductive approach is used for qualitative research. Holistic-inductive approach tackles the problem as a complex reality (Jennings, 2001). To gather qualitative data, in-depth interviews will be conducted. In-depth interviews enabling detailed narratives will provide a glimpse into how emotional connections are forged between people and their garments that lead to meaningful relationships.

In-depth interviews often used in consumer studies are replacing more "purist" anthropological approaches, but still can be labeled as "depth interviews"(Patton, 2002; Schmidt, 2015).

Main proposed research subjects will be consumers and designers. The interview sample will be a convenience sample with diversity in mind. The saturation of data will be determined by the repetition of occurring themes among different involved stakeholder groups.

2.2 Interview schedule

The interviews are based on open-ended questions, focusing on emotional attachment to clothing. Interviewees are asked to share their personal stories related to memorable experiences with their garments and meaningful connections they might have with some items (see Appendix 1). Respondents are probed to describe their feelings and emotions related to meaningful items in their life, discuss the role of garments as part of their identity, and share their ideas about a more responsible fashion industry.

2.3 Analysis techniques

Personal narratives give meaning to life experiences which are time and place specific. Personal narratives involve emotional memories recollected and retold to give meaning to the present. Making meaning through the analysis of narrative data and its interpretation needs to take into account that narratives are context specific and the meaning is crafted through the use of language (Kim, 2016). Researcher becomes yet another storyteller of those narratives through analytical narrative. (Genette, 1980; Kim, 2016; Riessman, 2012).

This study will use analysis of narratives as a data analysis technique (Creswell, 2009).
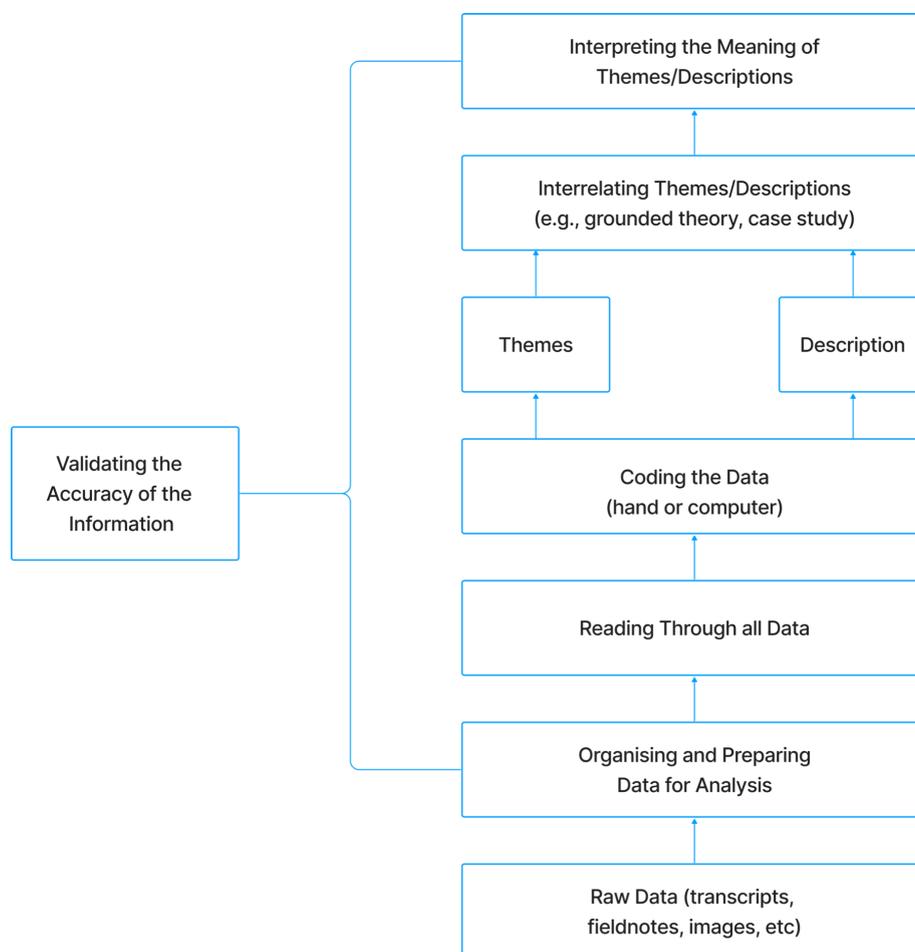
Figure 1. Data Analysis in Qualitative Research. Source: Creswell (2009)

The collected data is represented as textual units and will be analyzed focusing on emerging themes and descriptions (Figure 1). Interpretation of themes/descriptions will allow us to understand the multifaceted aspects of emotional attachment between wearers and garments (Creswell, 2009; Kim, 2016).

3. THEORETICAL FRAMEWORK

This chapter provides the theoretical framework of the study as well as a selective overview of theoretical and empirical research on the meaning of emotions and memories related to garments and meaningful interactions. The concept of a circular fashion system and linkages between storytelling and collaborative consumption is given. The conceptual framework, based on the reviewed literature, links the concepts of the study under investigation.

3.1 Literature review

The literature review focuses more specifically on the following topics:
- Current trends in the fashion industry
    - o Fast fashion
    - o Slow fashion (change attitude, circular fashion system – second-hand, how to use emotions and memories and attachment to garments under circular system, digital solutions)
- Emotional memories
- Meaningful Interactions
    - o People-to-people interactions
    - o People-to-environments interactions
    - o People-to-products interactions
- Circular fashion-Collaborative consumption through storytelling

3.1.1 Current trends in fashion industry

The most prominent trend in the fashion industry of concern is fast fashion. Its' antidote, slow fashion is a rising trend due to changing societal values, although due to several constraints still surpassed by fast fashion by volume and extent.

Fast fashion

Fast fashion is a production and marketing strategy that places a high priority on producing lots of clothing quickly. It depends on copying the most recent trends and utilizing cheap materials, like synthetic fabrics, to provide consumers with affordable fashion (Stanton, 2023). With production cycles as little as a few weeks from design to

store shelves, fast fashion companies seek to quickly and effectively deliver fashionable, reasonably priced clothing to consumers (Bianchi & Birtwistle, 2012). "Zara offers 24 new clothing collections each year; H&M offers 12 to 16 and refreshes them weekly" (Remy et. al. 2016 n.p.). While being praised for being accessible and affordable, fast fashion has also come under fire for having a detrimental effect on the environment, labor practices, and consumer behavior. Approximately fifty percent of fast fashion items are believed to be discarded within a year (Remy et. al., 2016), indicating "a linear model that disregards potential economic benefits, strains resources, causes pollution, and damages the natural environment and its ecosystems, and generates negative local, regional, and global social consequences" (Ellen MacArthur Foundation, 2016, p.19). Fast fashion companies frequently place a higher priority on profit than on moral and ethical behavior, which degrades the environment and exploits workers. it is becoming increasingly apparent that these concerns will increase proportionally to the increase in clothing production if the manufacturing process is not altered (McKinsey & Company, 2016).

The negative effects of fast fashion on the environment are among its main criticisms.Large amounts of resources, including water, energy, and chemicals, are used in the production of fast fashion, which can contribute to pollution and climate change . Due to the large amount of clothing that is produced and thrown away, fast fashion has come under fire for having a detrimental effect on the environment Fast fashion companies frequently use non-biodegradable, low-cost synthetic materials, adding to the growing issue of textile waste. (Ellen MacArthur Foundation, 2016) The Ellen MacArthur Foundation estimates that 92 million tons of textile waste are produced worldwide each year, with the equivalent of one garbage truck's worth of textiles being landfilled or burned every second (Ellen MacArthur Foundation, 2016; Reichart. et al, 2019).

Labor practices are yet another issue of concern. Fast fashion companies frequently contract out production to nations with low labor costs, where employees may face unfavorable working conditions and meager pay. Long shifts may be required of employees, who may also have little to no job security or benefits. Fast fashion may occasionally be produced using child labor or forced labor. According to the International Labour Organization, an estimated 168 million minors are forced to work worldwide (International Labour Office and United Nations Children's Fund, 2021). Fast fashion can also encourage consumer habits that are bad for the environment and for people's health. Rapid fashion merchandising influences consumers to purchase more frequently and to hold on to clothing for a shorter duration, leading to a rise in clothing disposal (Bianchi & Birtwistle, 2012). Consumers are influenced to purchase more clothing than

they actually need by the constant change in fashion trends and styles, which contributes to a culture of disposability and fosters a throwaway mentality. Customers lose 460 USD billion annually by discarding clothing they could continue to wear, and it is estimated that some garments are discarded after only seven to ten uses (Ellen MacArthur Foundation, 2016). Consumers who place a premium on low prices may also value quantity over quality, favoring low-quality, inexpensive clothing that may need to be replaced frequently. Due to consumer demand for low-cost, stylish clothing, the fast fashion industry is still expanding despite these problems. Some businesses, though, are starting to address these issues by putting in place more ethical and sustainable practices, like using recycled materials, enhancing working conditions, and encouraging conscious consumption.

As a whole, fast fashion is a complex issue with advantages and disadvantages. Although it has increased the availability and affordability of fashion for a larger audience, its effects on the environment and labor practices are concerning. By choosing to patronize businesses that place a high value on these principles and by being aware of our own consumption patterns, we as customers can contribute to the advancement of ethical and sustainable business practices.

Slow fashion

Slow fashion is a movement that promotes a more sustainable and ethical approach to fashion, as opposed to the prevalent fast fashion business model of recent years. The slow fashion movement emphasizes quality, longevity, and ethical production methods, as well as a more conscientious approach to consumption. "Slow fashion came at the heels of the "slow food" movement" (Vito, 2022) .

Fashion and sustainability journalist and researcher Kate Fletcher first used the term in a 2007 article for The Ecologist. She described fast fashion as being not much about speed but rather greed, about "selling more" and "making more money." Instead, slow fashion "is about designing, producing, consuming, and living better". "Slow", she added,"is not the opposite of fast – there is no dualism – but a different approach in which designers, buyers, retailers, and consumers are more aware of the impacts of products on workers, communities, and ecosystems." (Fletcher, 2007 as cited in Vito, 2022, n.p.)

The movement encourages consumers to invest in high-quality, immutable pieces that can be worn for years, as opposed to purchasing inexpensive, trend-driven items that will rapidly become outdated and fall apart. The use of eco-friendly materials and waste reduction are the main goals of the growing sustainable and circular fashion movement,

which was created to address this problem. This covers programs like clothing rental services, upcycling and recycling efforts, and the utilization of recycled or organic materials (Ellen MacArthur Foundation, 2016). Slow fashion also promotes a focus on durability and longevity, encouraging consumers to invest in high-quality, timeless items that can be worn for years as opposed to purchasing trend-driven apparel on a constant basis. Slow fashion not only reduces the environmental impact of fashion but also promotes ethical production practices. This includes equitable labor practices, such as providing a living wage and safe and healthy working conditions for employees (Vito, 2022).

According to Francine Vito (2022), some of slow fashion's key philosophies include:

- A shift from quantity to quality, both in production and consumption. It's not hell-bent on constant growth or accumulating more;

- Manufacturing that respects the environment by using low-waste processes and avoiding harmful chemicals;

- Providing workers a living wage and healthy working conditions;

- Producing collections in small batches or on a pre-order basis to avoid unsold inventory;

- An uncomplicated supply chain where raw materials and labour aren't scattered across the globe. It uses local materials and employs local workers as much as possible;

- Transparency and honesty in its supply chain and practices;

- Using natural fibres, deadstock fabrics, or old textiles for upcycling. (Vito, 2022, n.p.)

Slow fashion also prioritizes supply chain transparency and accountability, encouraging consumers to learn where and by whom their apparel is produced. Another important aspect of modest fashion is its emphasis on mindful consumption. This involves a transition away from the rapid rotation of trends and styles promoted by fast fashion and instead encourages consumers to invest in items that reflect their individual values and sense of style. As a means of reducing pollution and extending the life of existing apparel, slow fashion promotes the use of secondhand clothing and salvage purchasing. (Park et al. 2020)

Conscious consumption refers to a deliberate and thoughtful approach to the products

and services that we choose to purchase and utilize (Jackson and Michaelis, 2003). It is a movement that emphasizes the importance of contemplating the social, environmental, and ethical consequences of our consumption decisions and making choices that correspond with our personal values and beliefs (Peattie and Peattie, 2009).

A growing awareness of the impact of our consumption patterns on the environment is one of the main drivers of conscious consumption. This has prompted many individuals to select products and services that are produced using sustainable methods and have a smaller environmental impact. For instance, consumers may choose to purchase products made from eco-friendly materials or from businesses that prioritize waste reduction and emission reduction. In addition to the impact on the environment, conscious consumption also considers the social and ethical consequences of our choices. This includes equitable labor practices, human and animal rights, and animal welfare. For instance, consumers may opt to purchase certified fair trade or cruelty-free products, or products from companies with transparent and ethical supply chains. (Park et al., 2020)

In addition to emphasizing the importance of reducing waste and extending the life of existing products, conscious consumption also emphasizes their significance. This can be accomplished through practices such as restoring and repurposing, purchasing used or vintage items, or investing in durable, high-quality products. Consumers can reduce their environmental impact and contribute to a more sustainable economy by extending the lifespan of products and reducing waste. (Styvén & Mariani, 2020) Overall, conscious consumption is a movement that strives to encourage a more conscientious and deliberate approach to consumption. By contemplating the social, environmental, and ethical consequences of our decisions, we can make educated decisions that are consistent with our personal values and beliefs and contribute to a more sustainable and equitable society.

As consumers, we can support conscious consumption by being knowledgeable about the products and services we purchase, by searching out eco-friendly and ethical alternatives, and by being mindful of our own consumption patterns. Ultimately, slow fashion is a movement that aims to promote a more sustainable and ethical fashion philosophy. Slow fashion offers a viable alternative to the rapid fashion model, which has dominated the industry for decades, by placing a premium on quality, durability, and ethical production methods. As consumers, we can support the slow fashion movement by purchasing from companies that prioritize these values, investing in high-quality items that can be worn for years, and being conscientious of our own consumption habits.

Jane Milburn in her compelling personal story "Slow Clothing" (2017) emphasizes individuals' role to create an independent and authentic style outside of fashion trends. She uses the notion of slow clothing as a life guiding philosophy, calling for resourcefulness. With this mindset we can approach second-hand as new organic and mending as good for the soul. Using mindfulness in our clothing we can feel liberated and satisfied.

3.1.2 Role of emotions and memories

Emotions play a crucial impact in consumer behavior and decision-making. Batey defines emotion as "the internal and subjective experience by an individual from a complex behavior of physical and mental changes in reaction to any situation" (2008, p.25). Feelings such as excitement, enjoyment, and desire can induce compulsive shopping behavior, leading to overconsumption. Compulsive shopping involves more than just going over budget. It entails an obsession with needlessly accumulating things to buy. People who shop compulsively do so in an effort to boost their mood, enhance their self-perception, gain social support, and manage stress (Hartney, 2022). The predominant impulse behind clothing purchasing is often driven by affective desires or self-admiration necessities rather than a genuine requirement for more garments. The affective experiences associated with the act of consumption hold significance for consumers about the products in question, particularly in the immediate aftermath of the purchase occurrence. The previously mentioned ways of shopping and consumption fail to establish enduring and sustainable connections with the realm of commodities. Richins (2008) suggests that the positive emotional experience associated with a fast fashion product is brief and lacks any emotional bonding.

According to scholarly sources, the inclusion of emotional attachment in the process of designing a product has been found to enhance its durability potential (Van Hemel & Brezet, 1997; Van Nes, 2003, 2006). It has been suggested that the development of emotional attachment can occur through repeated usage, ultimately resulting in prolonged ownership (Van Hemel & Brezet, 1997). Moreover, emotions can be related to memories, such as nostalgia, which can lead to customers purchasing things based on their past experiences and emotional attachments to those products. For instance, a person might go out and buy the same pair of shoes that they wore when they were in their teenage years, which could bring on feelings of both delight and melancholy at the same time. A recent study published in the Journal of Consumer Research found that when we're feeling nostalgic, we're more likely to spend money (Lasaleta et al., 2014).

Fashion brands can also affect feelings and memories through various marketing methods. When trying to persuade customers to purchase their wares, fashion companies frequently employ the use of emotional appeals such as glamour, status, and exclusivity (Figure 2).
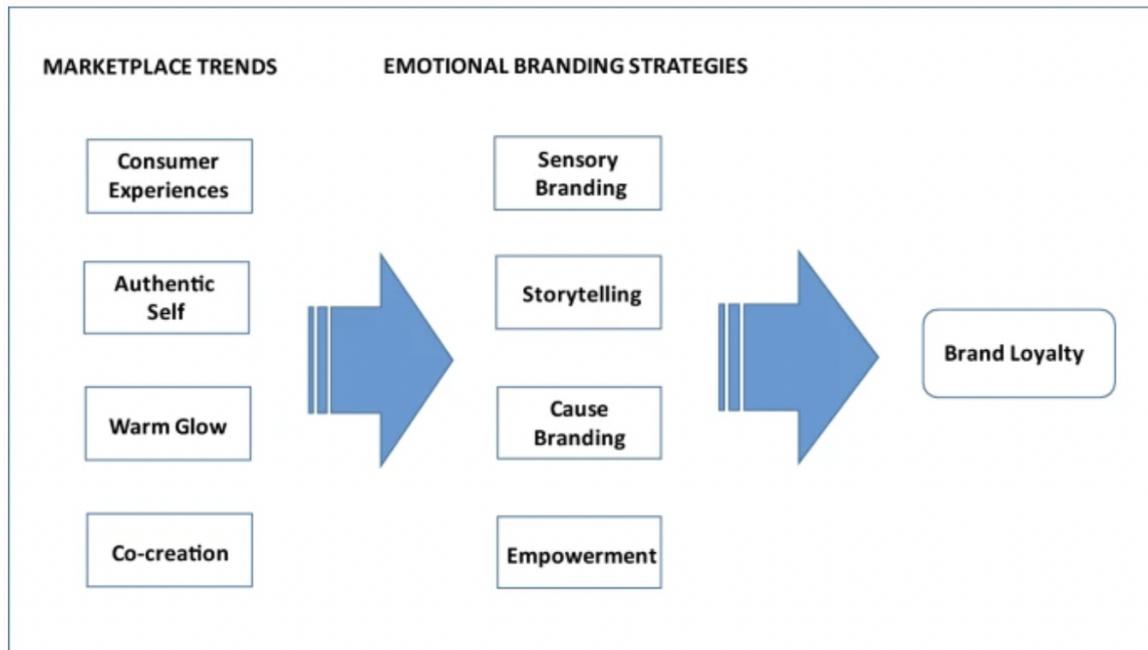
Figure 2. Emotional branding strategies. Source: Kim & Sullivan (2019)

Consumer behavior is determined by the comparison between an individual's perception of a brand's image which is based on factors such as the brand's physical attractiveness, customer demographic, fashion reputation, product quality, location, and promotion strategies; and either the individual's own self-image or the image of the person they aspire to emulate in their lives (Birtwistle & Tsim, 2005). As stressed by Grisaffe and Nguyen (2011) it is utmost important to understand the antecedents of emotional attachment (Figure 3).
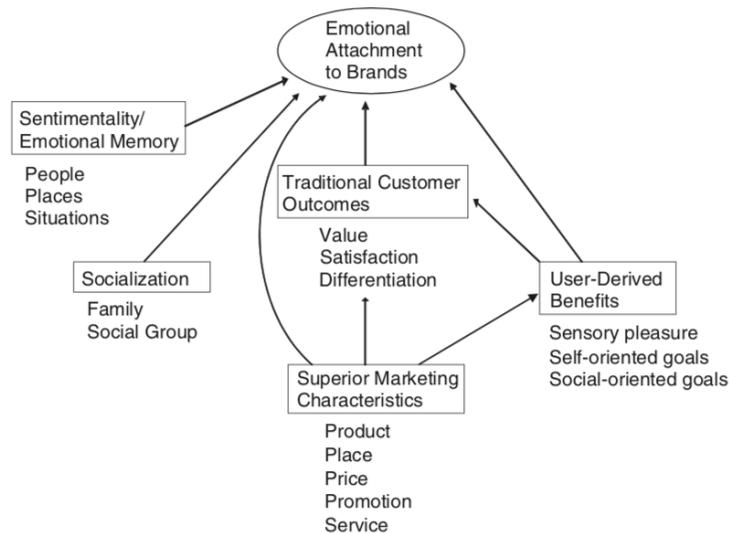
Figure 3. Antecedents of emotional attachments to brands. Source: Grisaffe and Nguyen (2011)

Understanding customers' emotional memories, socialization aspects as well as user-drived benefits provide businesses with better equipped marketing strategies than traditionally used for customer outcomes (Grisaffe & Nguyen, 2011).

In addition, fashion companies can utilize social media to instill a feeling of FOMO (fear of missing out) among their target demographic of consumers, which can result in impulsive purchasing behavior. According to Charoennan and Huang (2018), it is important for fashion merchants to utilize social media platforms in order to boost their profitability by influencing the purchasing decisions of their clients.

