WELL-BEING FOR ALL:
Using the theory of Consumer Wisdom to guide design that promotes the consumer, societal and environmental well-being.

Master thesis
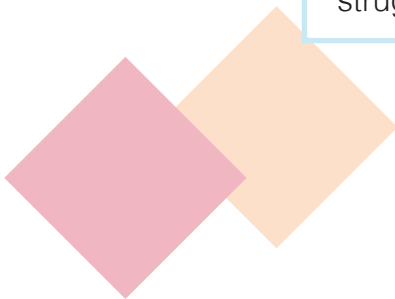Charlotte van Diest
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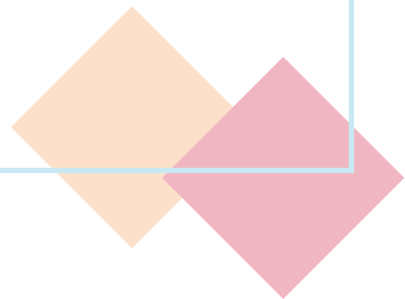
Author
Charlotte van Diest
charlottevandiest@gmail.com

Supervisory team
Prof. dr. ir. Ruth Mugge   Chair
TU Delft

Dr. Lise Magnier   Mentor
TU Delft

Dr. Michael Luchs   Mentor
Raymond A. Mason School of Business

EXECUTIVE SUMMARY

The aim of this thesis is to explore how designers can create well-being for all through product or service design. Well-being for all can be achieved through designing with the focus on Consumer Wisdom. Consumer Wisdom is defined as the pursuit of well-being for oneself and for others through mindful management of consumption-related choices and behaviours. The theory gives insights on providing consumers with products or services that enrich life with well-being for all (Luchs & Mick, 2018).

The Consumer Wisdom theory was researched from a consumer perspective by Luchs and Mick (2018) and through a literature study the theory was transformed into a design strategy. Various design theories relate to wisdom, although they do not call it wisdom nor mention it. From these theories existing design directions were added to the 6 dimensions of the Consumer Wisdom theory to provide designers with the information to use the theory into practice. To cluster all the theories addressing wisdom into one tool is unique.

Study 2 generated proposed design categories for the established design direction to gain insights on how to design for Consumer Wisdom. These 48 design categories were found through a categorisation task done by my supervision team and me with the use of 135 product and service examples.

Merging all the information of study 1, 2 and research on existing design tools, developed three design tool concepts. The ideation was done through the use of a brainstorm session on the format of the tool and by using the 'HOW-TO' method. The best concept was chosen with the use of the Plus-Minus-Interesting matrix and the C-Box methods.

Before evaluating the tool an iterated on the concept was done. A brainstorm session helped to evaluate the design tools visibility and feasibility. The evaluation showed that the provided examples were necessary to understand the theory. The design categories directed the focus on and helped to design easier for a certain design direction.

The final tool is the Consumer Wisdom design tool consisting of a card set to design with. The set consists of: an informative card, dimensions cards, design category cards, design purpose cards and an instruction manual. The tool helps designers use and understand Consumer Wisdom in their design process.
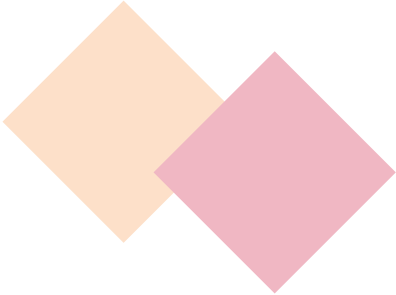
In the future the final tool should be tested with design students and design professional to validate its usability, feasibility and visibility.

TABLE OF CONTENT

1 INTRODUCTION

This chapter provides information about the background of the project, the Consumer Wisdom theory, the design challenge and the project appraoch

1 INTRODUCTION
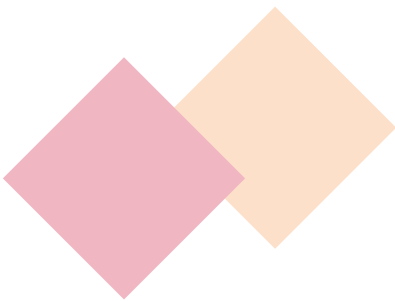
1.1 BACKGROUND

Over the years, buying goods became a way of living and consumers want to buy and own more things. The purpose changed from buying to live into buying for pleasure or keeping up with trends, also labelled as consumerism (Baker, 2016). The product market is enormous and choices unlimited. Annually more than 30,000 new consumer products are launched in the market (Kocina, 2017; Christensen, Cook & Hall, 2005), which creates an overload for the consumer. This overload of products also has a downside for people and planet like compulsive and impulsive buying, materialism, waste behaviour (e.g., of time, valuable resources, energy, products), pollution and debts (Luchs, 2017; Pierre, 2012).

To change this negative spiral of consumption different types of developments have started to come up to try to change the consumer's behaviour like helping the consumer make better choices, motivating sustainability, recycling and up cycling, choosing long-term use instead of short-term use.

The Consumer Wisdom theory came from offering a positive alternative whose objective is to simultaneously promote the well-being of the individual, society, and the natural environment (Luchs & Mick 2018). The research behind this theory was done to better understand specific consumption behaviour, to maintain and improve personal and collective well-being, to better understand the specific consumption behaviours of people who are perceived by others as practicing wisdom in their everyday behaviours. Consumer Wisdom (CW) is defined as the pursuit of well-being for oneself and for others through mindful management of consumption-related choices and behaviours. The theory gives insights on providing consumers with products or services that enrich life with well-being for their lives and others (Luchs & Mick, 2018). The theory focuses on consumers and how they pursuit wisdom. For designers is this way of looking at products new in the sense of calling it wise consumption. Indirectly, designers have addressed wisdom through dealing with different aspects of wisdom by various design theories, directions and principles. Some design directions dealing with different aspects of wisdom are design for happiness (Casais, et al., 2016), design for sustainability (Ceschin, & Gaziulusoy, 2016; Cucuzzella, 2009; Lilley, 2009; Lockton, Harrison, & Stanton, 2016; Margolin, 1998) and user-centred design (Boztepe, 2007; Margolin, 1997; Redström, 2006). All these design directions try to help the designer to positively steer the consumer into more wise behaviour. These theories, directions or principles were not labelled wisdom nor was wisdom mentioned. Our goal here is to provide an unifying approach that will integrate existing research in a cohesive

way - wisdom as a construct can help show how existing research and practices are related, through their relationship with well-being for the individual, society, and the environment. By integrating existing design directions and tools into the CW theory, the theory can be used by designers to help design on a more profound level of well-being. We will create a new way of problem solving by integrating wisdom into design and combining existing design directions with the theory. The focus will shift towards creating value for the consumer and their surroundings. This focus will also increase wisdom within consumptions, which could lead to new ways of consuming in more worthwhile manners. This could lead to products enriching people's life and users not consuming mass-production products. When designing for wisdom, the negative side of consumption could be changed, so consumers will become happier and more satisfied with their purchase. The aim with CW is to affect all human experiences in life and making their daily lives more meaningful.

When creating wise consumers a behavioural change through the use or purchase of the new products or services, designed with the CW theory, is inevitable (Fogg, 2009). Looking into the practice of consumer behaviour, we find that some consumers already use some wisdom subconsciously when making decisions. Some consumer makes choices based on their personal and the collective well-being. When buying products they focus on enriching their lives and that of their surrounding. Right now product design does not focus on this wisdom part of consumption. By implementing different types of design theories or principles with wisdom aspects in an overall tool, designers can focus on providing wise products or services for the consumer.

For the CW design tool I should keep in mind that a change in behaviour of the consumer, noticeable or not, could be necessary to accept products or services designed with the CW theory. Furthermore, the CW design tool should try to implement the design theories, directions or principles with aspects of wisdom and clearly communicate the use of wisdom within design.

1.2 CONSUMER WISDOM

The Consumer Wisdom theory is composed of 6 dimensions; Lifestyle Responsibility, Purpose, Flexibility, Perspective, Prudent Reasoning, and Transcendence (Luchs & Mick, 2018, see figure 1).


