

MRP: Personalized styling service
for mature women (50+) transitioning through
different stages of life, *including but not limited
to career style identity and its evolution to post-
career style identity.*

By

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Abstract

For the first time in recorded human history, those aged 65 and older will outnumber those 5 and under. A large portion of the women of the baby boomer generation are retiring after a lifetime in professional and career roles where they experienced more independence and have greater authority over their own lives. Having experienced great social and cultural change, today's mature female is experiencing a transition into present-day retirement. The loss of worker role during the transition of retirement can leave a gap forcing a re-examination of what is known about personal style identities. Fashion is an industry that exudes the essence of the moment; Fashion passively acknowledges the mature female consumer with tokenism which is often found to be an inaccurate reflection of mature women and their lived experiences. What does it mean to transition/retire in today's society and are mature women able to retire from socially constructed gender roles? How do we afford mature females in transitional retirement the ability to construct an accurate (style) reflection of whom they feel they are? How can online and in-store retail experiences be more inclusive to mature women? The research addresses the gap experienced by *mature women* (50+) transitioning through different stages of life, including but not limited to *career style identity* and its evolution to post-career style identity and the lack of attention received by mature women seeking relevant fashion and or personalized style information. Methods used during the research project were observations, interviews, and the implementation of 2 co-design sessions. Findings included several mature women feeling ignored, underserved and undervalued in the society, market and workplaces. Mature women are often unhappy with the cost and quality of products / services being made available to today's *female* consumer. A personalised style service to educate and assist mature women by providing them with access to style information, offering more control over how they illustrate their own style would prove helpful.

DEDICATION

I could not have done this without the support and sacrifices of my family.
This is as much your success as it is mine. Xx

Contents

Title page

Authors Declaration

Abstract

Dedication

Chapter 1: Introduction

- 1 Mature Canadian Population
- 4 Mature Women within the Canadian Population
- 8 Technology
- 14 Economic Factors
- 19 Environmental Factors
- 23 Social Factors

Chapter 2: Research Methodologies

- 26 Observation
- 26 Interviews (expert/individual
- 29 Co-design 1.
- 31 Co-design 2

Chapter 3: Discussion Outcome of Research

- 39 Key Factors for the Development of a Personalized Online Fashion Service
- 40 Personal identity
- 41 Personal style identity
- 42 Canadian style identity
- 43 Work identity
- 44 Work Style identity
- 44 Work environment
- 45 Transition Retirement
- 46 Style
- 46 Fashion
- 48 Mature fashion

49	Buying habits of mature Canadian women
50	Color
51	Shopping experience
51	Instore shopping experiences
52	Online shopping experiences
53	Communication
54	Technology
55	Digital environment
55	Data
56	Design
56	Findings

Chapter 4: Online Fashion Service Design

60	Styling service for mature women
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Conclusion

74	Summary
76	Limitations
76	Future Works

Bibliography

87	Appendix A. Original implementation plan
90	Appendix B. Co- design 1 Structure
91	Appendix C. Co- design 2 structure
93	Appendix D. Participant U Importance Ranking Chart Co Design 2
94	Appendix E. Participant V Importance Ranking Chart Co Design 2
95	Appendix F. Participant W Importance Ranking Chart Co Design 2
96	Appendix G. Participant X Importance Ranking Chart Co Design 2

List of Tables p.VI

37	Table 1. List of responses from Theme Ranking Exercise from Co- design 2
37	Table 2. Themes and Values from Word Association Exercise
58	Table 3. Key factors, potential source of information for a digital shopping service for mature women.

List of Figures p.VII

- 3 Figure 1. Aging Canadian Population July 1st 2017
- 5 Figure 2. Aging Female Canadian Population July 1st 2017
- 35 Figure 3. Thematically Coded Chart of Interviewees
- 36 Figure 4. Co- Design 1 Card Sorting Activity Chart
- 67 Figure 5. Personal Styling Service Flow Chart
- 68 Figure 6. Splash Page
- 69 Figure 7. User Intent
- 70 Figure 8. Customized Colour Template
- 70 Figure 8.1. Pierre Lalande Color DNA, December 2014.
- 71 Figure 9. Pres-selected Body Shape Template
- 72 Figure 10. Search Filters
- 73 Figure 11. Shopping Preferences: Instore/ Online

My MRP focuses on a personalized online styling service for mature women (50+) transitioning through different stages of life, including but not limited to *career style identity* and its evolution to *post-career style identity*.

Chapter 1: Introduction

Mature Canadian Population

The dominance of the mature female population can be observed as the Canadian population has developed over-time¹. Those of the boomer generation have begun to explore their newly earned freedoms living /transitioning into new chapters life. Mature women are living longer, have more disposable income and are more financial independent than ever before ². Mature women as a demographic could influence significant change in the fashion industry.

The first wave of immigration came in the early 1800 and 1900s, mostly of European and American descent. Following the second world war, Canada experiences another influx in immigration again with the majority coming from Europe ^{3,4,5}. Baby Boomers were born between 1946 and 1964 post WWII, creating a long-lasting economic boom. The baby boom lasted for approximately 20 years in Canada, and more than 8 million babies were born, approximately 412,000 a year ⁶. Labour force participation for mature Canadians has doubled in the last decade (7% to 18% for mature females). Over the past 30 years, the age group 50 -54 increased by (120.4%), 55-59 increased by (111.9%), 65-69 increased by (111.9%) and 75-79 increased by (101.9%). The population of older adults 65+ increased 11.4 percent from 3.9 million to 4.3 million in between the years 2001 and 2006. In 2005, the national life expectancy rate for females was 82.7 years of age ⁷.

It was estimated in 2009, the Canadian 65+ population was 4.6 million (13.9%) Those born between 1946 -1965 reached the age of 45 – 65 years of age, equalling approximately 28% of the national female population. In 2010, out of those aged 65+, 56% of them were female⁷. 2011 the Canadian Census revealed (9.6 million persons) or close to 3 out of 10 (29%) were baby boomers. The rising Canadian population is a result of Canada's baby boomer generation and a low fertility rate^{2,8,9}. In 2016 Ontario's population was estimated at 14 million people, with 2.3 million people who are 65+ (16.4%).¹⁰.

The aging Canadian population as of July 1st, 2017 (total population / female population)

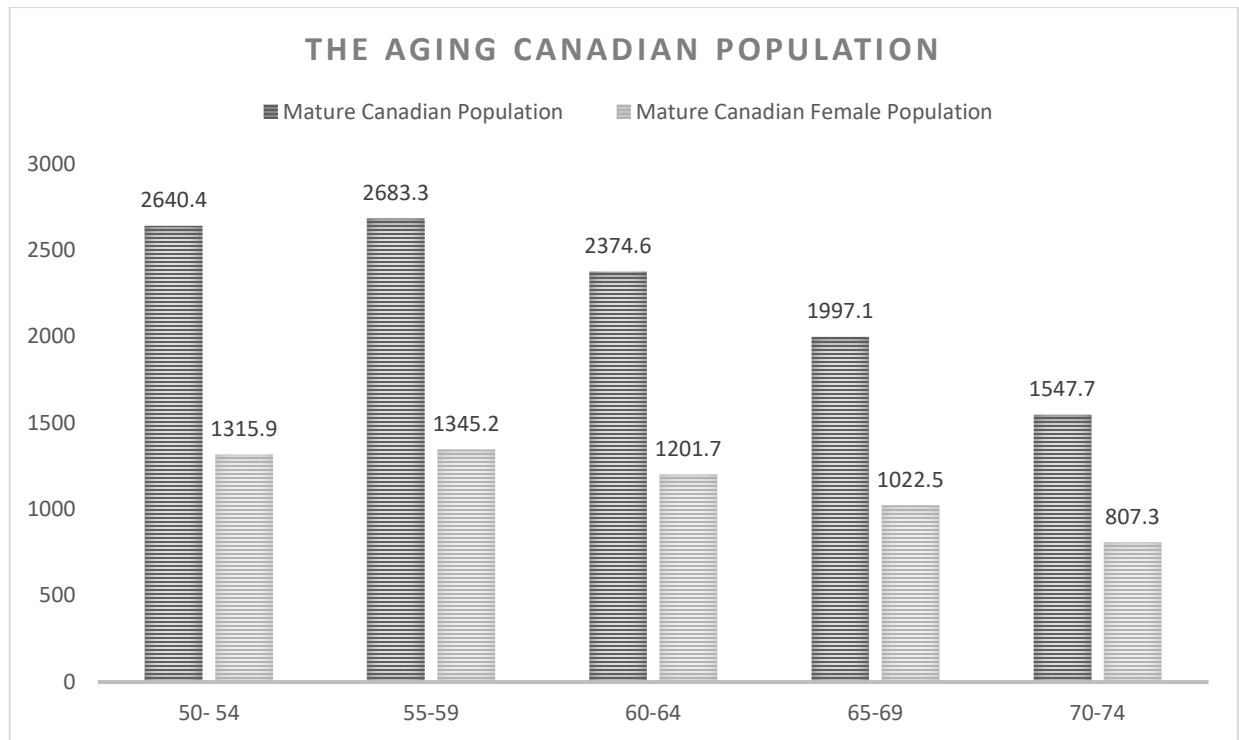


Figure. 1 The Aging Canadian Population, July 1 2017

Population by sex and age group, statistics Canada, government of Canada, 2017.web

Y axis represents the number of aging Canadians, while the X axis represents age groups.

50-54: 2640.4= total population (7.2%), 1315.9 (7.1%) female

55-59: 2683.3= total population (7.3%), 1345.2 (7.3%) female

60-64: 2374.6= total population (6.5%), 1201.7 (6.5%) female

65-69: 1997.1= total population (5.4%), 1022.5 (5.5%) female

70-74: 1547.7=total population (4.2%), 807.3 (4.4%) female

Population by sex and age group, statistics Canada, government of Canada, 2017.web

Those aged 60+ currently account for 1/8 of the global population (13%). 2017, The mature population makes up 17.2% of the country's population, compared with 14.4% recorded the previous July. It is recorded that there are approximately 98.1 males per 100 females (1997)

¹¹.and 106 adults (65 and older) to every 100 children (0 to 14 years) in Canada ¹³

Baby boomers make up a substantial part of the world's population and have a significant impact on the economy. Today the average age for women to exist the work place is 63 years, followed by approximately 22 years of retirement ^{6, 14, 15}. It is estimated that by 2030, Canada's population will be 40 million, of which approximately 25% will be adults aged 65+. Senior women are expected to account for one quarter of the entire Canadian female population.

Today's gerontological culture, a leading female majority in the population is expected to continue for the next 50 years (2100). By 2061, It is thought Canadas baby boomer generation will have reached between 24%- 28% of our national population. ^{8,13}.

Mature Women within the Canadian Population

Today's mature population is living longer, taking much better care of themselves, have higher expectations, are travelled and well informed. With the first of the boomers retiring in 2012 currently 1/3 of boomers are already at or past retirement age. In between 1984 and 2014 the mature (national) population has increased by more than 100%. In 2009, those born between 1946 - 1965 (45-65 years) made up approximately 28% of the national female population. By 2050 it is estimated that an estimated 1/3 of our national population will be 60+. With these ever-increasing numbers and a leading mature female demographic expected for the next 50 years, it would be sensible to consider the influence behind such a significantly sized portion of the national and global population. ^{9,13,17}

Figure 2 indicates the age distribution of the target demographic who could benefit from an online personalized stylization service to assist mature women in locating pieces that reflect their style identities.

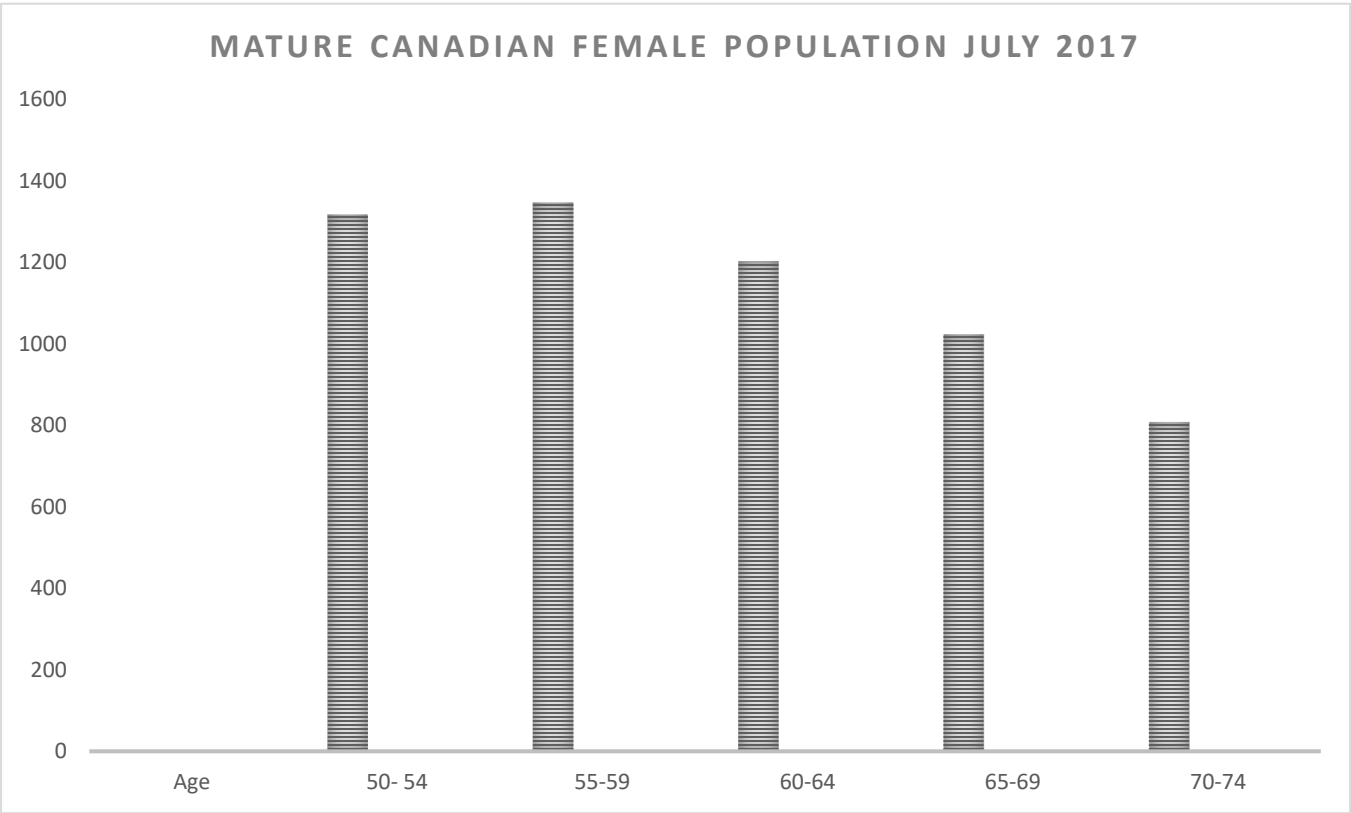


Figure.2 Mature Female Canadian Population July 1, 2017
Population by sex and age group, statistics Canada, government of Canada, 2017.web

Y axis represents the number of mature Canadian females, while the X axis represents age groups.

50-54: 1315.9 (7.1%)
55-59: 1345.2 (7.3%)
60-64: 1201.7 (6.5%)
65-69: 1022.5 (5.5%)
70-74: 807.3 (4.4%)
Population by sex and age group, statistics Canada, government of Canada, 2017.web

The average and median retiring age for mature women in private and public sectors has been slowly increasing. In 2014 the average retirement age for mature women in the private sector was 62.8 and in the public sector it was 61.2. In 2015 the average retirement age for mature women in the private sector was 63.7 and in the public sector it was 61.3. In 2016 the average retirement age for mature women in the private sector was 63.9 and in the public sector it was 61.5. In 2017 things slowed resulting in the average retirement age for mature women in the private sector being 63.6 and in the public sector being 61.2. This was short lived as numbers in 2018 showed a slight increase in the private sector with the average retirement age for mature women being 63.8 and in the public sector 61.5. For mature women who were self-employed the average retirement age was higher (1.5 + years). In 2014 the average retiring age for mature women who were self -employed was 64.5, in 2015 it was 65.5, in 2016 it was 65.4, in 2017 it was 66.8, and in 2018 it was 66.8.

In 2014 the median retirement age for mature women in the private sector was 63.9 and in the public sector it was 60.3. In 2015 the median retirement age for mature women in the private sector was 64.1 and in the public sector it was 61.8. In 2016 the median retirement age for mature women in the private sector was 64.4 and in the public sector it was 61.2. In 2017 the median retirement age for mature women in the private sector was 64.9 and in the public sector 61.3. In 2018 the median retirement age for mature women in the private sector was 64.7 and in the public sector it was 61.3. In 2014 the median retiring age for mature women who were self -employed was 65.8, in 2015 it was 65.4, in 2016 it was 64.6, in 2017 it was 66.6, and in 2018 it was 67.3.

Public sectors display a consistently lower age for retirement than both the private and self-employed sectors. Self-employed sectors show a consistently higher retirement age than private and public sectors ¹⁶.

The power of the mature female movement can be explained by (US alone) a reported seventy-eight million baby boomers, aged sixty something's and above, who control 70 per cent of the domestic income. ^{# 18} Many mature women today are responsible for ensuring their financial well-being during their retirement years ^{#19} A study on women and wealth for IPC Private Wealth says that by 2026, Canadian women will be reporting total annual income of an estimated \$500 billion and will have inherited some \$900 billion in financial and real estate assets. That will place them in control of almost half of all accumulated wealth in this country, up from about a third of all wealth a decade ago ^{#19} The mature (female) population are often working well into their 70s and are becoming entrepreneurs at a greater rate than any other time in recorded history. Currently in Canada mature women manage approximately 40 percent of investable assets. Industry Canada reports that 40 percent of male and female workers over 65 are self-employed. Research from the Boston Consulting Group says that one third of all financial assets in the U.S. and Canada are controlled by women, an estimated \$3.2 trillion dollars and growing. ^{#19}

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TECHNOLOGY

Mature Women and Technology

Many mature adults from the Boomer generation are technologically inquisitive and have the ability to navigate basic online and social media services. Technology has changed the way we communicate and access information on both micro and macro scales. It is important to take advantage of our wireless society and the flexibility it affords us to access information. It is unlikely today that people will leave the setting of a screen to access information, accessing it almost instantly from a computer or mobile device. Using easily navigable pre-existing platforms and technologies, accessing information for the mature demographic is easier than ever. Most often, individuals are accessing weather, directions, the news and emails (personal/business) before finishing their first cup of coffee in the morning. Desktops and laptops can access many

of the same features as mobile devices, however they have larger screens providing a better screen viewing experience²⁰. Mature females are comfortable navigating online environments and conducting online purchases, unfortunately with the lack of translative haptic experiences, returns due to poor quality materials/construction and fit are most recurrent.²¹ Today's basic computers/ mobile devices are equipped with better than good scanning and augmented reality AR capabilities, allowing users to virtually sample before deciding. Applications such as AR are investing heavily in a more participatory, customized user-centered experiences²² and it seems as if mature females are not intimidated by the diffusion²³ of new technologies, many mature adults are early adapters.²⁴ For the mature consumer it is readily apparent that instore experiences need to be more present, knowledgeable, and attentive.