Understanding the psychological variables that drive consumption in the fashion business, such as emotions and memories, can assist in developing effective interventions to prevent overconsumption. For instance, promoting sustainable fashion methods that inspire good emotions such as pride, happiness, and charity can be useful in reducing overconsumption. Similarly, encouraging customers to create new memories by engaging in sustainable fashion practices, such as recycling, repairing, and upcycling, can help minimize overconsumption. Better quality clothes need to be designed, which are durable, fit the customer's needs, are repairable, reusable, and at the end of their lives, completely recyclable; and which customers will cherish for many years. (Cobbing & Vicaire, 2016)

One of the psychological factors driving overconsumption is related to happiness. According to the findings of research conducted by Van Boven and Gilovich (2003), one

form of happiness can be defined as a beneficial facet of one's life that emerges as a direct consequence of making a purchase. A similar definition was offered by Duan and Dholakia (2017), who described it as an improvement in one's quality of life brought about by a purchase. According to Van Nes (2003, 2006), consumers demand a well-designed, modern product that can adapt to their changing needs. The difficulty in extending product lifetimes, though, is maintaining customer happiness and fostering a lasting emotional bond with the product. Few items are treasured for a very long period, according to Schifferstein and Zwartkruis-Pelgrim (2008), and dis-attachment from many products might start immediately after purchase. In 2009, Chapman (2009) argued that most products are not meant to sustain a long-lasting connection with their owners and that this is a significant flaw in the industry. To reach the goal of sustainability, he suggests making the prolongation of product lifetimes a top design priority from the beginning of the process. In addition, Chapman (2009) implies that designing things that respond to deeper, more important aspirations of humans (values and beliefs) can influence the longevity of products that are emotionally lasting.

According to Jagdish Sheth and Bruce Newman (1991) perceived product value is derived from an individual's emotional reactions to experiences that are associated with a product. Emotional reactions to negative past experiences either personal or observed can have the same effect. If someone remembers a dress that they absolutely adored during the purchase process but which they only wore once, they may be less likely to purchase a dress of the same style in the future since they will be aware that they won't get very much usage out of it. In addition, memories of the negative impacts of overconsumption can also serve as a powerful motivator for change. For instance, if a person remembers seeing piles of discarded clothing at a landfill or watching a documentary about the environmental impact of fast fashion, they may be more likely to ponder the ramifications of their own consumption habits in the future.

Memories are an integral part of our lives, shaping our sense of self, informing our decisions, and influencing our emotions. They are the recollections of past experiences, events, and moments that have meaning and significance to us. As defined by American Psychological Association, memories are "the ability to retain information or a representation of past experience, based on the mental processes of learning or encoding, retention across some interval of time, and retrieval or reactivation of the memory" (n.p.). We must distinguish between the working and emotional memory. Emotional memory makes a person relive the past feelings, desires, thoughts, constituting the core of our personal history and maintaining our true self (Lerner & Kentner, 2000). Memories can be both positive and negative, evoking a range of

emotions, from joy and nostalgia to pain and sadness (Lewis, 2008). Emotional memories can be retrieved through various cues, material and immaterial. Our senses such as sights, smells, sounds, touch, can evoke emotional recollections. Consumers have been efficiently given sensory experiences by some fashion merchants, however, this objective has been met with less success by online outlets (Strang, 2015).

According to the findings of Schifferstein and Zwartkruis-Pelgrim (2008) research, the length of time an individual has been attached to something has an effect on the relevance of enjoyment and memory. They propose that consumers experience the greatest joy when they first acquire a thing, however, recalling emotional memories become more essential for objects that have been owned for more than 20 years as people tend to forget the details of their early experiences with products.

We often use our memories to make sense of our present experiences, as they provide us with a reference point and context for understanding the world around us. Memories can also impact our relationships with others. According to the findings of research carried out by Wallendorf and Arnould (1988), the products that people have the propensity to prefer the most, are frequently associated with reminders of a friend or family member, a vacation or event that was particularly memorable, or a special occasion. In addition, a treasured item may also serve as a reminder of the person who created it or as a token of appreciation for a present that was bestowed onto the owner. Sharing memories with loved ones can deepen our connection and create a shared sense of history and identity. Emotional memories can also shape our perception of others, as our past experiences with them can influence our current interactions.

Moreover, emotional memories can serve as a source of comfort and inspiration during challenging times. Recalling positive memories can boost our mood and provide us with a sense of hope and motivation. Past studies on the topic of product attachment have shown that a strong sense of attachment to a product develops when there are positive feelings and special meanings involved, as well as when there is a reflective link between the object and the consumer (Csikszentmihalyi & Rochberg-Halton, 1981; Mugge et al., 2005). Emotional memories can also help us learn from past mistakes and make more informed decisions in the present and future. In conclusion, emotional memories are a fundamental aspect of our lives, shaping our sense of self and influencing our experiences and relationships. While memories can be both positive and negative, they serve an essential function in our lives and can provide us with comfort, inspiration, and insight.

Schifferstein and Zwartkruis-Pelgrim (2008) argue that the level of emotional involvement a customer experiences with a product is what determines the degree of attachment the consumer has with the product. This sentimental attachment is especially powerful in the case of objects that have substantial long-term emotional importance for their users. Users are less inclined to get rid of such products because they fear it will cause them to suffer a profound emotional loss if they misplace it. The study showed that the oldest pieces of clothing and textiles had a significant connection to a particular person. This connection could have been established through inheritance, through the receipt of a gift, or simply through the purpose of serving as a reminder of someone who was dear to the wearer, such as a mother, grandmother, father, relative, or friend (Wallendorf & Arnould, 1988). While it might take a long time for emotional connections to form, sentimental value can also be formed from memories that are tied to specific places, events, or personal achievements, such as experiences that occurred during childhood or notable successes (Schifferstein & Zwartkruis-Pelgrim, 2008). Niinimäki (2009, 2010) stresses that in many instances, these valued artifacts carry significant meaning and are retained only for the sake of their sentimental value, rather than for any practical use.

Emotional memory plays a significant role in the design process, as it influences our perception of the world around us and shapes our understanding of past experiences. Design elements that evoke nostalgia or familiarity can be more memorable and engaging, creating a stronger connection between the design and the viewer (Csikszentmihalyi & Rochberg-Halton, 1981; Mugge et al., 2005). Understanding how users remember and recall information can aid designers in creating interfaces and interactions that are intuitive and easy to use. Designers must consider how users interact with a design and what information they need to retain to achieve their goals. Understanding the role of emotional memory helps designers to create more effective user experiences.

Emotional memories are formed through meaningful interactions and re-lived as a result of cued recall of those interactions. People, places and items along with sensory cues can ignite emotional recall.

3.1.3 Meaningful interactions

Interactions between people and people, people and environments (places), and people and things are all integral to our daily lives and shape our experiences in significant ways. Interactions between people involve communication, collaboration, and social dynamics.

People-to-people interactions

Our interactions with others can affect our mood, our sense of self-worth, and our overall well-being. Positive interactions can boost our happiness and help us develop deep connections with others. According to Cohen (2004) numerous studies have shown that having a strong social network has a beneficial effect on one's mental and physical well-being. These contacts also give us the opportunity to share knowledge, ideas, and points of view with one another, which can help us gain a more well-rounded awareness of the world and contribute to our personal development.

In 1954, Leon Festinger introduced the idea of social comparison. He proposed that humans use downward social comparison to bolster their self-image by comparing themselves to those they consider to be inferior in terms of appearance, status, income, intelligence, and other characteristics. On the other hand, we construct our aspirational selves through upward social comparison, such as comparing ourselves to celebrities and influential people in our fields. A person's mental image of themselves, also known as their impression of themselves, is referred to as their self-imagery. This encompasses not only a person's outward look, but also characteristics of their personality, their abilities, and other parts of their being. The formation of one's self-image can be affected by a wide range of circumstances, such as the sum of one's personal views, social experiences, and cultural values (Suls & Wheeler, 2000).

The impact of affective states on consumer behavior is noteworthy, especially in the context of the textile and apparel industry. According to McCracken's (1988) observations, these commodities not only represent the desired way of life that a buyer aspires to, but they also function as mirrors of an individual's identity and self-expressive tendencies. Textiles and clothing are considered products that facilitate self-expression and evoke emotions related to consumption, especially in the immediate post-purchase period. Social comparison is one of the most important aspects that play a role in one's self-image. It is inherently human for people to compare themselves to other people, and they frequently use outward markers such as looks, social position, and monetary goods as a basis for making these comparisons. If a person believes that they do not live up to the expectations that others have for them, this might contribute to a bad perception of themselves. The prevalence and significance of conspicuous consumption in mass society has intensified due to changing consumer lifestyles and the widespread use of social media (Kastanakis & Balabanis, 2014).

Even though individuals often rely on their social interactions as their primary source of emotional support, these connections can also be a substantial source of stress for an

individual, especially relevant in the era of social media (Walen & Lachman, 2000). Social media has fundamentally altered the method by which we construct our identities. Prior to its conception, the scope of our social comparisons was restricted to a small group of people whom we knew on a personal level and whose circumstances we could readily admire. Now we have endless access, thanks to social media sites like Instagram or Facebook, to photographs of bodies, lifestyles, social classes, fashion aesthetics, and destinations that we might admire and try to emulate in our own lives. One thing unites these social networks: users create material that is subsequently shared among users on the same platform (Uğur, 2017).

Our connections with other people and the way we shop for clothing have been profoundly altered by the influence of social media. The following is a list of ways people to people interactions and fashion consumption have been influenced by social media:

- Increased visibility of fashion trends on social media platforms, such as Instagram and TikTok, have become popular hubs for fashion influencers, bloggers, and celebrities to showcase their outfits and share their preferences regarding fashion. This has led to an increase in the visibility of current fashion trends. Fashion influencers on Instagram have the power to affect trends because of their high degree of interaction. As a result, a brand-new sector called "influencer marketing" emerged, growing significantly from $6.6 billion in 2019 to $9.7 billion in 2020. Because of this, it is now much simpler for users to keep up with the most recent fashion trends and allow themselves to be influenced by the fashion preferences of others. (Brahma, 2023)

- Social media platforms use algorithms to prioritize posts with high engagement rates and views, thereby generating trends. Customized style suggestions are generated by algorithms that track our online behavior, such as our likes, follows, and searches, on social media platforms. This information is utilized to provide individualized suggestions for fashion items, which makes it much simpler for users to learn about new manufacturers and types of clothing, but also triggers a sartorial trend that numerous individuals will eagerly imitate. (Priedel, 2022)

- Increased social comparison - social media can heighten users' sentiments of social comparison. This can result in feelings of inadequacy as well as a desire to stay current with the most recent trends in order to conform to the expectations of others or to compete with them. Social media, which has caused a rise in the consumption of fashion-related content and unattainable beauty standards, has made the impact of fashion on mental health worse. Fear of missing out (FOMO)

on the newest trends in clothing causes anxiety, lowers self-esteem, and creates an unneeded sense of urgency. The emergence of fashion bloggers and the constant flow of social media material feed people's need to want what others (often celebrities) have. (Raghuram, 2023)

- The rise of social media has caused a shift in the ways in which we communicate with one another, with many people preferring online contact to face-to-face encounters. This shift has altered the social interactions that take place. Social media can be seen as digital tools that support or enhance human networks, which are made up of people who value connectedness as a social ideal. Through these networks, ideas, opinions, and preferences can spread quickly and have an impact on people's behavior and attitudes. Social media platforms, on the other hand, are essentially automated systems that influence and direct connections, creating social media "echo chambers." (Onitiu, 2022; Van Dijck, 2013)

    Because of this, our capacity to create and sustain meaningful social bonds, as well as our ability to read social signs and communicate successfully in person, may be negatively impacted.

In conclusion, the use of social media has had a significant effect on the ways in which we engage with other people as well as the manner in which we consume fashion. While it has the potential to open up new avenues for self-expression and connection, it also has the capacity to stoke the flames of unpleasant emotion and contribute to an idealization of physical attractiveness that is unattainable. By keeping these factors in mind, we may make more educated choices regarding the ways in which we use social media and the things that we buy related to fashion.

However, our exposure to new designs, trends, and brands might be the result of people-to-people interactions, which also have the potential to affect our consumption of fashion in more positive ways. Social media platforms selling second-hand fashion and promoting creative re-use of garments, have a potential to increase the second-hand clothing market and create meaningful interactions in collaborative fashion consumption (Iran & Schrader, 2017; Machado et al., 2019).

In general, interactions with other people are an essential component of our lives that are capable of exerting a major influence on both our opinion of ourselves and the clothing we choose to wear. Being conscious of these factors enables us to make better-informed decisions regarding our style preferences and helps us work toward preserving constructive ties with the people around us.

People to environment interactions

Interactions between people and environments involve our interactions with the physical spaces around us. The environments we inhabit can shape our behavior, emotions, and sense of self (Knez, 2014). The environment and mental health are intrinsically connected. The places where people spend a lot of time—home, work, school, and even social settings—can have a significant impact on one's mental well-being (Lindberg, 2021). The environment surrounding us can also lower or heighten our stress levels (Helbich, 2018). For example, being in nature can promote feelings of calm and relaxation, while being in a crowded and noisy urban environment can cause stress and anxiety. Interactions with our environment can also influence our productivity, creativity, and overall satisfaction with our surroundings.

The interactions that take place between people and the settings in which they live have far-reaching effects that have an effect on the health and well-being of individuals, communities, and the planet as a whole. The person-environment fit hypothesis focuses on the interaction between features of the individual and the environment, in which the individual not only impacts his or her surroundings, but the environment also affects the individual (Holmbeck et. 2008). Both the individual and the environment may have an effect on one another. The degree to which a person and their surroundings are compatible may have an impact on the individual's level of drive and conduct, as well as their mental and physical health as a whole (Holmbeck et. 2008). Therefore, it is of the utmost importance to participate in responsible behaviors that maintain and safeguard the natural environment in order to guarantee that future generations will have access to the same resources that we have now.

In addition, people have the ability to be both the source of environmental issues and the solution to those problems at the same time. The deterioration of the environment, the loss of biodiversity, and the exhaustion of natural resources are all global problems that can only be solved via joint international action. To effectively address these problems, not only developments in environmentally responsible technology and practices but also the active engagement of people in environmentally conscious behaviors are required.

To examine Human Environmental Interactions effectively, it is essential to comprehend the distinctive characteristics of the human social system. Individuals' perspectives on nature, their behavior, and consequently their impact on ecosystems are profoundly influenced by the social structure of their communities. Population size, social structure, values, technology, affluence, education, and knowledge are among the most prominent characteristics of human social systems. Among these, values and knowledge have a

substantial influence on an individual's perspective on life, which in turn determines their actions. Values refer to the principles and beliefs that define a person's worldview, while knowledge refers to the information and skills acquired through education and experience. Together, these two factors have a significant impact on human behavior and social interactions (Lill & Gräber, 2006). Values refer to the principles and beliefs that define a person's worldview. According to the Cambridge Dictionary value is defined as "the beliefs people have, especially about   what   is right and wrong and   what   is most important in life, that control their behavior" (Cambridge Dictionary, n.d., n.p.); while knowledge refers to the information and skills acquired through education and experience. Together, these two factors have a significant impact on human behavior and social interactions.

Most recent consumer trends show a significant shift in values globally (WGSN, 2020; 2023). Future consumers are more than before concerned about the environment and overall well-being and it reflects on fashion consumption patterns as well. A survey conducted by Fashion Revolution in 2020 among more than 5000 respondents aged 16-75 in the five largest European markets, including Germany, France, Italy, Spain and the United Kingdom. The survey was conducted as part of a study in the 'Trade Fair, Live Fair' project 2017-2020, which is funded by the European Commission, and with the overall aim to contribute to meeting target 12.8 of the SDGs framework: "ensure that, by 2030, people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature." (Fashion Revolution Consumer Survey Key Findings, 2020, p.12). The results of the survey showed consumers' concern for the environment and their desire to see fashion businesses and governments step up their efforts to protect the envi- ronment and tackle social challenges along global supply chains. 69% of respondents indicated that more transparency is needed about the materials and production methods. Environmental concerns showed up in the forefront - 78% of respondents want fashion brands to provide detailed information about product environmental impacts and 70% about wages and working conditions for people in the supply chain. 66% were interested in environmental policies and 80% consider sustainability certificates as one important factor in their purchase intentions. Voiced environmental and social concerns however did not match actual consumption patterns. Only appr. 20% of consumers in above mentioned countries have tried to purchase more sustainable clothing and even less, appr. 14% have favored second-hand clothing. Although 62% claimed to have used their clothes at least for five years, only 9% did not buy any new clothes in the last 12 months. More sustainable fashion consumption was favored by younger consumers, aged 16-24. (Fashion Revolution Consumer Survey Key Findings, 2020)

More sustainable forms of fashion consumption and concern for the environment is showing an upward trend, yet there is still an increase in consumption of fast fashion. According to Statista (2023), the global market value of secondhand and resale apparel was estimated to be worth 96 billion U.S. dollars. This value is projected to rise rapidly in the coming years, hopefully doubling in size and reaching a value of 218 billion dollars in 2026. Similar estimation was provided for fast fashion in 2021 (91 billion U.S. dollars) with projected value of 133 billion USD in 2026. In conclusion, the interactions that take place between people and the settings in which they live have substantial repercussions for the expansion of the economy, the maintenance of environmental quality, the maintenance of cultural variety, and the promotion of individual and communal well-being. It is very important to be aware of the our consumption patterns have on the natural environment and to take proactive steps to lessen our ecological footprint. If we take these steps, we will be able to construct a future that is more robust and sustainable not just for ourselves but also for the world.

People to things interactions

Product attachment pertains to the emotional connection individuals have with objects. Schifferstein and Zwartkruis-Pelgrim (2008) define consumer-product attachment as the intensity of an affective bond between a consumer and a durable product. A person's attachment to an object is regarded as special and typically holds great significance for that person. Therefore, the individual will experience emotional loss if the item is missing (Schifferstein & Zwartkruis-Pelgrim, 2008). This distinction emphasizes the focus of product attachment on the relationship between individuals and specific objects. Our possessions can provide us with a sense of comfort, security, and enjoyment. However, excessive attachment to material objects can also lead to a sense of emptiness and dissatisfaction. Our interactions with things can also have environmental implications, as our consumption patterns can impact the planet and its resources. In order to increase the psychological longevity of products, designers need to enhance the emotional connection that consumers have with them.

According to Norman (2005), the processing of a customer's product experience takes place on three different levels: the visceral, the behavioral, and the reflective levels. The visceral level is concerned with the immediate perception of the product's appearance, which leads to rapid judgments and is the beginning point for affective processing. The visceral level can be broken down into three sublevels. The behavioral level is concerned with how a person interacts with the product, and the primary considerations here are how pleasurably and effectively the product can be used. On the reflective level, which is the greatest level, a person is given the opportunity to reflect on the experience they have gained. At this level, the experience is driven by feelings and thinking processes

associated with the individual and their personal history, whereas, at the lowest level, the experience is driven by the individual's perception of the product's features. On the visceral level, there is no interpretation, understanding, or deep reasoning; there is only a direct effect. On the reflective level, however, there is a combination of emotions, feelings, self-image, personal satisfaction, memories, and cognition; this is the level where both emotions and thoughts operate fully (Niinimäki & Koskinen, 2011).

Attachment process according to Norman (2005) has the following aspects:

1) visceral = direct effect (perception);

2) behavioural = pleasure + use;

3) reflective = emotions + self-image + satisfaction + memories + cognition.

The extent of the bond established between a consumer and a durable product is contingent upon the intensity of the emotional affiliation that the consumer harbors towards it. Consumer-product attachment is a phenomenon that denotes the emotional connection established between an individual and a particular item, signifying the item's significance and value to the individual. Consequently, the loss of the product would elicit emotional distress, thereby reducing the likelihood of the individual disposing of the item.

In today's world, people frequently develop emotional attachments to some things while quickly getting rid of others. The functional lifespan of items must be increased in order to promote sustainable development. To do this, designers must also strengthen the emotional bond that users have with their goods in order to increase the psychological longevity of those items (Mugge, Schoormans, & Schifferstein, 2005; Van Hinte, 1997). Although consumers may continue to buy new products, forging strong attachments is one approach to encourage a caring attitude toward products and put off their replacement, which is a worthwhile objective from a designer's perspective and in the context of sustainability. We feel obligated to care for items when they have substantial meaning and worth for us (Walker, 2006).

Designers may make a significant difference in this by producing goods that encourage emotional attachment and are more likely to be appreciated by customers. Designers can create products that are more likely to forge enduring relationships with their customers by taking into account the emotional requirements, preferences, and values of the consumer. Furthermore, designers can create products that not only work well but also change over time to accommodate the user's evolving wants and preferences by incorporating characteristics like durability, upgradeability, and variability into the design

process. Ultimately, designers may help promote a more sustainable and ethical approach to consumption by creating products and services that are emotionally robust and encourage deeper interactions.