Lifestyle responsibility mostly emphases on lifestyle envisionment, personal resource management and avoiding negative emotions. The lifestyle responsibility dimension revolves around the consumer, how the gain personal well-being and care about the personal consequences of purchases. Furthermore, it is about empowering the consumer to make the right decisions based upon their life and budget. How they can make consumption choices for self-identity and self-expression according

their way of living. Within this dimension it is important to show the consumer that they are responsible for their life(style) and how to gain the best out of it. Consumers will always purchase products or services according to their lifestyle and this could be done subconsciously or consciously.

With Purpose the emphasis lies on pursuing positive emotions and about a growth mindset (e.g., gaining knowledge or skills). The more interaction with products and services, the more knowledge the consumer gains and the wiser they become. To focus on providing this knowledge beforehand through design the consumers' wisdom could increase and let them make better choices for their life.
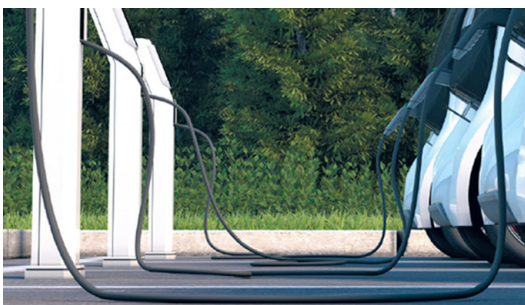
Flexibility is about alternative consumptions (e.g., share, swap, borrow) and how consumers could join this movement. With alternative consumption we talk about repurposing, remanufacturing, refurbishing

and sharing products. This dimension concerns the people who are willing to change the way consumptions are acquired nowadays, to stop the consumerism and the negative impact mass consumption could have. This dimension considers the behavioural change of the consumers around a product's end-of-life and how consumption could help others or the environment.

Retrospection (e.g., history of own and others' purchases) and prospection (e.g., future purchases, product use) are topics of the Perspective dimension. These topics focus on what the consumer already knows about products through their own and others' purchases and how they can make well-considered choices

Prudent Reasoning is about gaining knowledge before the purchase, spending time and effort considering options and their consequences. This dimension concerns

around the value products have for the consumer as well as what they communicate towards the consumer. The products can communicate clear superiority to existing products, focus on the best benefits a product has or communicate their value and purpose.

The dimensions purpose, flexibility, perspective and prudent reasoning care about the consumer, what they gain out of the consumption and what the consequences are for them personally and collectively. With these dimensions the consumer is also concerned about others or the environment and how purchased can benefit themselves, others or the planet.

The Transcendence dimension is about compassion (e.g., caring for general welfare, local businesses) and interbeing (e.g., relations with others, nature). Transcendence is about the empathy a consumer has for people and planet. Transcendence also includes being social with others and with no benefit for oneself. For this dimension the focus is on others instead of oneself, having empathy and social responsibility. Transcendence is the dimension focussing on the collective well-being and creating benefits for people and planet without gaining anything for oneself.
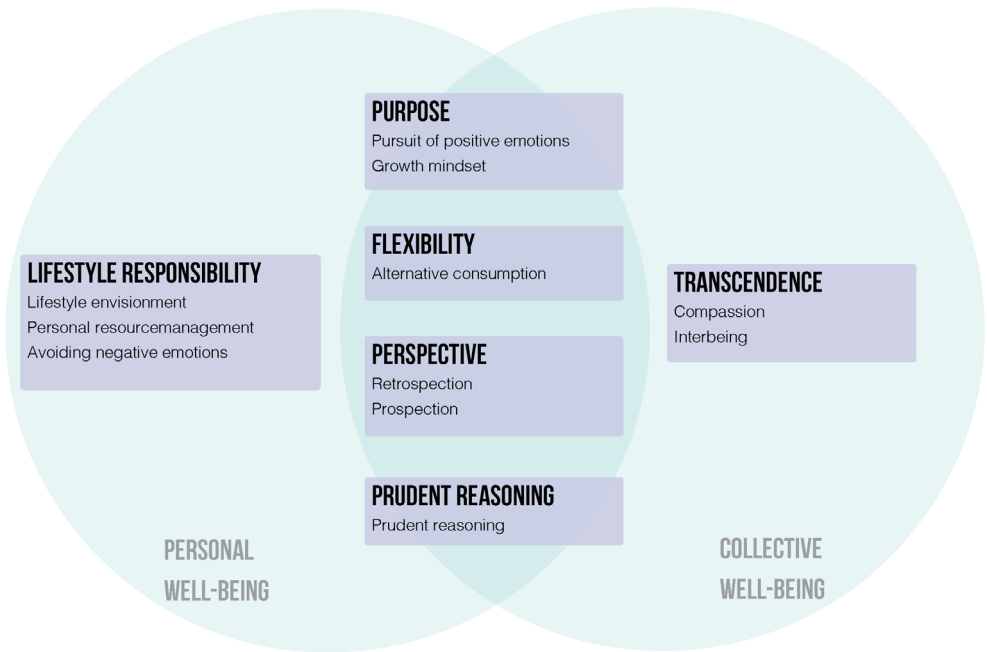

Figure 1 The 6 dimensions of the Consumer Wisdom theory (Luchs, Haws & Mick, working paper)

1.3 DESIGN CHALLENGE

The topic of this thesis came from professor Michael Luchs & David Mick and their paper on the Consumer Wisdom theory (Luchs, 2017; Luchs & Mick, 2018). Thanks to the broad range of touch points within the design field within this theory, it is very interesting for designers to target this theory for practical use. The theory is broad and takes much design directions into account. While the theory of CW takes a consumer perspective, this thesis aims to provide a translation for designers to design for wisdom.

Based on Aristotle cited by Schwartz and Sharpe (2010), wisdom is defined as for a good life you need to do the right things, towards the right people, for the right reasons, in the right manner. Having overall wisdom leads to personal health and a sense of mastery of life (Luchs & Mick, 2018). For my thesis I will keep this definition of wisdom and the mastery of gaining the best out of life for oneself or others.

My aim is to make the theory usable for designers to design products and services promoting well-being and wise behaviour. I will translate the outcomes of the theory, the 6 dimensions, into a tool for designers. In the tool specific product design examples or design practices per dimension will be added and design guidelines for designers will be created on how to design wiser products or services to promoting well-being and improve wise behaviour. The frame of my thesis is using the CW theory of Luchs and Mick (2018) to create a design tool and within this tool I will only use existing design theories, practises, strategies or directions. Because the theory is very broad I will not create my own theory or strategy to fit into the theory of CW. The emphasis lays on creating a design tool for designers to use the theory of Luchs and Mick (2018) in practice (see appendix 1 for the project brief of my project).

In order to translate the Consumer Wisdom theory into practice the main research question was formed;

How can the Consumer Wisdom theory be used to integrate existing design theories that address well-being for oneself and others?

This main question was divided into 3 sub questions:
• *Which existing design theories/guidelines, practices relate to consumer wisdom?*
• *How can existing design practices be clustered into the 6 dimensions?*
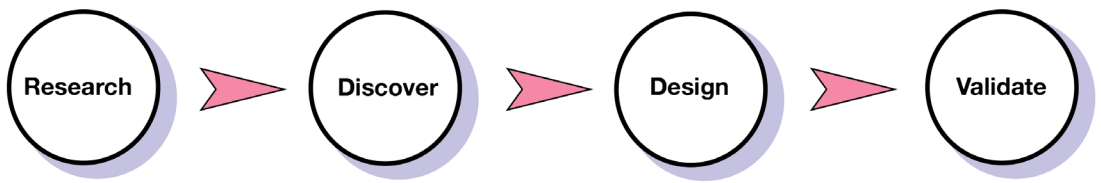• *How might they be integrated into a cohesive tool?*

Figure 2 Design process (Acheson, 2018)

1.4 PROJECT APPROACH

The approach of my thesis is divided into 4 parts inspired by the method of the design process; Research, Discover, Design and Validate (Acheson, 2018).

Research
This project starts with a literature research on the topic of Consumer Wisdom. The theory is made from the consumers point of view and for my project the theory needs to be made suitable for designers. I tried to do this through researching existing design theories, directions or tools fitting within the dimensions. With this part I want to focus on answering the sub question of finding existing design theories and practices related to Consumer Wisdom and establish a base for further understanding and using the theory into practice.

Discover
From the literature research insights were collected and design theories emerged. To translate this into a tangible design tool practical design guidelines will be determined by doing a categorisation task. This will also help to complement, understand and detail the design theories emerged from the literature research. The categorisation helps to discover existing design practices and cluster them into the 6 dimensions. This can help to create a well-defined overview of the 6 dimensions, proposed design directions and design categories.