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Algorithm Retail Possibilities

Narrowing the field of fashion needs an expansive solution. Each person has their own priorities, and depending on the requirement, users can be led in very different directions. Algorithms are a series of steps by step instructions to be repeated, making it a perfect task for computers.

Computers are machines that accomplish repetitive tasks at exceptional speeds, sorting an algorithm's search data for specific information and locating it. The use of the other algorithms such as item ranking algorithms display what the user would most likely be interested in first.

These little conveniences guide us while driving, help us prioritize our scheduling, assist us at the

ATM and while buying tickets online. Google and Facebooks searches are based on algorithms, making many mature females familiar with technologies relevant to my MRP.

Below algorithms relevant to the personalized styling service presented in my MRP:

Face Detection Algorithm ²⁵

Face scan detection algorithm scans an image using a set of abstract patterns used to detect a human face. It can detect a human face in photo/video as well as keep it in focus, and draws a box around it. The algorithm taps into the underlying pattern of all human faces drawing a parameter box around the users face and keeping it in focus. This application is useful when identifying face shapes for make-up and haircut suggestions/ styling options.

Item Ranking Algorithm ²⁵

Item ranking algorithms display to us what is assumed to be the most relevant information to a given search. These become convenient algorithms to have when searching a site like Amazon or googling the answer to an unanswered question. Item ranking algorithms shows first what you'd likely be interested in most. This improves the quality of the search by looking at the number of incoming links to a webpage and how important those pages are. Page importance relies on the importance of the pages linked to it. This is constantly being updated.

The Page Rank Algorithm was written by Larry Page, Serge Brin -Stanford University California, creators of Google.

Merge Sort Algorithm ^{25,26}

Merge Sort Algorithms are perfect for large scale searches. Merge Sort takes the divide and conquer approach, dividing data into smaller subgroups to solve a problem. It works more quickly with larger groupings of numbers or data presented. Merge sort is perfect for a task as immeasurable as locating something the internet.

Matching Algorithm ^{25,26}

Matching algorithms can help set up the perfect date, find the best and most affordable dog walker, locate an Uber, find dinner and can match users with products and services being sought based on the consideration of multiple filters. Matching algorithms can improve speed and accuracy of search results. This algorithm was originally used to solve the college admissions problem of how to get everyone into a college even if it was not their 1st choice but more importantly still be happy with the result. (Stable Marriage Project, David Gayle and Lloyd Shapely,1962) In 2012, Gayle Shapely Algorithm won the Nobel Prize.

Machine Learning Algorithms ^{25,26}

Machine learning algorithms help company's improve user experience. Netflix uses machine learning algorithms to help match users with suggested content, retailers use it to suggest other products, Apple uses machine learning for cross device personalization and music services use it

to generate playlists of songs you'll most likely be interested in. The most difficult part of machine learning software is training the computer and making sure you obtain the variations needed in the data training set and update it regularly. As the machine is shown training images it adapts and is learning by example and begins to develop its own set of rules. The platform gets more intelligent and begins to learn what the user likes and doesn't like through choices they make. The learning algorithm changes the more the user interacts with it. This type of machine learning algorithm would be beneficial for users attempting to navigate fashion platforms.

Skeletal Tracking Algorithm ²⁵

Identifying body shape and fit in a fast fashion mass market is an impossible task. Skeletal tracking algorithms are able to identify and calculate body parts by color image mapping data with real time posture tracking could be an extremely useful application when looking for a true fit. The name of the skeletal tracking algorithm is Decision Tree. This algorithm links to machine learning as it begins to learn and writing itself, the skeletal tracking system was developed by Microsoft Cambridge for the Xbox gaming system.

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Other available relevant technologies include:

PASSEN FIT

Having access to a 3d scan of your individual body shape, providing user specific body dimensions could help eliminate the endless search for a true fit. PASSEN is a Canadian company that has created a system that uses a 3d scan of your body to receive your exact body dimensions for the purpose of working with different companies to use the algorithm *that is your body*, shop online and virtually submit an algorithm that is your body. This is the future of (online) garment retail.

It should be noted that customer willingness to use body scanning technology was positive, the number one reason being the want to acquire a better fitting product and second was the escapist/exciting experience provided; similar responses were recorded in user's willingness to participate in co-designing methods. Escapist experiences require users to actively participate in the events of the real/virtual experience. ²⁷

27. Passen.com.2018

Data

In the age of technology concerns about data privacy and ownership are well founded. In the majority of cases, you don't own your data in exchange for service/ platform access. In today's data-driven society, data collection is an important part of data literacy and to the customization of products and services to suit our needs/lives; but data overreach by companies/organizations is not an unfounded concern.

The importance of algorithms in the customization of user (retail) experience is becoming more commonplace. Algorithms can play a far greater role in assisting companies and consumers to accurately identify areas where improvements are needed (services and products) and how to reduce their (textile) waste contributions. These types of custom platforms could help consumer and manufacturers/retailer/designer save money while reducing waste contributions.

ECONOMIC FACTORS

Mature women and fashion

Mature women and fashion are reliant on a number of micro and macro intersectional economic factors. Mature (Canadian) women's fashion choices are influenced by a number of influences including quality, material, fit, comfort, longevity, climate ^{28,29} and price point and lived experience(s). Consumer behavior is influenced by focusing on elements of experiential design and the attention, knowledge and quality of products and services offered by retailers to the consumer.

Current existing business models designed for the *mature* woman in transition in the retail market include websites and blogs that offer style tips and advice. Other models include personal styling services that provide online or in person styling consultations, personalized styling and closet organization ³⁰. Available styling apps guide mature women towards styles and pieces they find appealing, offer styling tips and outfit suggestions based on weather and

location; users have to ability to purchase style options being made available to them. Certain app services offer *mature* women the ability to reach out to stores and retailers by sending messages containing descriptions of items to locate. Users are shown a variety of options on the app they are able to buy. Additional style app assists in keeping track of outfits and looks. Users have to ability to add notes or tags, making them easy to locate for specific occasions. Fashion rental apps offer mature women the ability to access fashion suggested to them or chosen by them, then having those pieces sent to them, to be worn and integrated with pieces they already own. Pieces can be worn for as long as the wear would like, then returned for a package of new styles selections. Mature women have the ability to purchase style selection at a discount price³¹. Online businesses such as clothing rental and delivery services respond to the needs of *mature* women by offering them a more ecologically friendly way to access fashion pieces and styles. The online rental services offer the ability to wear and return pieces at their own pace, or purchase pieces they are interested in ^{32, 33, 34}. These models fall short on serving the mature female demographic by providing more of a generalized than personalized service approach. Users are learning and conforming to the service platform, not the platform learning and conforming to the user. The added steps of returning and receiving parcels could be a barrier for some.

Mature females are working and have more control over household finance than ever before ³⁵
^{36, 37}. Mature females are the most powerful disposable income demographic today and will continue to be the leading demographic for the next 50 years.³⁸With our national female

population being over 50% and our global female population at 50%, Canada is ranked 16th on the 2018 World Economic Forums WEF Global Gender Pay Gap Report (list of 144 countries).³⁹.

Maturing women transitioning from work to retirement are more careful than ever in what they invest their money in, and who and what they spend their money on. ^{40, 41}

Mature female consumer spending is a trillion-dollar industry ⁴². From a bottom line perspective, manufacturers should consider ways to form partnerships with their digital consumers as mass customization offers users flexibility and personalization of products with the low costs of mass production. Manufacturers would be able to offer users a more complete user experience ⁴³. The most effective styles of advertising that influence the purchasing behaviors of mature women where advertisements that most accurately reflected a realistic size, culture, and race diversity ratio to the consumers own environment. The mature female population responds largely to tangible ads (*newspapers, magazines, billboards*), as well as those from television, online and social media sources that mirror their (real life) appearance and surrounding environment. When shown more realistic advertisements women were more able to see themselves in the fantasy/ on the runway When exposed to these changes in advertisement, mature women increased spending by as much as 200%. Mature *women* shoppers make more high-quality purchases, prefer classic styles over passing trends, and chose fit based mostly on what physical imperfections they would like to hide, as well as product longevity and value. Mature women are a powerful demographic and want to be represented in the market place. ^{44,45, 46, 47}.

Using both web and mobile platforms makes this service as inclusive as possible. Users could be local or geographically inaccessible. Designing Inclusively from the beginning is a key element to designing a useful, successful online personalized style platform.

Business Factors:

The current mature fashion market is not seen as an accurate reflection of the mature population. Fashion is a business that has been alienating mature female consumers from fashion industry ideals. Today companies and designers are reluctant to design for the aging population as it juxtaposes the very foundation the fashion industry holds dear; a slight increase in the use of mature models has been seen. There is no identifiable fashion luxury market identification or endorsement in Canada, from industry or in government ⁴⁸. “We do ourselves a “huge disservice attempting to mirror other fashion capitals” ⁴⁹. There is little to no made in Canada, but it is possible, one of the biggest barriers is consumers mentality ⁵⁰ We have become accustomed to mass market prices and though consumers support the ideals (of a product/ service) being made in Canada they are not often willing to pay more for it. ⁵¹

The money is in Canada, we are just a different type of consumer, Canadians are resisting the strong arm of American retailers. Canadians have different buying environments and possess a different buying mentality. Canadians make more lists, are less willing than Americans to embrace online shopping which is slowly changing, Canadians love a good deal but are not as coupons savvy as our American neighbours. ⁵²Canadians look for deals in different ways, but it’s

not about a low price but a good price, a good deal and a good experience. Canadian clothing and accessories purchases are largely influenced by price, quality, stylishness, practicality and usefulness; Canadian fashion purchases are also influenced by fluctuating weather conditions.^{53,54.}

Frustrations over materials manufacturing inferiority, and inconsistent country-based sizing systems (sometimes within the same brand) create frustration and uncertainty⁵⁵. Fast fashion has an insatiable trend turn over and provides a more short-term affordable model for those of low- and middle-income brackets⁵⁶. Textile waste and the conscious consumer has led to a thriving resale retail sector.

Continuously gathering user feedback can be useful in formulating a more precise training software, a more personalized shopping experience, including garment style additions, discontinuations or app feature suggestions, and making the app experience as direct and as easy to navigate as possible.

Regular product audits can help keep an eye on adjustments that need to be addressed for future iterations.

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ENVIRONMENTAL FACTORS

Body Environment

Skin is the body's largest living- breathing organism environment and what we wear on our bodies can have an impact on our health ⁵⁷. Having access to material knowledge is important information to the *mature* Canadian consumer and is needed to make an informed decision.

National Environment

The Canadian political climate as well as our seasonal weather variations has influence over purchasing patterns ⁵⁸ Mature women living in suburban areas rely more on the internet to gain access to products than those who are based in more metropolitan settings. Mature female Canadians are well informed, aware, introspective, value shoppers who have less disposable

income due to our higher cost of living than our American neighbors^{59,60,61} Fluctuating seasonal weather can call for an assortment of clothing combinations. It's been estimated that weather effects \$3 trillion dollars' worth of business in the private sector alone managing the financial implications of weather purchasing patterns. The weather market profits by selling weather/climate data to companies that target select information (i.e. shampoo and conditioner companies advertising frizzy hair solutions in high humidity areas and volume enhancing products in low humidity locations.), or targeting research that shows how people spend more money when the weather is sunny⁶².

Ecological Environment:

With our planet in such dire straits, consumption models such as planned obsolescence contrasts capitalist wants with our planetary needs. The effect textile waste has had and continues to have on the planet is catastrophic. Fast fashion's waste contribution is so vast, it is second only to the oil industry⁶³. Clothing that is not sold is sometimes put on sale, destroyed, dumped or sold by the pound back to the countries who manufactured them in the first place. Some nations have actually begun to refuse to accept clothing donations as they are drowning in our wasted textiles. Thinking about a product's entire life cycle from the beginning of the design phase, conserving resources (*waterless dyes*), usefulness, quality, and longevity is imperative. Economic markets need a rate of consumption to exist, however, there are other ways to source, combine, separate and re-integrate materials at the end of their life cycle back into a system of pooled/combined resources^{64,65,66}. We need more clean, sustainable, perpetual solutions to

addressing concerns of consumption and the implications that could have for the future of the fashion industry. Consumers sometimes purchase items because they are inexpensive and readily available, not because the pieces suit them or their lifestyle; This type of buying encourages mass accumulation of disposable and unworn apparel that is either donated or thrown away. This system assists consumers in locating fashions/styles best suited to themselves and their lifestyle, Future iterations of this service could serve to eliminate fast fashion retailers by providing per order/ mass customization fashion/style options to mature women. ⁶⁷

Socioeconomic environment

The average mature Canadian spends an average of 20 hours per month online using mobile devices mostly. As value shoppers we stock up on our favorite things and will visit more than one location to get it. Canadians do not shop online as much as Americans⁶⁸. Many mature Canadian female consumers enjoy the social and haptic experiences of bricks and mortar retail locations.

Instore shopping environments/experiences

Bricks and mortar retail experiences are staple experiences for the mature (Canadian) female consumer. Negative in-store experiences can deter mature female shoppers, these include when employees are unknowledgeable or unhelpful about products and services. Mature consumers find store floor layouts overwhelming, distracting and oversaturated due to garment selection, colours/patterns, lighting and music. Often mature women are not acknowledged when visiting retail locations. Change rooms can be unkept or dirty which is disconcerting to mature female consumers ⁶⁹.

Online shopping environment/experiences

The conveniences of online shopping is unparalleled. Mature *female* shoppers would benefit from a clear, concise and easy way to navigate or access (style) information. Mature shoppers are hesitant of the fact you cannot see how the garment as it appears/sits on a person who is more of a reflection of themselves, nor can you examine the material (texture/quality) or the construction of the garment until the item is received. ^{70,71}

Digital environment

Digitization provides the ability to customize experiences creating environments that promote user engagement making it easier for mature female consumers to access and locate style information. The allure and accessibility of the digital age has changed how we communicate, socialize and buy. For the mature consumer, technology has unfolded in ways they could have never imaged. Experiential design is an essential element to any product/system that is successfully diffused into a population as large and diverse as the baby boomers. Digital platforms provide more access to those who are excluded or limited due to geographic reasons. The experiential transfer from (in store) changeroom to (in home) living room opens up new levels of comfort and control for those who are not comfortable with the instore experiences or have little to no access visiting bricks and mortar locations. The digital consumer is valuable to product/service development and design, working as digital content creators. Digital creators are involved in the development of the end product. It's not just about finding the product it is about

the experience of using the style service. Digital technology has built a stronger business to consumer relationship through online retailing.

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SOCIAL FACTORS

Sociological and anthropological traditions regard clothing as a form of material culture artifacts with the ability to reflect on current and historical meaning, social and cultural concerns, and shaped by socioeconomic conditions while underlining our role within the social order⁷². Mature women are generally found to be happier with body and appearance than younger women and have higher levels of satisfaction than mature men⁷³. Mature Women of the baby boomer generation have lived through times of significant change and have seen social and cultural revolutions only read about. In today's society we celebrate mature women if they are eccentric or in a manner that is tokenistic⁷⁴. There is a need to have a more open diverse conversation about aging and what it means to age in today's society. Dressing age appropriate is most

obvious in children and seniors. This intersectionality of transitional retirement creates an opportunity and an outlet for self-personalized expression best suited to an individual's lifestyle, reflecting who they are as individuals with an emphasis on the fluidity of identity. Transitioning to post -full time employment women are no longer bound by the behavioral and style guidelines of an employer; though retired social activities still dictate certain fashion choices for social, second employment, volunteering, physical and recreational situations. This transitional period allows the opportunity to explore avenues not previously possible to explore in the constraints of an employment setting ^{75,76}. "Dress is one of the means by which social difference is made to manifest and visible"⁷⁷. Today's culture is remarkable visual, categorizing individuals into basic categories such as race, gender, culture and age. These intersectional combinations of social identity structures are what makes each mature woman unique, using clothing and identity as a means to convey a message about themselves; mostly linked to master identities such as gender, class, ethnicity, culture and sexuality⁷⁸. The social experiences gained from employment are gone but many mature women stay in touch post-employment, meeting for coffee, lunch or bricks and mortar shopping which can include socializing with sales people and friends or family. The adaptation of new technologies has changed the way communicate, socialize with each other and access information as a whole. This is the beginning of a new trend and my opinions are still developing on the topic.

Today's transitional retirement landscape is comprised of several unique intersectional factors. Social innovation is described by the European commission as social in the end and means and is a concept that transcends the boundaries of academia, business and the public sector ⁷⁹. Social

innovation is the process of co -creating involving a set of stakeholders who work in a social or collective manner. Technological (how we communicate, information access, easy use of social media, purchases, algorithmic conveniences or personalization qualities, data...), economical (mature female gap identification, income, cost of living, economic opportunity), environmental (body, national and ecological), social (clothing as a form of social class diffused down through the hierarchical structures), socio-economic (shopping experiences (online/instore), and social (American vs. Canadian and weather influences on purchasing patterns) experiences impact the wants and needs (products) of mature women and how readily they can access products.

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CHAPTER 2:

RESEARCH METHODOLOGIES

This research was conducted in stages.

Observation

Observing the behavior of mature females in public non-specific places allows the researcher to view natural interactions between the participant and their environment. Observational criteria for the research was gathered while walking, taking transit (bus/train) and working. The research took approximately 7 months (32 weeks, from July to January) to complete.

Interviews – Expert/ Individuals

Interviews of experts and individuals were conducted using a semi-structured/ casual interview style, at a location most comfortable to the individuals. During interviews the researcher was looking for insight on opinions and experiences regarding (Canadian) style / fashion and identity and its relation to the mature female consumer.

Individual Interviews

The purpose of the interviews was to be able to acquire as much individual fashion and style information in a limited amount of time as possible. The interview data will be used to narrow topics, subjects that may have not considered previously by the researcher.