In conclusion, interactions between people and people, people and environments, and people and things are all important aspects of our lives. Our experiences and well-being are shaped by the quality of our relationships with others, the environments we inhabit, and the things we possess. Being mindful of these interactions can help us cultivate a more fulfilling and sustainable way of life.

3.1.4 Circular fashion - Collaborative consumption through storytelling

The 2030 Sustainable Development Agenda adopted by all United Nations Member States in 2015 set 17 goals for Sustainable Development (SDGs) (United Nations). Demand for more sustainable production and consumption as part of the Sustainable Development Goals has raised critical concerns about the current state of the supply chain in the fashion industry. One of the proposed promising solutions is related to the notion of Circular Fashion System (CFS), an industry specific example of the circular economy, which aims to provide an alternative "circular" system approach to a current "linear" system (Ellen MacArthur Foundation; Kim, Woo, & Ramkumar, 2021). CFS focuses on achieving prolonged life cycles of fashion products, not only by using higher quality materials and better design in production, but also through re-use, including exchange between multiple owners of the garments (Iran & Schrader, 2017; Kim, Woo, & Ramkumar, 2021; Kunz, et al., 2016). Iran and Schrader (2017) use the term Collaborative Fashion Consumption (CFC), which considers alternative forms of ownership beside second-hand buying like lending, swapping, renting or leasing. Clothing re-use provides both fashion businesses and consumers with equal market opportunities (Kim, Woo, & Ramkumar, 2021).

Second-hand shopping has seen steady growth both in off- and online retail (Vehmas et al., 2018). Millennials and Gen Z are the leading consumer group in the second-hand clothing market (Price, 2019). Increased environmental concern and interest in sustainability and lifestyle are the primary motivations of younger generations in their shopping patterns (Yan et al., 2015; WGSN, 2021, 2023). But not only environmental concerns are motivational factors behind the second-hand clothing purchase. Also, economic concerns like affordability and hedonistic motivations can explain the interest towards second-hand clothing (Machado et al., 2019). Items purchased on re-use

market provide opportunities for unique, yet affordable style, exploring one's identity (Machado et al., 2019; Yan et al., 2015). Purchasing second-hand clothing can also enhance perceived acceptance or sense of belonging among different cultural groups, thus adding another layer in terms of social benefits (Machado et al., 2019).

Despite numerous above-mentioned benefits there is relatively low consumer engagement in the circular fashion economy and different areas of research have been interested in finding the barriers and enablers of greater consumer engagement (Charnley et al., 2022; Kirchherr et al., 2018). Barriers can be either functional, psychological or social in nature (Silva et al., 2021), and include concerns like lack of trust and transparency.

Recent studies to understand the consumer second-hand shopping motivations have shown the interest in the desire to learn the history behind the garments (Machado et al., 2019). Kim et al. (2021) in their study focused on the effect of garment storytelling on consumers' attitudes and purchase intentions. They used narrative competence theory as a foundation to explain consumers' desire to learn stories behind the second-hand items. Narrative competence theory is based on human's ability to read other people's emotional narratives and empathize with them (Gallagher and Hutto, 2008). Narrative competence theory is considered to be a theoretical foundation to the power of storytelling, widely used in many fields, including marketing (Park and Lee, 2014). WGSN in their Future Consumer 2025 Report emphasizes the importance of emotional touch in business storytelling (WGSN, 2023). Storytelling is powerful also in consumer- to- consumer interactions (Pappas, 2016; Van Laer et al., 2019). Pappas (2016) claims that learning about the product through a narrative helps consumers with purchase intentions by minimizing their doubts and uncertainties and building their trust. Similar sentiments are shared by others. Sihvonen and Turunen (2016) in their research investigated the power of storytelling in communication of products' history to enhance the perceived value of the product. Their research showed that second-hand items with a rich narrative of their life cycle were favored due to the ability to provide symbolic meanings and evoke pleasurable desired emotions like nostalgia, sense of belonging, etc (Sihvonen & Turunen, 2016).

Kim et al. (2021) study revealed that the rich narrative history of garments shared with potential buyers increased their trust and perceived product value, especially the hedonic and social benefits. Their research demonstrated that consumers prefer the human element and seek this human-to-human communication in the online CFS model which represents the future era of retail. Adding human narrative according to the study helps to drive more active participation in this emerged business model. Human narrative that

tells the story behind each garment helps to build trust, enhances the customer experience, builds a stronger consumer community, and increases the transparency of products and services.

Storytelling in design refers to the use of narrative elements to create a deeper connection between the designer, the product, and the consumer. "For thousands of generations, humans have used storytelling to create intense emotional engagement with one another. Stories can move us to tears, change our attitudes, opinions, and behaviors, inspire us and change our brain chemistry" (Zak, 2014). This approach to design involves incorporating stories, symbols, and cultural references into the design process to evoke emotions and create a sense of meaning and purpose. Storytelling in design can create a sense of identity and emotional attachment to the product, making it more valuable to the consumer. This emotional connection makes the product more meaningful and can even lead to advocacy for the brand and the product itself.

Designers could use a variety of techniques, such as photography, film, or illustration, to communicate this narrative and evoke emotional responses from users. Additionally, designers could also create interactive experiences that allow users to engage with the story and the garment in new ways, such as virtual reality or augmented reality. This could help to increase the emotional connection of the wearer with the garment, as it creates a deeper experience.

According to the EU's Circular Economy Action Plan (2020) digital technologies and related technological trends are considered to have significant importance in increased value creation and facilitation of greater consumer engagement in the circular economy Some of the emerging technological developments include blockchain, QR (quick response) and RFID (radio frequency identification) codes or NFC (near field communication) tags. These are not yet widely used in the fashion industry but could help make the product journey more transparent and enable businesses and consumers to equally tell and read the products' stories. (Charnley et al., 2022)

Kim et al. (2021) study on garments' storytelling was based on the US consumer market where second-hand retail has gained increased popularity and economic benefits are often not the main motivation or even low due to the popularity of fashionable circular fashion. Kim et al. (2021) called for the need of future studies, especially for cross-cultural comparisons in the use of narrative storytelling in circular fashion service. Current thesis work is one attempt to add some viewpoints, ideas and possible solutions to this pool of knowledge.

4. RESEARCH DESIGN

Chapter four provides a general overview of the research context based on insights from the literature review, research process and methods used. Research participants and analysis techniques are introduced as well.

4.1 The research context

The trend toward disposable goods has had a big impact on society. People are increasingly prone to overconsumption and waste as they place less emphasis on quality and longevity. Additionally, a feeling of discontent and disillusionment within consumption society might result in the ongoing desire to replace items. Instead of appreciating their belongings for what they truly are, people could start to feel as though they are always chasing after the newest and most innovative products (Mont, 2008). This could make you feel empty and make your life less satisfying overall.

Fast fashion phenomenon has gained substantial popularity in recent decades, due to the surge in worldwide production and widespread use of social networking platforms . Fast fashion enables consumers to conveniently and expeditiously acquire the most current fashion trends at a comparatively affordable price, thereby affording them the opportunity to explore diverse styles and manifest their individuality through fashion. Fast fashion provides consumers with a diverse selection of styles, colors, and designs, affording them the autonomy to combine various articles of clothing to produce distinctive ensembles. (Gendre, 2022)

Although quick fashion has become a common approach for customers to stay current with the most recent trends, it is missing an essential component, which is an emotional connection with the person who is wearing it. This is due to the fact that the production process and increasing profit margins are given a higher priority in fast fashion than the creation of apparel that has meaning and will last for a long time.

Self-expressive products like clothing and textiles can elicit emotions related to consumption immediately after purchase. Richins (2008) claims that these feelings are significant for customers, yet they do not automatically result in a same sense of connection to the product in the same way that the feelings that are experienced while using the product do. Mugge et al. (2008) believe that an emotional attachment to a product is not guaranteed just because it satisfies the utilitarian function of the product and the demands of the user. The fact that the fast fashion apparel is designed to be worn maybe only a few times before being discarded contributes to the absence of an

emotional connection with fast fashion. Fast fashion firms push people to continuously acquire and discard apparel, which leads to a sense of detachment and superficiality. New trends emerge every few weeks, and fast fashion companies encourage consumers to purchase these new trends. Fast fashion requires turn over, not attachment. Fast fashion isn't made to be loved, to be kept, or to be cared for (Ricketts, 2021).

The emphasis on planned obsolescence might, from a corporate perspective, stifle creativity and innovation. Companies may place more emphasis on cost-cutting and rapid turnover than on designing products with lifetime and sustainability in mind. This can limit the possibilities for truly ground-breaking innovation and cause products to become homogenized. Additionally, because businesses tend to put short-term profits ahead of long-term sustainability, they may be less inclined to invest in research and development for sustainable products and systems (Stern, 2022).

In contrast, articles of clothing that are designed for longevity and have a particular value for the user have the potential to become cherished components of the wearer's wardrobe, with memories and feelings tied to each individual piece (Gwilt & Pal, 2017).

According to Mugge et al. (2005), it is not sufficient to only match the expectations of consumers in order to cultivate attachment; rather, a unique meaning needs to relate to the product or the way it is used. Because of this deeper engagement, product replacement may be delayed as a result. Having a favorable experience when using a product might result in increased product satisfaction and longer use.

On the other hand, articles of clothes that have been carefully conceived and made by talented artisans can have a one-of-a-kind personality and story that lends them greater significance to the individual who wears them. Richard Sennett (2009) in his book The Craftsman, that the decline of craft traditions constitutes a significant weakening of our connection to the worlds of goods and work we inhabit today.

Storytelling is central when it comes to preserving culture: traditions and collective memory get passed down through stories from one generation onto another; this creates continuity enabling us all connect with our roots while understanding our place in history's broader tapestry. According to narrative competence theory humans have the ability to read and understand each others' narratives, thus empathizing with their emotions and intentions reflected on the narratives, thus feeling attachment and social connections from those exchanges (Gallagher and Hutto, 2008). Narrative competence theory is considered to be a theoretical foundation for storytelling which is able to transfer emotions and social connections (Kim et al, 2021).

Sharing our personal stories encourages others to connect more profoundly with us as we create a lasting sense of community. Stories possess an innate ability to convey complex ideas effortlessly while also imparting life lessons that we can relate with ease. They are fascinating since they stroke our imagination while providing inspiration for personal growth or guidance. Additionally, stories tend to challenge the status quo by provoking critical thinking or inspiring positive change in society. Today businesses recognize how powerful stories are: effectively telling their story enhances emotional connections, deepening consumer loyalty, ensuring differentiation from others competing for customers' attention (Lundqvist et al., 2013; Park and Lee, 2014).

Storytelling in the digital era plays an important role not only in business-to-consumer or business-to-business communications (Gilliam and Flaherty, 2015). Storytelling in consumer-to-consumer communications has proven to be effective on various social media platforms (Hsiao, Lu, & Lan, 2013). However, it has been asserted that more research is needed to unveil the potential of storytelling in second-hand product exchange encounters and enhance effective circular fashion systems (Kim et al., 2021; Van Laer et al., 2019).

4.2 Research objective

The problem statement, as voiced in introduction, is as follows:

How can emotional attachment and storytelling be leveraged to promote more sustainable fashion consumption patterns?

Based on this central research question, sub-questions are given as investigative guidelines for the research:

What are the emotional and memory-related factors that influence individuals' attachment to their garments?

How important are user narratives in the garment life cycle?

The main objective of this research is to investigate the importance of emotions and memories related to clothing to gain insights that can inform the design process by using storytelling to create transparency and evoke desired consumer emotions; ultimately leading to more emotionally resonant collaborative fashion consumption.

This research project aims to delve into the sentimental and nostalgic associations that people establish with their clothes and how these emotional bonds impact their shopping

behaviors. Moreover, this study seeks to assess whether sharing stories about cherished garments can help uncover the emotional value attached by individuals towards their wardrobe items thereby influencing them positively towards retaining them longer. The research wants to understand how narratives revolving around memories associated with clothes lead people into developing more meaningful relationships with them causing an increase in usage frequency and consequently extending product life-cycles which essentially contributes towards sustainable consumption practices.

In addition, this study hopes to uncover why people retain articles they do not actively wear, while simultaneously exploring if sharing stories about these unused pieces through narratives help perceive sentimental significance thereby promoting retention further adding sustainability as well as minimizing wastage.

Furthermore, this research project seeks to evaluate factors influencing personal interest levels around second-hand items while trying to identify aspects that encourage building connections between consumers and pre-worn clothes via storytelling. Lastly, the study plans on understanding effective strategies that facilitate evoking emotions and memories associated with clothing via narratives resulting in stronger engagement levels with attire.

4.3 Research process

The purpose of this study is to examine the complex relationship between emotions, memories, and apparel. Specifically, it investigates how elicit emotions through storytelling, as well as how this emotional connection influences consumer behavior. To accomplish this objective, the research paper combines qualitative research methods with systems thinking. Utilizing qualitative research techniques such as in-depth interviews, data on consumer experiences and perceptions is gathered and analyzed. The results of this analysis are utilized to inform the design process. The research paper employs systems thinking to investigate the intricate relationship between emotions, memories, and apparel. Systems thinking is a holistic approach to problem-solving that acknowledges the interdependence of a system's various components (Meadows, 2008). By applying systems thinking to the design process, researchers are able to determine how various design decisions influence the affective connection between consumers and their apparel.

4.3.1 Systems thinking

Systems thinking, a term coined by Barry Richmond in 1987, is a holistic approach to problem-solving that recognizes the interconnectedness of different elements within a system. According to Meadows (2008), a system is a collection of interconnected components or elements that are organized in a coherent manner and exhibit distinctive behaviors, which are typically categorized as its "function" or "purpose" (Payne, 2020). When applied to the fashion industry, systems thinking can help to identify and address the complex challenges that the industry faces, including issues such as environmental sustainability, social responsibility, and ethical production. By understanding the characteristics of a fashion system, such as its resistance to stress or malfunctions, we are able to identify areas where transformations can occur and visualize the potential evolution of future systems (Payne, 2020). One of the key benefits of systems thinking in the fashion industry is that it allows for a more comprehensive understanding of the impacts of fashion on the wider system. For example, by examining the entire life cycle of a garment - from the sourcing of materials to production, distribution, and disposal - systems thinking can help to identify the environmental and social impacts of fashion at each stage of the process. This, in turn, can inform more sustainable and responsible decision-making throughout the fashion value chain.

Another benefit of systems thinking in the fashion industry is that it can help to foster collaboration and innovation. By bringing together stakeholders from different parts of the value chain - including designers, manufacturers, retailers, and consumers - systems thinking can help to identify new opportunities for collaboration and innovation that can help to drive positive change in the industry. Finally, systems thinking can help to shift the focus of the fashion industry from short-term profits to long-term sustainability and responsibility. By taking a more holistic and forward-thinking approach to problem-solving, systems thinking can help to create a more resilient and sustainable fashion industry that is better equipped to address the challenges of the future.

4.3.2 Stakeholders in the fashion industry

The fashion industry is a complex, multi-stakeholder system that includes designers, manufacturers, retailers, consumers, and policymakers. Each of these stakeholders contributes significantly to shaping the industry and influencing consumer behavior. Designers are one of the most significant fashion industry stakeholders. Their designs can have a significant impact on consumer behavior. Designers can influence consumer preferences and purchasing decisions by creating apparel that resonates with consumers and speaks to their values and aspirations (Payne, 2020, p.30) . However, designers are

only one stakeholder in the fashion industry, and it is essential to recognize the role that other stakeholders play in influencing consumer behavior and shaping the industry. Manufacturers are another essential fashion industry stakeholder. They are responsible for mass-producing apparel and ensuring that it satisfies quality and safety requirements. Manufacturers can also have an impact on consumer behavior by making sustainable and moral production decisions that align with consumer values. Retailers are responsible for selling apparel to consumers and are frequently the first point of contact between the fashion industry and consumers. By creating compelling purchasing experiences, providing personalized recommendations, and promoting sustainable and ethical fashion choices, retailers can influence consumer behavior. Perhaps the most significant stakeholders in the fashion industry are consumers. They ultimately drive clothing demand and have the ability to influence industry trends and practices. Consumers can influence the fashion industry by making sustainable and ethical fashion selections, supporting brands that align with their values, and by advocating for greater industry transparency and accountability (Eitelwein & Paquet, 2021).

The subject of this present study focuses on consumers and their individual connections with cherished apparel. Through an examination of people's emotional connections with their clothes and sharing inspiring stories, it hopes to provide design solutions to empower individuals to take an active part in reducing overconsumption.

The significant role that customers play in driving demand and influencing fashion market dynamics is acknowledged by this research. The aim is to gain insights about how sentimental values associated with clothing can affect consumption behavior, leading towards more environmentally-friendly habits. Thus, comprehensive understanding of the role of personal attachments that people have towards their apparel is essential for prolonging garment life cycles while diminishing purchase impulses for new ones.

This study explores how individual memories tied up with clothes showcase why it's crucial to value and sustain existing garments at a deeper level than just mere functional or style reasons; additionally, it recognizes storytelling's power as a community-building tool among customers. When people share their apparel-related experiences, they foster connections between themselves, building communal bonds within a greater group setting.

This method encourages cooperation while also providing support for those dedicated to curbing overconsumption and promoting greater sustainability within fashion. This research focuses on consumers as its primary goal is empowering individuals through

information that facilitates active participation in driving sustainable change forwards through market influence by making informed decisions when it comes to garments.

4.4 Methods

This study used a qualitative research methodology to reveal the emerging themes in the complex nature of people- product interactions and to foster understanding of the role of emotional memories in garment ownership. The empirical research used an in-depth interview method, designed to investigate in a highly exploratory way how memories and emotional bonding can be elevated to another attachment level.

The interviews were based on open-ended questions to initiate conversations about the emotional attachment to clothing. Interviewees were prompted to share their personal stories related to memorable experiences with their garments and meaningful connections they might have with some items. Connections between personal identity and garments were discussed as well. Interviewees also shared their ideas about a more sustainable fashion industry and the power of storytelling.

4.4.1 Interview schedule

Main proposed research subjects were consumers and designers. Total of 21 interviews were conducted over the period of 2 months, in March and April of 2023. The average duration of interviews was 60-90 minutes. Four interviews were conducted via Zoom, the rest face-to-face. All interviews were recorded with interviewee consent and transcribed later.

Five of the interviewees were designers, 14 consumers and 2 shop owners. Three interviewees were men and 18 women, ranging from 19 years to 60 years. Interview respondents represented four different nationalities. Five interviewees representing consumers were Americans, five Estonians, one from Finland and one from Lithuania. Shop owners were from Estonia, one of them owns a fashion boutique and the other one a second-hand clothing store. All five interviewed designers are Estonians, but one of them resides and works in Portugal.

Interviews were conducted in Estonian and English and transcribed and coded in their original language.

4.4.2 Analysis techniques

This study used analysis of narratives as a data analysis technique (Creswell, 2009). The collected data was presented in a rich text and was analyzed focusing on emerging themes and descriptions. Interpretation of themes/descriptions allowed us to understand the multifaceted aspects of emotional attachment between wearers and garments.

The act of storytelling played a crucial role in uncovering how individuals form deep connections with their garments in this study. As participants shared stories about specific items of clothing they owned or wore frequently, themes emerged which highlighted key factors contributing towards an emotional bond being formed between an individual and their clothes. These themes included sentimental value (often linked to family heirlooms) nostalgia (reminding someone of past times or events) personal history (reflecting important moments in one's life) self expression (communicating who someone is through what they wear) and transformational changes made through wearing certain items over time. These emotional connections can be powerful drivers which encourage people to use and care for their garments for longer periods ultimately benefiting the environment by reducing unnecessary consumption. Finding ways to encourage more sustainable consumption patterns is a pressing challenge for the fashion industry today - but one that storytelling may help solve. This research underscores just how important emotions are when it comes to building stronger consumer relationships around clothing purchases. This means using creative methods like community building campaigns or targeted messaging designed specifically for different groups within your audience. Although the researcher recognizes that the study group was small (21 interviewees), she believes these findings are a useful starting point for further research into the power of emotional attachment in fashion.

4.4.3 Study participants

An essential part of this study was its diverse pool of participants who provided valuable insights through in-depth interviews. Their narratives and personal stories offered a vast wealth of information on emotional connections to garments, consumption patterns as well as identity. The study focused on emotional connections individuals had with their garments and how memories associated with clothing played an essential role in shaping usage behavior throughout their life cycles. User journeys mapped out various touchpoints, emotions, actions associated with acquiring clothes, usage patterns during ownerships until their eventual disposal by taking into account findings from these interviews.

A meticulous coding and analyzing helped identify moments shared when emotions intensified like attachment or decision-making processes for purchasing new clothes or reflection on past relationships related to these garments. Through identifying points at which sustainability initiatives can be implemented along user journeys (like interventions or design strategies), this research helped shed light on opportunities for more sustainable consumption habits.

4.5 Results and discussions

This section presents results of the interview data analysis. This study employed in-depth interviews to gain insight into the factors that influence individuals' decisions to keep fashion garments for an extended period of time.