Design
From the discover phase a design tool can be created to make the Consumer Wisdom usable for designers. Within the tool I want to explain and present the dimensions, design directions, categories and product or service examples. With the tool designers can create products, services or initiatives concentrated on the well-being of people and planet: well-being for all. Putting everything together will make the theory tangible for designers and practical in use.

Validate
Validating the tool's feasibility with design students will help gain diverse recommendations on the tool. The feasibility will be tested through using the tool in a real life setting for designing new products or services for consumer wisdom. This last phase is important to help validate if the tool is useful for designers and to answer my main research question of integrating design theories on well-being within the Consumer Wisdom theory. Evaluation will also help to understand if the theory is translated in a practical manner.

With every step iterations are made on the previous step(s). Iterations are necessary to stay engaged and stimulated. With every step small or big changes are made so the previous step should link to these changes. In figure 2 iterations are not shown, because we as designers always make them, which helps to maintain the magic of the design process.

2 STUDY 1

This chapter demonstrates the results of the literature research I conducted on understanding and translating the Consumer Wisdom theory for design.
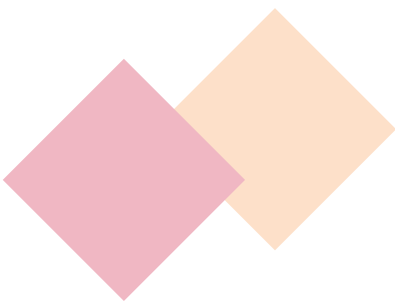
2 STUDY 1:
LITERATURE RESEARCH

A literature research was done to better understand the Consumer Wisdom theory and to find existing design literature with links to the theory. Within the design field there is already a lot of research done relating to the topic of wisdom, although they do not call it wisdom nor mention wisdom. Wisdom in the CW theory has elements with links to design for happiness, lifestyle enrichment, awareness, responsibility and sustainability in it. The scope of this theory is well-being in the sense of creating well-being through wise consumption insinuated by a product designer. Every dimension of the theory focuses on a different aspect of well-being and wisdom. Therefore, the focus of the literature research is broad, but concentrated upon existing design theories, practices and strategies.

Furthermore, there is not one design tool linking all the design literature with wisdom aspects for practical use. There are a lot of tools and design directions made concerning different parts of the CW theory and dimensions, but an overall list of the literature could help designers and the creation the CW design tool.

The analysis starts with defining the Consumer Wisdom theory and its dimensions to make them understandable and relatable for designers. By using specific keywords within well-known design journals this analysis was done. Secondly, related research and design directions were found and added to the dimensions. By merging the research and direction into the CW theory, it becomes more structured and helpful for designers to use in practice.

With this study I want to implement all previous literature research and design direction on the topics of the dimensions into one table to generate a good overview to start creating the CW design tool.

2.1 METHOD

There are several design methods and tools to design a better future for people and planet via products or services. By combining the CW theory with a big range of design theories and guidelines, this will be the first tool focusing on design for consumer wisdom.

Because, we are focusing on design theories, the literature search was done through the use of the top seven most important design journals ranked according to Gemser, de Bont and Hekkert (2012). The top 6 ranked journals for design are; Design Studies, Journal of Design Engineering, Design Issues, Research in Engineering Design, The Design Journal and International Journal of Design. The Journal of Product Innovation Management was added to this journal list of Gemser, de Bont and Hekkert (2012) due to the fact that the focus was design theories and this journal contains a lot of essential information on design theories and the topic of Consumer Wisdom. Within these journals I used specific keywords to conduct the research on Google Scholar. The list of keywords was gathered through the discussion between my supervision team. The discussion was about linking the CW theory to design and which keywords will help find wisdom in design theories and practices.

Within the search of keywords the pinpoint was design and not the consumer behaviour side of the topics, because of the translation of the Consumer Wisdom theory into a design practice. An overview of all the keywords and their corresponding dimension can be found in table 1.

Dimension	Keywords
Lifestyle responsibility	'empowerment', 'budget', 'lifestyle', 'responsibility', 'self-identity', 'self-expression', 'modularity', 'flow', 'personal growth'
Purpose	'well-being', 'happiness', 'mastery', 'personal relationships', 'product experience', 'symbolic meaning', 'personal meaning', 'positive design'
Flexibiltiy	'alternative consumption', 'flexibility', 'sharing economy', 'repurposing', 'remanufacturing', 'refurbishment'
Perspective	'simplicity', 'classic design', 'prototypicality', 'form follows function', 'mindfulness'
Prudent reasoning	'product value', 'value of money', 'novelty','transparency'
Transcendence	'sustainability', 'circular economy', 'social responsibility', 'empathy', 'connectedness' and 'social design'

Table 1 The dimensions with corresponding keywords

2.2 RESEARCH RESULTS

The Consumer Wisdom theory exists of a lot of dimensions. Luchs and Mick (2018) indicated 6 main dimensions within the theory; Lifestyle responsibility, Purpose, Flexibility, Perspective, Prudent reasoning and Transcendence. All the literature results I found are put with the dimensions the papers related to. Every dimension is explained from a design approach angle and I added a list of existing design direction to every dimension.

2.3 LIFESTYLE RESPONSIBILITY

Lifestyle responsibility mostly emphasizes lifestyle envisionment, personal resource management and avoiding negative emotions. The lifestyle responsibility dimension revolves around the consumer, how the gain personal well-being and care about the personal consequences of purchases.

Existing design directions and tool
User-centred design
Design towards the user (their needs, wants and experiences) and if they get the use of the design. Main questions when designing for this direction are: for whom, what and which experience? What is the use of this design for the user group? The design should help the user ask questions about the use and not just give a well-defined answer to a problem (Redström, 2006). The focus should be on what the user wants and needs, and how to present this in products or services.

Responsibility design
Responsibility design is about creating according to what is right and moral in the world (d'Anjou, 2010). To help users make responsible consumer choices and steer them towards choices focused on their lifestyle or needs (Tatum, 2004). The strategy is to design products that will help the consumer, but make the consumer feel that with the purchase they made the right choice themselves. The focus

should be on helping the consumer be responsible through the use of products and services.

Mindful interaction design
Mindful interaction design concerns the triangle relation between person, object and person. "Mindful interaction design is mindfulness of the social consequences arising from its use", Niedderer (2007). Mindful design exists of the frame of mind

Figure 3 User-centred design
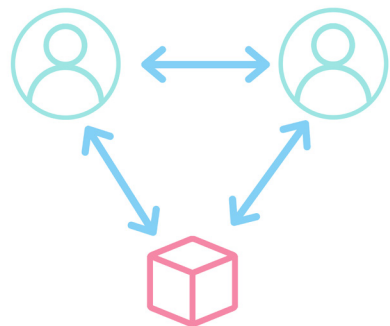
Figure 4 Mindful interaction relation triangle

and its content. Mindfulness is achieved through mindfulness characteristics (aim/affect/result) and the function(s) (meaning) of an object. The start of designing could also be out of the observation of a social situation or behaviour (Niedderer, 2007). The focus should be on creating a relation between the consumer and the product or with the help of products or services between consumers.
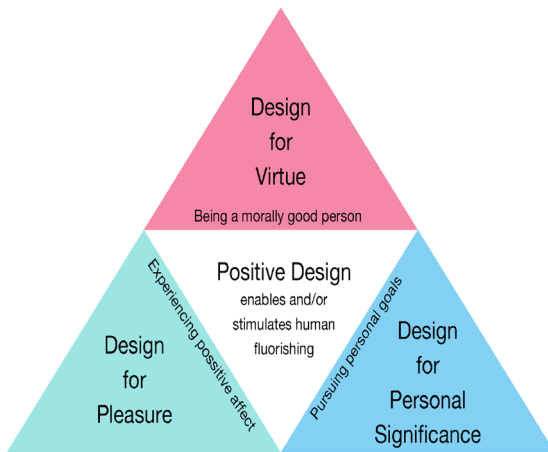
Figure 5 Positive design framework (Desmet & Pohlmeyer, 2013)

Figure 6 Representation of a happy couple moment (Caisas, Mugge, Desmet, Fokkinga, Ludden, Cila & Van Zuthem, 2016)

2.4 PURPOSE

With Purpose the emphasis lies on pursuing positive emotions and about a growth mindset (e.g., gaining knowledge or skills). This dimension revolves around the consumer gaining knowledge or skills through life and experiences, which helps purchasing the right products for themselves. Which can lead to wiser consumption.