(individuals who meet topic criteria, mature females 50+ who are about to, in the process, or recently retired.)

Number of individual interviews:6

1. retired, part-time work 50+
2. retired, part-time work 50+
3. Professor, Artist expert 50+
4. Fashion Designer, working 50+
5. Fashion Council, working 50+
6. Editor and Chief, working 50+

Expert interviews

The purpose of the interviews was to be able to acquire as much information in a limited amount of time as possible. The interview data will be used to narrow topics/subjects that may have not considered previously by the researcher.

(10 years + experience)

Number of interviews: 13

1. Fashion Professor, Fashion expert, Modeling Agency owner, Author
2. *Fashion Designer, Textile Designer
3. Fashion Designer, Textile Designer, Social Media expert

4. *Fashion Design Council of Canada (FDCC)
5. Hairstylist, Author, Colour expert
6. *Editor in Chief
7. Profiles National talent.
8. Fashion Editor
9. Tech expert
10. Tech expert
11. Web/platform Accessibility Consultant
12. *Former consignment boutique owner, Executive Banker, retired
13. *Professor, Artist

*People who are experts but also fall into target demographic of mature women 50- 80 years old

Co-Design

The co-design is to consist of 5 + people.

Co-design attempts to advance systems thinking and allows and sometimes encourages role fluidity, blurring the role between user and designer, creating design solutions together (user/ designer). I chose to conduct 2 co-design sessions with 2 different groups of women at different stages during the transitional retirement process. The first group consisted of mature professional women who held either faculty or professional staff positions at a university, the second group consisted of women who were recently retired or in transition to retirement.

Co-Design #1

The co-design took place on November 21, 2018.

Participants were recruited through an introductory message by institutional email

Six women who held either faculty or professional staff positions at OCAD University. These women were chosen because they met the criteria of my MRP target demographic.

Themes that arose from interviews such as quality, service, materials and price point helped inform my decisions for my co-design activities

Co-Design Structure:

Introduction 5 minutes

Group members introduce themselves to one another.

Activity 1: Worst Ideas 10 minutes

The method used was asking participants to describe terrible ideas they have experienced. The information gathered was used to gain insight into ideas, designs and systems thought to be useful and relevant to the mature female consumer. I asked group members to think about the worst ideas they have related to my research. They threw around ideas for possible solutions, trying to turn bad ideas into good ones.

Activity 2: Cards 10 minutes

Participants were asked to sort issues on cards in order of importance (one being the most important). The information gathered was used to gain insight into what mature women require/ value most in their clothing/style.

Activity 3: Wishing 10 minutes

The method used was applied by asking participants to think about if they had the opportunity to wish an idea, design, system into existence what would that wish be? This method was used in an attempt to gather insight into ideas, products and designs that may have been overlooked.

Activity 4: Rough Prototyping 10 – 15 minutes

The method used was an attempt to gain insight into ideas/designs/products/ services being overlooked for mature women. Participants were asked to (with the assistance of a selection of materials) create a representation of the ideas, designs, products, services they would find useful. The information I am attempting to gather is key elements of design necessity concerning mature women, personal style identity and access style information and products.

Activity 5: S.W.O.T Analysis 10 minutes

The method that was to be used was an attempt to analyse the entirety of my suggested MRP service design by asking for participant feedback. The information obtained during a s.w.o.t. (strengths, weaknesses, opportunities and threats) analysis could have been beneficial by identifying strengths, what could be improved, changed or removed completely.

Feedback 5 minutes

Group members offer feedback about their experience in the co-design session.

Participation forms and a brief summary of what to expect during the co-design was sent to each participant in the days before the co-design. A booklet was created for the co-design that detailed the co-design layout.

Co-Design #2

This Co-design session took place on October 27, 2018. in Meaford, Ontario. It was conducted remotely by the researcher from Oakville, Ontario.

Participants were recruited by participant “U” who has a group of mature female friends she meets with regularly and suggested they take part.

Four women, two retirees (50+ yrs.) and two employed (50+ years, one of which is planning to retire soon).

Co-design structure listed below:

Remotely facilitated (co-design) with assistance of participant (U).

Introduction - 10 minutes

Group member introductions took place, discussion of major research topic and break down of co- design layout.

Story Telling -10 minutes

Storytelling was used to gain insight into situations faced by mature women. The group tells a story that presents a problem, troubleshoots a solution, gives thoughts and opinions, and discusses what could have been different.

Worst idea -10 minutes

The method used was asking participants to describe terrible ideas they have experienced. The information gathered was used to gain insight into ideas, designs and systems thought to be useful and relevant to the mature female consumer. The researcher asked group members to think about the worst ideas they have for an online personalized styling service for mature women and throw around ideas for possible solutions; trying to turn bad ideas into good ones.

Wishing -10 minutes

The method used was applied by asking participants to think about if they had the opportunity to wish an idea, design or system into existence what would that wish be? This method was used in an attempt to gather insight into ideas, products or designs that may have been overlooked.

Questionnaire – 15 minutes

The method used was asking each participant to take the time to complete a questionnaire containing a list of questions, to sort issues in order of importance (one being the most important) as well as to complete a word association activity. The information gathered was used to gain insight into what mature women value most in their clothing/style.

Issue sorting activity: Rank issues from most to least important (1-14)

Word association activity: Write down the first word that comes to mind when you read the listed words.

This research study was approved by the OCADU Research Ethics Board (file # 101299)

CHAPTER 3 DISCUSSION

Outcome of Research

The information below was compiled from a series of interviews and co-design sessions conducted during the course of co -design sessions. Key themes that presented during the course of research including the identification of an underserved population, levels of identity (personal/worker/ style), the desire for access to (style) information, the desire to be represented and celebrated, the ability to obtain quality products (design/materials), influence of technology and environmental influences on the purchasing habits of mature female consumers.

The primary analysis method used in this segment of the study was thematic coding, which proved the most useful for identifying key themes and variables relating to the mature female attitudes and behaviors in transition to retirement. Categorizing themes helped clearly identify areas of significance rather than specific criteria since establishing a finite set criterion for today's mature women could pose as difficult as establishing a set criterion for a nationality. The analysis indicated that mature women look for quality in a variety of ways including design, value, material, product longevity and price point.

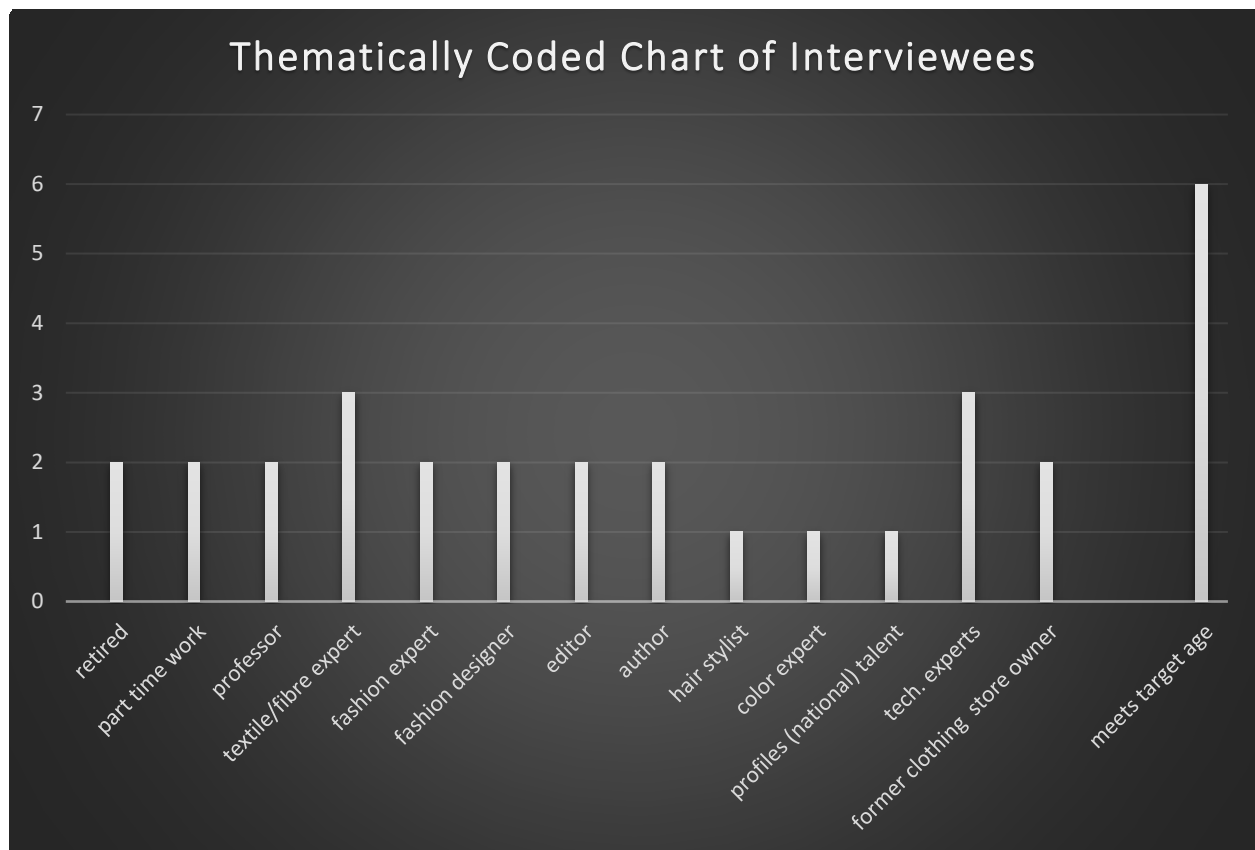


Figure 3. Thematically Coded Chart of Interviewees.

The Y axis of the chart above represents the number of research participants that coincide with corresponding themes. This chart is a thematic representation of the interviewees and the range of (lived) experiences considered.

Co-Design 1 Card Sorting Activity Chart

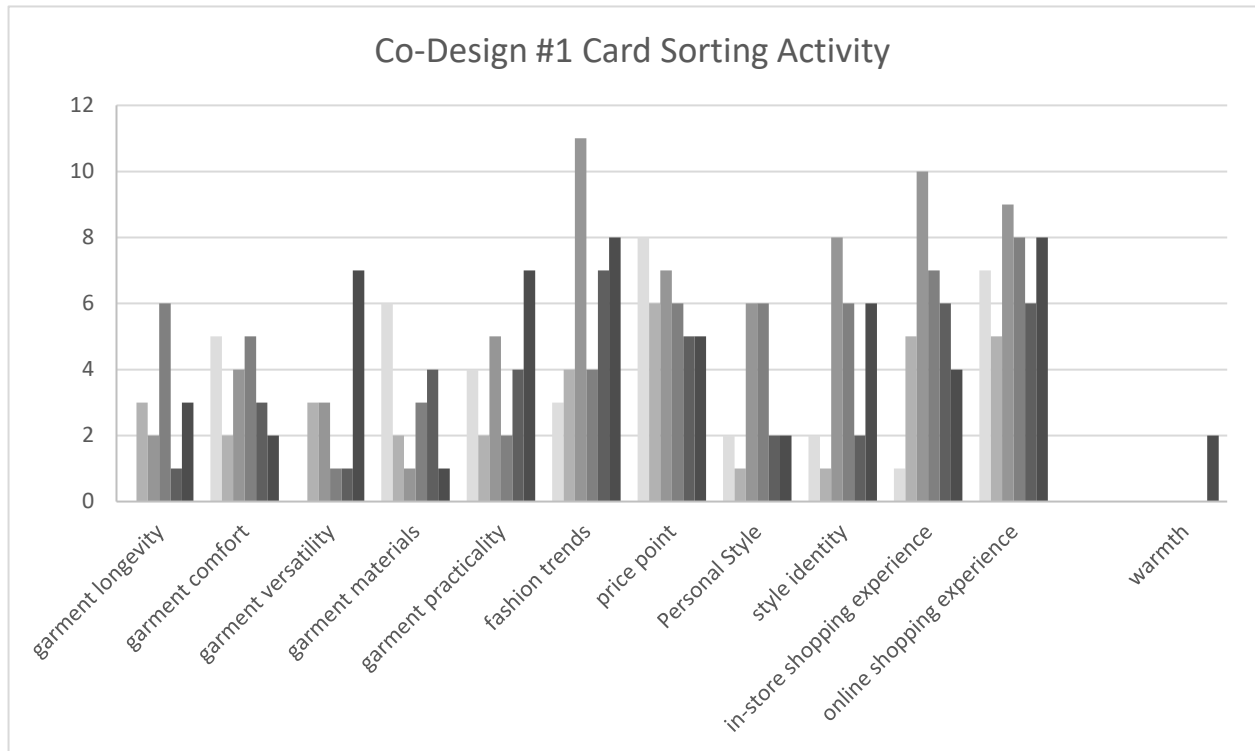


Figure 4. Co-Design 1 Card Sorting Activity Chart

This chart represents each participant's value response to themes (with the prospect to add more). Each color represents a participant in the Co-Design 1 session.

During this Co-Design session there was not enough time to conduct a S.W.O.T Analysis.

Table. 1 List of Responses from Theme Ranking Exercise from Co- Design 2.
Number system ranking and meaning (lowest to highest) 1- most important
10- being the least

	Participant X	Participant W	Participant V	Participant U	Average
Factors Identified by 3 or more Participants					
Comfort	1	5	3	2	2.5
Reflects Personal Style	8	1.5	1	1	2.5
Fit/Cut	3	4	2	3	3.5
Quality	4	3	9	4	4.5
Versatility	5	6	5	7	5.75
Fibre Choice	9		4	6	6
Collection of Personal Data	2		11	10	7.6
Price Point	6	1	12	8	8.25
Colour	7	7	10	9	8.3

Table. 2 Word Association Themes and Values Chart Co-Design 2

Factors	Themes and Values				
Data	Numbers, info, computers, base collections and co-relations				
Colour	Feeling, self-expression,, drawings, bright, black-slimming				
Style	Flare- look and feel, gear, fashion bohemian				
Quality	Longevity- good materials, durability. Fashion, important- quality should give excellence				
Comfort	Cozy lounging, relaxing, fashion , not sloppy				
Barriers	Rules not for every , fencing, designers				
Body	Stigma, hair				
Technology	Ability- anything can be programmed, confusion				
Versatility	Limitless options, usefulness, combining old and new fun styles				
Retirement	Stage of life, relaxing, freedom, great				
Age	Wine, number, discrimination, state of mind				
Women	Strong, friends, old people do not matter to companies				
Important	Priorities, attention, personal style- comfort, self-love				
Quantity	Greed, Costco, shoes/purses				
Life	Grand, is what you make it.				

Through word association it can be determined that in this co-design session (2) there was no negativity towards data concerning style, some thought of color in relation to expression and body image, the importance of comfort without looking sloppy, the acknowledgment of fashion rules, feeling fenced, designer barriers, varying comfort levels in technological abilities, age was viewed with anonymity and optimism, women were seen in as positive but economically anonymous. There were positive attitudes towards life and retirement, priorities, attention, self-love, personal style, comfort, versatility, quality were all seen as important.

Principal themes present themselves through the implementation of activities such as ranking, word association and card sorting. Themes that presented themselves as main themes were attention, materials, quality, comfort, fit, self-expression, usefulness, longevity, versatility and personal data.

It can be identified for these two groups that comfort, personal style, fit, quality, collection of personal data, and versatility were important consumer themes for these individuals. It is likely that mature women would like to make fashion and style choices as individuals not by a list of set attributes for online searching. The importance ranking activity was introduced to expose and explore the themes most and least important to participants.

Key Factors for the Development of a Personalized Online Fashion

Service

Addressing a major gap in the fashion industry, mature women are simultaneously fashion's most underserved and most lucrative market opportunity. Taking advantage of our technologically (WIFI) dependent society, I am hoping to make a personalized style information as accessible as possible for mature professional women (50+) transitioning through different stages of life, including but not limited to *career style identity* and its evolution to *post- career style identity*. With many mature women being social media friendly, making the service as clear, concise, easily navigable and the user's digital environment as customizable as possible is as essential to the success of the style service as the personalized information being accessed by the user. This type of customization is possible through the application of machine learning algorithms. Having a style service to assist mature women during transitional life events would prove to be beneficial. Data collection is a topic of a few minds. Some individuals are truly unbothered by the collection of data understanding its necessity in product improvement and development. Some individuals are not comfortable with sharing certain elements of data such as financial and health related information and there are individuals who are uncomfortable sharing any information. Mature female (Canadian) consumers are conscious, knowledgeable, introspective consumers in search of personal reflection, quality, comfort, fit, versatility and a *good* deal. Mature female (Canadian) consumers have adopted the internet at a slower pace than Americans in areas such as apparel and accessories. Many distinct environmental factors affect why and how mature women shop. Some women shop certain fibres because they are conscious about what is worn on the skin (body as environment), others mature women are attuned to the national climate

like legalities, tariffs, negotiations, agreements and seasonal climate fluctuations and purchasing patterns (national/provincial environment). Being more aware and having more access to personalized (style) information can help mature women successfully navigate the overwhelming world of fashion, helping both mature women and business save money while simultaneously contributing less textile waste (ecological environment). The physical (bricks and mortar) and the digital (online) experiences are both important experiences to mature female consumers. Mature female consumers still enjoy social experiences associated with the bricks and mortar shopping experience, but enjoy the convenience and the instant result(s) of online experiences afford (socio-economic environment). Providing mature females with the options, means and methods to access and obtain custom style information to further enhance or help create a true self- reflecting style identity.

Findings below were collected from MRP interviews and co design sessions.

Identity

Personal Identity

Society has an ageist quality that can take a toll on an individual's view or self-worth. As we age we are beginning to see the way we've been shaped by our life experiences. Gender roles were strongly represented during boomer generations (contingent on the decade they were born) posing the question, do women ever retire from gender roles even after they retire from work? Today's modern society affords women the option to refuse these roles but how many do? Often, who someone is and how they feel inside is not always accurately reflected in the way they dress. As women we try to preserve ourselves against time, seeing other (younger) women

in a more threatening way. As we age, our bodies age, our figure changes and more often than not we are dressing for a body we had 10+ years ago not a body we currently possess. As we age our bodies begin to lose shape. Mature (Canadian) women from the boomer generation were brought up to be more conservative in fashion) and when clothing doesn't look or fit the same as it did in previous years, it can be an upsetting, discouraging feeling and experience. We need to learn to be comfortable in our own skin and accept our bodies as they change.