4.5.1 Key insights from interviews

These are the main findings from these interviews:

- **Emotional connection:** When assessing the value of certain clothing items we own sentimental or emotional attachments frequently factor heavily into whether or not we'll keep them around long term.
- **Personal identity:** Clothes that feel unique or special in some way tend to be prized by their owners as they help express individuality and personal style.
- **Practicality:** Beyond aesthetics however the practicality and functionality of a garment are also significant factors when gauging its worth in our wardrobes.
- **Resourcefulness:** Garments that are handmade using readily available materials can be especially meaningful because they reflect resourcefulness and creativity; qualities that many people strive to cultivate in their lives.
- **Preservation of memories:** In a similar vein clothing linked to deceased loved ones is often stored with care as a way to keep memories of these people alive and present.
- **Ethical considerations:** Despite knowing certain brands engage in questionable practices some consumers might still purchase from them - this raises important questions about how we choose what to buy and who we want to support with our purchases more generally. While ethical considerations undoubtedly factor into decision making processes surrounding clothing purchases or use practical concerns around costs or accessibility are equally important.

- **Value and care:** By investing greater amounts of money or time in particular garments or accessories people tend to develop stronger senses of responsibility towards them over time through increased attention given towards maintenance efforts or general wear and tear reduction strategies.

These insights illustrate the varied nature of individuals' connections with their clothes, taking into consideration variables such as emotions, practicality, personal significance, and ethical issues among other things. Having an understanding of these perspectives can help in further understanding the emotional connections that people have with their garments.

Several key themes emerged from key insights including sentimental value, nostalgia, personal history, self-expression, and sustainability (for more detail see Appendix 2).

- **Sentimental value:** Emotional connections, personal identity, resourcefulness, preservation of memories, value and care.
- **Nostalgia:** Emotional connection, personal identity, preservation of memories.
- **Personal history:** Practicality, resourcefulness, preservation of memories, value and care.
- **Self-expression**:Practicality, resourcefulness, ethical consideration.
- **Sustainability:** Resourcefulness, ethical consideration, value and care.

This information can be useful when developing interventions aimed at encouraging sustainable consumption while also developing a deeper understanding of relationships between people and their clothing.

4.5.2 User journeys

Individual user journeys were created based on insights from interviews. Through user journeys, opportunities for innovation and improvement were found and highlighted. The entire user experience may be improved by developing solutions based on an analysis of user behavior and the identification of problematic areas in the system (see Figure 4 - 6).

User 1

She is a university student who previously worked as a graphic designer at an apparel brand and in product development. She places a high value on long-lasting clothes, but occasionally indulges in emotional shopping. Most of her clothing is purchased from second-hand or vintage shops. She has a particular fondness for clothing that carries a sense of personal history or attachment.

Awareness → Consideration → Habits → Service → Emotional touch

Touchpoints

Materials
- She possesses a strong understanding of various materials and appreciates the durability and sustainability of natural materials.

She does not pay much attention to current fashion trends and instead places greater value on vintage clothing, as well as clothing that is long-lasting and has a unique or interesting aesthetic.

Although she is aware of the negative impact of fast fashion, she sometimes buys such items due to financial constraints.

She typically buys clothing over a period of 1-2 months, although she occasionally indulges in emotional shopping. She also occasionally receives clothing from friends.

She donates clothing that she no longer wears to second-hand shops, but she keeps items with sentimental value or high quality and sells them personally.

Opportunity

She utilizes the following clothing services:
- Yaga
- Humana
- Vintage shops
- Fast fashion clothing (occasionally)

Loyalty
- She takes special care of the items that hold sentimental value for her and follows care instructions to help ensure their longevity.

She associates each piece of clothing with memories and sentimental value but does not document the stories associated with them.

Opportunity

Figure 4. User Journey 1, created by the author

User 2

She is a young entrepreneur, who has her own marketing company. She values materials and tends to purchase more high end pieces as rewards for herself. She still buys fast fashion items, but only if they are made from quality materials. She has many pieces she cherishes and has memories with. Mostly shops high-end brands Certain items are associated with milestones in her life.

Awareness → Consideration → Habits → Service → Emotional touch

Touchpoints

Materials
- Natural materials - prefers naturals materials like wool, cotton, linen, silk

Thinks about how long she will wear an item
- Considers how long the items will last in terms of wear and tear
- Looks at purchases as investments

Although she looks for natural materials, she will still buy from fast fashion companies.
- Follows trends, therefore tends to buy more

She takes care of the items she cherishes the most.
- Follows care guides to ensure her items last a long time
- Wears expensive items, when she's feeling confident

She keeps items with sentimental value while tends to sell high priced items.

Opportunity

Buys designer items during sales or flea-markets and takes to luxury consignment store
- Cherishes good quality items and wants to sell certain pieces that are valuable in terms of money.

Often doesn't remember certain memories or stories behind clothes that are meaningful to her

Opportunity

Certain items are remainders of milestones in her life
- She has certain items that are sentimental to her, but has to think about the stories and memories related to them.
- She has items that are reminders of cherished friends that she no longer has.
- She has items in her life that are confidence boosters

Opportunity

Figure 5. User Journey 2, created by the author

Figure 6. User Journey 3, created by the author

5. RESEARCH CONCLUSION

This research delved into various aspects that shape people's emotional relationships with clothing. By examining multiple related topics, such as fast fashion, slow fashion, emotional memories and meaningful interactions between individuals and garments through theoretical approaches and n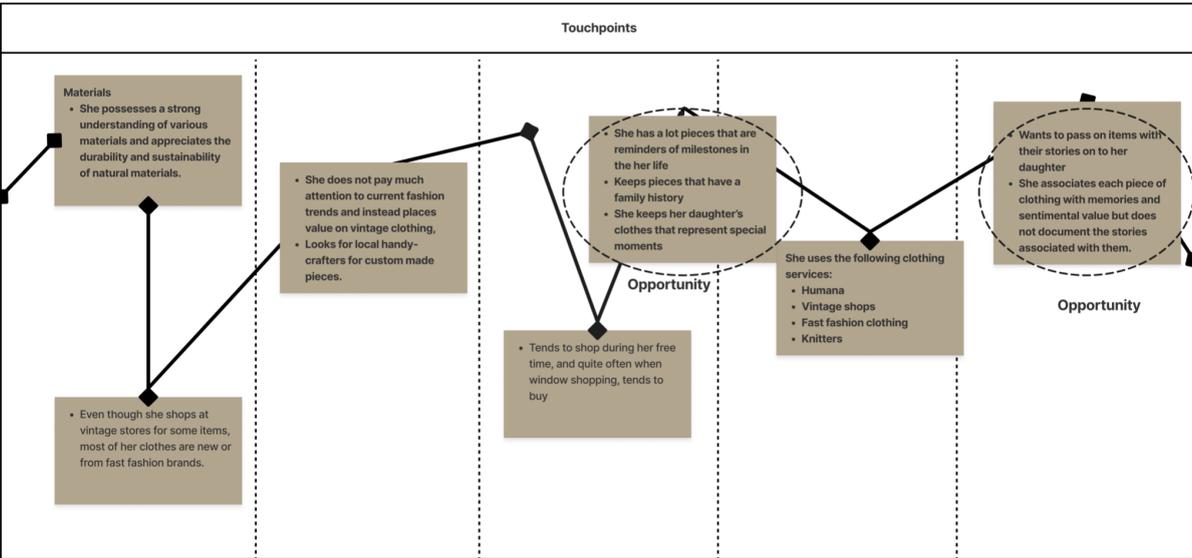arrative-based data analysis techniques, the researcher gained useful insights into these interactions for possible design based solutions within a circular fashion system.

The holistic-inductive approach employed in this study recognises interconnectedness between various elements and perspectives (Jennings, 2001). Study findings corroborate the theoretical underpinnings for the role of emotions and memories in shaping consumption patterns within the current fashion industry system. This study highlights the prevalence of fast-fashion in the industry which is characterized by rapid production and disposal cycles, and the increasing consumer interest in slow-fashion which advocates conscious consumerism by promoting second-hand markets while also nurturing sentimental values such as emotional attachment towards one's clothes.

Qualitative data was collected through in-depth interviews to gain an insight into complex aspects of emotional attachment which are often multifaceted. This approach provides participants an opportunity to share detailed experiences providing captivating insights into how important these garments are for them personally. To achieve a richer set of narratives for analysis an interviewer had an active stakeholder role, subtly probing the interviewees to "tell more" about the topic (Riessman, 2012). Through sharing their personal stories filled with memories and emotions, individuals provided the researcher with insights about people's complex relationships with their garments.

To explore people's emotions and connections towards their clothing items, this study employs narrative-descriptive data analysis technique treating collected data as textual units and analyzing emerging themes & descriptions thereof along with emotions and feelings expressed (Creswell, 2009; Kim, 2016). Rich narrative text provided the researcher opportunities for interpretations which shed light on emotional bonds between wearers and garments within circular fashion systems. Through examining these narratives closely, this study revealed complex insights surrounding emotional attachment and significant relationships in relation to a circular fashion system. Analysis of interviewees' narratives showed the importance of storytelling. Narrative threads filled with emotional memories revealed the importance of cherished items. Often these

stories were recalled when prompted, providing the storytellers themselves with moments of happiness.

This research expands the knowledge about how emotions, memories, attachments, and sustainable apparel choices intersect in storytelling to create meaningful impact in fashion consumption practices. Ultimately, this work will help guide future interventions aimed at driving mindful decision-making patterns when it comes to conscious clothing choices that engage human connection beyond just practical wearability purposes.

6. CONCEPT DEVELOPMENT

The ultimate goal of the study is to promote more sustainable garment ownership practices by investigating the role of emotional memories in shaping these connections. To convey the depth and richness of individual experiences and perspectives, qualitative research methodology was employed. The research design used is an inductive approach, which recognizes the subject complexity to generate new insights and comprehension.

The name "Threads of Memory" was chosen to convey the essence of the research topic and the emotional attachment people have with their clothing. The term "threads" refers to the material components of apparel, the intricate weaves and stitching that join together to form a garment. Threads not only represent the physical fabric, but also the interconnectedness of the emotions, recollections, and personal experiences associated with clothing, the narrative threads. The term "Memory" emphasizes the significance of apparel as carriers of personal and communal memories. Garments (as well as other material objects) are capable of preserving and evoking memories, serving as tangible reminders of people, events, and moments. The combination of "Threads" and "Memory" in the name reflects the intention to investigate and untangle the emotional threads woven into our garments and stories, and how these threads connect us to our past, define our present, and affect our future.

Threads of Memory is the result of extensive exploration into how garments trigger deep emotions, memories, and attachments within us all - particularly within circular fashion systems. Our mission has been twofold: first, to recognize the value placed upon these bonds; secondly, providing an avenue through which they can be celebrated and preserved by harnessing the power of storytelling.

The evolution process itself put heavy emphasis on creating an environment where like-minded individuals could come together not only to experience strong feelings while sharing their stories but also receive support from one another through useful tips or advice. Threads of Memory emerged as a collaborative environment designed to facilitate learning among its users through sharing personal clothing memories. By taking into account user feedback, research findings, and incorporating sustainability measures throughout its development process, Threads of Memory aims to inspire conscious consumption habits while simultaneously promoting garment durability as well as sustainable fashion practices.

All in all, Threads of Memory recognizes how deeply intertwined emotions are with our clothes - from sweet childhood memories to noteworthy milestones - by offering a space for like-minded individuals to share stories and celebrate these connections together.

The principal method of data acquisition used in "Threads of Memory" was in-depth interviews. These interviews gave participants the opportunity to share their personal narratives, memories, and emotions associated with their garments. The purpose of this study is to capture the nuances of the emotional aspect that exists between individuals and their apparel told by these stories. The collected data was transcribed and analyzed utilizing a content analysis methodology. The focus was on recognizing and examining themes and patterns that emerged within the narratives. This study seeks to obtain a deeper understanding of the multifaceted aspects of emotional attachment and its influence on garment ownership and consumption behavior based on evolving themes.

Concept development objectives

The following research objectives guided this study:

- examine the sentimental and nostalgic associations that people establish with their clothes and how these emotional bonds impact their shopping behaviors;
- assess whether sharing stories about cherished garments can help uncover the emotional value attached by individuals towards their wardrobe items thereby influencing them positively towards retaining them longer;
- understand how narratives revolving around memories associated with clothes lead people into developing more meaningful relationships with them, causing an increase in usage frequency and consequently extending product life-cycles;
- explore if sharing narrative stories help perceive sentimental significance of items thereby promoting retention;
- evaluate factors influencing personal interest levels around second-hand items while trying to identify aspects that encourage building connections between consumers and pre-worn clothes via storytelling;
- create understanding of effective strategies that facilitate evoking emotions and memories associated with clothing via narratives resulting in stronger engagement levels with attire.

These research objectives along with anticipated outcomes helped to define proposed concept goals and objectives.

Anticipated outcomes

This study explored the impact of emotional memories on garment attachment and fashion consumption. Using insights from theoretical discussions and empirical research, it is anticipated that these emotional connections will increase the longevity of garments, decrease overconsumption, and promote sustainable practices. In addition, the study investigated the affective benefits that individuals derive from their relationships with their apparel, such as improved well-being, self-expression, and a sense of personal identity. The proposed concept, "Threads of Memory" attempts to untangle the complex web of emotions and memories that entangles our clothing. By comprehending the significance of these emotional connections, the design concept seeks to contribute to a greater appreciation for the stories garments convey and the possibility of more sustainable fashion practices.

Concept goals

The Threads of Memory platform has a well-defined set of objectives, which serve to direct its mission and provide the foundation for its purpose. The concept that garments should be the primary center of attention, with a celebration of the value of clothes and the tales they contain is at the heart of these aims.

Putting clothes in the spotlight: One of the main objectives of Threads of Memories platform is to highlight the importance of clothing. It acknowledges the fact that garments are more than mere material things; rather, they are containers for one's own history, experiences, and feelings. Threads of Memory's mission is to honor the personal tales that are woven into each of our garments by celebrating the stories that are weaved into them. It invites users to share the tales behind the outfits that they wear, whether it's a beloved heirloom, an outfit for a particular event, or one that they wear frequently. This platform recognizes the emotional worth and relevance of our wardrobe choices by bringing attention to these stories.

Creating a sense of connection and community: The online service makes an effort to create a sense of connection and community among the people who use it. Individuals can identify connections, establish new relationships, and create a supporting network of persons who share their appreciation for the power of clothes as a storytelling medium when they share the tales behind their clothing with one another and share their

experiences. The goal of Threads of Memories is to create a community where users may have meaningful discussions with one another and connect on a more profound level.

Promoting practices that are sustainable: Threads of Memory also has as one of its primary aims the promotion of sustainable fashion practices. The platform encourages users to adopt a more mindful attitude to the consumption of fashion by putting an emphasis on the worth and durability of the items of clothing they purchase. It promotes the practice of mending, taking care of, and cherishing one's garments, with the ultimate goal of making the fashion industry more environmentally friendly and mindful.

Preserving and rediscovering stories: The mission of Threads of Memory is to preserve and rediscover the stories that are associated with garments. Users may breathe new life into things that have been forgotten or ignored by exchanging photographs, descriptions, and stories with one another. The website transforms into a repository of people's collective memories, enabling users to unearth previously unknown stories, hidden tales, historical context, and the rich tapestry of experiences woven into their clothing

7. THREADS OF MEMORY

Threads of Memory is a digital storytelling platform that provides apparel with a voice and lets users write their own stories. Threads of Memory creates emotional connections between individuals and their clothing by allowing consumers to share the stories behind their clothing. The platform promotes sustainable consumption patterns and encourages users to take care of their possessions, thereby increasing their longevity.
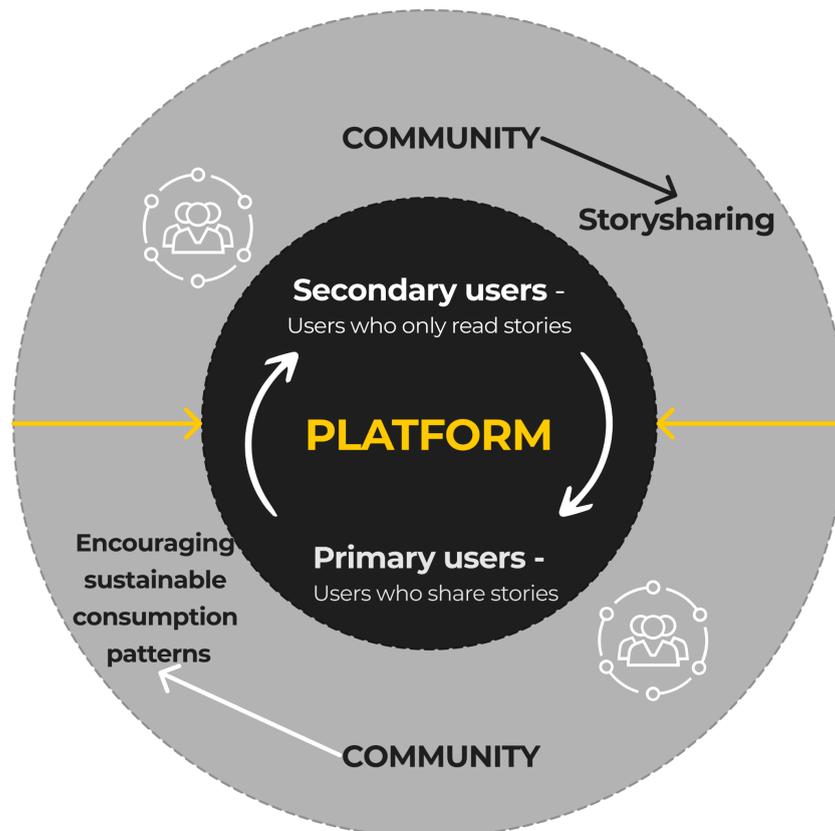
Figure 7. Stakeholder map, by the author

Threads of Memory is an innovative platform comprising two primary stakeholders - primary users and secondary users (Figure 7).

Primary consumers of the Threads of Memory platform are people who have an unbreakable bond with their clothing and have formed strong emotional connections with their garments. These users actively seek to share their stories and experiences via the platform, recognizing the power of storytelling in creating and strengthening attachment to garments. Individuals with a sincere appreciation for history, materials, craftsmanship,

heritage, knowledge, extension of objects' lifetime, and the practice of repair are the platform's primary users. These users recognize the importance of preserving and honoring the past, valuing the quality and integrity of materials, and appreciating the skills and knowledge required to create and maintain objects. They recognize that by sharing the memories and feelings associated with their garments, they can increase the significance and value of these items. These key constituents play a vital role in the thriving Threads of Memory community. They actively engage with the platform by creating profiles and sharing heartfelt, memory-filled stories. Through their stories, they encourage and inspire others to do the same, nurturing a sense of community and shared comprehension among users. By sharing their stories, primary users not only acknowledge a personal connection with their garments, but also help others develop a deeper appreciation for their own garments and the memories they contain. Through the act of storytelling, attachment to apparel becomes more than just a sentimental bond; it becomes a means of preserving and honoring personal and/or family history, celebrating individuality, and forging connections with others who have similar sentiments. In essence, the primary users of Threads of Memory actively create and strengthen emotional attachment to the apparel through the use of narratives. They contribute to the collective tapestry of memories, emotions, and experiences that forms the basis of the Threads of Memory community by sharing their personal stories.

Secondary users are welcomed to visit the platform to indulge in these beautiful stories woven by others - finding inspiration in them while connecting deeply on multiple levels through individual perspectives. These stories help secondary users who are still processing their own stories and experiences. By reading about other members' narratives, these individuals can find comfort in relating to similar emotions, milestones, and sentimental connections. Although they might not feel ready or are unwilling to share their own accounts, knowing that they're not alone in cherishing clothing items or memories can be affirming. This welcoming space for storytelling enthusiasts may help secondary members prepare themselves for eventually sharing their own personal garment stories either with a selected or wider audience. This platform encourages self-discovery while fostering empowerment through supportive participation.

Threads of Memory is a platform that unites primary and secondary users alike, forming a dynamic community founded on emotional connections people share with their clothing. Its emphasis on fostering belonging, empathy, and shared experiences allows its members to connect through appreciating the unique narratives behind every garment. The inclusive nature catering to both types of users creates an engaging atmosphere where one can actively contribute or passively engage with stories that

resonate most deeply with them. It values the exchange between giving and receiving information as it encourages unity and understanding within its diverse user base.