Existing design directions and tool
Positive design
The goal of this direction is to design to increase people's subjective well-being and appreciation of life, including personal happiness and living a virtuous life (see figure 5). The strategy could exists of 5 characteristics; possibility-driven, balance, personal fit, active user involvement and long-term impact (Desmet & Pohlmeyer, 2013). With the design direction designers could help users create a good life. By not only influencing their actions and decisions in a desirable direction, but to also help them understand surrounding positive and negative influences (Dorrestijn & Verbeek, 2013). The focus should be on the consumer gaining positivity from the use or purchase of the service or product.

Happiness design or design for happiness
Helping the user in their pursuit of a pleasurable, satisfying life and flourish in life is the goal of this direction (Desmet & Pohlmeyer & Forlizzi, 2013). It could help to establish a relation between people and products through direct (spending extended period of time with product) and indirect effects (personalised product's self-expressive value) to design good happiness products or services (Mugge, Schoormans & Schifferstein, 2009). The focus should be on consumer gaining something extra out of life, like learning new skills or express who they are, by using or purchasing products or services (see figure 6).

Design for emotion
This direction is linked to the emotions the user feels with the product or service, when seeing, using or buying it. Design to evoke or prevent certain emotions with the consumer (Demir & Desmet & Hekkert, 2009). Most of the time designers focus on positive or negative emotions, but Yoon, Desmet and van der Helm (2012) show that 'interest' is an emotion designers could focus on when going for increasing people's life in a positive matter. For this design direction the designer should focus on the emotion a product or service evokes or what the designer wants the consumer to feel. Emotions are key in this design direction.

Experience design
With this direction experience is the root of designing and the source for new possibilities, ensuring a human-centred approach. It starts with the human experiences, what has effects on consumers and which experiences enrich their life. Technology could help enriching consumer's experiences with products or services or enriching their life through the experiences (Jensen, 2014). Here you look at creating positivity through experiences.

Product experience design
The direction is concentrated around the function of products and how products fit the user's activities. A product experience is based on the user's knowledge about the product or service, a conscious and subconscious matter (figure 7). Product design through creating upon the designers own experiences, by asking the user's experiences and through research done upon the user motives and behaviour upon the product or service domain (Margolin, 1997; Han, 2016; Haug, 2016). The focus is on experience shaped by the characteristics of the user and the product and provoked by the interaction between user and product (Desmet & Hekkert, 2007).

Social design
Social design focuses on creating solutions for a group, not only for the individual. This design approach sees how products are used within a group and how products can help change social behaviour. It is about finding out people's social needs according to their environment, their personality and their relationships with people or products (Forlizzi, 2008; Manzini, 2014; Margolin & Margolin, 2002). A direction to help the consumer gain more out of products then they can imagine by teaching them the use and giving them handles to improve their social life and interactions (Koo, 2016; Morelli, 2007).
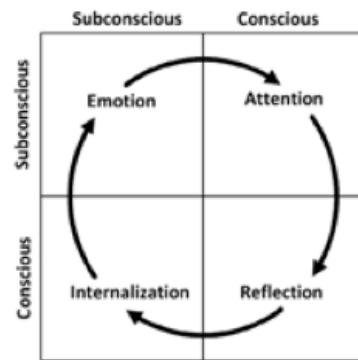
Figure 7 Aesthetic experience and preference development (Haug, 2013)

2.5 FLEXIBILITY

Flexibility is about alternative consumptions (e.g., share, swap, borrow) and how consumers could join this movement. This dimension targets the people who are willing to change the way consumptions are acquired nowadays, to stop the consumerism and the negative impact mass consumption has.

Existing design directions and tool
Alternative consumption design

Alternative consumption is about repurposing, remanufacturing, refurbishing products, borrow or non-ownership (Argument & Lettice & Bhamra, 1998). The focus is on doing things different that the normal way of consumption and second-hand goods.

End-of-life design
"End-of-life is the point in time, where the product no longer satisfies the initial purchase or first user"; Rose, Ishii and Stevels (2002). This initiates the potential of reusing, service, remanufacturing, recycling with/without disassembly or even disposing of the product by the user (Rose & Ishii & Stevels, 2002; Holt & Barnes, 2010; Ma & Kremer & Ray, 2018). Designing for this direction is about promoting or helping consumers to recognize and use these initiations of reusing, remanufacturing and recycling of products.

Sharing economy
Sharing economy is about sharing what you have, creating less waste and lowering the mass consumption rate. The most important issue with this strategy is trust, because consumers need to trust each other in order to share with strangers (Collina & Galluzzo & Gerosa & Bellè & Lidia Maiorino, 2017). This direction should motivate the consumer to share and trust others (see figure 8). This direction tries to change the meaning of owning products, from private to open and sharing (Busciantella Ricci, 2017).

Design for aging gracefully
When products age gracefully, consumers are more willing to buy second hand, share products or reuse. The aim here is to engage the consumer in the material changes that could occur over time to make extending the product life span socially acceptable (Bridgens & Lilley, 2017). Using materials that age gracefully and promote how beautiful the product looks after aging could engage consumer to by second hand,

share and reuse.
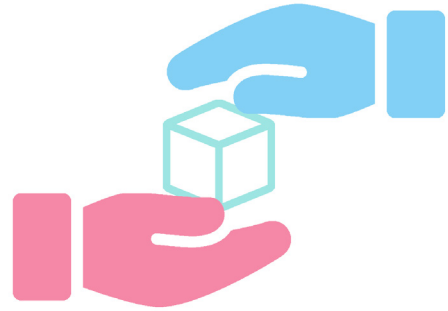
Figure 8 Sharing products

Figure 9 layered material designed to age spectacularly (Brdgens & Lilley, 2017)

2.6 PERSPECTIVE

Retrospection (e.g., history of own and others' purchases) and prospection (e.g., future purchases, product use) are topics of the Perspective dimension. These topics focus on what the consumer already knows about products through their own and others' purchases and how they can make well-considered choices. Designing for this dimension could be quite challenging, because the designer has to take past experiences into account when designing new products or services. Through the usage of prototypicality or classic/simple design a designer could make the new

product or service understandable. With prospection the designer does not have to create something incomprehensible, he or she could combine existing parts with a new design or new functions. This way the consumer could still understand what the product does.

Existing design directions and tool
Prospection
Prospection involves products that have no predecessors. The products may be new in forms of changing the needs and context of the consumer (Pettersson, 2017). The products are future-oriented, but can arise from combining existing products with future parts. Still an object not yet existing can be created (Engeler, 2017). When designing the focus should be on creating something totally new, but with elements the consumer could recognize. If the consumers do not recognize or understand the use, they will not accept the product or service.

Retrospection
Retrospection is about tracing usage back over time by collecting information about past and present related products or services (Pettersson, 2017). Here the focus is on creating products with the help of learning's from other's and your own past consumption behaviour. The knowledge could help change future experiences into good ones or help understand what works for users or what not. When designing for this dimension it is to improve well-know bad experiences and help learn from others' bad past consumption behaviour.

Prototypicality
Prototypicality is the degree in which a product is the representation of a category by the look, aesthetics and brand recognized by the consumer (see figure 10). When a product looks like other products within a category the consumer will more easily accept the new product and purchase it. Using verbal product descriptions may help

the consumer be convinced by the product, when a product differs from the category (Creusen & Schoormans, 2005). This design direction concerns around creating products fitting in a recognizable product category by their appearance.

Simplicity
Simplicity within products or services is what makes them easy to understand and use by consumers. Explanations are not necessary, because by the look the consumer knows what it is and how to use it (Hanna, 2012). Through designing products in an understandable matter, consumer will accept the products faster. The product or service should be downscaled to the most basic of the appearance.

Figure 10 A typical and atypical coffee-machine (Creusen & Schoormans, 2005)

2.7 PRUDENT REASONING

Prudent Reasoning is about gaining knowledge before the purchase, spending time and effort considering options and their consequences. This dimension concerns around the value products have for the consumer as well as what they communicate towards the consumer. The products can communicate clear superiority to existing products, focus on the best benefits a product has or communicate their value and purpose.