Personal (Style) identity

An individual's personal style expression is something they are born with (a reflection of authentic self) or it is cultivated over the years.⁸⁰ It can be bought with through the assistance of a personal stylist but that that is not a representation of your personal style rather a reflection of the stylists. Style is eternal, it has no age. There is no right or wrong color, material, size or cut. There is no right or wrong (personal) style. It embodies and celebrates the individual's tastes; personal style has no rules. Outside of industry and social norms, there is no such thing as good or bad taste or good or bad style. Style is reflective of the individual and how it best suits the context of their lives and the intent behind those choices. Two people can wear the same look very differently because of the context (how it fits into their lives) the individual places on the piece(s).⁸¹ Personal style is the identity you create for yourself, it reflects how you want the world to see you, and what you wear to protect and navigate through your life in the world we live in (Participant H). Personal style is a collection of staples that fit the context of your life not a series of trends. It takes a lot of courage to display one's individuality and there is nothing vain or

foolish about a mature woman who is concerned about how she is viewed in the world or wanting to navigate the world with fashion. ⁸².

80. Participant D expert interview by Hillary Dube, Toronto, 2018.

81. Participant F, expert interview by Hillary Dube, Toronto, 2018.

82. Participant F, expert interview by Hillary Dube, Toronto, 2018.

Canadian (Style) Identity

Canadians are not generally known for making (style) statements ⁸³. Our European background and immigration history seeded our standard for form, function, natural materials and quality.

The impact of new immigration will seed its own standards to be witnessed in later years.

Canadian style is a very natural way of being ⁸⁴. We as a nation are young in contrast to many others, we are still developing a sense of who we are and what our (style) identity is, and needs nourishment. We are a nation with a very rich indigenous history/culture but we have no

connection to it ⁸⁵. Today's Canadian mature consumer population is diverse, knowledgeable, well-traveled, cautious, and cerebral. Our inner selves are equally or more important than how we are viewed by other people ⁸⁶ Canadians are not known for flashing their affluence, it's

subtler more of a "stealth wealth" ⁸⁷. Canada has an eclectic mix of fashion/style influences from all over the world thanks to our inclusive views on immigration, we are a fusion of cultures. We

like other nations were not built on a single culture. Mature Canadian women enjoy unique one of kind markets and are less influenced by trends than Americans ⁸⁸. Weather can influence color

and style choices, as well as shapes elements of our personalities. When asked to describe the

Canadian consumer the most commonly received identifiers were: Conservative, reserved,

controlled, polite and pragmatic, bland and boring. When asked about color in Canadian fashion,

neutrals, blacks, and greys with small pops of color or texture were most often mentioned.

Seasonal temperatures can be very different at the beginning of a season to the end of the same season. Canadians will invest in a good winter coat because it can make a big difference in your quality of life, possibly life and death ⁸⁹. Annually, Canadians spend approximately 5-6 months wearing winter coats ⁹⁰. Though Canadian style identity was a developing topic, Canadian style cannot be designed as a distinct thing or quality to search however by using certain factors mentioned above trends can be identified.

83. Participant E, expert interview by Hillary Dube, Toronto, 2018.

84. Participant E, expert interview by Hillary Dube, Toronto, 2018.

85. Participant J, expert interview by Hillary Dube, Toronto, 2018.

86. Participant F, expert interview by Hillary Dube, Toronto, 2018.

87. Participant K, expert interview by Hillary Dube, Toronto, 2018.

88. Participant E, expert interview by Hillary Dube, Toronto, 2018.

89. Participant J, expert interview by Hillary Dube, Toronto, 2018.

90. Participant H, expert interview by Hillary Dube, Skype, 2018.

Work identity:

Working women today are still positioned in gender inferior roles leading to positions of lower importance in the workplace hierarchy. Worker roles for women today are more varied and are paid less for the same job (often working more hours) as their male counterparts ^{91,92 9,3}. With the removal of employment, an element so time-consuming, mature women have more time to pursue things they may have wanted to pursue because and did not previously have the time. Women enjoy the financial and social freedoms afforded by employment, which is a supporting factor in why mature women seek employment after retirement ⁹⁴.

91. Bernard, Harding, Phillips, Machin, Women ageing: changing identities, challenging myths, 2000.web

92. SKUCHA, BERNARD, chapter 2 women's work' and the transition to retirement, 2000.web

93. Bernard, Harding, Davies, Chapter 4 Our ageing selves: reflections on growing, 2000.web

94. Participant U, X, co -design 2 by Hillary Dube, 2018.

Work (Style)identity:

Mature (Canadian) women spend a lot of time and effort trying to blend in⁹⁵. With the democratisation of fashion, the integration of streetwear has had a major influence on work fashion⁹⁶. Personal clothing and work clothing, these fashions are becoming more blended. The influence of streetwear has made the work environment more approachable (colleagues), lessening the impact of (workplace) fashion as a social signifier (power dynamics and hierarchies). There has been a resurgence into structured/tailored/polished pieces and looks; as clients of individuals managing more serious business dealings were found to receive less confidence when they dressed more casually. Workplace dress context is important⁹⁷.

95. Participant C, expert interview by Hillary Dube, Toronto, 2018.

96. Participant F, expert interview by Hillary Dube, Toronto, 2018.

97. Participant A, expert interview by Hillary Dube, Oakville, 2018.

Work environment:

Today's work environment has changed in the ways of (relaxed) dress, business models, work environment (pop up shops, Wework- combination/collaborative work spaces, etc.), and work attendance (from home, in travel, anywhere). An exploration on workplace environment would provide wonderful insight into the use of technologically inclusive platforms providing travel accommodating solutions (commute to and from work are getting longer/ providing alternate forms of attendance).⁹⁸

98. Participant K, expert interview by Hillary Dube, Toronto, 2018.

Transition - Retirement

Though mature women are more comfortable in their own skin they do not all transition easily⁹⁹. Retirement is *normally* associated with more formal careers, there is no widely publicized and or supported programs transitioning mature women out of employment. When something as impactful as employment is removed, it's not uncommon to question who and where and what we are now? Retirement from work for women doesn't necessarily mean retirement from worker^{100,101, 102} and gender (caretaker) roles.^{103,104,105} Mature women predominantly have low financial (investment) literacy, but control the majority of household spending^{106,107}. Retirement today is estimated at 63/65, if your average life expectancy is around 100 years that could potentially mean a whole second career. Retirement today is becoming (*almost*) optional. Often times after retirement mature women find themselves doing things they are interested in doing or finding employment for pocket money. Women don't really retire, they just do other things. This is the time in mature women's lives to focus on themselves after spending a significant portion of their lives working and caretaking for themselves and others. Many women look forward to getting rid of their work attire and have in some ways given up on being acknowledged by fashion.¹⁰⁸

99. Participant A, expert interview by Hillary Dube, Oakville, 2018.

100. Fletcher, Women spend 50% more time doing unpaid work than men: Statistics Canada, CBC News, June 2017.web

101. Moyser, Burlock, Time use: Total work burden, unpaid work, and leisure, statistics Canada, July 2018. Web.

102. Moyser, Melissa, Women and Paid Work, Statistics Canada, March 2018. Web.

103. Bernard, Harding, Phillips, Machin, Women ageing: changing identities, challenging myths, 2000.web

104. SKUCHA, BERNARD, chapter 2 women's work' and the transition to retirement, 2000.web

105. Bernard, Harding, Davies, Chapter 4 Our ageing selves: reflections on growing, 2000.web.

106. Dan Fox, Melissa Moyser, Women in Canada: A Gender-Based Statistical Report the Economic Well-Being of Women in Canada. Statistics Canada, Statistics Canada, 16 May 2018.web.

107. Megan Haynes, Jennifer Lomax Zooming in on the mature female consumer, Strategy, January 12 2015. Web.

108. Participant A, expert interview by Hillary Dube, Oakville, 2018.

Style

Style is something that is personal and authentic to an individual (their eye, view, how they put things together, wear things 1, it is their own (style) narrative expressed through fashion that suits the environments and lived experiences, you can learn a lot about someone from their personal style. Individuals need to develop their own personal relationship with style¹⁰⁹. Style is a social connector. Sometimes we are influenced by the style of others and it doesn't translate^{110,111,112}. Style is ageless, unique and comfortable. There is no right or wrong style.

109. Participant B, expert interview by Hillary Dube, Toronto, 2018

110. Participant D, expert interview by Hillary Dube, Toronto, 2018

111. Sara Elman, what is your body shape, May 2014.web.

112. Charushila Biswas, 12 different body shapes of women. stylecraze.com November 2017.web.

Fashion

Fashion is described as 3 things: 1) industry/system, 2) fashion- fashionable, 3) fashioning verb- creating a look¹¹³. Fashion is an intimidating business and it can be expensive¹¹⁴. Fashion depicts "of the moment" and is relevant to things outside clothing. It can pertain to architecture, gardens, restaurants, destinations, transportation, literature, art, furniture, beauty treatments and products and much more^{115,116}. Fashion as industry dictates taste and perpetually releases trends on multi-tiered price point plateaus. Fashion is built around an archetype of beauty of being youthful and being able-bodied. Fashion is a ritual we engage in daily¹¹⁷. There are times when situations dictate a certain type of fashion, this could include a, wedding, funeral, graduation, sporting event, volunteer work, employment, travel, weather etc. Fashion is an

embodied experience that possesses transformative and aspirational qualities, can change the way you feel with something as simple as putting on a nice top or applying your favorite lipstick¹¹⁸ Getting dressed is an experience in itself and is something people do every day¹¹⁹ Fashion is what is out in stores right now. (Fast) fashion dominates with consumption and production. Due to the price point the fast fashion model has monopolized the low-income markets¹²⁰ Today's trends are tomorrow's trash, trend variability leaves fashion companies struggling with trend reports and relevance. The majority of stores seem to carry similar styles and cater to the younger, thinner demographics; Plus, sized fashions are few and overly simplified. Inconsistent sizing systems whether it is by country, brand or even within the same company can be frustrating enough to deter anyone^{121,122}. (Fast) Fashion is made for the masses and fits no one. Fast fashion provides garments at such a low cost that few are bothered to mend the garments being worn. Fast fashion has cemented itself as the leading global waste contributor next to oil. These types of planned obsolescence models make it very difficult for small/ individuals to compete with (fast) fashion conglomerates in terms of price, delivery and product turn around¹²³. In the age of the machine, the threat of losing the knowledge possessed by skilled individuals such as master patternmakers, tailors and seamstresses is very real.

Fashion is moving at such a speed that "The hottest brand in fashion in a year from now has not even been created yet¹²⁴.

The fashion industry needs to reconceptualize what it thinks about age and aging. Past a certain age, the fashion industry treats you as if you are invisible¹²⁵. With the fashions mature women

are being present with, it brings into question who is around the design table? Mostly men and young women ¹²⁶. Mature models are celebrated as a form of eccentric tokenism in a changing industry, it is not fashionable that mature women age and their bodies change. Today's fashion industry is flooded with a new world of influencers, social media being the main form of influence. The fashion industry does not have the influence it once did over people and what they should wear to "be in fashion". The word "fashion" is no longer in fashion ¹²⁷.

Mature Fashion

Most available mature fashion is loose, baggy and shapeless ¹²⁸. It is assumed because comfort is a preferred quality, mature adults have given up. When passing a certain level of comfort, I believe there is a psychological toll, losing elements of your identity becoming anonymous and invisible to not only society but yourself; creating a self-fulfilling prophecy. Mature women most often lose that connection to the fashion industry because they are no longer perceived as valuable. Mature women want to be represented in today's marketplace ¹²⁹ Learning to embrace physical changes can be a frustrating, discouraging and an emotional experience for anyone. An individual's style becomes more distinctive as they age, the boomer generations is enthusiastic and explorative, but won't be pressured into supporting / spending money on things because it's in fashion ¹³⁰. Mature (female) consumers can be loyal customers but a difficult sell.

113. Participant G, expert interview by Hillary Dube, Toronto, 2018.

114. Participant F, expert interview by Hillary Dube, Toronto, 2018.

115. Participant H, expert interview by Hillary Dube, Skype, 2018.

116. *Hamish Bowles, Klein, Vogue Living houses, gardens, people 2010, print.*

117. Participant K, expert interview by Hillary Dube, Toronto, 2018.

118. Participant F, K, expert interviews by Hillary Dube, Toronto, 2018.

119. Participant J, K, expert interviews by Hillary Dube, Toronto, 2018.

120. Participant J, K, expert interviews by Hillary Dube, Toronto, 2018.
121. Participant U, individual interview by Hillary Dube, Meaford, 2018.
122. Katelynn Bishop, Kjerstin Gruys, Maddie Evans, Sized Out, Women, Clothing Size, and Inequality, GENDER & SOCIETY, April 2018.web
123. Participant D, expert interview by Hillary Dube, Oakville, 2018.
124. Participant J, expert interview by Hillary Dube, Toronto, 2018.
125. Participant F, expert interview by Hillary Dube, Toronto, 2018
126. Participant G, expert interview by Hillary Dube, Toronto, 2018
127. Participant J, expert interview by Hillary Dube, Toronto, 2018
128. Participants O, R, S, V, U, Co designs 1/2 by Hillary Dube, 2018.
129. Participant F, K expert interviews by Hillary Dube, Toronto. 2018.
130. Participant F, K expert interviews by Hillary Dube, Toronto, 2018.

Buying habits of Mature (Canadian) Women

In Fashion, mature women as consumers have been put in a box marked obsolete. Mature

women are a difficult sell because they know what they want and don't like being given advice

¹³¹. Some mature women purchase out of habit and when they find something that is best suited

they buy multiples. Mature women make more sensible purchases and invest in jewelry as a

form of self-expression ¹³². Mature women buy fewer things but those things are of better

quality. Important characteristics of the mature female shopper include good design, function,

material, longevity, durability, flexibility versatility, modesty and price point, value. Construction

(fit) and materials (feel) are essential to the mature female consumer when considering/making

a purchase. Mature fashion lacks the style and design variations these women are craving such

as structure, architectural, elevated (presentable) comfort/basics and streamlined casual

elegance. These styles are difficult to access and locate, particularly in larger size variants.

Mature female shoppers often use clothing as a form of concealment to cover parts of the body

they are not comfortable highlighting ¹³³. Mature female consumers prefer to buy things on

experience and are more likely to buy something if they know what a product is made of and it

fits, feels, and wears (Participant X). Women who do not feel comfortable buying clothing, spend

money on accessories (shoes, bags, scarves, hats, jewelry etc.) ¹³⁴. Mature female (Canadian) consumers are thought to be a more introspective consumers as a result of our climate variations and European immigration background. ¹³⁵

- 131.** Participants O, P, S, U, V, W, X, co designs 1/2 by Hillary Dube, 2018.
132. Participant B, expert interview by Hillary Dube, Toronto, 2018.
133. Participants O, P, Q, R, S, T, U, V, W, X, co designs 1/2 by Hillary Dube, 2018
134. Participant A, expert interview by Hillary Dube, Oakville, 2018
135. Participant F/J, expert interviews by Hillary Dube, Toronto, 2018.

Colour:

Colour first, style second. Colour is an important aspect of life that impacts us on a cellular level. It has an energetic, psychological, emotional influence. Colour can invoke a variety of responses. Individuals respond to colour in a matter of seconds, it provides an instant effect on memory. People are thought to remember 70% of what you wear and 30% of what you say. Anyone can wear any colour, it's the tone/shade of the color that is the key to an individual finding the most flattering variation or any colour (*think in tones, not trends*) ¹³⁶. The more you understand your unique colour harmony the easier it is to navigation through the overwhelming, perpetually fast-paced world of fashion. Colour choice is very personal and has the ability to communicate emotional messages (authoritative, confident, rich, pretty, soft, warm or fresh) ^{137, 138}. Colour can enhance or deflect from body shape eliminating distraction and creating harmony^{139,140}. Mature women often chosen colour or pattern they feel will conceal areas of the body they are most uncomfortable with ¹⁴¹.

- 136.** Participant E, expert interview by Hillary Dube, Toronto, 2018.
137. Malaika Brengman, Maggie Geuens, The Four-Dimensional Impact of Color on Shopper's Emotions, Advances in Consumer Research, vol. 31. 2004.web

138. Marcel Lucassen, Theo Gevers, Arjan Gijsenij, Texture Affects Color Emotion, June 2010.web
139. Li- Chen Ou, M. Ronnier Luo, Pei- Li Sun, Neng – Chung Hu, Hung-Shing Chen, Age Effects on Colour Emotion, Preference, and Harmony, October 2017.web.
140. Li-Chen Ou, Yinqiu Yuan, Tetsuya Sato, Wen-Yuan Lee, Ferenc Szabó, Suchitra Sueeprasan, Rafael Huertas, Universal models of colour emotion and colour harmony, ORCID, July 2018.web
141. Pierre Lalande, Lalande Color DNA... Color Leads the Way, 2015. Print

Shopping Experience

Both (bricks and mortar) instore and online shopping experiences are sales driven vital experiences ¹⁴². Both environments need to be more attentive and accessible to the mature female demographic ranging in abilities. Customer service is key. This should be a prime focus of any retailer looking to saturate the market ¹⁴³. It's about building credibility and trust, where individuals feel comfortable enough to experiment and ask for direction when uncertain. If users have a great experience they will come back. Experiential design is a key element for both instore and online experiences.

Instore shopping experience:

In-store shopping can be a fun, inclusive, social experience. Sales people selling mature clothing are often young adults who are unknowledgeable about the styles and services provided (being approached for (fashion) assistance, personal advice and shopping, custom fittings, promos offers/ event information etc.). Often times mature female consumers are not approached by any sales representatives at all ¹⁴⁴. In-store experiences can be overwhelming, inconsistent and frustrating, the music is often too loud, fluorescent lighting irritates eyesight and the layout is too cluttered and busy to find anything. The change rooms if unkept discouraging mature female consumers from staying and returning. In-store experiences should be more tech minded as well in offering products and services ¹⁴⁵. In store retail experiences need to consider individuals with

varying abilities, (height, mobility, visually, hearing impaired), it can be an upsetting and frustrating experience for individuals attempting to navigate their way through a store.