7.1 Overview of Threads of Memory

The proposed design concept for building emotional attachment to clothing through storytelling, and promoting keeping items for extended periods of time as well as promoting second-hand clothing, is to create a digital storytelling platform that highlights the history and value of clothing. The system's mapping (see Appendix 3) demonstrates the layout and structure of the user interface of the platform. It describes the different displays, elements, and interactions that users will encounter while navigating the platform.
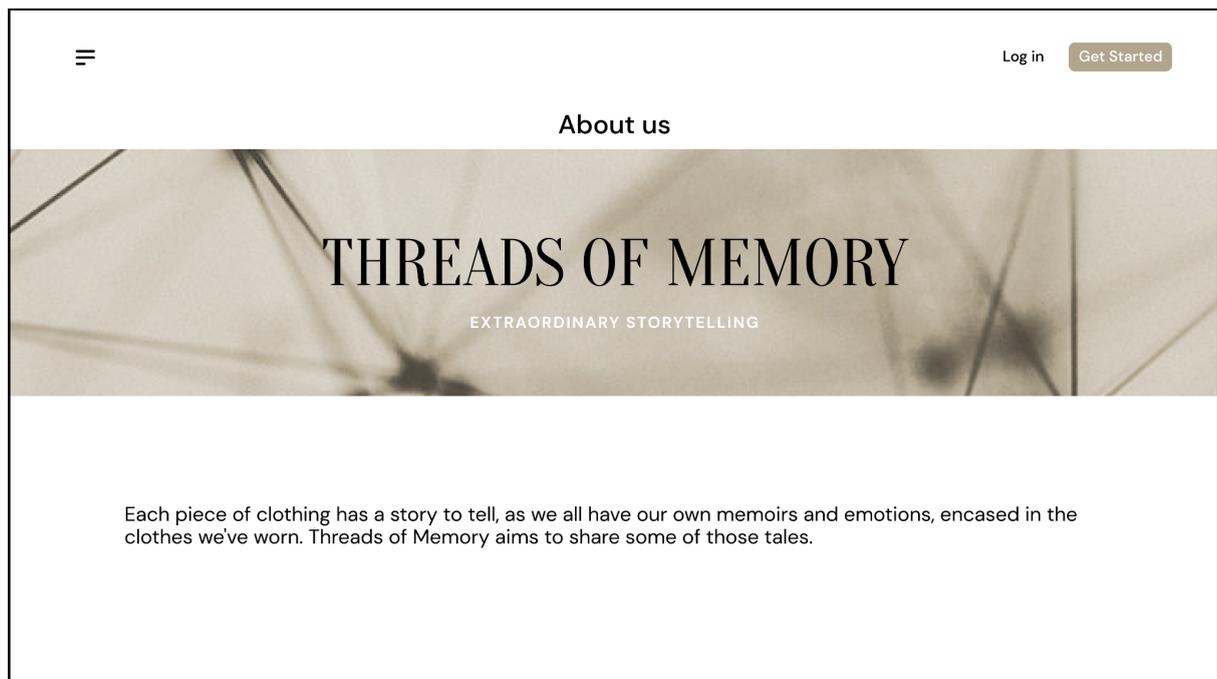
Figure 8. Digital mockup of the landing page of Threads of Memory, created by the author

The landing page interface was built to meet the requirements of the two primary stakeholders and give consumers a concise summary of their available choices. Users are met with an aesthetically pleasing design that grabs their attention the second they land on the page. Each section of the page emphasizes a different feature of the system (Figure 8).

The platform is designed to focus on three major aspects (Figure 9):

- Storytelling: Discover personal stories, memories, and experiences concerning most cherished clothing items.

- Connections: Discover and connect with persons who have similar experiences and stories.

- Community: Share tips, advice, and ideas with other community members to learn new ways to honor and keep your clothing memories alive.
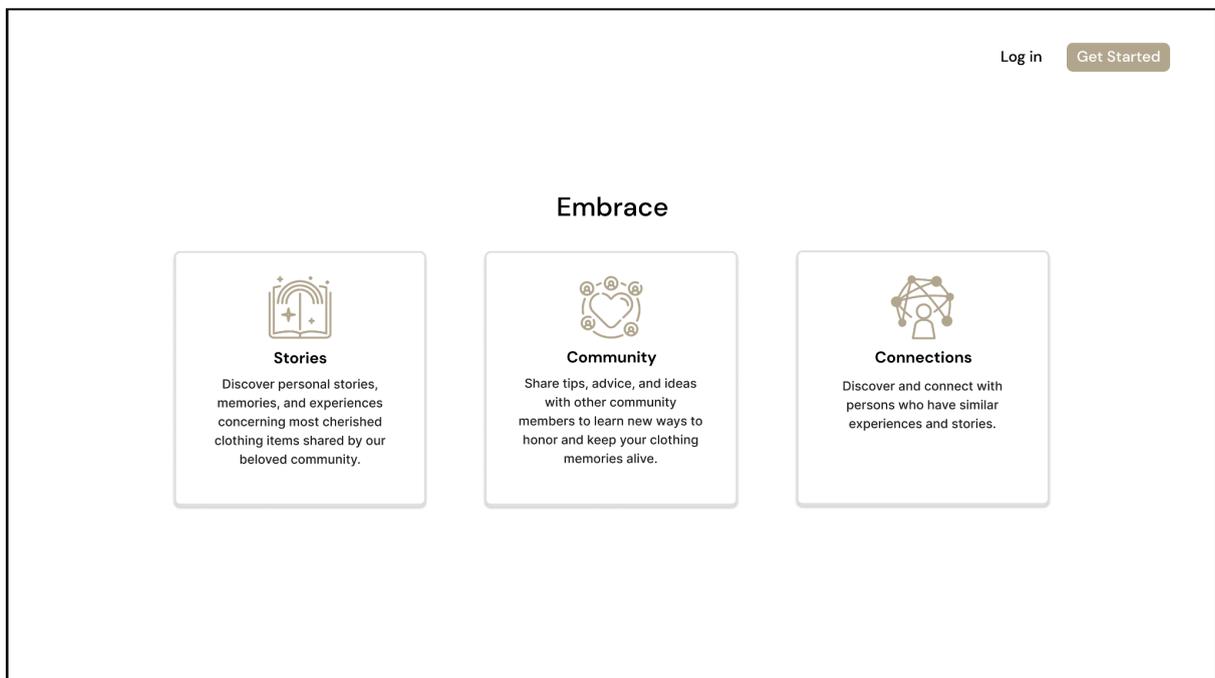
Figure 9. Digital mockup of the landing page of Threads of Memory, created by the author

Threads of Memory is a one-of-a-kind platform that allows users to share their apparel experiences according to their individual preferences. For those who prefer to browse and discover narratives without contributing their own, the platform provides a vast assortment of narratives to investigate (Figure 10). By traversing the platform, users can discover a collection of memories and emotions associated with various garments, connecting with the experiences of others and gaining inspiration.

Figure 10. Digital mockup of the landing page of Threads of Memory for secondary users, created by the author

Threads of Memory offers also a personalized and inclusive space for individuals who feel compelled to share their clothing stories (Figure 11). Depending on their comfort level, users can express themselves privately or publicly by creating a profile. They are free to share their experiences via written posts, images, and videos, capturing the substance and significance of their most cherished garments. This enables a wide variety of narratives and points of view to intertwine within the Threads of Memory community.
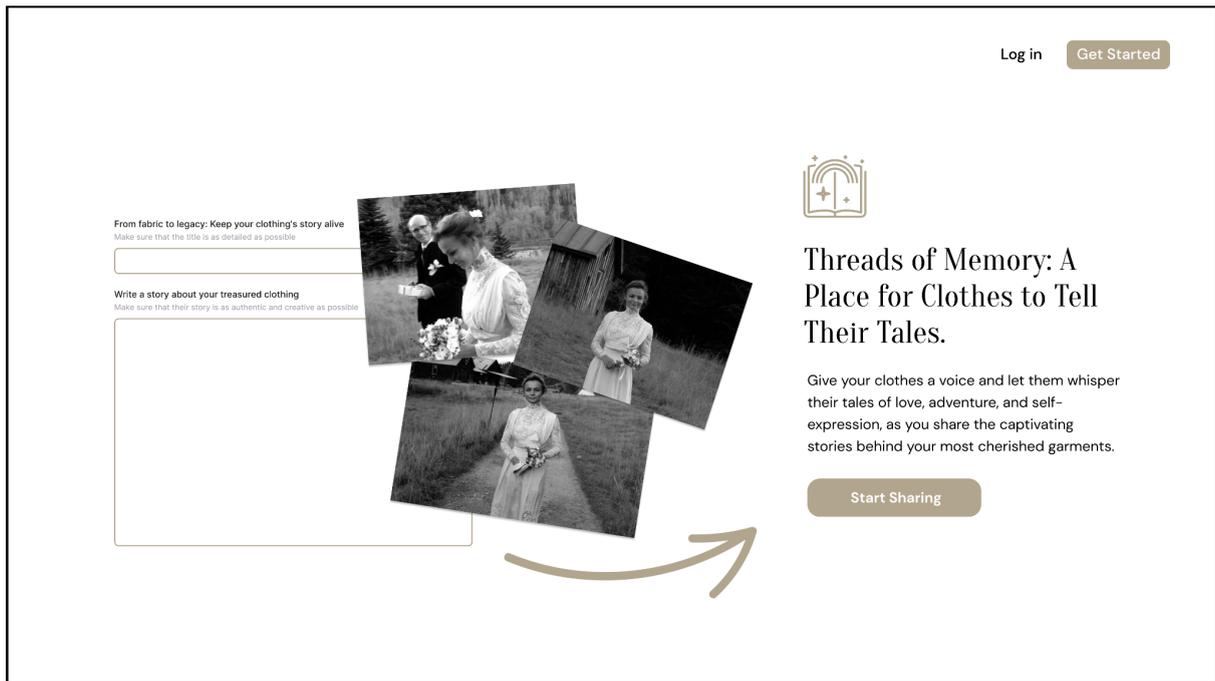
Figure 11. Digital mockup of the landing page of Threads of Memory for primary users, created by the author

Threads of Memory, in essence, provides a flexible and inclusive environment where both story-browsing enthusiasts and courageous users willing to share, can find a home. The platform celebrates the diverse ways in which memories, emotions, and connections are woven into the fabric of our lives, whether it is by quietly immersing oneself in the narratives of others or by courageously sharing personal clothing experiences.

7.2 User journey

The key to building emotional attachment to clothing through digital storytelling and promoting keeping items for extended periods of time as well as promoting second-hand clothing is to create a platform that encourages users to see their clothing items as more than just disposable fashion items. By highlighting the history and value of clothing items the platform can foster a sense of attachment and appreciation for clothing that lasts beyond just the current trend or season.

Bring to life the tales of your wardrobe

1. Connect with your clothing emotionally

Take a moment to reflect on the piece of clothing you want to share. Think about the memories and emotions that are attached to it. You can write down your thoughts and feelings, or simply sit and reflect on them. This will help you create a more meaningful post.

2. Create a story

Use the emotions and memories you've identified to create a story about the piece of clothing. What inspired you to buy it? Where have you worn it? What memorable experiences have you had while wearing it? Be as detailed as possible to make your post more engaging.

3. Add photos

Take photos of the piece of clothing, ideally while wearing it or in a setting that highlights its unique features. You can also include photos of the clothing in action, such as at a special event or while traveling. Adding visuals to your post will help bring your story to life.

4. Share your story

Once your post is complete, share it on the Threads of Memory platform. Other users will be able to see your story and learn about the emotional connections you have to your clothing. This will help build a community around the idea of valuing and preserving clothing with sentimental value.
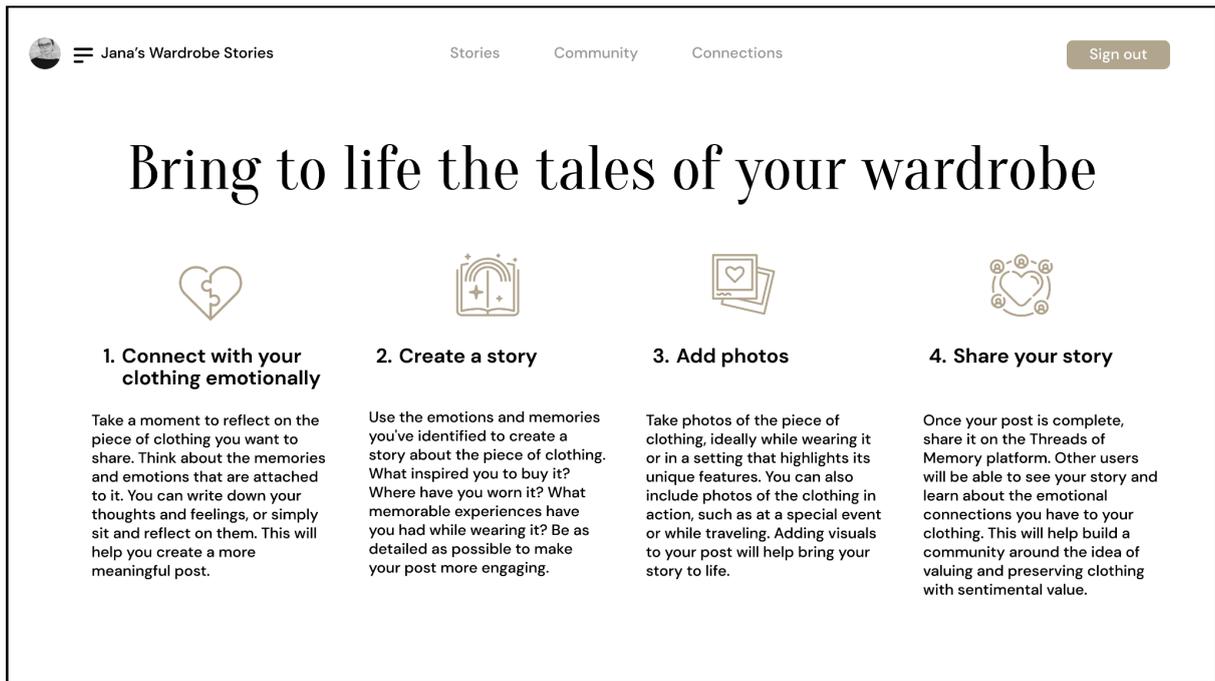
Figure 12. Digital mockup of the primary user view, created by the author

Threads of Memory puts clothing in the spotlight and gives users the opportunity to express the very personal and significant memories that are associated with the garments they own. Threads of Memory is a platform that focuses on clothing narratives, as opposed to traditional social media channels, where users frequently share a wide variety of content.

After establishing a profile on the Threads of Memory platform, users are given clear and concise instructions on how to effectively compose narratives, capture captivating images, and share their posts (Figure 12). These guidelines serve as a beneficial resource, ensuring that users are familiar with the platform's standards for narratives and can maximize the impact of their contributions. Instructions may include advice on writing narratives that elicit emotions and memories, direction on capturing high-quality images that visually enhance the story, and suggestions for structuring the post for optimal legibility. By providing these guidelines, Threads of Memory enables users to share their apparel stories in a meaningful and impactful manner, nurturing a storytelling environment that is rich and immersive for all community members.
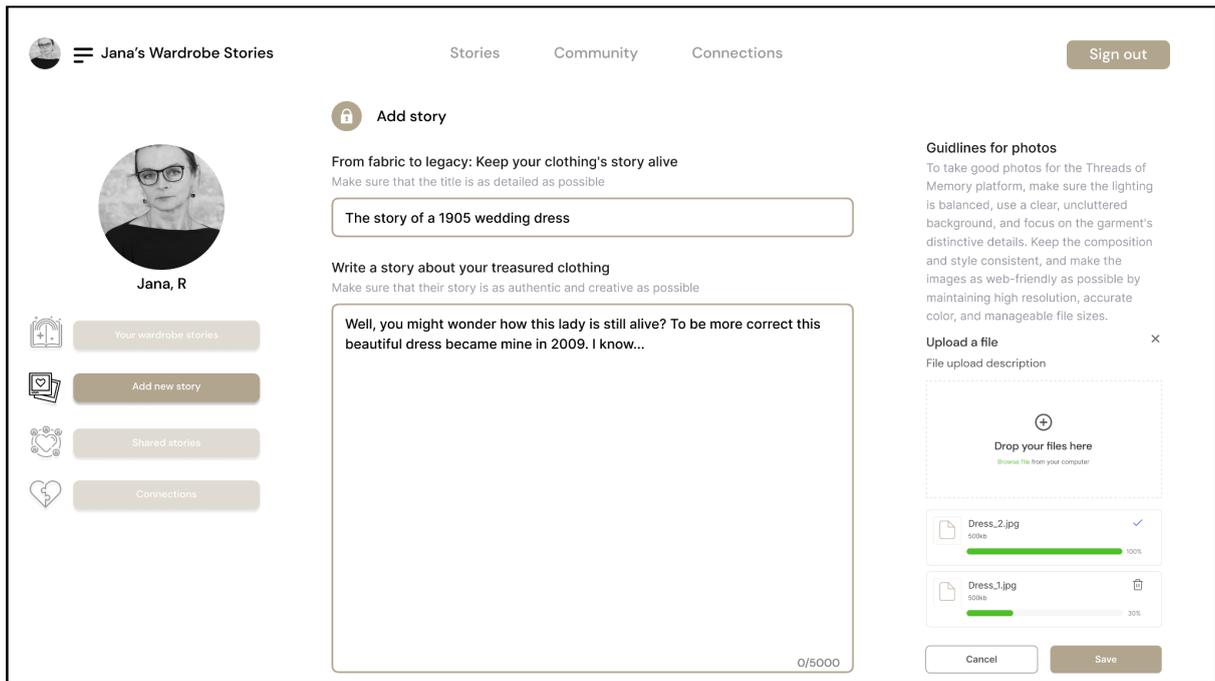
Figure 13. Digital mockup of how to 'Add story', created by the author

Once a user has created a compelling clothing story on the Threads of Memory platform, they are able to view and administer it via their personal profile (Figure 13). This feature permits users to customize their storytelling experience by deciding whether to share their story publicly or only with their personal connections. Threads of Memory enables users to navigate their desired level of privacy and control over their narratives by providing this flexibility. Users can customize their storytelling experience based on their preferences and comfort levels, whether they choose to share their story publicly to inspire and engage with a larger community or selectively within their personal network.

The profile interface was carefully crafted so that users could quickly and easily access their own content, their friends' content, manage their stories and access their selected connections. The user interface has a streamlined design that makes navigating and editing your profile a breeze. Your Wardrobe Stories, Adding a New Story, Sharing a Story, and Connecting with Others are available via the menu on the left (Figure 14).
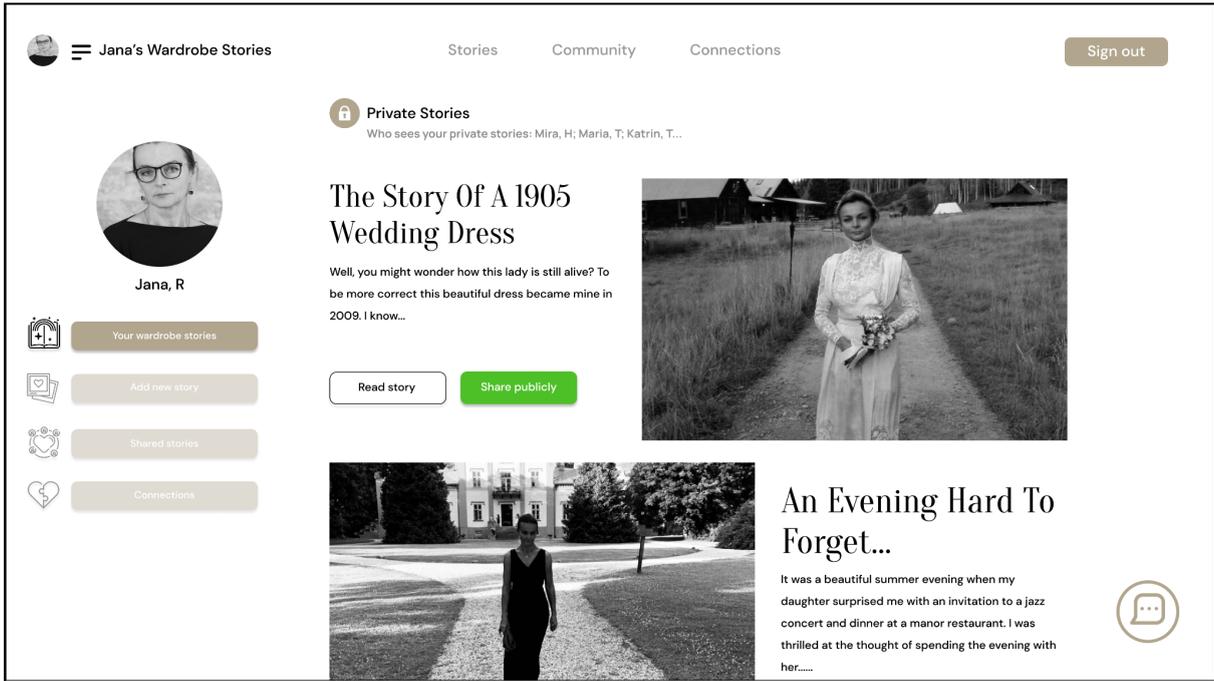
Figure 14. Digital mockup of primary user view 'Your wardrobe stories', created by the author