Existing design directions and tool

Value design

With value design the focus is on understanding of recognition, perception, and interpretation of various design features by the designer and connecting them to a brand or recognition of a product (Karjalainen, 2007; Karjalainen & Snelders, 2010; Townsend, 2013). Value is closely connected to experiences and how the consumer reacts to a product (Boztepe, 2007). The value of a product can change according to the aesthetics of a product, like colour, unity, proportion, symmetry and a consumer could recognize a product's brand according to the right colour combination, distinctive design element, style or form (Creusen & Schoormans, 2005).

Product value design

The product value of the consumer is based on needs and emotions. To create successful products they must fulfil existing and rational needs (Andersen, 1983). Furthermore the product should have a pleasurable form, the right aesthetics (colours, materials, shape, size) or bios form. These features stimulate the right emotions with the consumer to let them understand the product and its functions or to connect the product to a brand which creates recognition (Chang & Wu, 2007; Mugge & Dahl & Schoormans, 2018; Sugimoto & Nagasawa, 2017).

Novelty

Novelty is exclusiveness or prestige in an atypical product. This design will help create uniqueness and competitive advantage. There are two types of novelty: absolute novelty – something that has never been experienced before, and relative novelty – a product with a new combination of previously experienced elements (Hung & Chen, 2012; Ingram & Shove & Watson, 2007; Mugge & Schoormans, 2012). This design direction focuses mostly on products that have a superior value or uniqueness over existing alternatives, but keeping product recognition for the consumer (see figure 11).

Figure 11 Dyson vacuumcleaner using both novelty and transparency in the product

Transparency

Transparency is about how much light goes through the product or the surface to show what is inside the product (see figure 11). There are 4 levels; Opaque – completely blocking the light, Translucent – shows things in a blurry matter, Transparent – transmitting light through, Optical quality – water clear surface (more for optical instruments; microscopes and glasses). Transparency can change the consumers' behaviour and perception towards a product. Transparency can be reached by the use of material or showing certain parts in the products, so the consumer recognizes the use of the product (Cheng & Mugge & de Bont, 2018).

Symbolic incongruences

Symbolic incongruences are products that have a look that is very new for the consumer, but the purpose is clear from their appearance. Here the incongruences focus on impressions elicited by visual and tactile aspects of product appearance. "Incongruences in product appearance

might be used as a strategy to elicit surprise and further interest the user," Van Rompay, Pruyn and Tieke. (2009). The design direction focus on a different look compared to regular product within the product category to surprise the consumer, but keep the purpose clear.

2.8 TRANSCENDENCE

The Transcendence dimension is about compassion (e.g., caring for general welfare, local businesses) and interbeing (e.g., relations with others, nature). Transcendence is about the empathy a consumer has for people and the planet. Transcendence also includes being social with others and with no benefit for oneself. For this dimension the scope is sustainability and the designer should focus on creating a better world for people and planet. Furthermore, the focus is on others instead of gaining benefits for oneself, having empathy and social responsibility.

Existing design directions and tool
Design for sustainability
Sustainability concerns around changing our habits, lifestyle, practices and consumption behaviour (Angheloiu & Chaudhuri & Sheldrick, 2017; Blizzard & Klotz, 2012; Margolin, 1998; Lilley, 2009; Thorpe, 2010; Wahl & Baxter, 2008). Design for sustainability considers social, economic and cultural aspects with long-term solutions trying to change the over-consumption behaviour (Ceschin & Gaziulusoy, 2016; Cucuzzella, 2009; Lockton & Harrison & Stanton, 2016). Designing for sustainability could be done through showing the harmfulness of existing consumption behaviour, offering sustainable alternatives of existing products or services, stimulating a sustainable consumer behaviour through products or services, or showing the outside what the consumer is doing to be sustainable (see figure 12).

Design for circular economy
Circular economy is an alternative to the usual linear model to use materials for as long as possible and recycling where possible. The consumer experience is the core of the design cycle. It is up to the designer to make the consumer aware of the reusability of products and what they can do to help change the linear product model into a circular one (Mestre & Cooper, 2017; Lofthouse & Prendeville, 2018).

Design for socially responsible behaviour
The relation between social implications, behaviour and human-product interaction is important when designing for a social responsible behaviour. To keep in mind what the interaction is between product and user, and which message the product conveys towards the user. Understanding the relationship between collective and social concerns, whether they coincide or collide. Focus on the user's motivation or motivating the user (Tromp & Hekkert & Verbeek, 2011).

Emotional durable design
"Emotional durable design targets to reduce the consumption and waste of resources by increasing the resilience of relationships between consumer and product, presenting a more expansive, holistic approach to design for durability, and more broadly, the lived-experience of sustainability", Chapman (2009). The focus is on creating a bond between product or service and consumer, which makes it hard to throw it away and causes long time usage (reducing waste and consumption).

Figure 12 Some element within design for sustainability

2.9 CHAPTER CONCLUSION

The Consumer Wisdom theory consists of multiple design directions focussing on the individual and collective well-being. Table 4 gives a good overview of which design directions fit into which dimension. Already can be seen that every design direction has their strategies or ways of working. Every design direction has his own link to well-being and provides a way of designing for wiser consumption. To gather this into one overall theory is something new and helpful.
The integration of all possible design directions in one overview provides insights in what the theory is about, how a designer can use the theory into practice and provides a base for creating a tool they can use.

The theory found from the literature research will provide a good basis of information about the CW theory for translating it into a design strategy for my design tool. This will help explaining the theory towards designers and how they can use the theory into practice. The literature research also provided design directions fitting into CW and this will help creating a tool out of the theory. Now CW is more focussed on design instead of the consumer's perspective and how designer could use the theory into practice.

TOOL REQUIREMENTS

- *The design tool should show and explain all the design descriptions to the designer*
- *The design tool should explain how designers could use the design directions*
- *All the information provided to the designer should be clear without the need for searching extra information*

3 STUDY 2

This chapter presents the results of creating design categories with product and service examples, fitting one or more of the 6 Consumer Wisdom dimensions.
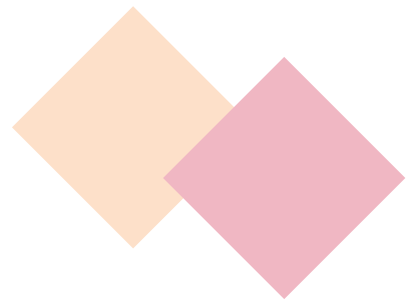
3 STUDY 2:
CATEGORIES DISCOVERY

To determine practical design guidelines I did a second study on the categorisation of product and service examples within the 6 dimensions. The categorisation will help to complement and detail the design theories emerged from the literature study.

First, product and service examples fitting the Consumer Wisdom theory are gathered and with those examples categories are formed into each dimension. Before the categorisation task, a pilot test will be held to see if everything is clear and doable of the setup as planned. From these insights the categorisation task will be altered and then executed by 3 design professionals. This phase will help make the theory understandable for designers on how to use it into practice. The research set up can be seen in figure 13 and this helps to provide information about who participated, what activity they did and how long the research took in general.

Participants

Activity

Duration
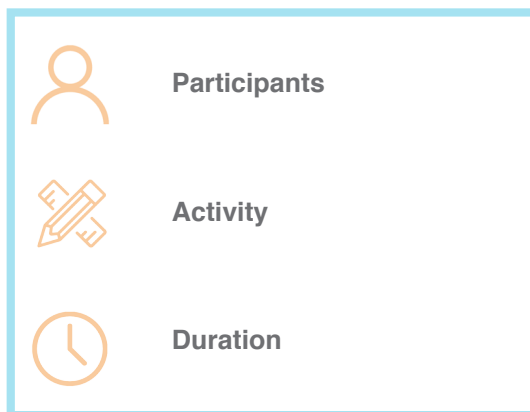
Figure 13 Research setup

3.1 METHOD

Firstly, the product and service examples were gathered out of the literature research papers and obtained from well-known design blogs and magazines: Urdesign, Better living through design, Yanko design, Dezeen and Beautiful live. The blogs and magazines have more than 5.000 fans on Facebook or Twitter and are recommended by several websites or magazines (Workerbee, 2018; Agarwal, 2019). I chose two very popular sites; Yanko Design (1 million Facebook followers and 43 thousand Twitter followers) and Dezeen (1 million Facebook followers and 920 thousand Twitter followers), two medium popular ones; Urdesign (17 thousand Facebook followers and 920 thousand Twitter followers) and Beautiful live (48 thousand Facebook followers and 4 thousand Twitter followers) and one slightly less popular blog; Better living through design (7 thousand Facebook followers and 3 thousand Twitter followers) to find a large diverse group of products or services.