Online Shopping experience:

Today's instant society has an insatiable taste for the immediate gratification of online shopping. There is almost no where you can go where the internet is not available. Privacy is the new luxury ¹⁴⁶. Having an online presence and narrative in today's techno-social culture is crucial. The ability to access an endless array of fashion presents boundless options that would otherwise be unavailable. Ordering online can be risky. Often times materials and construction are a subpart and are returned due to quality/condition or fit issues ¹⁴⁷. The biggest cost risk for any online business is the cost of take backs and returns ¹⁴⁸. Current online fashion models are not an accurate reflection of the mature female consumer (body shape, skin, height). Depending on where the parcel is coming from and the method of delivery chosen, the parcel could be subject to duty taxes. When constructing your web platform, it is important to make it as accessible as possible for those who have hearing or visual impairments. Using JavaScript, HTML, Asynchronous structures for the information platforms being accessed is important because if the platform is not structured appropriately different sections of the web/app load at different speeds making it difficult and frustrating for users to access ¹⁴⁹. More accurate product descriptions would be useful for those dependent on-screen reader technologies (product description vs. style name ex: Orion ¹⁵⁰. Providing the option to enlarge text to view the information more easily, and tutorials with captioning provided in multiple languages would be

an inclusive and useful feature for everyone. Being cognizant of screen color contrast levels and color combinations being used can impact those who are color blind or have low to no sight¹⁵¹

- 142. Participant H, expert interview by Hillary Dube, Skype, 2019.
- 143. Participant E, expert interview by Hillary Dube, Toronto, 2018.
- 144. Participants O, U, V, W, X, co design 1/2 by Hillary Dube, 2018.
- 145. Participants U, V, X, co design 2 by Hillary Dube, 2018
- 146. Participant K, expert interview by Hillary Dube, Toronto, 2018.
- 147. Participants S, Q, O, U, X, co design 1/2 by Hillary Dube, 2018.
- 148. Participants G, J, K, expert interviews by Hillary Dube, Toronto, 2018
- 149. Participant N, expert interview by Hillary Dube, Skype, 2019.
- 150. Participant N, expert interview by Hillary Dube, Skype, 2019.
- 151. Participant N, expert interview by Hillary Dube, Skype, 2019.

Communication

Technology has changed the way we communicate and interact with each other ¹⁵². The quality of our remote communications has improved, short burst of text and emojis are highly used forms of communication ^{153, 154}. It is important when designing a product or service to consider the method of how you will communicate with your target demographic ¹⁵⁵. Being careful to avoid the use of sensitive confusing, vague terminology and clarity of the information being presented is paramount. When communicating in brevity the use of symbolic, not iconic forms of communication is most widely received Non-descriptive information is unusable to individuals who use screen readers (like a product design name such as titanium or Orion ¹⁵⁶. With Canada being very multicultural it is imperative for platforms to represent that by making it available in a variety of languages. Newspapers generally publish at a 4th-grade reading level to make it as comprehensible to as many people as possible ¹⁵⁷. It is of the utmost importance to incorporate inclusive multimodal ways of communicating for those who are of varying abilities giving them access to the same sets' information as others. Visual images and captioning could easily be

made available to those who are hearing impaired. Careful consideration of how you communicate with and construct your digital platform to work in conjunction with screen readers for those who are visually impaired is essential. JavaScript is king of all application languages, it is the only language of the web (Webb-Apps.) Making your digital platforms hypertext markup language (HTML), asynchronous website, single page applications would help individuals who rely on assistive technologies access information more easily Haptic information gives us an intimate understanding of how we communicate with our (surrounding) environment

¹⁵⁸. Future haptic applications will be a game changer for those who are visually impaired and the online (retail) industry.

¹⁵². Participant L, expert interview by Hillary Dube, Skype, 2018.

¹⁵³. Amina Patton; Morgan Griffin, Ana Tellez, Mary Ann Petti, Xanthi Scrimgeour, Using Icons to Overcome Communication Barriers During Emergencies: A case study of the Show Me Interactive tools, April 2015.web.

¹⁵⁴. Participant N, expert interview by Hillary Dube, Skype, 2019.

¹⁵⁵. Participant N, L, M, expert interviews by Hillary Dube, Skype, 2018/2019.

¹⁵⁶. Participant N, expert interview by Hillary Dube, Skype, 2019.

¹⁵⁷. Participant N, expert interview by Hillary Dube, Skype, 2019.

¹⁵⁸. Participant N, expert interview by Hillary Dube, Skype, 2019.

Technology

Technology is more affordable and accessible today than it has been ever before. Phones and data plans are affordable and plentiful, even in places where more basic obstacles such as food, shelter and safety are of higher concern ¹⁵⁹. Virtually all phones, tablets, laptops and desktops contain quality cameras, video cameras, scanning and AR capabilities far beyond anything we could have imagined. Technology is rarely designed with disabled or mature populations in mind. Augmented reality is a useful feature for the conscious explorative mature consumer. Currently, AR is the reality but VR is the dream. ¹⁶⁰

Digital environment

Our digital environments are constructed of (touch) screen, board, and mouse ¹⁶¹. The customization of digital experiences promotes individual engagement and asks how do we socialize in digital environments? Web interfaces that are accessible on mobile devices are the best way to package digital platforms ¹⁶². Using JavaScript and HTML will make it easier for those using descriptive technologies to navigate and access information. Paying attention to (web) accessibility guidelines is an essential part of the web inclusive progress.

Data

Data collection and ownership concerns are consistent topics of discussion into today's technologically reliant society. It is typically quite evident users don't own their data when visiting websites and using apps ¹⁶³. There are generally two schools of thought on data; some people are okay with data collection and others are not ¹⁶⁴. In a fashion context, people are generally not too concerned about data since it tailors their experience or helps navigate them to places and products of interest ¹⁶⁵. When experimenting with (new) identity, feelings of being exposed create areas of vulnerability where privacy becomes a concern ¹⁶⁶. When questioned, many believed asking for health and financial data was an overreach and made them uncomfortable. Inclusive (style) data collection/ service agreements could provide a constructive alternative to those who feel uncomfortable with the amount of data being sourced by companies and service providers.

¹⁵⁹. Participant M, expert interview by Hillary Dube, Phone 2019Tt

¹⁶⁰. Participant L, expert interview by Hillary Dube, Skype, 2019Uuu

- 161. Participant L, expert interview by Hillary Dube, Skype, 2019Bbb
- 162. Participant N, expert interview by Hillary Dube, Skype, 2019
- 163. Participant L, expert interview by Hillary Dube, Skype, 2019
- 164. Participant B, expert interview by Hillary Dube, Toronto, 2019
- 165. Participant A, expert interview by Hillary Dube, Oakville 2019
- 166. Participant M, expert interview by Hillary Dube, Phone, 2019

Design

Always remembering there is no normal, no average user and design needs to be created for edge users from the very beginning of the design process ¹⁶⁷. Inclusive Design accommodates a one size fits one model, that begins with asking who is around the design table? Expanding the standard design process to include participatory co-design adds elements of fairness and varied experience. Users become the designer of their own custom style experience. This helps trace a path from cause to effect removing as many barriers as possible.^{168,169,170, 171} Once affordances have been identified than a *service* design can begin to take shape ¹⁷².

167. Todd Ross, The end of average, 2016.print.

168. Co-designing, Service Design Tools, servicedesigntools.org, 2009, web

169. Microsoft, Inclusive Design toolkit, 2016.web.

170. Marcia Tavares Smith, Gordon Blair, Rachel Cooper, Digital clothing manufacture: digital innovation and co-Design changing the clothing industry, 2014.

171. Kat Holmes, Mismatch – How inclusion shapes design, 2018, print.

172. Donna Meadows, Thinking in systems A primer, 2008.print.

Findings

As a result of the information gathered during observations, interviews and the implementation of 2 co- design sessions, I found intersectional relationships between mature female personal, work, national and style identities. Mature females have a comprehensive understanding of fashion as industry vs (personal) style. Mature female consumers feel during their retail experiences they are underserved and ignored because of their age and buying preferences are

largely in contrast with present industry service, quality, materials, styles, sourcing/producing, manufacturing, construction, consumption, distribution, price points and disposal models. Mature female consumers base personal style choices on an assortment of influences, these could include: if a piece is reflective of a certain identifiable aspect of their personality, does the piece serve my needs and suit my lifestyle, material quality, construction quality, product longevity, price point and the product/service designer narrative. There has been widely expressed interest in personalized wardrobe curation and how to easily add or remove pieces from the (personalized) wardrobe. A conservative tone expresses itself in mature (Canadian) female style and colour choices, which are influenced in part by our high cost of living and our climate. The mature (female) population adapts comfortably to using technological platforms to access and share information, as well as to connect with friends and family.

A service design proposal of a personalized styling service for mature females (50+) transitioning through different stages of life, including but not limited to career style identity and its evolution to post- career style identity fills the gaps of this colossal demographic by providing direction and access to (style) information has otherwise been negated. Mature females are encouraged to use as much or as little of the service as they are inclined to. The amount of data they chose to share is completely up to them and can be edited at any time. Users are able to store suggested style information but are not obligated to store information or create a profile. Mature females are able to generate personalized color palettes best suited to individual eye and skin tones, identify personalized body shape suggestions and generate specific style suggestions based on specific user input. Face shape identification is used to suggest flattering haircuts, makeup suggestions and styling tips. All personalization categories have the option to use pre-selected

templates for a more generalized result or custom templates for a more personalised result.

Users can search suggested style piece(s) and how to access them (brick and mortar or online retailers) and are able to search items not suggested by the style service. Logged purchase history can help save money on repeat or unnecessary buying and assist mature females with creating and maintaining a more curated self-reflective wardrobe.

Table 3: Key Factors and Potential Sources of Information for a Digital Fashion Shopping Service for Mature Women.

Table 3 explains how the factors identified in this style could be organized in a digital platform. A prototype of this online service is illustrated in Chapter 4: An Online Fashion Service Design.

Table 3: Key Factors and Potential Sources of Information for a Digital Fashion Shopping Service for Mature Women					
	Directly Input by User			Machine Learning	
	Directly input user information by checklist	Scanned information	Personality Questions	Search History	Responses to suggestions based on search history
Personal body Characteristics					
Body shape/body image	*	*	*	*	
Face shape	*	*			
Eye Colour	*	*			
Skin tone	*	*			
Hair colour	*	*			
Identity Factors					
Personal Identity	*		*		*
Style Identity	*		*	*	*
Cultural Identity	*		*		*
Work identity	*		*	*	*
Non-Work identity	*		*	*	*
Fashion Preferences					
Colour	*		*	*	*
Style	*		*	*	*

Fabric	*		*	*	*
Shopping Factors					
Price Range	*		*	*	*
Coordination with "Closet pieces"	*			*	*
Local In-store availability	*		*	*	
Online availability	*		*	*	
Fashion Advice/Tips			*		*
Time to delivery	*				
Returns policy	*		*	*	*

In summary, mature women would benefit from a style service that focuses on factors and experiences determine by the user to be most important in identifying fashion choices relative to personal attributes, identities, fashion and shopping preferences. This MRP suggests that a personalized, searchable digital platform could be created to address needs specific to those of mature women.

CHAPTER 4 Online Fashion Service Design

Styling service for mature women

A personal stylization service would be presented in the form of a web-accessible domain with an (app)lication format accessible by desktops, laptops, and mobile devices. It is having a personal stylist in the palm of your hand.

Inclusive design approaches a 1 size fits 1 philosophy. ^{173,174,175}. The focus of my MRP Design was to address mature women (50+) transitioning through different stages of life, including but not limited to *career style identity* and its evolution to *post- career style identity and the gap presented in today's fashion industry*. It is desired to provide access to personalized style information regardless of ability, geographic location or economic standing. The service design attempts to give as much control over the style platform to the user as possible. It will do so by presenting the user with a series personality/lifestyle questions (of Myer- Briggs inspiration ^{176,177}) to create a profile which to apply *machine learning algorithms*. Programming a machine learning algorithm into the system would customize the platform to the wants, needs, and requirements of the user. The more the user interacts with the platform the more the platform learns about the user and begins to develop its own set of rules. The user is not forced to customize to the platform, it is the platform that begins and continues to customizes itself to the user. Variations of the (Hunter) *Bees Algorithm* and *Matching Algorithms are used to identify* personalized body shapes and color pallets. ¹⁷⁸ Matching algorithms consider multiple scenarios. Once the user knows what their suggested body shape is, as well as what colors are most /least

flattering to them specifically, seeing what styles best suit the suggested body shape is the next step. *Skeletal Tracking Algorithm* is a body mapping tool with real-time posture tracking, in combination with (3d) *body scan* technology that creates an exact body measurement of the user translating their personalized body measurements into a variety of sizing systems saturating the fashion industry (US, UK, FR, SP, POR, JP, IT, AU, GR, SCND)^{179,180}. *Face Detection Algorithm* can be used to identify face shape by drawing a box around the face and keeping the face in focus. This will be used with a *matching algorithm* to isolate suggested haircut styles for that specific face shape, as well as identify eye structure shape for flattering makeup suggestions¹⁸¹. All style suggestions (color, style, hair, make up) could be tried on by accessing the platforms AR feature. It gives a real-time view with AR applied style suggestions, this way the user has an idea of how the suggestion(s) would translate. Should the user be interested in locating the suggested styles generated by the service, the user could perform a (style) search that would assemble a collection websites and brick and mortar retail locations that carry the styles the user is interested in, available in their color and size. The user can search garments other than those suggested by the style service using filters that inquire about context and category. With the use of a *Merge sort algorithm in combination with an Item Ranking Algorithm* (divide and conquer approach) locate styles sought by the user in their personalized color and fit, displaying them in the order the user would likely be most interested (as suggested by the machine learning algorithm).

173. Co-designing, Service Design Tools, servicedesigntools.org, 2009, web.

174. Microsoft, Inclusive Design toolkit, 2016.web.

175. Kat Holmes, Mismatch – How inclusion shapes design, 2018, print.

176. Original Research, The Myers & Briggs Foundation, MBTI, myersbriggs.org, web.

177. A Guide to the Isabel Briggs Myers Papers, George A. Smathers Libraries, USA, September 2011, web.

178. Baris Yuce & Michael S. Packianather & Ernesto Mastrocinque & D Pham, D & A. Lambiase, (2013). Honey Bees Inspired Optimization Method: The Bees Algorithm. *Insects*. 4. 646-662. 10.3390/insects4040646.
179. International clothing size charts, Sears, 2012.web.
180. Don-Alvin Adegeeste, UK retailers are backing universal sizing system, Fashion United, June 2018, web.
181. Marcus Du Sautoy, David Biggs, The Secret Rules of Modern Living, 58 minutes, 2015, film.

The online style service introduces mature female users to a splash page, landing page and customizable templates.

Preselected templates for:

Color: a selection of (eye) colors to choose from, the user chooses the color template they feel matches their own eye color best, a range of skin tones to choose from, the user chooses the color template they feel matches their own skin tone best.

Body: a selection of shapes such as a rectangle, upside down triangle, triangle, hourglass and circle. The user chooses a body shape template they feel reflects their body shape best. The user has the ability to enter specific body measurements to generate a personalized sizing suggestion shown in multi-national sizing systems.

Face: a selection of common face shapes to choose from oval, round, pear, square, diamond and oblong. The user chooses a face shape template they feel best reflects their own face.

Personalized template for:

Color: The user can take a photograph of their eyeballs and a photograph of their skin and submit/ upload it to generate results.

Body: The user scans their body from multiple angles using their personal computer, laptop or mobile device (most devices have good photo, video and scanning capabilities), this information generates a specific body shape template having their true size shown in multi-national sizing systems.

Face: The user can take a photograph of their (bare) face and submit it to generate a face shape identification, this facial photograph is used to generate structure results of the user's eye and lip shape.

4. Results

The depth of results produced from the users (data) input depends on how specific the information was. (personalized format would produce a more accurate result)

Color: Suggested (most / least flattering) color profile.

Body: Body shape suggestion and body shape specific style suggestions.

Face: Hair cut style suggestions, make up tip's/ suggestions base on face structure.

The user is not required to save results, if they choose to do so the results generated by the platform styling service would be stored and located in a *Style File* custom to the user. When generating a search for an item, the platform accesses the user's personalized style information to generate the most accurate result possible.

5. Locating pieces

Should users be interested in locating the styles suggested by the service or would like to search other items of interest, users are asked what their preferred method of shopping is, Online? In-Store? Both? A range of filters are available to help users search for specific pieces in their color and size (result generated by the style service are suggestive). The system will cross reference the personal user information with color and size variations from the internet, returning with store locations and/or websites where you could follow locate the piece(s) of interest.

6. Closet Log feature

A clothing log can keep track of what you already own, and what you purchase (purchase history review). Users can log items from their closets in detail (style, fiber, size, fit) in an attempt to address repeat buying and save money and reduce their textile waste footprint. A closet log that can assist users in creating a personally curated wardrobe that is uniquely theirs, while educating users how to add and remove pieces so their wardrobes can change with them throughout their lives. A closet log feature could prove valuable for family members or friends who may be required to retrieve specific pieces in a time of need such as an emergency.

7. Data

I believe creating a user agreement that is inclusive, flexible and accommodation to those who are only comfortable releasing certain aspects of data is paramount. I found people uncomfortable at the prospect of financial and health-related data being collected private companies and servers. Users have the opportunity to mold a unique data service agreement by being able to select areas of data they are comfortable releasing. Users can edit their user data/service agreement at any time under their personal profile information. There is no obligation to store personal information, profile information or style suggestions on the style service platform. Users are free to cancel their use of the styling service at any time.