The customization here is key; it allows folks to maintain their preferred level of privacy while engaging with the Threads of Memory collective in an honest way (Figure 15).
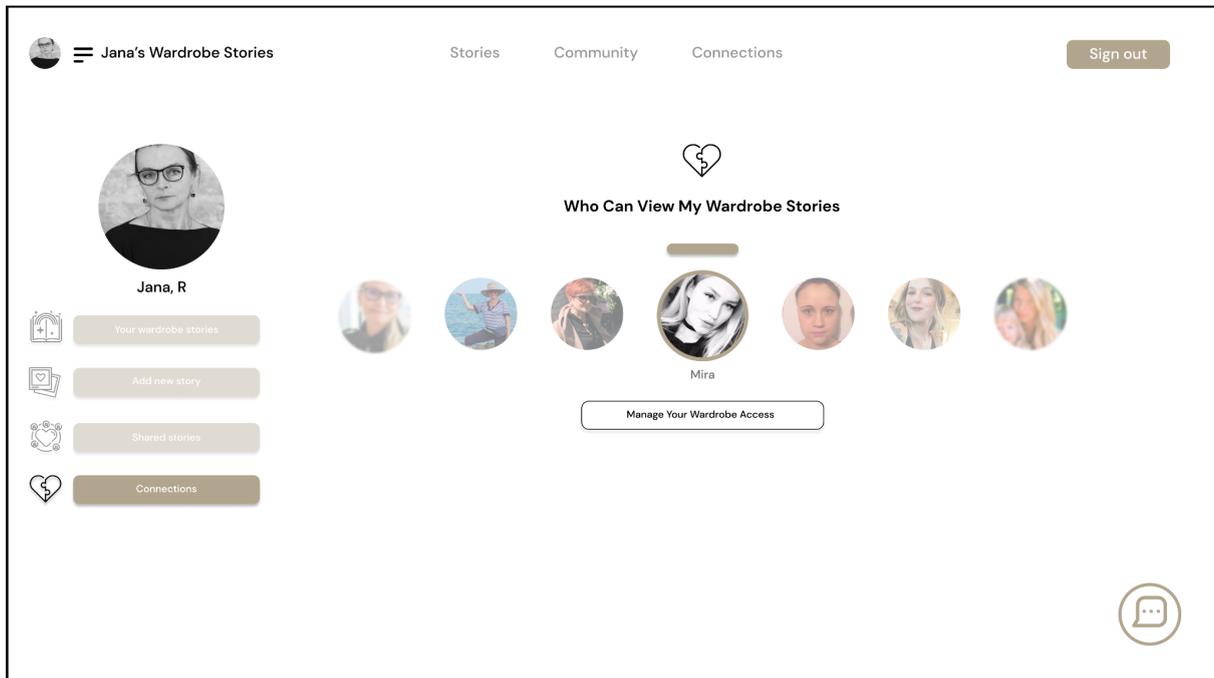

Figure 15. Digital mockup of primary user view 'Connections', created by the author

Stories

The Threads of Memories platform's primary storytelling interface is made to highlight the most treasured clothing and the stories that go along with them. The platform aims to create a community where users can connect and share their garments stories evoking emotions.Threads of Memory is a storytelling project with the goal of preserving the memories and traditions that are sewn into our garments by providing a platform for their sharing. The photographs of the clothes shown in the interface are appealing to the eye and encourage further investigation. Hovering over an image reveals a fragment of the tale connected to that clothing, piquing the curiosity of users and enticing them to learn more about the background of each item (Figure 16). By urging users to treasure and care for their items, the site hopes to maintain the emotional worth of clothing and encourage sustainable fashion methods.
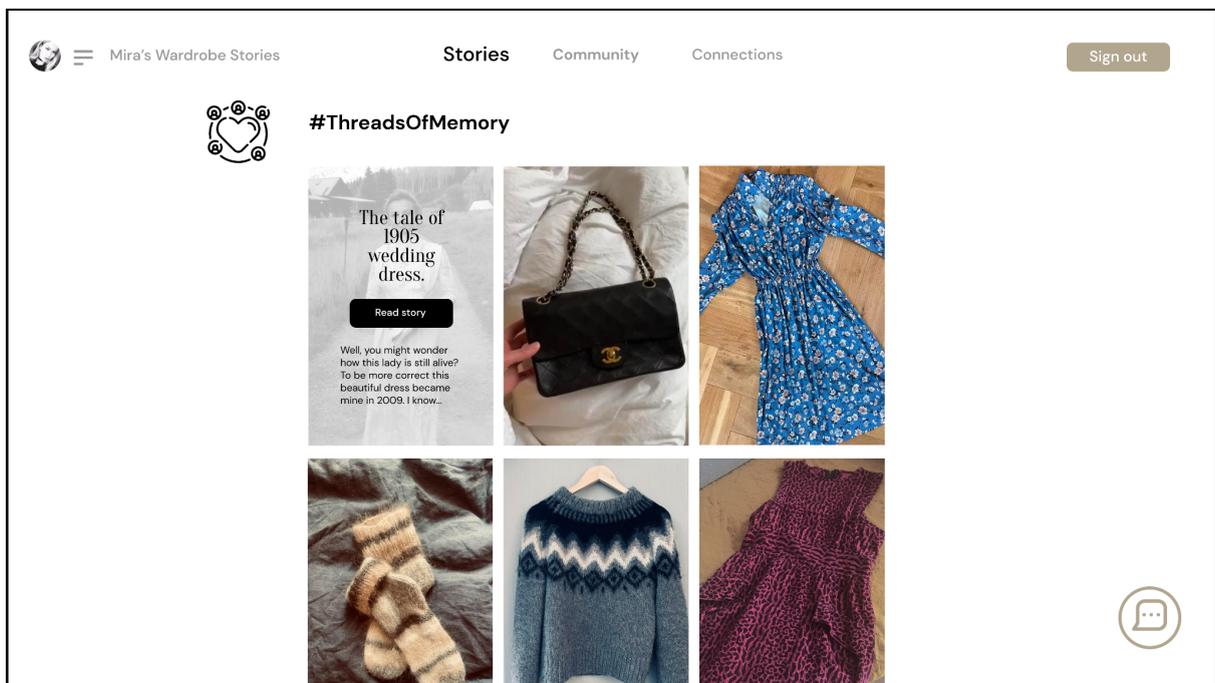
Figure 16. Digital mockup of 'Stories' landing page, created by the author

Users can go deep into the personal experiences and emotional connections to the clothing by clicking on a tale and reading the whole narrative. The narrative interface creates an effortless and engaging reading experience, allowing readers to completely take in the author's words and the feelings they evoke.

Figure 17. Digital mockup of 'the Garment story 1', created by the author

Along with its captivating storyline, the interface also provides critical data for primary users interested in buying featured garments.
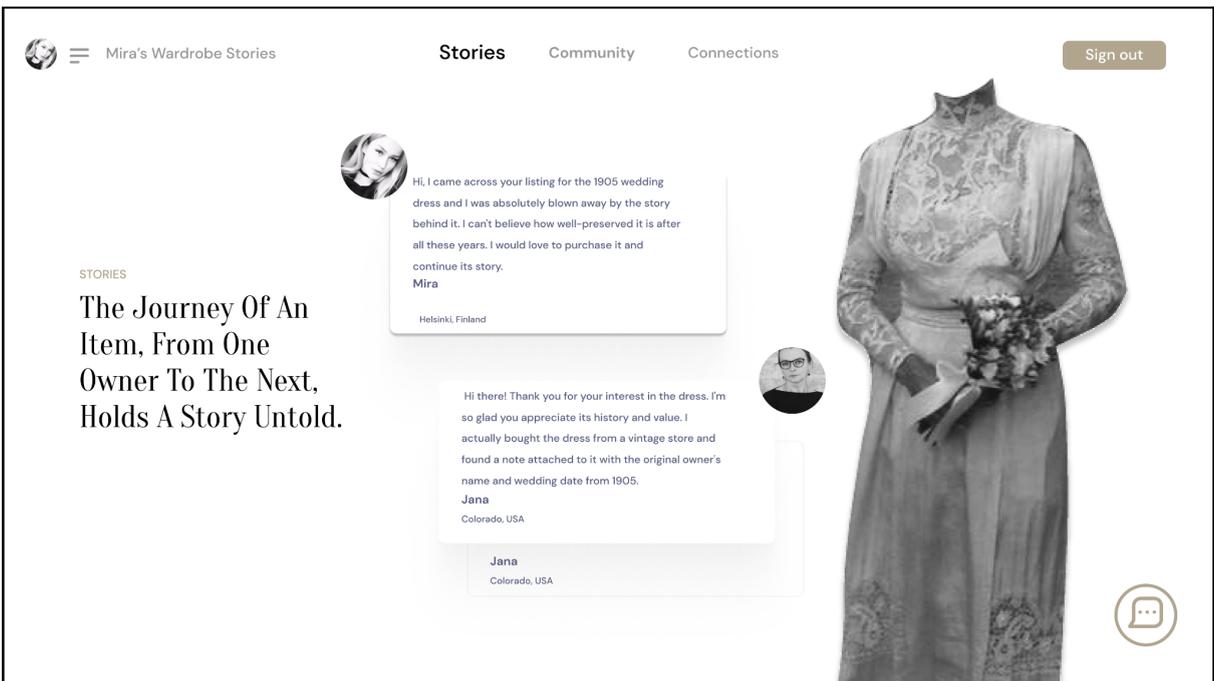
Figure 18. Digital mockup of interaction between users, created by the author

It informs them whether or not the garment is available and encourages users to communicate with each other. (Figure 17 & 18)

Use cases

The Threads of Memory platform provides a number of contexts in which users may interact with and benefit from one another's tales. Some examples of how you could engage in the platform's stories. (Figure 19 & 20)
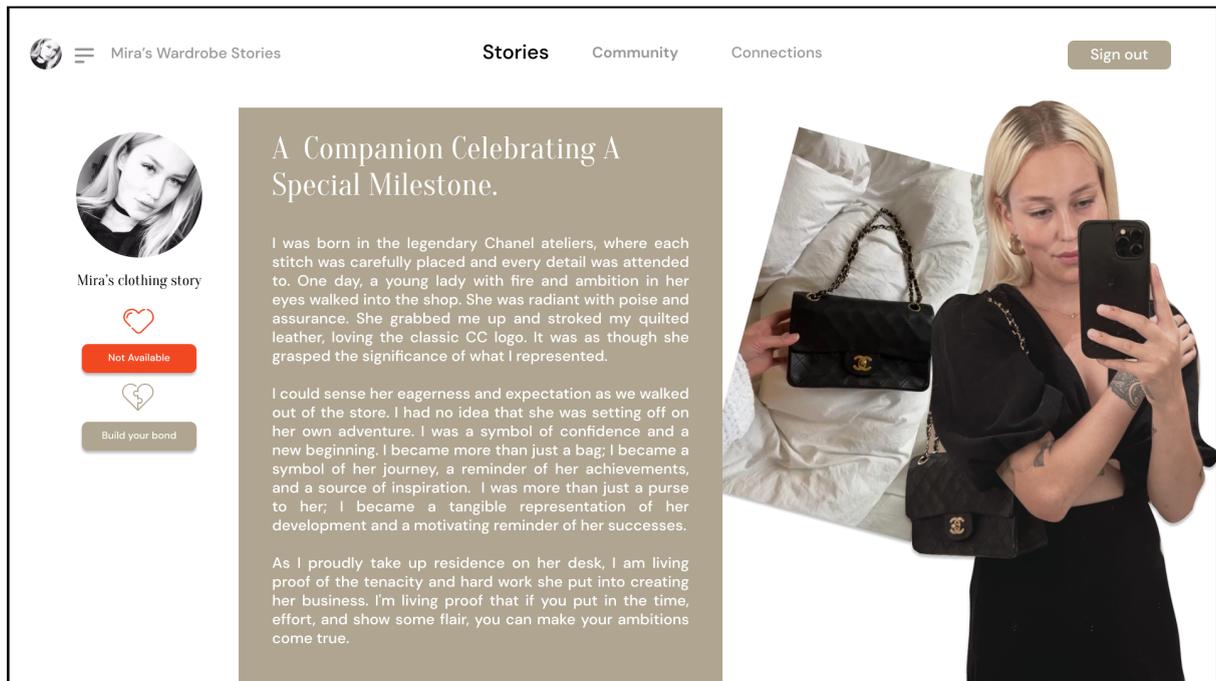
Figure 19. Digital mockup of 'the Garment story 2', created by the author

Figure 20. Digital mockup of 'the Garment story 3', created by the author

This story begins with a spirited husky named Katya, and her owner Karina. We share an unbreakable bond, strengthened by adventures, and carefree trips to the countryside. I love Katya with all my heart, and Katya returns that love and devotion tenfold. We share a deep bond, our spirits dancing together in a celebration of friendship and love. My wise and talented grandma, Leili who has a passion for knitting, decided to make socks for me from Katya's fur, which we had meticulously collected during grooming sessions. Armed with Katya's priceless fur and her knitting needles, my grandmother set out on a path of craft and care. Her delicate fingers knitted the yarn into a beautiful socks. She worked diligently, imbuing the socks with the affection and cherished memories. The socks are more than just a piece of clothing; they symbolise indestructible love. My eyes welled up with tears of del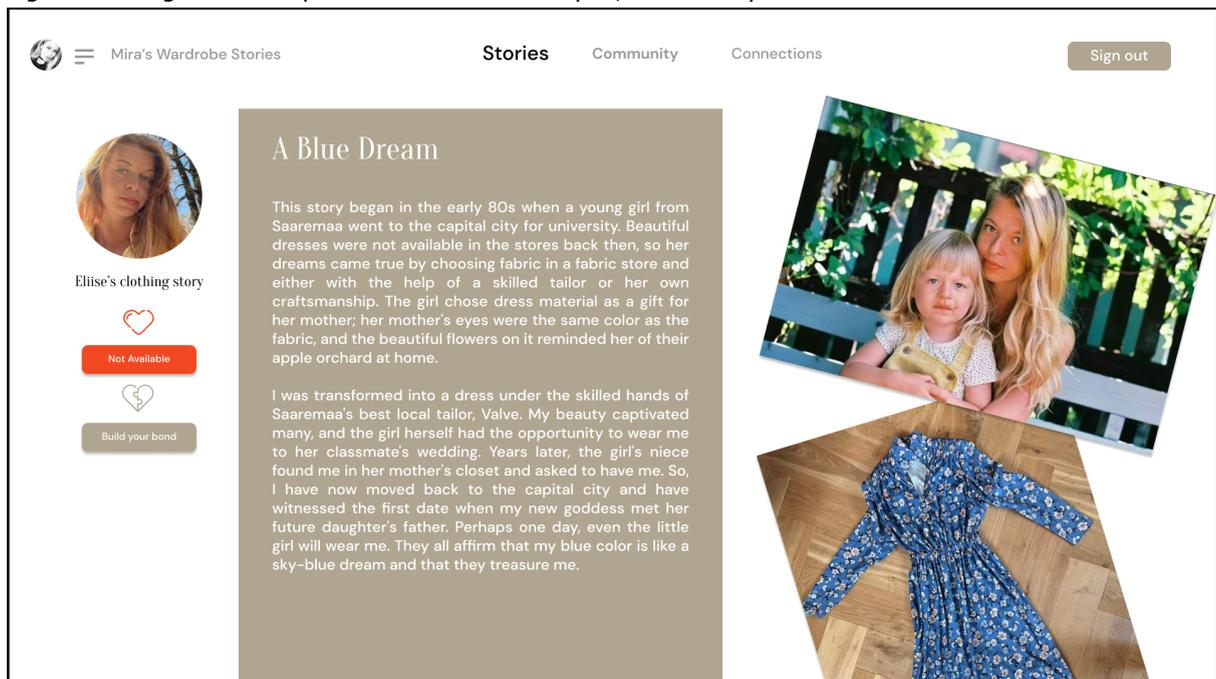ight and appreciation when I received the sock from my beloved grandmother. I cuddled up to them, sensing Katya's and grandma's love and comfort. The socks quickly became a prized possession, serving as a constant reminder of the deep connection I feel with Katya and my grandma. I find refuge and comfort in the socks as I watch my grandmother age before my eyes. The socks serve as a link between the generations, a physical representation of the emotional connection between us. The socks that my grandmother knitted from Katya's fur carry the spirit of our unbreakable bond. They whisper stories of love, loyalty, and the fleeting nature of time.

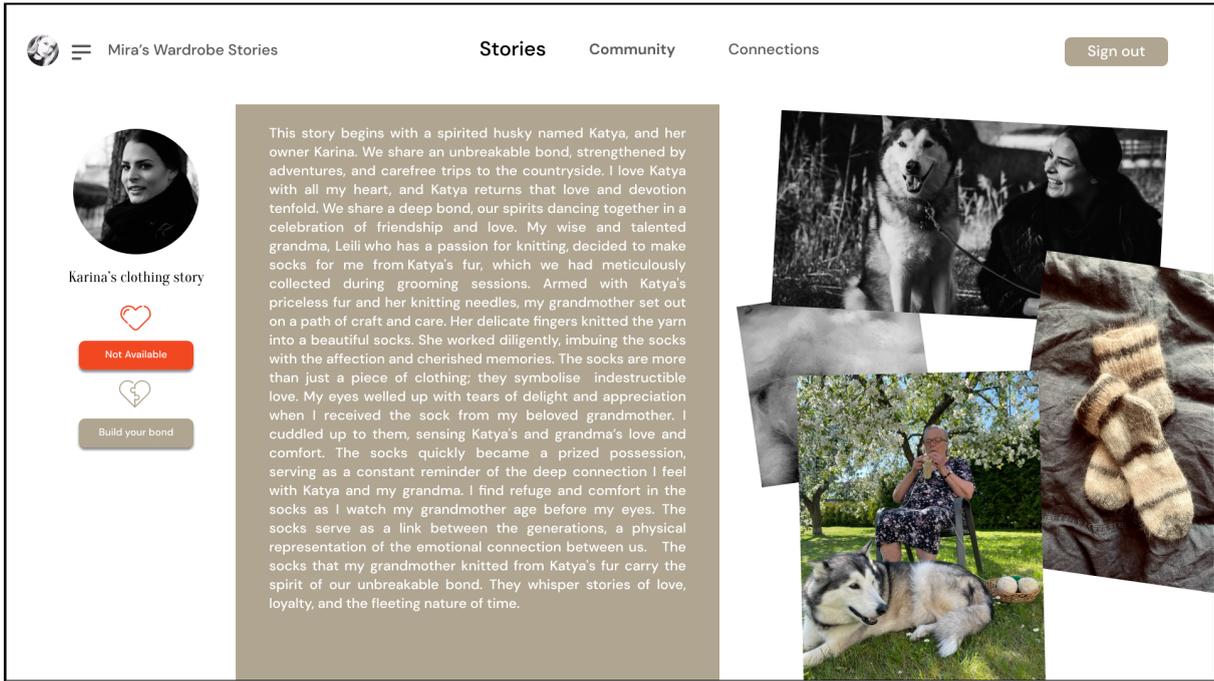Figure 21. Digital mockup of 'the Garment story 4', created by the author

Community

The Threads of Memory community is a key component in the platform's success in fostering engagement and a sense of belonging among its members. The platform helps a thriving community flourish by offering tools that facilitate interaction, information gathering, and making meaningful connections amongst people who share common ground.
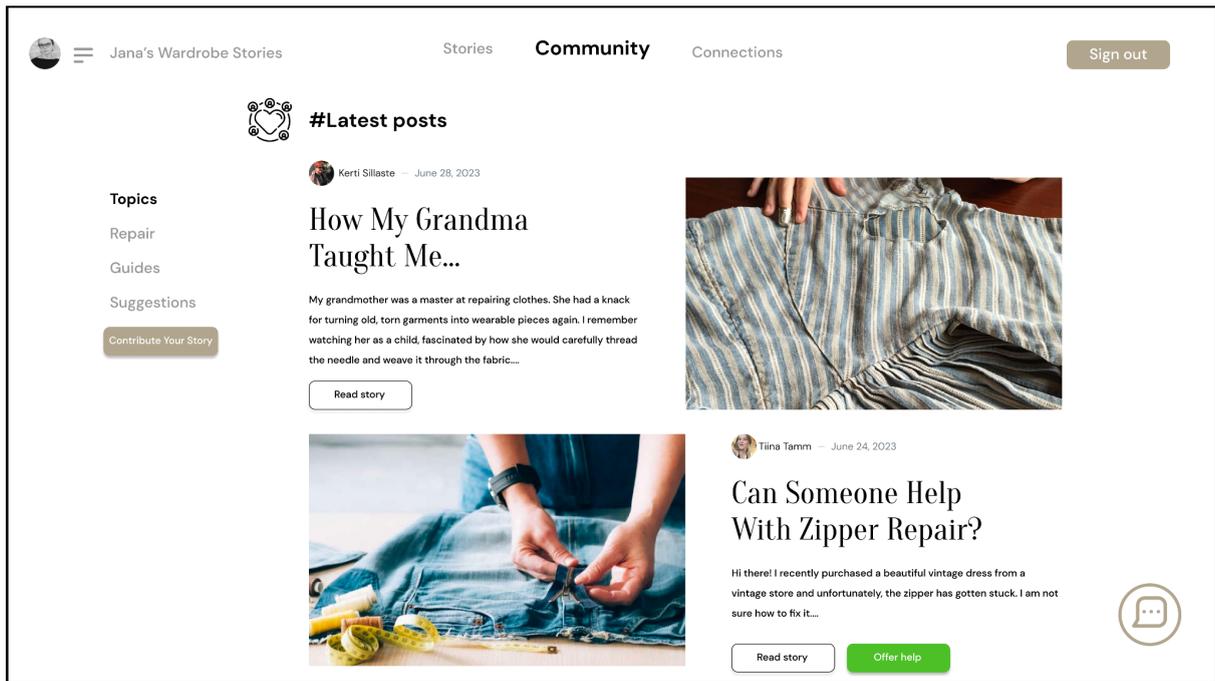
Figure 22. Digital mockup of the 'Community' landing page, created by the author