The collection consists of existing products or services available in the market. It contained identifiable elements relating to one of more dimensions out of the consumer wisdom theory, either through tangible features or insinuated activities by the service or product. Through using keywords focussing on the dimensions of the Consumer Wisdom theory the product examples were gathered. Mostly the same keywords were used as in the literature research, just some were modified to focus on products and services instead of design theories. The keywords used were: 'empowerment', 'budget', 'lifestyle', 'responsibility', 'self-identity', 'self-expression', 'personal growth', 'well-being', 'happiness', 'development of skills', 'knowledge seeking', 'personal relationships', 'product experience', 'positive', 'negative', 'custom made', 'alternative consumption', 'flexibility', 'sharing economy', 'repurposing', 'remanufacturing', 'refurbishment', 'environment friendly', 'simplicity', 'classic design', 'prototypically', 'form follows function', 'mindfulness', 'novelty', 'transparency', 'sustainability', 'circular economy', 'social responsibility', 'empathy', 'connectedness' and 'social design'.

From this search a card set of 136 product and service examples best fitting one or multiple dimensions, was made. The examples were assessed on fitting the selected keywords, fitting the description of one or more dimensions, or clarifying a design direction within a dimension (see appendix 2 for the excel sheet with the products, links and reasoning).

Secondly, to test if the categorisation task setup worked and the cards of the card set fit one or more dimension, a pilot test was conducted. The test was done with a non-design student to see if everything about the task was understandable and doable. The participant had the 136 product or service cards of 3 by 4,6 centimetres and text to explain the dimensions. The pilot shows that the dimensions needed more explanation to understand them and to make the task easier/quicker. The card size became bigger (6 by 9 centimetres) to be able to read the explanation text of the products or services on them. The product or service examples will be categorised per dimension by a quick Yes or No, after which categories of products or services with relations to each other are created. These categories can be implemented into the tool to help design and give good examples for the design directions designers could go into. My supervision team and I will carry out the categorisation task.

Figure 14 Research setup

1 student
non-design

1 pilot task

45 - 60 minutes
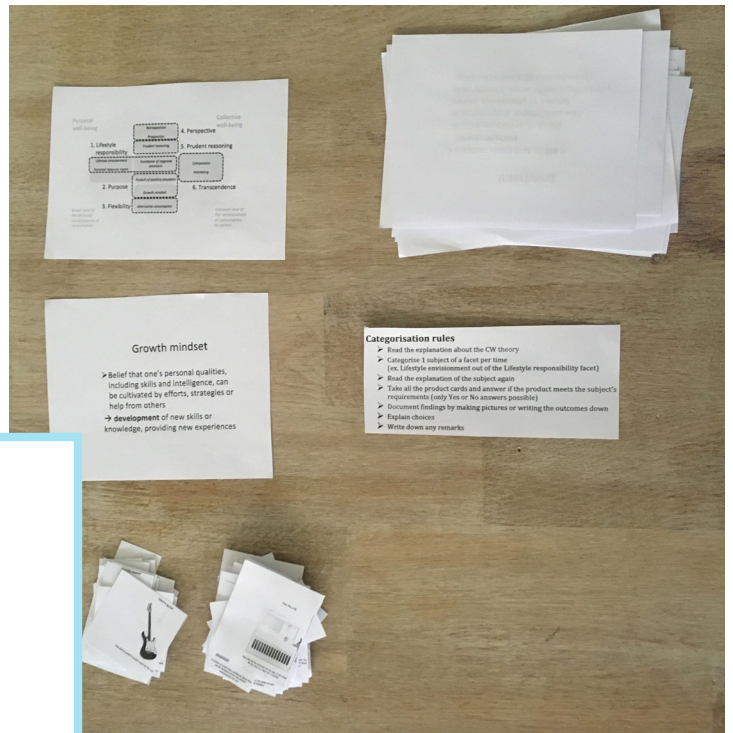
Figure 15 Categorisation materials (above) and the changes made in the card size (below)

3.2 THE CATEGORISATION TASK

The participants read the whole explanations of every dimension of the CW theory first. The categorisation was done one dimension at a time. The participant then got the opportunity to read the explanation about the dimension again, so the requirements for the product examples are known. For every product or service the participant had to answer the question; does the product meet the subject's requirements? Only a quick Yes, No or Maybe could be answered. The participants could go back to products later if they answered Maybe before, but favourable was answering the first thing that came to mind. This was done so the participant could not think hard about fitting every product in every category and so that the test did not take days. With the Yes pile of the examples, the participant tried to make categories, showing the relations between the different products.

The findings were documented through pictures and writing down the outcomes of the second parts of the experiment. Writing down the explanations about the made choices was necessary to help generate guidelines out of the categorisation.

3.2.1 Discussion about formed categories

Every participant did the task individually and to compare the results of every participant a discussion was generated between the participants. This was done to see if groups were overlapping, to explain why groups were formed and to choose the best fitting categories for the dimensions. The overall outcome can be seen in appendix 3.

During the discussion we found out that although different products were put in the same category, the explanation or goal of the categories often matched. Some categories were combined, others split, some products changed categories and irrelevant categories deleted due to the explanation accompanied with it. The discussion helped to see were there was overlap or fundamental differences between the categories. The discussion also caused to sharpen explanations of the dimension, because some were not yet design focussed. This fact caused some issues with creating good categories, but with discussing the right categories were formed and added to the right dimension.

3.3 RESULTS

This task resulted in 35 categories fitting the dimensions. Discussing the outcomes was a necessary step in the process otherwise some categories would have been double or misunderstood by others. After the categorisation was done the outcome was discussed with Professor Michael Luchs, to see if the categories truly fitted his dimension differentiation. He stimulated some changes due to the fact that some dimensions were interpreted a bit differently than he meant. Some descriptions were altered to fit the category or dimension better, some categories were put under other dimensions, some categories were put together and some were removed due to the fact they did not fit correctly within one of the dimensions. The prudent reasoning and perspective dimensions did not have the right examples or categories yet, so these were researched again and some new design directions were added. The newfound categories and the discussion with professor Luchs ended up changing the categories into 48 design categories. Now the categories are more fitting the design directions and are more helpful for designers in their brainstorm process. All the results were collected in one big table with the dimensions, design directions, categories, examples and best fitting examples (see figure 18 and 19