Considering those of varying abilities:

When designing a platform, it is important to take into consideration persons of different abilities. Small consideration at the beginning can make for meaningful impacts of inclusion. Color choice application and contrast levels, screen reader friendliness (HTML/Java/asynchronous) should be considered for those who are color blind and are of low to no sight.¹⁸² For those who are hearing impaired including (multi-lingual) captioning as well as text to speech (multi-lingual) could impact a larger variety of people considering Canada integrational views on immigration. There are those who face geographic barriers living in the countryside, a long way from city stores; I addressed this by taking advantage of our wireless society in the form of website/app service that can be accessed from any computer or mobile device with data or access to the internet. For those with limited or

different abilities, I've included an Ability tag in the context filter to assist in locating clothing that suits the user's abilities and their lifestyle best.¹⁸³

182. Participant N, expert interview by Hillary Dube, Skype, 2019

183. Web Content Accessibility Guidelines (WCAG) 2.1W3C Recommendation 05 June 2018

Personalized Styling Service Structure Flow chart

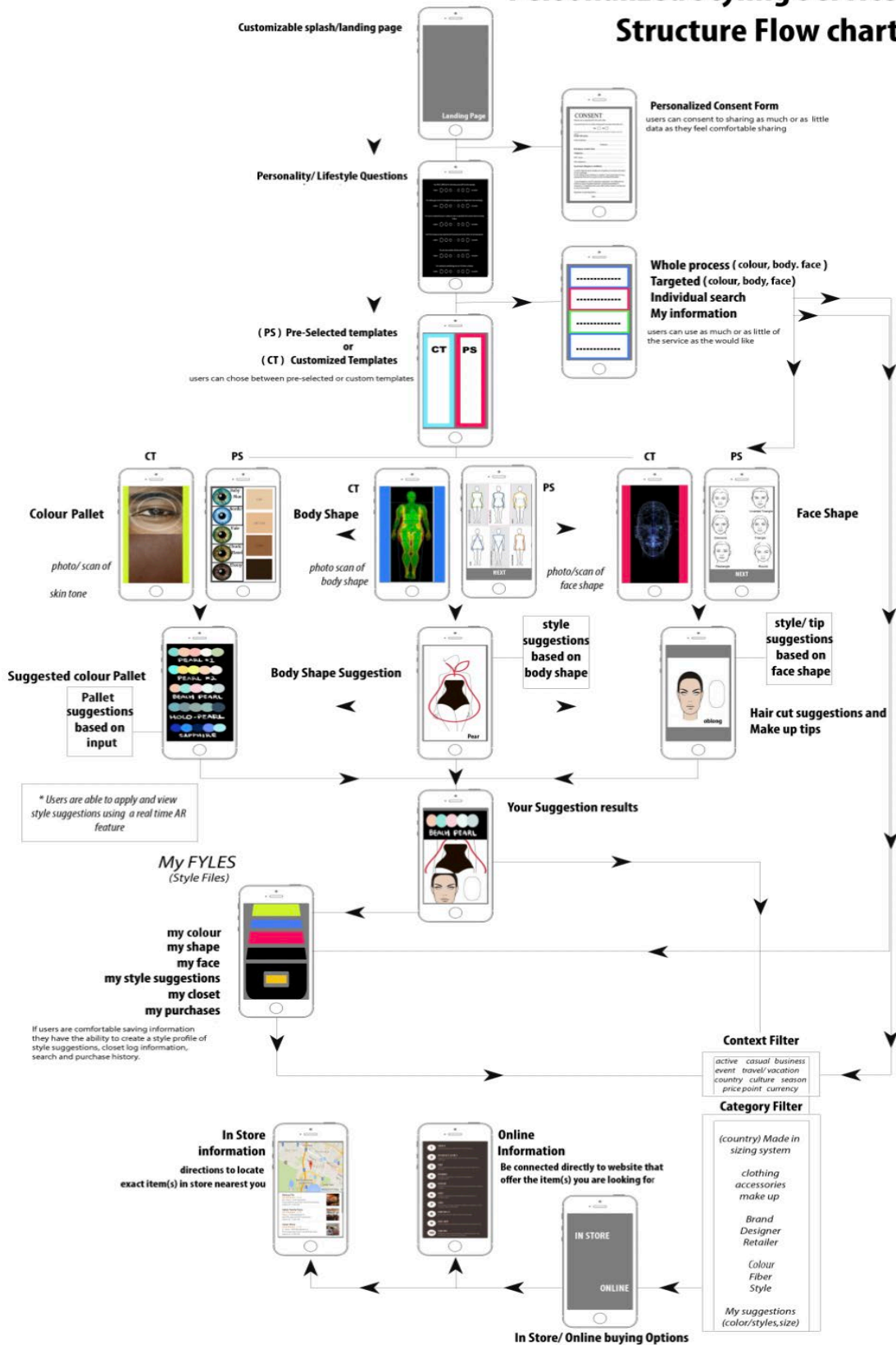
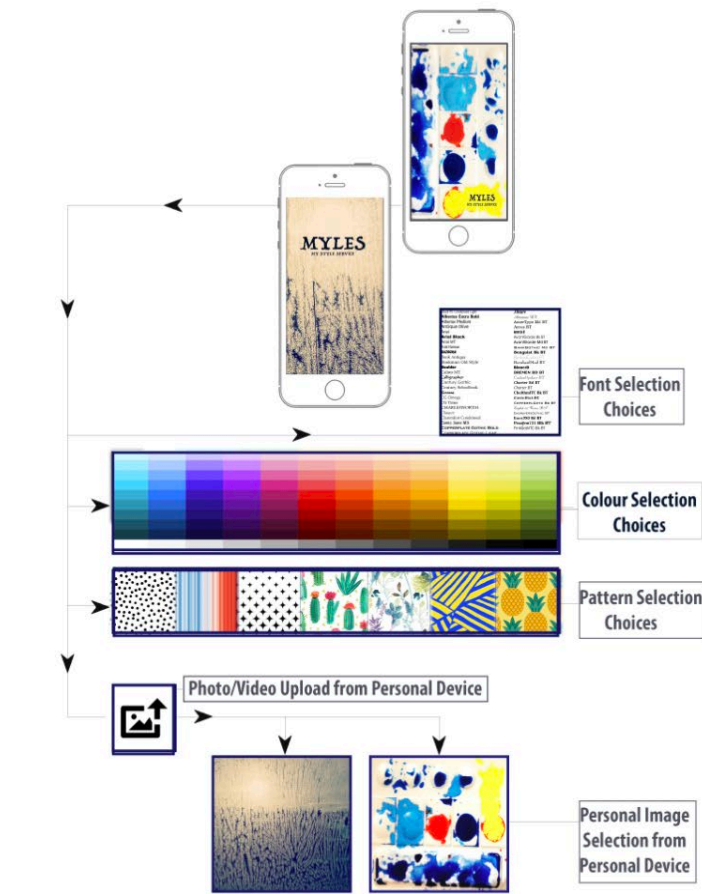
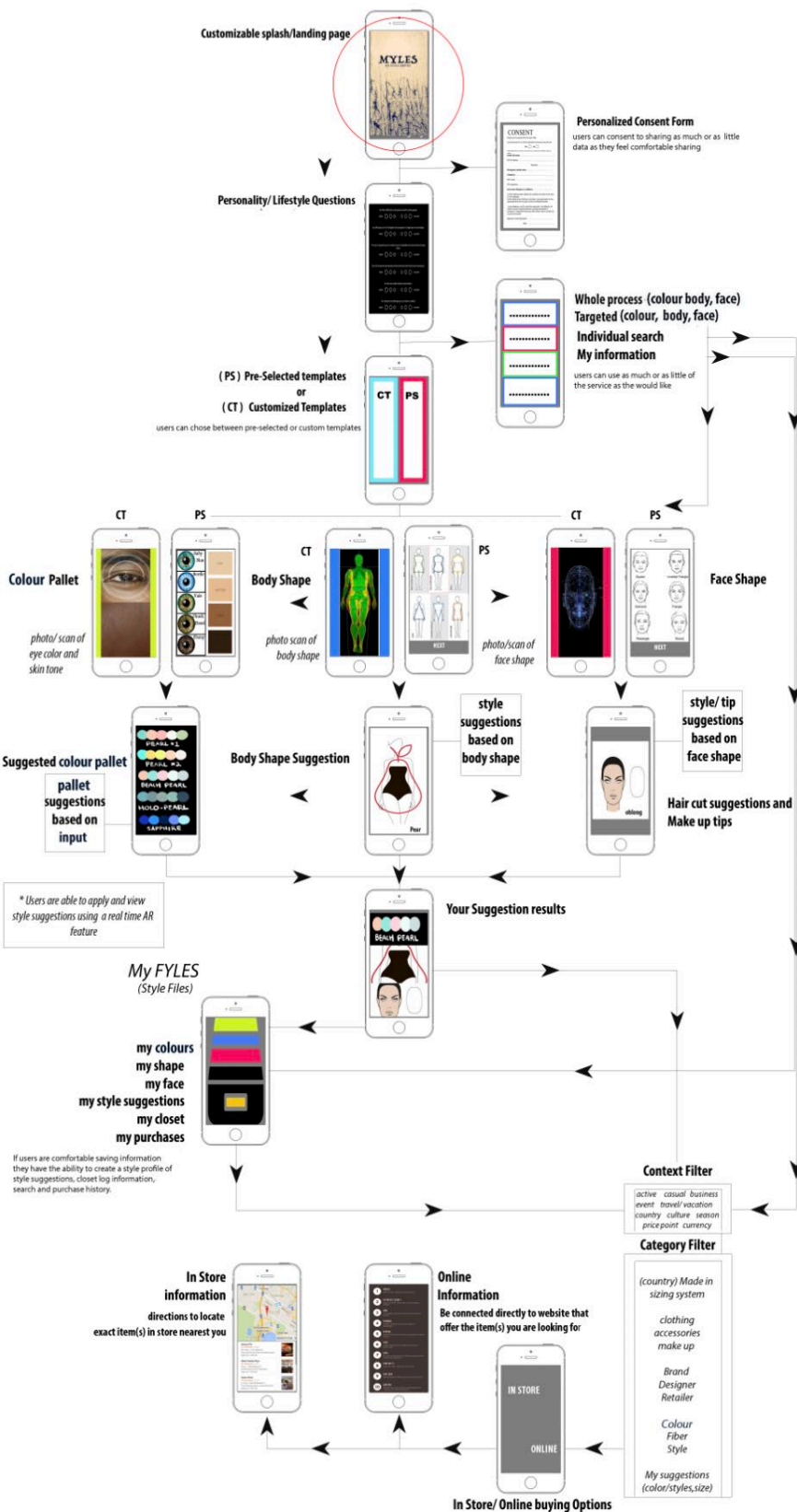


Figure 5. Personalized Styling Service Structure Flow Chart



Access to this information is available in the MY FYLES section.

Splash Page

Users can customize their individual introduction page. Users have access to a variety of colour patterns and fonts or have the option to use photos / videos uploaded from their personal device.

Figure 6. Splash Page

User Intent

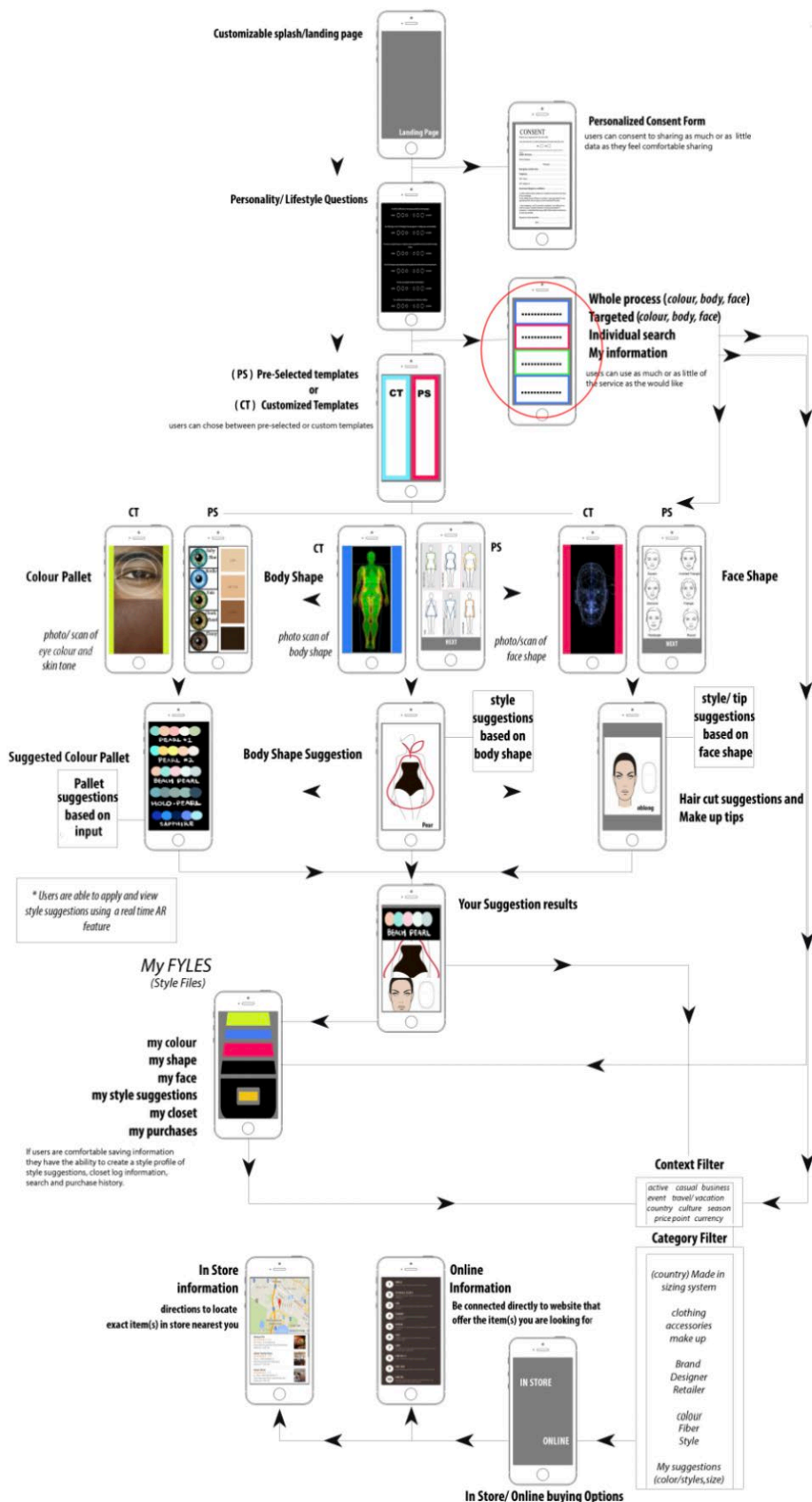
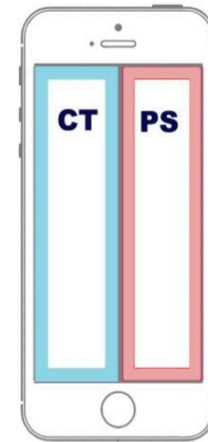
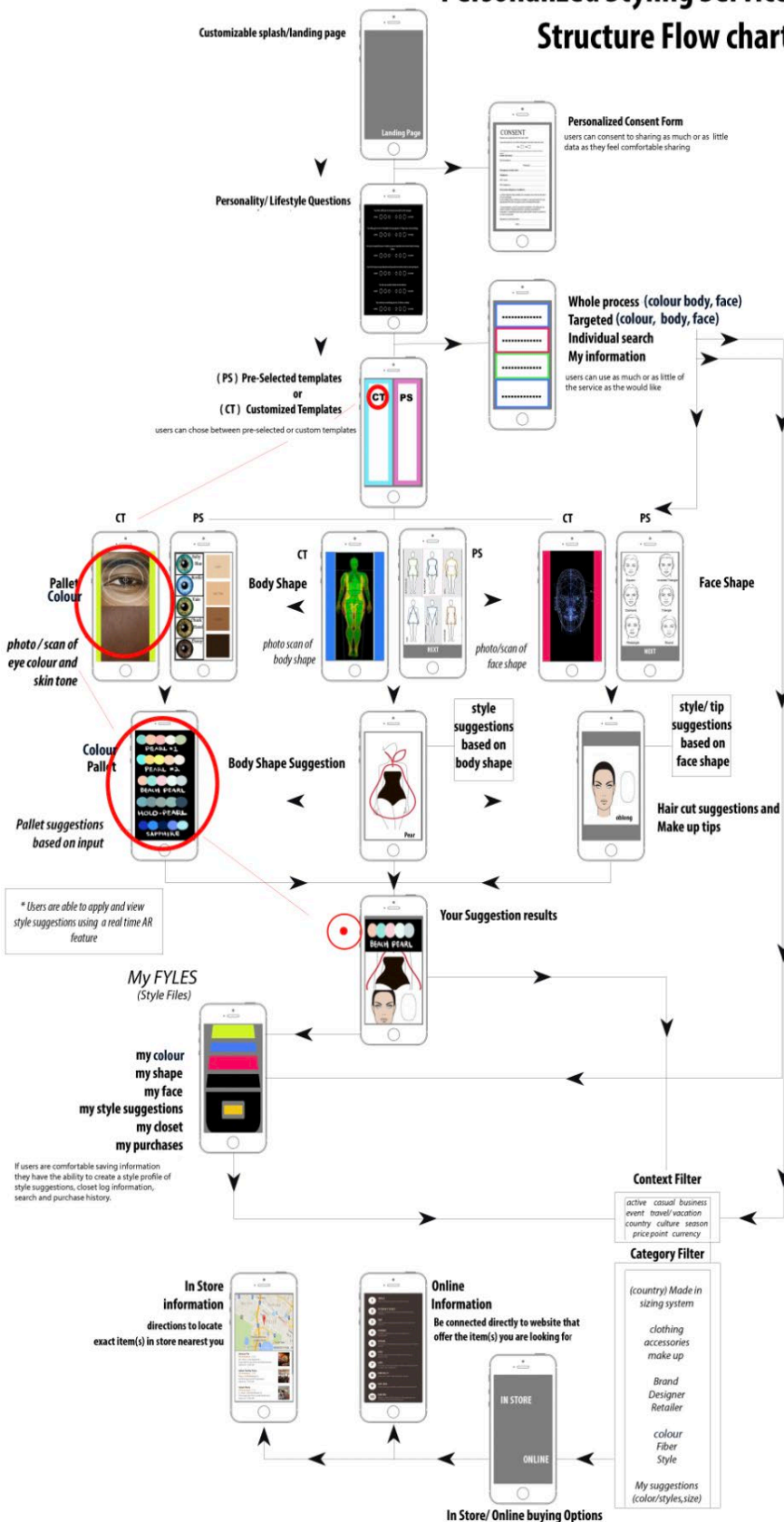
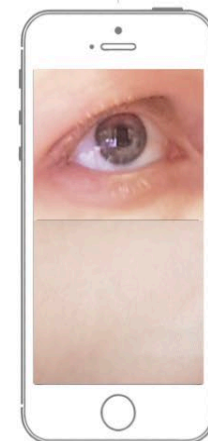


Figure 7. User Intent

Personalized Styling Service Structure Flow chart



Customized Template:
Colour



Users take a photo or scan their eye/skin to gain access to a more customized Colour pallet. This process uses algorithms to identify a specific pallet unique to the user.



Users are presented with a customized Colour pallet based on input.

Users have the option to save suggested pallets to computers and mobile devices, or the option to continue without saving.