The presence of discussion boards on the platform is one of the most important components that contribute to the development of communities. These message boards provide users with a forum in which they can exchange ideas, seek guidance from one another, and take part in significant conversations relating to clothing tales. Users are able to post new subjects of discussion in the following categories: Repair, Care, and Suggestions. The platform encourages a sense of community ownership as well as learning via collaboration by allowing the interactions described above. (Figure 21)

Additionally, users can also share their own personal experiences and tips on how to maintain clothing items in good condition. These message boards not only serve as a platform for users to connect with one another, but also as a valuable resource for those looking to learn more about clothing care and repair. (Figure 22)
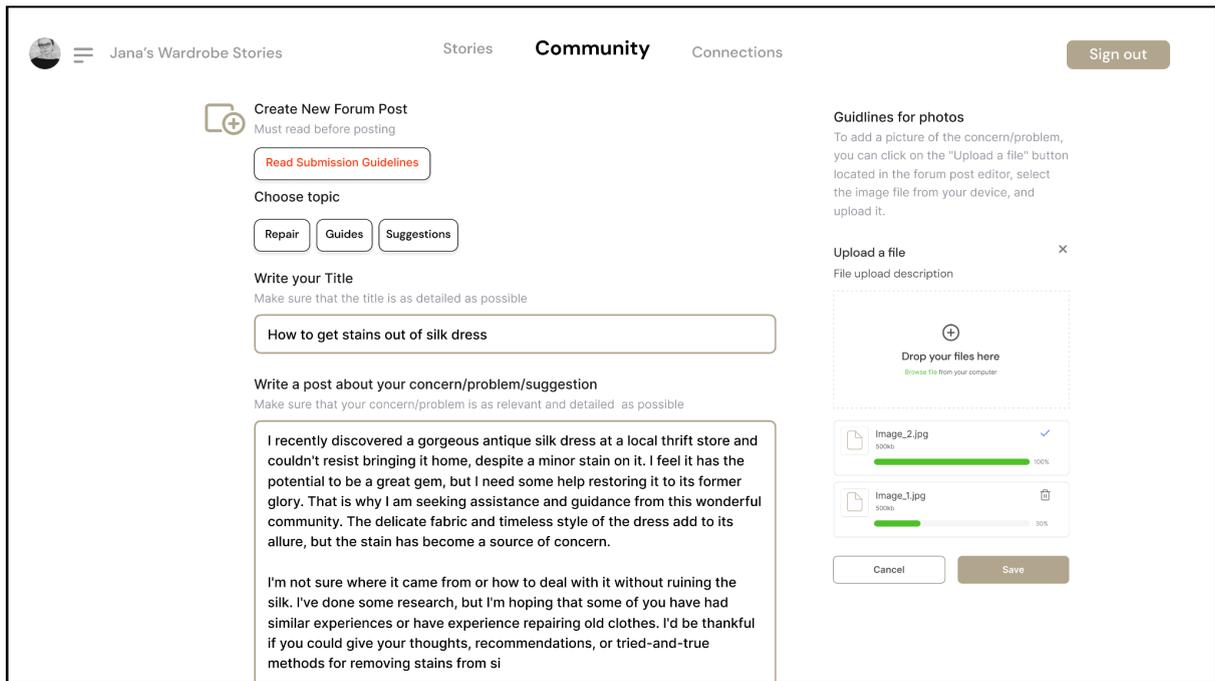
Figure 23. Digital mockup of how to 'Create New Forum Post', created by the author

Users have the ability to create new forum posts about the above mentioned subjects and can receive comments and recommendations from other forum users. In addition, the website provides users with access to a wide range of instructional materials, such as articles and video guides, to aid them further on their quest toward better garment maintenance and repair. Guidelines for blogging on matters of concern that are understandable On the website, you may find both issues and potential solutions, which helps to create a positive and beneficial experience for the community as a whole.

Connections

Stories serve as a driving force behind the development of communities on the platform. Users are able to connect with one another on the basis of previously shared experiences, similar preferences, or shared beliefs. The stories serve as a basis for meaningful dialogue, which in turn helps to cultivate a feeling of community and generate a supporting network of persons with similar values and perspectives. (Figure 23)
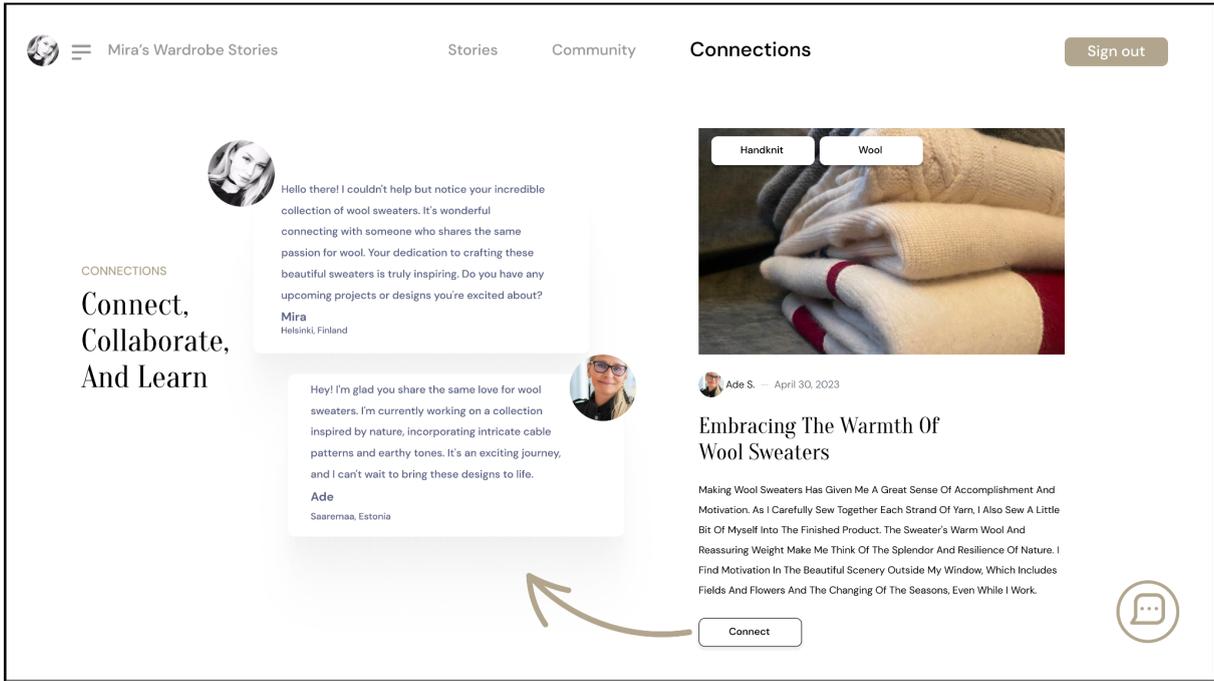
Figure 24. Digital mockup of primary user 'connection with another user', created by the author

Within the Threads of Memory community, this discovery tool allows users to widen their network, obtain fresh views, and make important connections with one another. In addition, the website provides users with a protected and encouraging environment in which they are free to discuss their personal experiences. (Figure 24)

Figure 25. Digital mockup of Threads of Memory, created by the author

7.3 User stories

The user stories focus on the diverse ways users interact with and perceive the platform's concept. This section seeks to provide insight into how Threads of Memory can effectively meet the diverse requirements and expectations of its users by analyzing the unique journeys of users (built based on interviews). (Figure 25 - 27)

Mira, 26
Young Finnish entrepreneur. She cherishes objects that remind her of the special people in her life and the times they shared together.
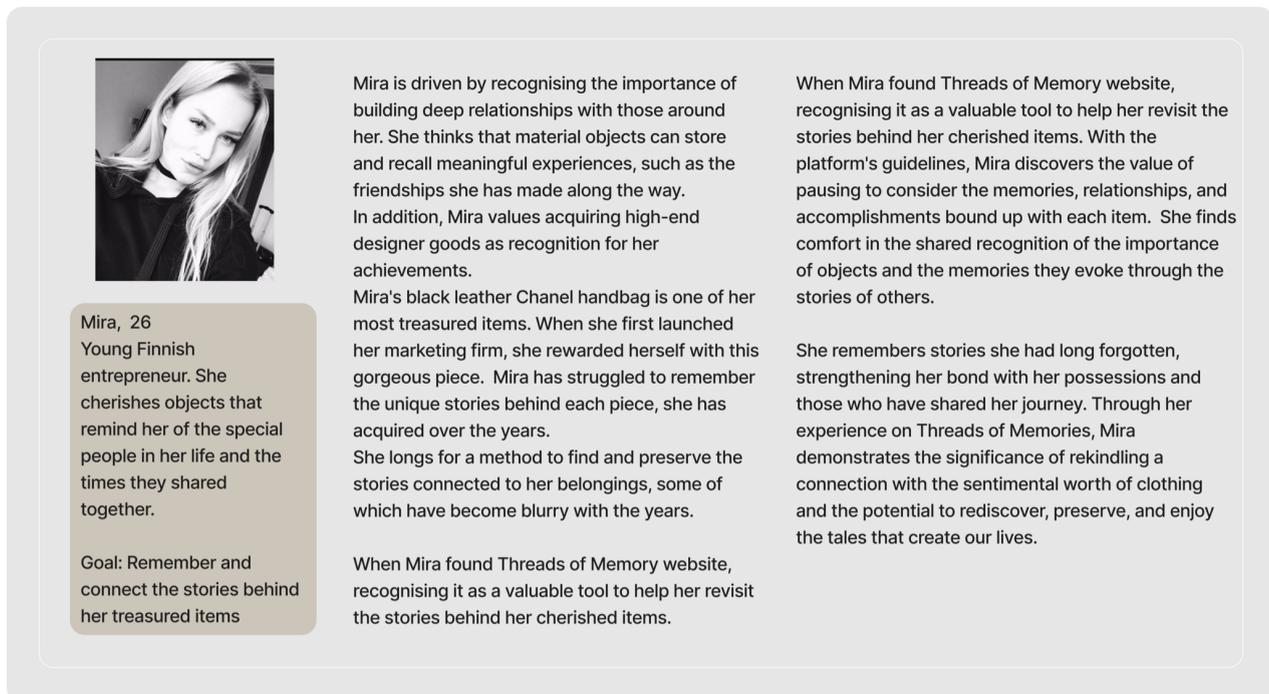
Goal: Remember and connect the stories behind her treasured items

Mira is driven by recognising the importance of building deep relationships with those around her. She thinks that material objects can store and recall meaningful experiences, such as the friendships she has made along the way.
In addition, Mira values acquiring high-end designer goods as recognition for her achievements.
Mira's black leather Chanel handbag is one of her most treasured items. When she first launched her marketing firm, she rewarded herself with this gorgeous piece. Mira has struggled to remember the unique stories behind each piece, she has acquired over the years.
She longs for a method to find and preserve the stories connected to her belongings, some of which have become blurry with the years.

When Mira found Threads of Memory website, recognising it as a valuable tool to help her revisit the stories behind her cherished items.

When Mira found Threads of Memory website, recognising it as a valuable tool to help her revisit the stories behind her cherished items. With the platform's guidelines, Mira discovers the value of pausing to consider the memories, relationships, and accomplishments bound up with each item. She finds comfort in the shared recognition of the importance of objects and the memories they evoke through the stories of others.

She remembers stories she had long forgotten, strengthening her bond with her possessions and those who have shared her journey. Through her experience on Threads of Memories, Mira demonstrates the significance of rekindling a connection with the sentimental worth of clothing and the potential to rediscover, preserve, and enjoy the tales that create our lives.

Figure 26: User story 1, created by the author
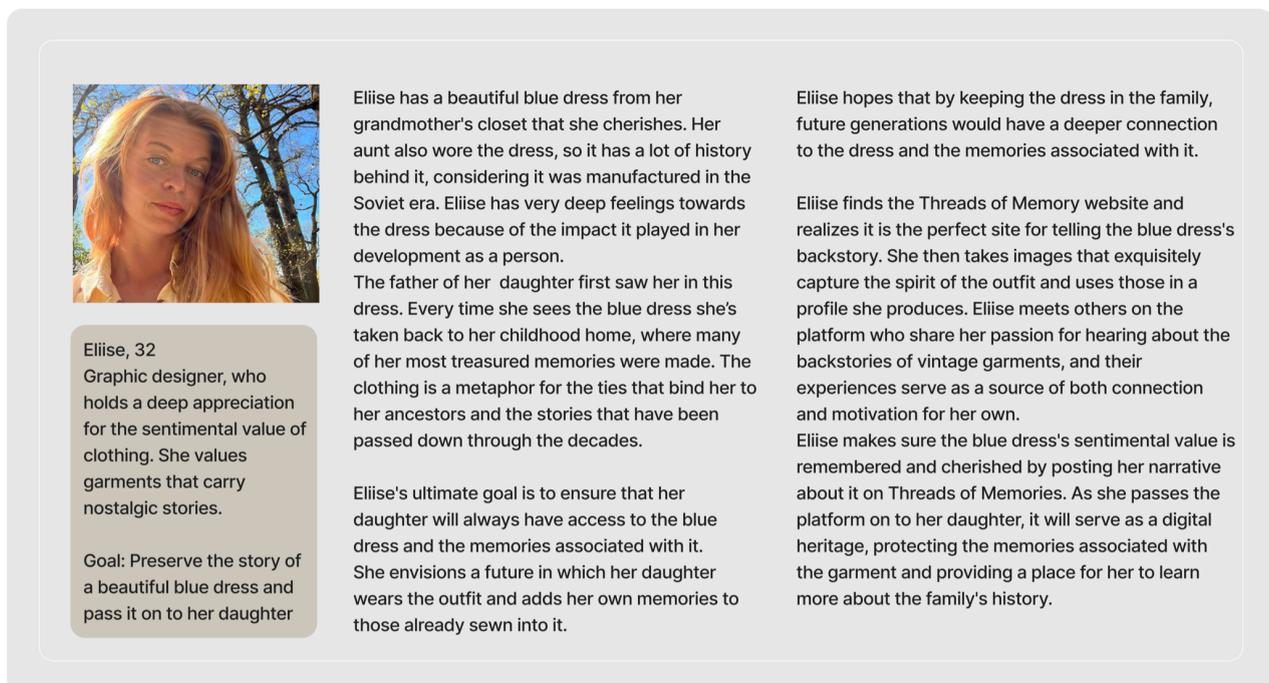
Eliise, 32
Graphic designer, who holds a deep appreciation for the sentimental value of clothing. She values garments that carry nostalgic stories.

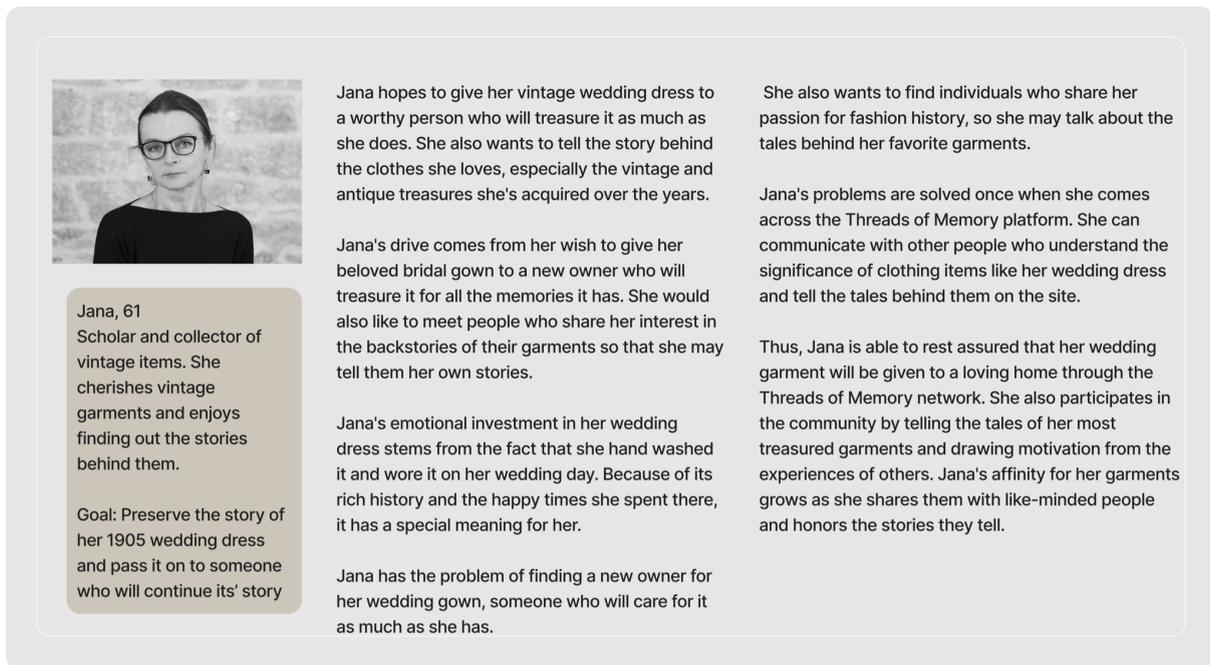Goal: Preserve the story of a beautiful blue dress and pass it on to her daughter

Eliise has a beautiful blue dress from her grandmother's closet that she cherishes. Her aunt also wore the dress, so it has a lot of history behind it, considering it was manufactured in the Soviet era. Eliise has very deep feelings towards the dress because of the impact it played in her development as a person.
The father of her daughter first saw her in this dress. Every time she sees the blue dress she's taken back to her childhood home, where many of her most treasured memories were made. The clothing is a metaphor for the ties that bind her to her ancestors and the stories that have been passed down through the decades.

Eliise's ultimate goal is to ensure that her daughter will always have access to the blue dress and the memories associated with it. She envisions a future in which her daughter wears the outfit and adds her own memories to those already sewn into it.

Eliise hopes that by keeping the dress in the family, future generations would have a deeper connection to the dress and the memories associated with it.

Eliise finds the Threads of Memory website and realizes it is the perfect site for telling the blue dress's backstory. She then takes images that exquisitely capture the spirit of the outfit and uses those in a profile she produces. Eliise meets others on the platform who share her passion for hearing about the backstories of vintage garments, and their experiences serve as a source of both connection and motivation for her own.
Eliise makes sure the blue dress's sentimental value is remembered and cherished by posting her narrative about it on Threads of Memories. As she passes the platform on to her daughter, it will serve as a digital heritage, protecting the memories associated with the garment and providing a place for her to learn more about the family's history.

Figure 27: User story 2, created by the author

Figure 28: User story 3, created by the author

7.4 Service blueprint

The service specification for this platform includes several touchpoints and features that support the overall user experience (see Appendix 4).

1. **Onboarding**: The user becomes aware of the platform through various marketing channels and is directed to the website. Here, they can sign up for a free account by providing basic information such as their name and email address.

2. **Level of Participation:** Primary users can share personal stories and experiences related to their clothing, while secondary Stakeholders can engage with the platform, explore stories shared by primary users.

3. **Wardrobe profile creation**: Once the user has signed up, they can create a wardrobe profile by adding items of clothing they own

4. **Clothing story creation**: After the wardrobe profile is created, the user can start creating clothing stories. They can add a title, description, and any relevant details such as the garment's history, sentimental value, and personal experiences associated with it. They can also add photos or videos to enhance the story.

5. **Shared storytelling**: Users have the ability to establish profiles and share their clothes' stories via text, photographs, and videos. The platform offers a straightforward graphical user interface for the composition and editing of stories. There are a variety of themes that may be used to organize stories, including

nostalgic clothing, antique finds, and clothing for memorable occasions. Users have the option of making their stories public or limiting them to a specific audience, which encourages both privacy and personal choice.

6. **Community**: This online platform encourages the growth of an active and welcoming community whose members share a love of fashion and the stories behind clothes. Users are able to discover and connect with persons who have similar experiences. Connections may be formed based on these commonalities. Community elements like discussion boards, interest-based groups, and messaging functions are designed to make it easier for users to communicate with one another. Users are encouraged to share particular tales through the use of community challenges and prompts on a regular basis, which fosters a sense of involvement and participation.Users can engage with the Threads of Memory community by commenting on other users' clothing stories, liking them, or sharing them on social media. They can also follow other users and receive notifications when they post new stories.