3 design professionals *individually*

1 categorisation task

5 - 6 hours

Figure 16 Research setup
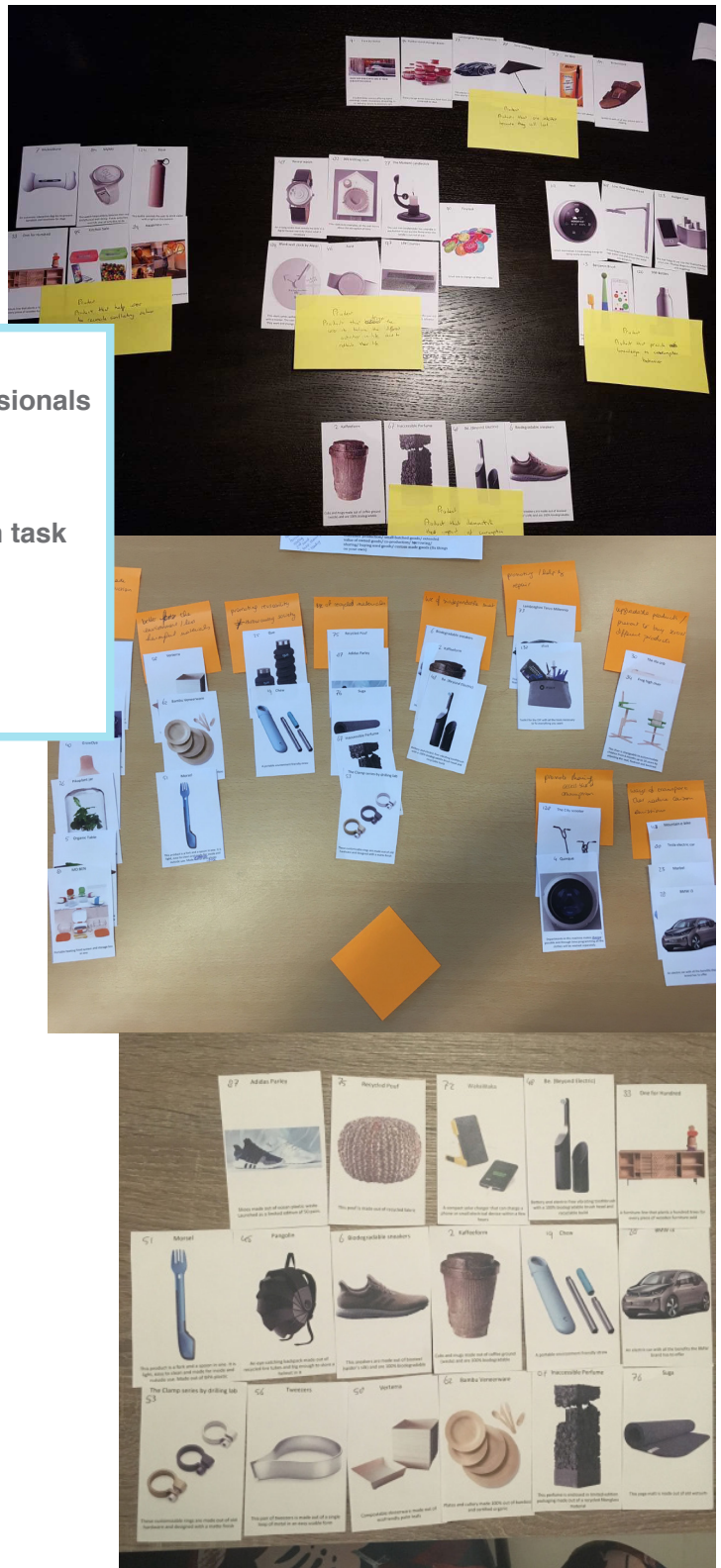
Figures 17 Different results of the categorisation task

for the results of the first 2 dimensions, appendix 3). Most of the categories could fit within the design direction only 3 design directions where not mentioned during the categorisation; Design for aging gracefully, product value design and emotional durable design. For the category 'design for aging gracefully' new examples were necessary due to the fact that none of the existing examples were truly fitting. This category focuses on materials and this slipped through the keyword search or the keywords were not detailed enough to find examples for this direction. 'Product value design' was very closely related to the category 'value design', so after the categorisation these were combined into the category product value design. These two categories were overlapping each other, so no good argument was found to keep them separated (see merged text 'Product value design' on the right). 'Emotional durable design' did not have examples from the categorisation due to not focussing on the previously researched design directions during the categorisation task. During the categorisation task we went in blank and we tried to find our own categories. After the task the categories were linked to a design direction, but 'emotional durable design' did not have any examples. With this information examples were added to the direction to create a category. This was done, because I wanted every direction to have examples to help create the design tool.

The task cost a lot of time for each participant, because the categorisation was harder then anticipated and a lot of examples had to be rated. Next, there were 135 examples and not all of them were used. For a future research like this, fewer examples could be used. Although there has to be a wide range of examples to find the different categories. Among the examples the service examples were rare, some more should be added to the examples. This limitation may have caused the task to be more difficult or that some design directions were hard to categorize.

Every direction has at least 1 design category linked to it. The categories help to explain the design direction and how to use the direction in a design process. The examples added to the categories help to extend the category explanation.

Product value design
With product value design the focus is on understanding of recognition, perception, and interpretation of various design features by users and connecting them to a brand or to recognize a product (Karjalainen, 2007; Karjalainen & Snelders, 2010; Townsend, 2013). Value is closely connected to experiences, how the consumer reacts to a product and consumers' needs (Andersen, 1983; Boztepe, 2007). The value of a product depends on the aesthetics of a product, like colour, form, style or distinctive design element (Chang & Wu, 2007; Creusen & Schoormans, 2005; Mugge & Dahl & Schoormans, 2018; Sugimoto & Nagasawa, 2017).

The results from the categorisation will provide a basis for the design categories the designer could use for every design direction.

Facet	Design direction	Category	Explanation	Categorisation examples	Best product examples
Lifestyle Responsibility	**User-centred design**	Upgradable 1. Time 2. Situations	1. Products that can be changed according to the user's preferences. The products keep their value over time and consumer does not have to buy new products 2. Products that can be changed according to the situation the consumer needs them in, so they do not have to buy new products for different situations		
		Durability 1. Tools 2. Long-lasting products	1. Helping consumer to lengthening lifetimes of owned products 2. These products are durable because of the good quality and they will last a long time until they need replacing		
		Avoiding negative emotions	Products that help achieve difficult or time consuming tasks and avoid negative emotions when using them		
		Customized products	To show the personal or special lifestyle of the consumer. Consumer is willing to pay a bit more to customize the products according to their preferences and performance indication		
	Responsibility design	Personalisation	Common products that can be personalised by the consumer according to their preferences. The product is mass production, but has the option to personalised when bought		
		Resource management	Products that reduce consumption in order to live a virtuous lifestyle and helps the consumer save money		
		Budgeting	Products that help consumers with wisely spending their money and help their keeping track of their budget		
		Healthy lifestyle	Products that stimulate the behaviour for living a healthy life and make it easier to live a healthy lifestyle		
	Mindful interaction design	Reminding to take action/decision	Products that help the consumer to take action or make a decision through the use of the product		
		Reconciling conflicting values	Products that reconcile existing issues for the consumer by helping them		
		Make decisions	Products forcing the consumer into desired behaviour		
		Reconciling time	Products that show time is limited and that life should be spend wisely		

Figure 18 Lifestyle responsibility categorisation results

35

Purpose				
Positive design	Trigger positive emotions through the use of products	Through the use of the products the consumer will experience happiness. The products help or promote a positive behaviour		
	Maintain good memories	By usage of products the consumer will keep their memories and can revisit them whenever		
	Development of specific behaviour	Through usage the consumer behaviour can be influenced and help pursuing positive emotions		
Happiness design	Learning new skills	Through usage of products the consumer will learn new skills		
	Express creativity	With the use of these products the consumer can show their creativity		
Design for emotion	Small-batched goods	Products that are produced in a small batch in order to make them special and make consumers care more for them		
	Trigger positive emotions through a funny/deviating look	Products triggering positivity through their appearance		
Product experience	Improve performance	Products that help improve the consumer's performance through usage		
Experience design	Creating nice experiences	Accessories that help to create nice(r) experiences (positive emotions)		
Social design	Sharing experiences	Through the products share personal events or experiences with others		
	Trigger positive emotions through social interactions	Products stimulating positivity through social interactions		

Figure 19 Purpose categorisation results

36

3.4 CHAPTER CONCLUSION

From the categorisation task and after the discussion 48 design categories emerged. When comparing the categories with the design direction from the literature research links can be made. By adding everything out of the literature research and the categorisation together, a good handhold is provided to create the design tool for designers to design for consumer and societal well-being.

With the outcome of this merge an informative table was created (see appendix 3). Although the range of product or especially the service examples was limited, the overall table creates a good start for designing a design tool to help designers create products for Consumer Wisdom. Study 1 provided information on how to translate the theory into a design strategy and study 2 produced practical examples of the use of the CW theory. Additionally, study 2 shows handholds for explaining the design directions with concrete examples to designers. By adding real-world examples CW becomes more tangible and manageable to translate the CW theory into a design tool.

TOOL REQUIREMENTS

- *The design tool should have concrete examples of how to apply the theory to design*
- *The design tool should explain the theory behind the 48 design categories and how to use them in design*

4 DESIGN

In this chapter previous gathered information combined with research on existing design tools is used to generate three design tool concepts. The concepts are rated against the requirements and the most promising concept is selected through the use of decision-making methods.
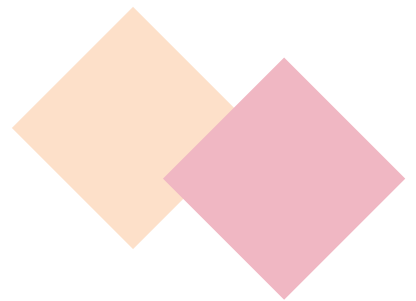
4 DESIGN:
THE CONSUMER WISDOM DESIGN TOOL

In this chapter the information of the two previous studies, Chapter 2 and 3, are combined and used to construct a tool for designers to design for Consumer Wisdom and the well-being for all.