Fig. 8.1 Pierre Lalande, Color DNA, Dec. 2014

Figure 8. Customized Colour Template

Personalized Styling Service Structure Flow chart

Pre- Selected Body Shape Templates

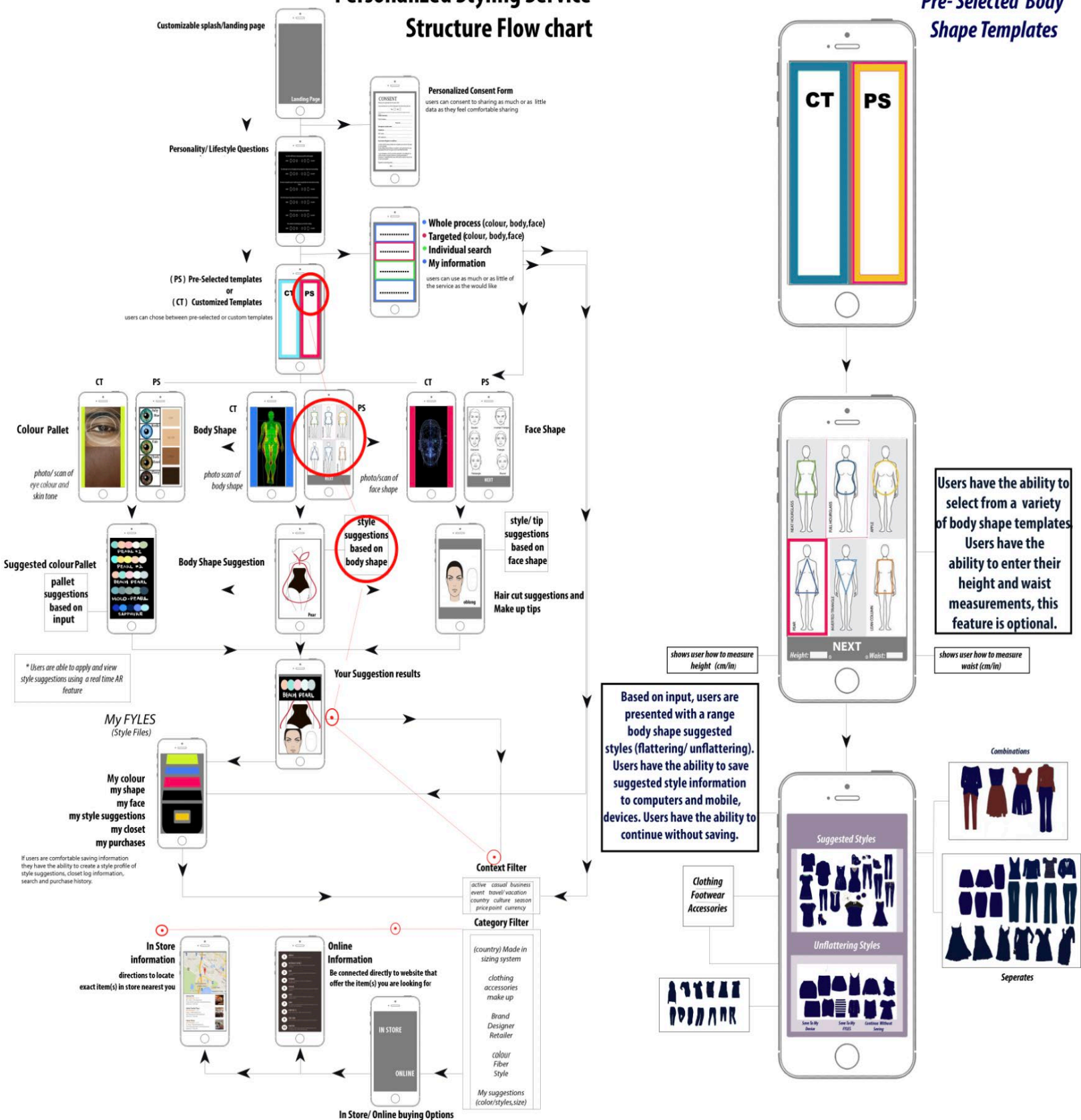


Figure 9. Pre- Selected Body Shape Templates

Search Filters

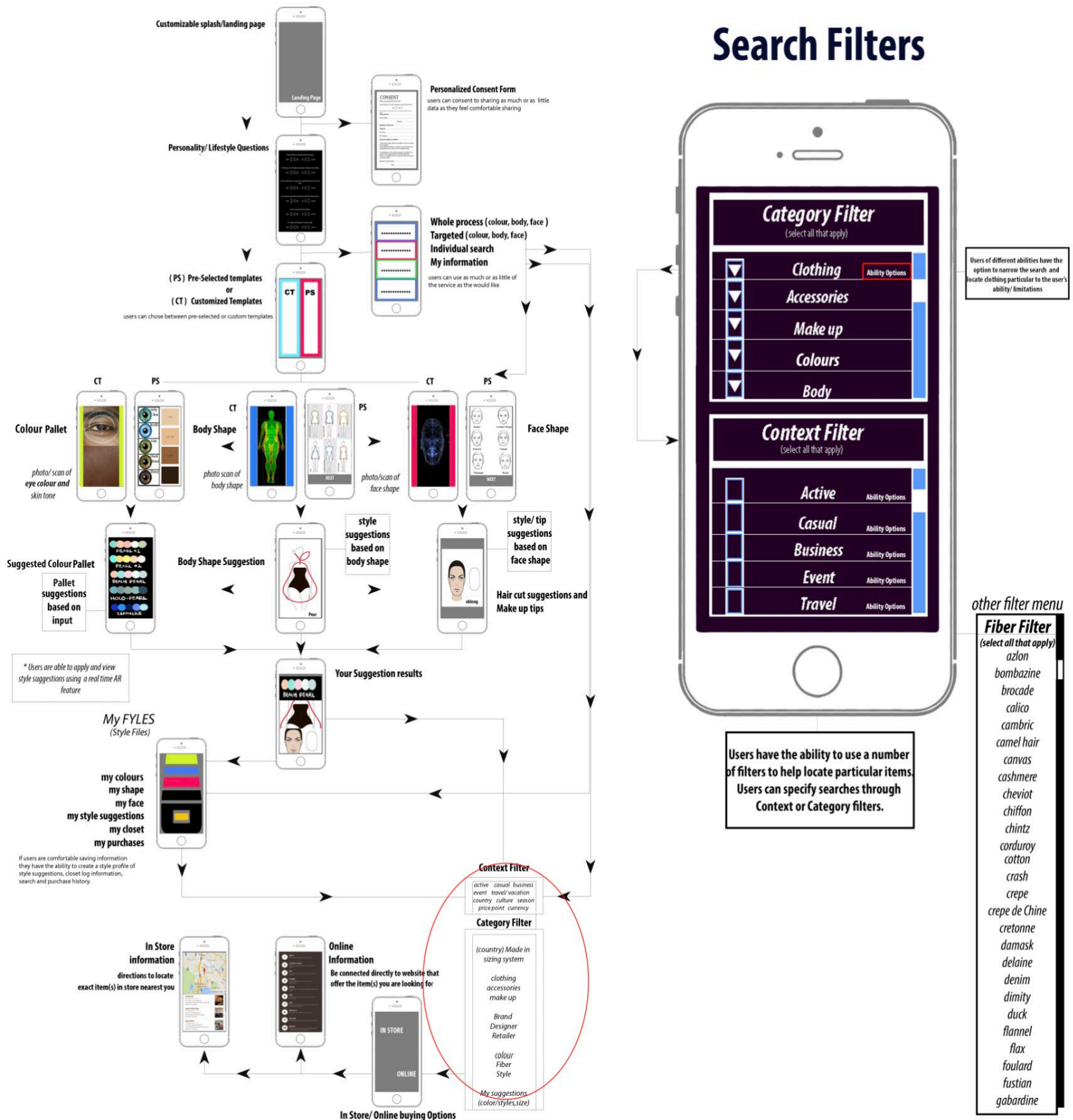
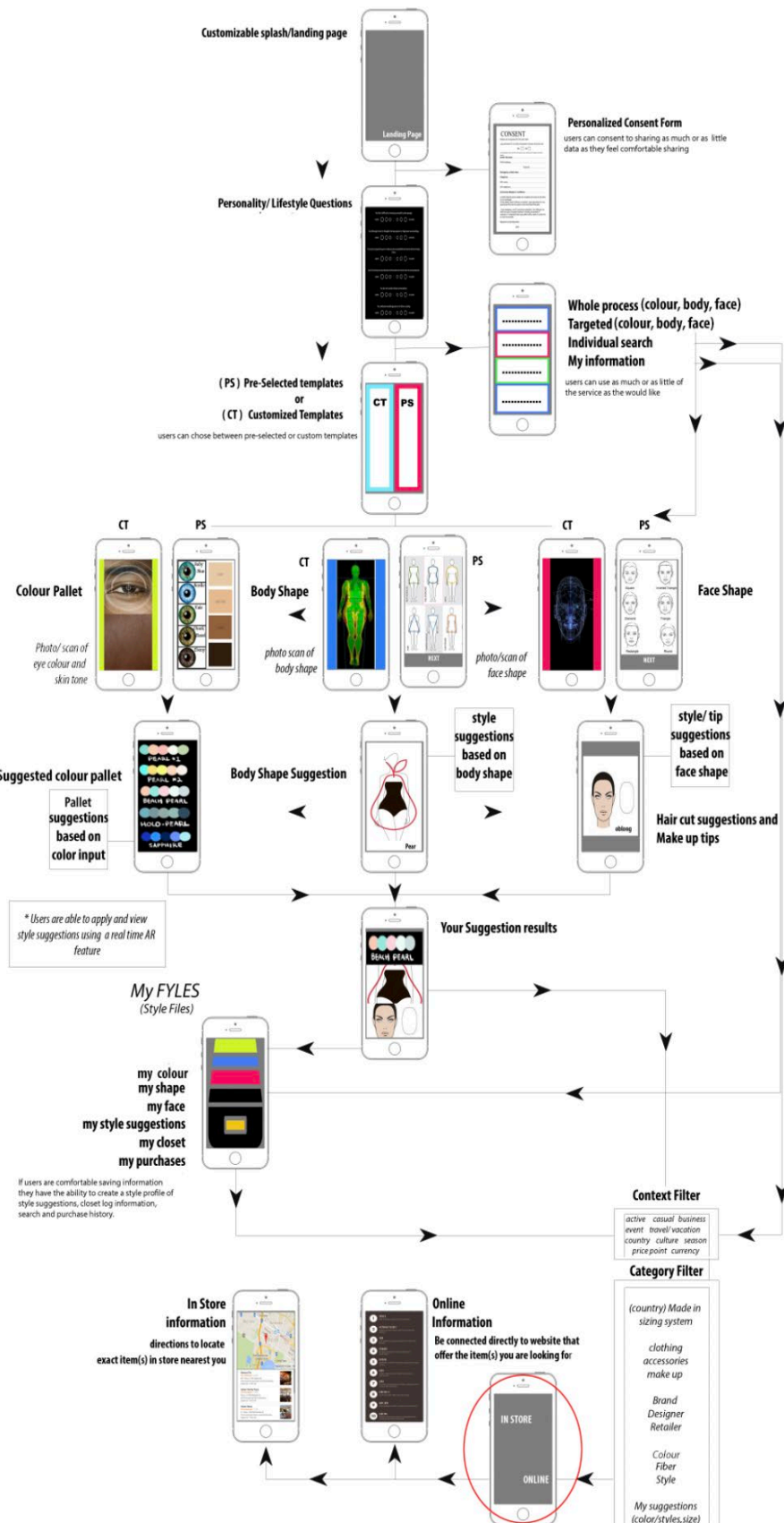


Figure 10. Search Filters

Shopping Preference In Store / Online



Users have the ability to choose how they would like to pursue or purchase an item (s) of interest. Users are able to access available In Store and/ or Online retail options. The online option would provide a list with links directing user, while the In Store option would provide users with a list of retailers / designers that are carrying the item(s) the user is looking for, and the addresses of where they can be found

Figure 11. Shopping Preference In Store/ Online

Conclusion

Summary

Conclusively, whether we are ready for it or not, the drivers behind the fashion industry are changing. Today's mature female population is the leading national (global) demographic, and a financial powerhouse that remains completely underserved and untapped. The (style) transition to retirement can be overwhelming, but there is good news. This is not your mother's /grandmother's retirement, things have changed. Mature women are living longer, taking care of themselves more, retiring later, and are more independent than ever. This phase of their lives explores who these mature women are now? What do mature women want to get out of this new chapter in their lives? And what affordances does that lived experience require of their clothing? Being able to navigate the world of fashion online/ in stores in an attempt to present a true reflection of current self through style (Identity) would be an intimidating experience for anyone. Providing mature women with access to style information that allows them to educate themselves, explore and experiment with color and fashion at their own pace and comfort level (with friends or alone), enabling mature females to display an accurate reflection of what they believe their personal style to be. Having such an underserved population presents an immense economic opportunity for industry. As my research focuses on an online personal styling service for mature women (50+) transitioning through different stages of life, including but not limited to *career style identity* and its evolution to *post-career style identity*, identifying key outcomes in my study and design exercise such as a proclivity for quality, comfortable materials, in addition to long lasting, useful, functional designs. Shopping experiences (both instore and online) are important and have an impact on or not whether mature women will be repeat customers. I

believe my MRP addresses intersectional gaps that influence the lack of attention mature women face when seeking relevant fashion/style information; educating, assisting, guiding and/or guiding users to custom fashion/ style information. With opportunity comes adversity, adversity for the fashion industry presents itself in the form of perception, ageist socioeconomic models and structures and crippling amounts of textile waste as a result of fast fashion. The fashion industry needs to modify their perception of aging and the mature female consumer, as they are expected to remain the leading demographic (national/global) for the next 50 years. Algorithmic applications for instore and online services to help navigate, inform and personalize customer/ user experiences will be impact the future of fashion. Future iterations of the service design could include made to order clothing, accessories and footwear based on the users personalized measurements, color, fibre, fashion choices. For this type of bespoke style service, the compromise for customization might be that the item takes longer to arrive, which in an instant society would cause consumer frustrations. Made to order clothing is I believe the future of fashion and would be a foreseeable future intention of this custom styling service, having a serious impact of global textile waste, saving both the consumers and businesses (designers, manufacturers, and retailers) money. Future transferability could also include making it available to all ages and genders to reach as many people as possible, as well as introduce/guide users to cosmetics, hair and beauty, skin care products and accessories. We are existing in unsustainable consumption models and there is a desperate need to focus on product life cycle, (*cradle to grave*) as well as sustainable accommodating systemic design. We need to address our disregard for environmental need for progress and capitalistic gain. Already, with the aging population altering the national (global) landscape, we need to re-imagine and re-structure systems to

reflect the needs of the mature (female) population. Mature female style values and standards may change as *newer* populations begin to reach retirement age, largely due to changes in immigration population dominance of the time (Past immigration being largely Eurocentric and newer immigration coming mostly from the Asia's). I believe my MRP contributes to inclusive fashion knowledge and design practice by providing an already conceivable option to an immensely underserved population by successfully providing customizable style information and retail attention and guidance mature women are not receiving elsewhere with consistency.

Limitations

Limitations of my study are represented in the number of women participating in both co-design sessions (sample sizes), the racial and cultural background of participants, the current/ previous employment/ career experiences of co- design participants, and where participants are at during the pre/post career transition. Future sampling would include a wider range of age, race, culture, employment and retirement transition stage variance to encourage a more accurate sampling strategy.

Future Work

Future developments of such a personalized styling service application could include hair products / accessories, cultural dress, fibre sensitivity preferences and mass customization.

With the merciless development of technology, it is only a matter of time before mature women are able to access custom designed clothing, accessories, products and services on the go or from the comfort of their own home.

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Chapter 1 - Color Is the Answer p19- p32 Chapter 2 - Defining the Authentic You p34 - p36
Chapter 3 - Authenticate Me p37 - p63 Chapter 5- - The 5 Fundamentals to Live By p77- p84

Chapter 7- Decluttering Your Closet p93- p104 Chapter 12 -The Power of Color and Light p159 - p167.

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Family Vacations, college, or Identity? p299 - p312 Chapter 13 The Empirical Evidence - The Pudding p313 -p335.

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Preface xxxviii-lxiv Chapter 1 - America's 1 Percent Problem p1- p34 Chapter 2 - Rent Seeking and The Making of An Unequal Society p35 - p64 Chapter 3 - Markets and Inequality p65- p103 Chapter 7 - Justice For All- How Inequality Is Eroding The Rule Of Law p234 - p258 Chapter 8- The Battle Of The Budget p259 -p297 Chapter 9 -A Macroeconomic Policy And A Central Bank By and For The 1 Percent p298- p331.

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Appendices

Appendix A. MRP Original implementation plan

My Original

Implementation Plan & time line (with milestones)

Condense information for original implementation , what was planned and what actually happened .

Soft start: End of April - REB submission

(actual REB submission on JUNE 7th) last form correction submitted and approved can show that on gantt

Project Start Date: July 1st, 2018

Project End Date: February 21th, 2019

Length of Project: 7 months and 21 days = 31 weeks

Start date with submission of REB: May 1st, 2018 -February 21st, 2019

Winter semester 2018

— end of April

- Submit request for REB approval so I can begin my research during the summer before the beginning of the mandatory summer intensive. This submission must require any and all human participation involved in your research. It is best to include too much information rather than not enough. When in doubt, put the information in.

I am hoping to hoping to have REB approval by mid or end of June 2018.

Spring/ Summer (semester) 2018

May – August

- Start date: July 1st, 2018
- Arrange individual and expert interviews by end of May.
- Collect observational data – May/June/July/Aug/Sept/Oct/Nov/Dec/Jan/Feb
- Conduct individual interviews – July (after receiving REB approval)
- Create and release a mass survey. Hoping for approximately 50-70 responses. – early august (after receiving REB approval).
- Investigate companies that would be a good fit for a lunch time focus group and start the recruitment process - May/June/July (solidify after receiving REB approval- est. August).

fall (semester) 2018

September -December

- Solidify companies who approved my request to conduct a (lunch) time focus group/ co-design using one of their available rooms and set up dates that work for both you and them. (4+ sessions if it is a lunch time focus group/co-design) – early/ mid - September

- During these (lunch time) focus groups/co-designs we would implement key activities such as the ones mentioned below (approx. 20 minutes+ each activity):

I am looking to conduct 3 or 4 (lunch time) co-design/focus group sessions over a period of 3.5 months (September – mid January). Each session will last 1 hour – to 1.5 hours. Time variants may change if I conduct full focus group/ co-design sessions rather than lunch time specific focus group/co-design sessions.

Each activity to be approximately 20 minutes in length.