7. **Connections:** The platform makes it easier for people to connect with one another in meaningful ways by proposing suitable stories, profiles, and communities to users on the basis of their interests, interactions, and preferences. Users are able to follow one another, which results in the formation of a network of connections and facilitates the finding of new tales and sources of inspiration. The site has tools that allow users to share their stories on other social media networks, increasing interaction and visibility across many platforms.

Design principles that inspired the platform include the importance of emotional connection and storytelling. The platform was designed to create a safe and supportive community where users can share their personal experiences and connect with others through the medium of storytelling. The platform also values sustainability by encouraging users to cherish and continue the life of their clothing items, rather than simply disposing of them. Overall, the platform's design is centered around creating a meaningful and memorable experience for users.

7.5 Value proposition

Threads of Memory provides its users numerous value propositions.

Uncover the richness of your clothing: *Embark on a journey through the sentimental layers of your wardrobe with Threads of Memory, a groundbreaking platform that delves*

deep into the emotional richness hidden within your clothes. Users are captivated as they uncover unforgettable stories that make each garment truly one-of-a-kind - giving new value to beloved pieces once thought ordinary.

Forge genuine connections: Cultivates an inclusive community where individuals connect through shared experiences alongside an unwavering appreciation for heart-felt connections to what we wear. *Join others on the site as you engage in meaningful exchanges - finding inspiration, empathy, and most importantly - belonging.*

Preserve memories and extend the lifespan of clothing: By sharing stories and appreciating the sentimental value of their apparel, users are encouraged to develop a stronger attachment, resulting in an extended and more meaningful use of their garments. This encourages sustainable consumption and decreases overconsumption.

Personalized storytelling experience: Threads of Memory lends its user-friendly platform complete with comprehensive guidelines and tools designed exclusively to accentuate each individual's stories: fostering compelling stories further elevating mere clothes from everyday items into treasured possessions unlike any other.

Embrace the power of emotions: Threads of Memory grasps the significance of clothing's sentimental attachment which holds vast emotional memories. By examining these threads woven into one's memory bank related to apparel choices , individuals can unleash an array of emotions that facilitate personal development.

7.6 Future possibilities

Looking at Threads of Memory's future possibilities is an exciting proposition filled with infinite potential. The platform's evolution does not have to restrict itself primarily to clothing but can expand its frontiers towards exploring memories attached to other valuable possessions as well. Through this growth potential, users will have storytelling opportunities where they can showcase the emotions intertwined with various items they possess, revelations that will add more nuances into our lives. By extending its horizon beyond clothing, Threads of Memory can become a hub for diverse personal narratives that range from accessories, jewelry, furniture, and much more. Users have a platform where they can provide voice to every possession that holds special significance and is worth-sharing; thus weaving a complete tapestry of memories highlighting excerpts from their real-life experiences. Threads of Memory has the ability to trace the history of family heirlooms and life stories of people connected to them.

Partnering with second-hand stores is another feature that holds great promise for the future prospects of Threads of Memory. Collaborating in such a way could significantly promote sustainable fashion practices while simultaneously advocating recycling clothes and other personal possessions. This collaboration can bring together like-minded individuals who support eco-consciousness through reducing waste by extending product life cycles. Through expansion beyond clothing lines together with technological innovations; this platform will build powerful connections among historians, fashion designers, researchers; and their creativity is fueled by its vast reservoirs of memories.

In conclusion, this platform holds much promise considering all these possibilities it offers us. The community that centers around shared storytelling of cherished memories is also enriched as a catalyst towards change. Boldly embracing sustainability causes coupled with conscious consumer habits equips Threads of Memory to become a game-changer in both shaping fashion trends as well as stirring emotions shared among people.

SUMMARY

Identifying avenues for encouraging individuals to keep fashion garments longer is critical in addressing overconsumption trends. This study seeks to comprehend how clothing-related memories contribute to the formation of meaningful relationships and how these connections can impact fashion consumption and sustainability. Current study explores the complex and multifaceted nature of people-product interactions by employing qualitative research methodology and systems thinking approach. Study results highlight how memory-recall and storytelling spaces are effective tools for building an emotional connection between people and their clothes. This knowledge provides opportunities for interventions that support sustainable consumption patterns through promoting deeper relationships between clothing owners and their possessions. Innovative approaches utilizing this insight are promising solutions towards reducing the fast-paced fashion cycle and highlighting the importance of digital storytelling.

The concept of "Threads of Memory" is founded on the premise that clothing carries memories and emotions. These emotional connections can elevate fashion consumption beyond mere utility and into a profound and meaningful experience. Threads of Memory is a unique and innovative platform that celebrates the profound connections between people and their clothing items. It serves as a digital haven for individuals to share personal stories, memories, and emotions associated with their garments, creating a vibrant community centered around the shared love for fashion and personal expression.

At the core of Threads of Memory is the art of storytelling. Users are invited to compose stories that breathe life into their clothing items, capturing the essence of their unique journeys and experiences. Whether it's a vintage dress passed down through generations, a cherished accessory from a significant event, or a beloved everyday garment that has become a symbol of personal style, every piece has a story waiting to be told.

The platform offers a range of multimedia tools that allow users to unleash their creativity and present their stories in visually captivating ways. Through a combination of images, videos, and descriptive text, users can vividly depict the emotional significance and memories attached to their garments. They have the freedom to personalize and customize their storytelling experience, ensuring that each story is a true reflection of individuality.

Threads of Memory goes beyond being a platform for individual storytelling. It cultivates a strong sense of community and connection among its users. By engaging with each

other's stories, users can forge meaningful connections, find inspiration, and share in the joys and triumphs of one another's fashion journeys. Through comments, likes, and sharing features, users can offer support, encouragement, and appreciation, fostering a positive and uplifting environment.

The platform also facilitates the discovery of new and compelling stories. Users can explore curated collections, browse through specific themes or categories, and follow like-minded individuals to expand their horizons. The recommendation algorithms ensure that users are presented with stories that resonate with their interests and passions, allowing for a rich and diverse storytelling experience.

Threads of Memory recognizes the importance of preserving the past while embracing the present. It encourages users to delve into the depths of their wardrobes, unearthing forgotten treasures and breathing new life into them. Through discussions, users can seek advice on clothing repair, care, and restoration, ensuring that these cherished items endure for generations to come.

Overall, Threads of Memory is a platform that celebrates the profound and intimate relationship between people and their clothing items. It provides a space for self-expression, connection, and exploration, where each story shared becomes a thread in the rich tapestry of human experiences. With its emphasis on storytelling, community, and connections, Threads of Memory creates a digital sanctuary for fashion enthusiasts, where the beauty and significance of garments are celebrated and cherished.

KOKKUVÕTE

Tänapäeva kiirmoe ja ületarbimise tingimustes on kriitilise tähtsusega leida viise, kuidas innustada inimesi oma rõivaid kauem hoidma. Antud töö püüab mõista, kuidas rõivastega seotud mälestused aitavad luua tähendusrikkaid suhteid ning kuidas need seosed mõjutavad moekasutust ja jätkusuutlikkust. Käesolev uurimistöö kasutades kvalitatiivset uurimismeetodit ja süsteemse mõtlemise lähenemisviisi lahkab inimeste ja nende rõivaesemete vaheliste suhete keerulist ja mitmekülgset olemust. Uuringu tulemused rõhutavad, kuidas emotsionaalsed mälestused ja nendega seotud lood on tõhusad vahendid emotsionaalse sideme loomiseks ja hoidmiseks inimeste ja nende rõivaste vahel. See teadmine pakub võimalusi muutusteks, mis toetavad jätkusuutlikke tarbimismustreid, soodustades sügavamaid suhteid rõivaste omanike ja nende esemete vahel. Selle teadmise põhjal välja töötatud uuenduslikud disainlahendused on paljutõotavad lähenemisviisid vähendamaks kiirmoe tarbimist ja rõhutamaks digitaalse *storytelling*'u osatähtsust moe tarbimisel.

"*Threads of Memory*" kontseptsioon põhineb eeldusel, et rõivad kannavad endaga mälestusi ja emotsioone. Need emotsionaalsed sidemed võivad muuta moetarbimise enamaks kui lihtsalt praktilise vajaduse rahuldamise kogemuseks, viies selle sügavamale ja tähendusrikkamale tasandile. *Threads of Memory* on ainulaadne ja innovaatiline platvorm, mis keskendub inimeste ja nende rõivaste vaheliste sügavamate sidemete kajastamisele. See toimib turvalise lugude varamuna, kus inimesed saavad jagada isiklikke lugusid, mälestusi ja emotsioone oma rõivaste ajaloost, luues nii ühiselt jagatud väärtustega kogukonna, keda seob armastus moe ja personaalse eneseväljenduse vastu.

Threads of Memory keskseks ideeks on *storytelling* kunst kui inimesi ühendav meedium. Platvormi kasutajaid innustatakse jagama lugusid, mis annavad nende rõivastele elu ja kirjeldavad nende unikaalset teekonda ja kasutuskogemusi. Olgu selleks siis põlvkonnitil pärandatud kleit, olulise sündmusega seotud hinnaline aksessuaar või armastatud igapäevane rõivaese, mis on saanud personaalse stiili sümboliks. igal esemel on avastamist väärt lugu.

Platvorm pakub mitmesuguseid multimeedia vahendeid, mis võimaldavad kasutajatel kasutada oma loovust ja esitada oma lugusid visuaalselt haaraval viisil. Piltide, videote ja kirjeldava teksti kombinatsiooni abil saavad kasutajad elavalt edastada oma rõivaste emotsionaalset tähtsust ja sellega seotud mälestusi. Neil on vabadus isikupärastada ja

kohandada oma *storytelling* kogemust, tagamaks, et iga lugu oleks tõeline individuaalsuse peegeldus.

Threads of Memory on enam kui vaid kogum individuaalsetest *storytelling*'utest. See on platvorm, mis võimaldab luua ja arendada oma kasutajate vahel tugevat kogukonnatunnet. Kasutajad saavad läbi teiste kasutajate lugudega suheldes luua mõtestatud ühendusi, leida inspiratsiooni ja jagada oma kasutajakogemuse rõõme ja muresid. Kommenteerimis-, meeldimis- ja jagamisvõimaluste kaudu saavad kasutajad pakkuda tuge, julgustust ja tunnustust, luues positiivse ja toetava keskkonna.

Platvorm hõlbustab ka uute ja kaasahaaravate lugude avastamist. Kasutajad saavad uurida kureeritud kollektsioone, sirvida konkreetseid teemasid või kategooriaid ning järgida sarnase mõtlemisviisiga inimesi, et avardada oma silmaringi. Soovitus-algoritmid tagavad, et kasutajatele esitatakse lugusid, mis ühilduvad nende huvide ja kirgedega võimaldades rikast ja mitmekesist jutuvestmise kogemust.

Threads of Memory toob esile mineviku olulisuse samas väärtustades olevikku. See julgustab kasutajaid sukelduma oma garderoobi sügavustesse, taasavastades unustatud aardeid ja andes neile uue hingamise. Arutelude kaudu saavad kasutajad leida nõu rõivaste parandamise, hooldamise ja taastamise kohta, tagamaks, et kallid esemed kestaksid mitme põlvkonna vältel.

Kokkuvõttes on *Threads of Memory* platvorm, mis tähistab inimeste ja nende rõivaesemete vahelisi sügavaid ja intiimseid suhteid. See pakub ruumi eneseväljenduseks, lõimumiseks ja avastamiseks, kus iga jagatud lugu saab inimkogemuste rikkaliku gobelääni osaks. Rõhuasetusega *storytelling*'ule, kogukonnale ja ühendustele loob *Threads of Memory* digitaalse avatud varamu kõigile moe-entusiastidele, kus rõivaste ilu ja tähendusrikkus on tõstetud pedestaalile.

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APPENDICES

APPENDIX 1: Structure for the interviews (In English). By the author

Interview Script

Introduction: Hello, my name is Karina Klais, I am a master's student in Taltech studying Design and Technology Futures. I would like to invite you to voluntarily participate in my master thesis research project. The purpose of my study is to examine the emotional relationships we have with our garments. Study results will help provide insight to how our memories shape our relationship with our garments.

The interview will take about 1 to 1 ½ hour. Is there a time that we could meet at your convenience?

Thank you for agreeing to participate in an interview. I will ask you primary questions with perhaps some additional questions that might arise as we talk. Please take all the time that you need to answer my questions. I would very much like to hear your personal stories related to your beloved garments and any other thoughts on this topic. I am happy to answer any questions about the study.

Is it OK with you – if I record our conversation? It will help me to go back to our conversation and analyze your answers in more depth. From time to time I will take some notes as well.

Please keep in mind that there are no right or wrong answers to any of the questions I ask you. I am interested in your personal thoughts. If you are uncomfortable with any of the questions, you may choose not to answer them.

*****[*turn on digital recorder*]*****

1) First of all I would like to ask you about your connection with your garments. How important clothes you wear are to you and your identity?

> [*If needed, probing*]:
>
> Are your clothes somehow part of your identification?
>
> What makes your clothes meaningful for you?
>
> *If person has no special connection with their garments:*
>
> Can you please elaborate why garments do not have any special meaning for you?
>
> Are there any other items in your life that are important to you and/or your identity? What are those items?

2) I would like for you to tell me about the most vivid memories you have had with your garments. Begin wherever you like and take the time that you need.

> [*If needed, probing*]:
>
> Can you recall some particular memories related to some of your garments you care(d) a lot about?

Why you remember those garments?

What kind of emotions those garments evoke(d) in you?

Could you please tell me how this item (these items) make you feel?

3) Please tell me more about your relationship with those garments you deem(ed) important in some ways.

[*If needed, probing*]:

What is/was meaningful to you about those particular garments?

What kind of relationships, interactions (people, places, etc) are related to these garments?

If person has no special connection with their garments:

You mentioned that you do not have any special relationship with your garments, but maybe there are some garments you remember from your past. Why you do remember them?

Would you still have the same experience today with those garments?

Did you cherish this garment over the others and if so, why?

4) Beside your garments, do you have any items in your life you value above the others and would like to keep them as long as possible?

[*If needed, probing*]:

What makes some items in your life more valuable than the others?

How your acquired them?

What kind of memories you have related to those items?

How long you have had those items? How long you are planning to keep them?

Why would you like to keep them?

Could you please tell me how this item (these items) make you feel?

5) When you think back to your childhood, what was one of the special garments to you that comes into your mind first?

[*If needed, probing*]:

Tell me why do you remember that garment?

How did that garment make you feel?

6) Could you please tell me what could be some reasons for you to hold on to your garments longer?

[*If needed, probing*]:

Do some memories or personal relationships influence your decisions to value some of your garments more?

6) Could you please share your thoughts about more sustainable fashion?

    [*If needed, probing*]*:*

        What are some important aspects about fashion industry you care about?

        What do you want to see in the future about fashion industry?

That's all I had for the interview, is anything else you would like to add?

Thank you for agreeing to have an interview with me today.

Emotional Connection: Certain items hold strong sentimental value as reminders of people and past situations. These play a significant role in individuals' attachment to their garments.

Personal Identity: Garments that resonate with the user and reflect their personal style and preferences are more likely to be cherished and kept for a longer time.

Practicality: The practicality of an item, such as its functionality and usability, is an important factor in its value and longevity. Garments that serve a purpose and meet the user's needs are more likely to be retained.

Resourcefulness: Custom-made garments created from materials available on hand demonstrate resourcefulness and can enhance the emotional attachment individuals have towards their clothing.

Preservation of Memories: Garments associated with people who have passed away are often kept in a safe place and not actively used, as they hold special memories and serve as a way to keep the memory of loved ones alive.

Ethical Considerations: Despite being aware of the unethical practices of certain brands, some individuals may still choose to make purchases from them. This suggests a complex decision-making process influenced by factors beyond ethics, such as affordability or availability.

Value and Care: Individuals tend to place higher value on items they have spent more money on, and they are more likely to take better care of these garments. The investment made in purchasing these items contributes to a stronger sense of responsibility and care.

Sentimental value

Nostalgia

Personal history

Self-expression

Sustainability

Stories and memories attached to clothes generate and preserve emotional attachment. Storytelling helps reflect on the significance of clothing, the people and experiences connected to them, and the emotions evoked by these connections.

Appendix 3: Systems' mapping for 'Threads of Memory', created by the user

Sign In

Sign Up

Welcome

Threads of Memory
Wardrobe profile

Your private wardrobe stories

Private options

Seen Only by You and Chosen Ones

Sharing options

Visible Wardrobe Stories: Share Your Stories with Everyone

LEADS PROFILE CREATION

Landing page

Landing page: direct options

Landing page: Features

Explore the stories of Threads of Memory members

Starts storytelling

Directly explore Threads of Memory
wardrobe stories
(without profile creation,
but without visibility
of available clothing for sale)

Community

Connections

Stories

3 COLUMNS OF PLATFORM FEATURES

Community
(seen by non-users, users)

Connections
(seen by only user)

Stories
(seen by non-users, users)

• Encouraging the growth of an active and welcoming community

• Community elements like discussion boards, interest-based groups, and messaging function make communication easier

• Blog like posts about topics like repair, care, and suggestions related to garment care...

• Connecting with others in meaningful ways by proposing stories, profiles, and communities to users on the basis of their interests, interactions, and preferences.

• Following one another, which results in the formation of a network of connections

• Tools that allow users to share their stories on other social media networks

• Share clothing stories through text, images, and videos

• Stories can be categorized based on themes, such as sentimental garments, vintage finds, or special occasion outfits.

• Stories can be made public or limit them to a select audience, promoting privacy and personal choice

Share tips, advice, and ideas with other community members to learn new ways to honor and keep your clothing memories alive.

Discover and connect with persons who have similar experiences and stories.

Discover forgotten memories and create new ones through the heartfelt stories shared by our community.

Explore Community Stories: Dive into Shared Stories

Option to Collaborative Experiences

Discover Other Threads of Memory Wardrobe Stories

Option to Share: care, repair and suggestions

Option to Connect with Story owners

Option to Create: Share Your Helpful Posts

If clothing is available, users can connect with the owner

SERVICE BLUEPRINT

Journey Phase	Onboarding	Level of participation	Wardobe profile creation	Clothing story creation	Community Engagement	Marketplace	Continuation of Story
Customer Goal	To capture users data and onboard new users onto the platform.	Primary : Share personal stories and experiences related to their clothing Secondary: Engage with the platform, explore stories	To help users create and share the stories behind their clothing items.	To create a community of users who share their stories and engage with each other.	To provide a platform for users to sell and buy clothing items with emotional stories.	To ensure that the story of each clothing item continues even after it is sold on the platform.	To ensure that the stories of items are preserved and passed on for generations
Customer Actions Actions that customers perform while interacting with a service to reach their goal.	Users register with their email or social media accounts and agree to the platform's terms and conditions.	• Write stories that capture their emotional connections and memories associated with their clothing. • Explore stories shared by primary stakeholders.	Users enter information about their beloved clothing items and how they acquired them and what emotional stories and attachments they have with the particular item.	Users upload pictures of their clothing items and provide a description of the item's history and significance.	Users interact with each other's clothing stories through comments and likes, as well as can learn about how to care and repair well loved garments.	Users can see if items are available for purchase under stories for primary users	Users are encouraged to update their clothing story and share updates about the item's continued use. Privately or publicly...
Front Stage Actions Front stage actions can be performed by employees or technology and assist the end-user actions.	Clear and simple registration process with instructions. Welcome email with instructions and a call-to-action to complete their profile.Provide an easy and secure sign-up process on the website and app.	Access the Threads of Memory platform. • Create and edit their profile. • Write, format, and publish their narratives. • Browse and read stories shared by primary stakeholders.	Provide an easy-to-use interface for wardrobe profile creation on the website.User-friendly interface with clear instructions on how to upload photos and input information. Option to save wardrobe profile as a draft and continue later.	User-friendly interface with clear instructions on how to write the story. Option to save the story as a draft and continue later. Feature to keep story private for only friends and family.	User-friendly interface that allows customers to easily find and engage with other customers' stories. Option to share stories on social media platforms directly from the platform.	Provide an option for users to communicate with each other to sell/buy/swap items	Provide an option for people to share their stories within families, close circles or with other enthusiasts.
Back Stage Actions Actions that the user doesn't see, but that are required to support their experience.	Data management, email automation, and legal compliance.	Monitor and moderate user-generated content to ensure compliance with community	Data storage and management, image compression and optimization, and user support.	Data storage and management, image compression and optimization, and user support.	Community management, and user support.	Payment system management, data storage and management, and user support.	User support, email automation, and data storage and management.
Supporting Systems Anything that must exist to support the actions and experiences above.	Registration form, email confirmation, and terms and conditions page.	Profile Management System,Content Management System,Moderation System	Wardrobe profile page, clothing item data fields, and image upload function.	Clothing story page, image upload function, and text editor.	Community page, comment and like buttons.	Available option on stories page, payment gateway.	Clothing story page, email notifications, and message system.