- Wishing
- Worst ideas
- Cards sorting
- Story telling
- Word association
- Sentence completion
- Mind mapping
- Brain writing
- Scamper

During these lunch time focus group/co-design sessions lunch would be provided, hopefully drawing in participants. We could use a set of 4 techniques each session, because it is lunch hour and I need to be sensitive to the fact that some participants may need to get back to work or have other engagements to attend.

Winter (semester) 2019

January - April

- During this time, I would gather all the data I collected for my MRP (audio, video, textual, observational) and begin to transcribe and code it and locate strong connections/ relationships between trends and drivers. Keep only the relevant information and information that supports your end vision. Remembering that you cannot include everything is an important piece of information to keep in mind. This collection of data will slowly begin at the end of January / beginning of February.
- When the information has been condensed I am going to put my data into infograms that mirror the data I collected for my MRP. I am going to start this process mid- February.
- Start piecing together my final MRP submission. – mid February
- end date: March 1st, 2019

Stages of Implementation:

STAGE 1:

- Submit REB before attempting interviews/surveys/approach businesses
Consent forms (revised and updated throughout co-design)
- Observations (ethnographic research)
- Interviews (individual/ expert)

- Survey (mass)
- Suitable companies for Co- Design?
OCADU, Banks, Government (federal/provincial)
- Amend REB submitted earlier with updated and more informed information

STAGE 2:

*After selecting a suitable business/company to conduct a co – design partner

- Ask company if there is an available space in their building for me conduct the Co- Design.
- Lunch-time Co –Design? or full Co- Design session
(1hour x few sessions vs. 1session @ 3 hours)
- lunch provided/refreshments/snacks, other compensation?

STAGE 3:

- separate and analyze data
- See if there are any unknown unknowns that may inform the direction of your MRP unexpectedly.
- Ask yourself and others “what is not being addressed?”

MRP Research Budget

During my research I will be required to travel, provide lunch, snacks and refreshments for participants of focus group/co-design as well as materials for the activities taking place during co-design/focus group, as well as anything I may need to produce (prototype/printing).

- Transit to and from co -design/focus group (depends on location of co-design/focus group)
- Lunch for co- design/focus group participants. (\$50 - \$60 per session, 60 x 4 = \$200)
- Academic Literature / books – Academic articles sometimes require payment for access, as do books that are no free domain or available for download. (unknown \$)
- Materials for co-design activities: paper, pens- pencils, highlighters, tape, post-its, chalk, blank cards. (approximately \$40-\$50)
- Printing costs of study materials (unknown \$)

STAGE 1: travel, survey, interview expenses
\$150+

STAGE 2: travel, materials, lunch/refreshments
\$300

STAGE 3: printing / production costs
\$50+

Total budget including all three stages of MRP is estimated at approximately \$500 CAD.

Appendix B. Co- design 1 Structure

Co-Design Agenda (12:15- 1:15 pm)

Introduction **5 minutes**

Group members introduce themselves to one another.

Activity 1: Worst Ides **10 minutes**

Ask group members to think of the worst ideas *in relation to my focus* and offer a solution by trying to turn bad ideas into good ones.

“Consumers are great at telling you what they don’t like and not often things they do like. This activity takes pressure off the group about finding a solution.”

Activity 2: Cards **10 minutes**

Participants rank cards that have written issues on them in order of most important to least important.

Activity 3: Wishing **10 minutes**

Ask participants to dream up the most far fetching ideas they *have to a given problem*.

Focusing on a few of the wishes discuss them in detail.

Can trigger more realistic concepts

Activity 4: Rough Prototyping **10 – 15 minutes**

A quick method to build using all the objects and materials available in order to better explain an idea in front of the other members of the team. A tool supporting the visualization of ideas and it contributes to making the process of design more interactive and concrete.

Feedback **5 minutes**

Group members offer their feedback about their experience in the co-design session.

Thank You.

Co-Design Layout Plan

MRP Topic: personalized stylization of mature women in transition
Hillary Dubé 2nd Year Inclusive Design Master's Program,
OCADU

Introduction

Quick (re)introduction to my MRP Major Research Project topic

Quickly cover today's layout

1 sheet/consent

Introductions- 10 minutes

I introduce the group members to me, my major research topic, the participants introduce themselves to me and the other group members.

Story Telling -10 minutes

The group tells a story that presents a problem, trouble shoots a solution, gives thoughts and opinions, discusses what could have been different

Worst idea -10 minutes

Ask group members to think about the worst ideas they have to my focus (personalization of style for mature women)

Throw around ideas for possible solutions

trying to turn bad ideas into good ones

(consumers are great at telling you about what they do not like)

Wishing -10 minutes

Ask participants to dream up farfetched ideas (to better access style -info, pieces etc.)

Focus on a few (wishes) and discuss them in detail

Anyway, to turn into a realistic concept? What makes it impossible? How can we scale it down? Real world solutions?

1 questionnaire to be filled in by each lady. Feel free to complete on your own and give the paper to Donna when you are complete.

Questionnaire – 15 minutes

Issue sorting activity

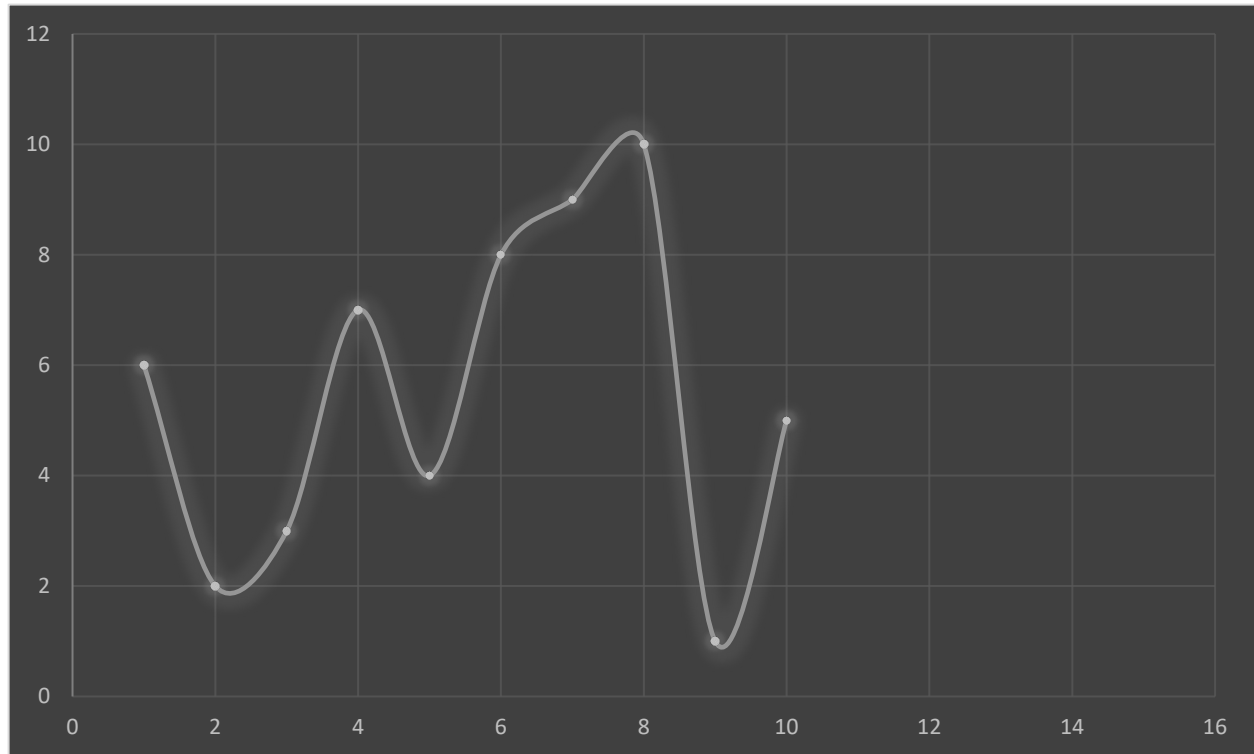
rank issues from most to least important

Word association activity

need to write down the first word that comes to mind when you read the listed words

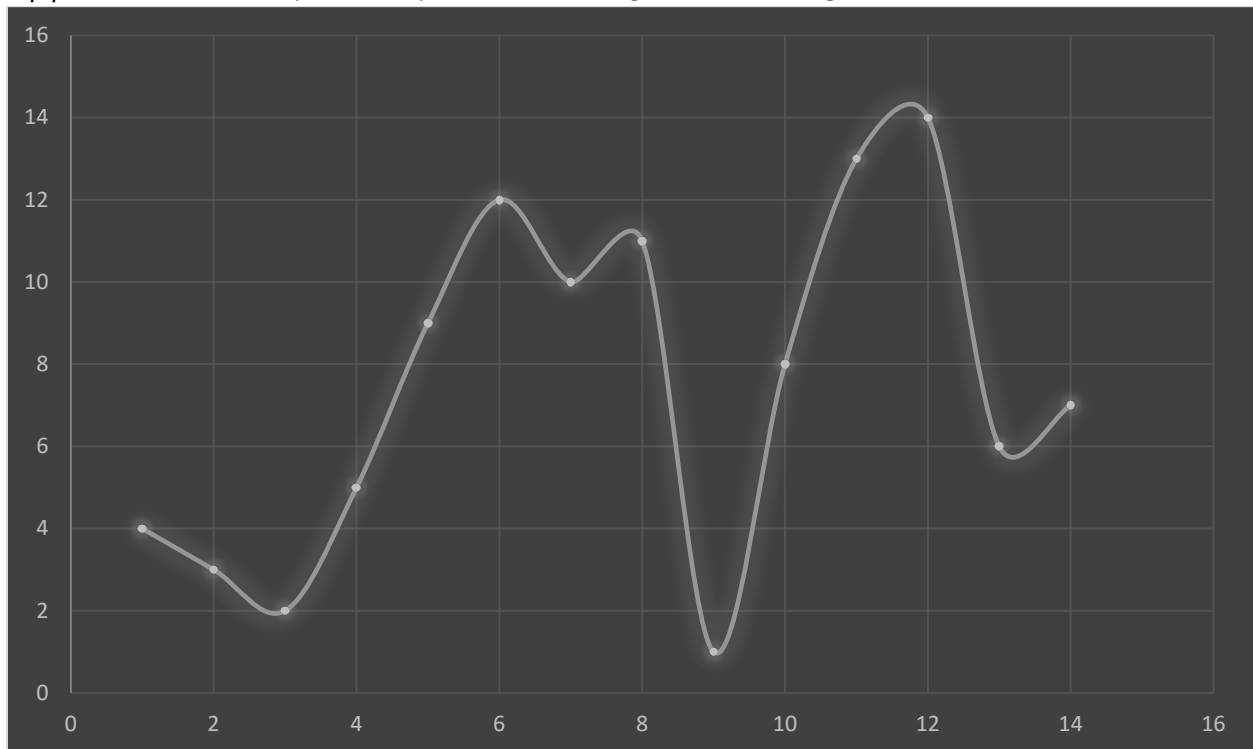
Thank you for taking the time to participate in my research study.

Appendix D. Participant U Importance Ranking Chart Co Design 2



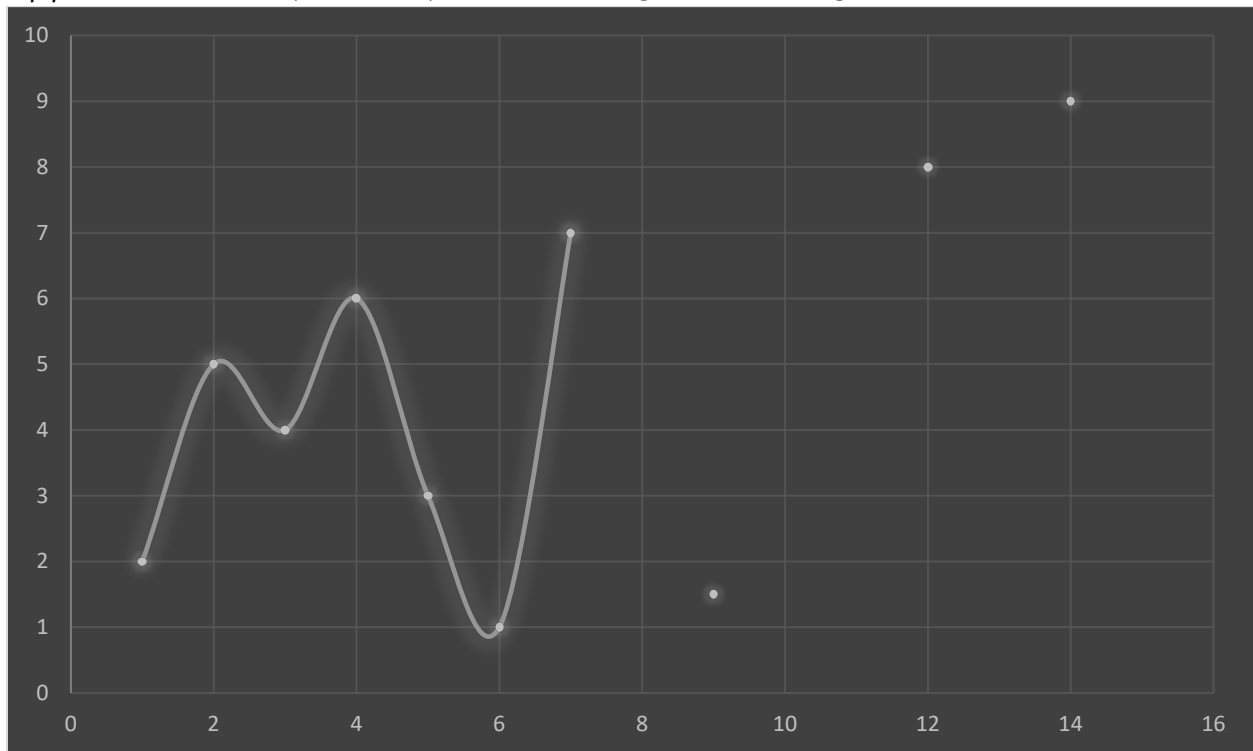
Importance of Fibre	6
Importance of Comfort	2
Importance of Fit/ Cut	3
Importance of Versatility	7
Importance of Quality	4
Importance of Price Point	8
Importance of Colour	9
Collection of Personal Data	10
Personal Style- Reflective of Self	1
Personalized Style Information	5
Retirement	
Age	
Identity	
Work	

Appendix E. Participant V Importance Ranking Chart Co Design 2



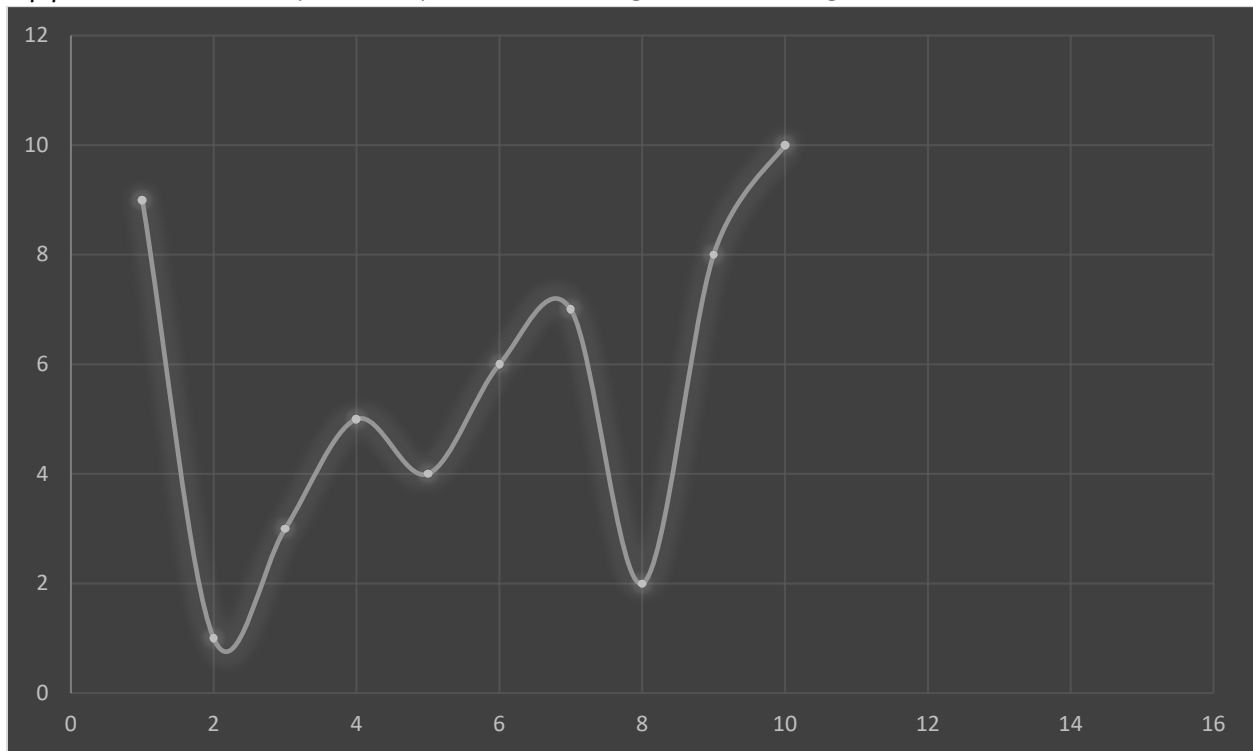
Importance of Fibre	4
Importance of Comfort	3
Importance of Fit/ Cut	2
Importance of versatility	5
Importance of Quality	9
Importance of Price Point	12
Importance of Colour	10
Collection of Personal Data	11
Personal Style- Reflective of Self	1
Personalized Style Information	8
Retirement	13
Age	14
Identity	6
Work	7

Appendix F. Participant W Importance Ranking Chart Co Design 2



Importance of Fibre	5
Importance of Comfort	4
Importance of Fit/ Cut	6
Importance of versatility	3
Importance of Quality	1
Importance of Price Point	7
Importance of Colour	1.5
Collection of Personal Data	8
Personal Style- Reflective of Self	9
Personalized Style Information	
Retirement	
Age	
Identity	
Work	

Appendix G. Participant X Importance Ranking Chart Co Design 2



Importance of Fibre	9
Importance of Comfort	1
Importance of Fit/ Cut	3
Importance of Versatility	5
Importance of Quality	4
Importance of Price Point	6
Importance of Colour	7
Collection of Personal Data	2
Personal Style- Reflective of Self	8
Personalized Style Information	10
Retirement	
Age	
Identity	
Work	