Before the start of the brainstorm the scope of the tool is established. Background information about inspiring existing design tools was gathered and what makes a design tool successful and useful. Next, the requirements were determined in order to guide the ideation process. Then, the ideation was done by the use of brainstorming and HOW-TOs. From the ideation 3 concepts were formed and analysed to create one final design tool.

4.1 SCOPE OF TOOL

The stakeholders of the toolkit are designers in the broadest sense of the word. I want the tool to be functional for professional designers as well as for design students. Next, the tool should be usable for groups even as for individual use. The tool should be useable for designing new products or services, redesign products or services and for defining previously designed concepts. This requirement will help to use the tool in the best way possible for designing for wise consumption. Besides, I will not make a deep dive in what kind of target groups a designer could design for. The theory is already broad and for every project or design directions other target groups could be specified to design for. Within a target group big distinctions can be found and to specify this in my tool is not necessary to make the tool valuable.

4.2 GENERAL LOOK OF DESIGN TOOLS

As stated in previous paragraph, 4.1 scope of tool, the designer is the stakeholder of the tool and their needs should be considered when generating a successful tool. Ozkaramanli, Desmet (2012) and Steen (2016) suggest that a usable and good tool(kit) should have examples, inspiration, explicit descriptions, design topics per dimension and design directions. The tool should mention an emotional connection a consumer could have or create with the product or service. This is not a must, because some dimensions of the Consumer Wisdom theory require the consumer to change their bond with the product or service in a more sharing matter instead of owning. But the designer needs to be aware of the fact that consumer could have or generate a bond with the product or service. Some dimensions require addressing the designers own experience or experiences of the target group to help stimulated producing new products or services. Furthermore, designers need to know the customer's needs, the motive (knowing what to design for), have the freedom of rules and design (have space to design what comes to mind and not to be fixed on certain rules), have the design character and morality in order to come up with products or services (d'Anjou, 2010).

4.3 TRENDS OF PREVIOUS DESIGN TOOLS

When looking into previous design tools trying to help designer create products or service to change the consumer's behaviour or design for emotion or help change the way consumers look at products, some interesting design tools pass by. Card format for a design tool is a well-known used format to create a tool. Casais, et al. (2016) made a design tool called 'Designing for happiness with symbolic meaning', which contains a card set for designers (see figure 20). The tool is very tangible due to that the cards provide the user with much information, but I does not become an overload. The information can be applied through the guidence of the cards. Every step or piece of information is added to encourange the user to think and be inspired. Yoon, Pohlmeyer and Desmet (2013) used a toolkit consisting a card set 'Embodied Typology of Positive Emotions'. 'Kwaliteitenspel' is a card tool from Gerrickens to evaluate people's qualities and how to help each other in a fun and easy going manner. De Andrade Romualdo (2016) combines a card toolkit with a digital one (see figure 21). Adding something digital in my tool intrigues me and is something I want to keep in mind during the brainstorm.

Figure 20 Designing for happiness with symbolic meaning (Casais, et al., 2016)

Figure 21 Team Igniter (De Andrade Romualdo, 2016)

Figure 22 Capability cardset (Sleewijk, 2009)

Sleewijk (2009) made a tool with capability cards to stimulate discussion and selection of capabilities to focus on with a project, which can be seen in figure 22. These cards help the user with examples of every capability and this helps to stimulate the discussion between people. Using examples was required aspect of a tool according to Chapter 4.2 and is something I would try to fit into my design tool.

A fill-in framework to design for sustainability was created by Mazzarella, Mitchell and Escobar-Tello (2017). This tool was interesting, because the designer have to fill in with the help of probing questions. Yoon, Pohlmeyer and Desmet (2016) made a framework called 'Positive Emotional Granularity' for designers to involve different stakeholders within the design process. This framework provide a different look to old and challeging problems. To create something unexpected or ask onorthodox questions, could help the designer be more creative or elevate my tool to be more probing then existing design tools.

4.4 IDEATION
4.4.1 Methods

To start the ideation I used brainstorming and HOW-TOs (Van Boeijen, Daalhuizen, van der Schoor & Zijlstra, 2014), which are well-know design methods for designers and helped to create a wide range of ideas and provided inspiration. Before the start of the ideation I made a list of requirements existing of the requirements found in Chapter 2 and 3 in combination with important factors influencing the design process found in Chapter 4.2 and 4.3. C-Box, PMI are methods I used to analyse and chose the concepts (Van Boeijen, et al., 2014). I have chosen these methods, because the requirements for the tool are broad and these methods provide a handhold to analyse the concepts according to the requirements.

4.4.2 Requirements

Purpose
• The designer should learn about the Consumer Wisdom theory and how to apply it in design
• The 6 dimensions of the CW theory should be explained in a well-defined manner
• The design tool should explain the theory behind the 48 design categorise and how to use them in design

Look
• The design tool should inspire the designer to create according to the consumer wisdom theory
• The design tool should be playful
• All the information provided need to be compact and easy to understand
• The design tool should be cohesive

Content
• All the information provided to the designer should be clear without the need for searching extra information
• The design tool should have concrete examples of how to apply these to design
• The design tool should have a clear structure the designers could follow while using the tool
• The use of the design tool should be easy to understand and implementable

Process
• The design tool should be usable during the design process and elevate or help the process
• The design tool should be in a form that it can be at hand everywhere
• The design tool should be usable without facilitation
The design tool should anticipate on every design situation
• The design tool should be flexible within the design process, so the designer can use it whenever and however they need it
• The design tool should fit in to the design process of the designer

The tool in general
• Within the design tool there should be a link between the design directions and categories
• There should be a clear division of the design dimensions, directions, categories and purpose

4.4.2 Brainstorm about the shape of tool

After getting inspired by previous design tools and establishing the requirements, I started brainstorming on the format of my design tool. With the brainstorm I looked for a preferable format to iterate on, which format showed to most potential of meeting my requirements and which formats designers already know. I explicit looked at the look of the tool, how Consumer Wisdom could be implemented into the idea and how the tool could stay playful.

Information cards
Cards with information about users, needs, aim and dimensions. By using the cards the designer would understand the user, the needs for consumer wisdom, why and how to use the dimensions.

(Informative) Website / app
The website or app would cover a lot of information about the Consumer Wisdom in it and with this type of tool the designer can choose what (s)he want to use.

Role-play
UX-design approach. With participants playing a consumer, designer and company information can be gathered about what kind of products or services would be a success to help consumer become wiser and working on their well-being.

"Tinder" app
This would be a way of using the information of the Consumer Wisdom theory in a fun and playful way for the designer. By answering Yes / No questions the app would provide the designer with the right design direction they can use for their design aim.

Poster
The poser has a path or method on it to help the designer according to the dimension. The poster would consider what kind of consumer the designer has in mind, which dimension the designer is using and how to integrate the dimension into their design process.

Dice approach
Every side of the dice has a dimension on it with informative cards to help explain the theory and provided design directions. By using a dice form the design process would become more playful and the designer can see that the Consumer Wisdom theory exists of 6 dimensions quickly.

Board game
Cards version only more playful

4.4.3 HOW-TOs

For different types of product looks I wanted to brainstorm about putting in something about wisdom in the layout or look of the toolkit. I used the design method 'HOW-TO' to search for types of wisdom (Van Boeijen, Daalhuizen, van der Schoor & Zijlstra, 2014). The question I made was 'How to implement wisdom into the toolkit?'. I could add wisdom to the tool by using a wise animal (fox, wolf, owl, snake), nature elements (lotus flower, tree), by adding a nerdy person or adding a light bulb (maybe with a brain in it).

Furthermore I explored the question; 'How to provide all the information of the CW theory to the designer?'. This could be done through a list with all the information, by providing examples with the information, providing tips to help the designer understand everything, by a voice reading the information, flip cards, a game format with 'winning' the information or by putting the information in a book form.

An other question I explored was; 'How to link the dimensions to the different types of design directions or categories?'. I thought of creating a colour resonance between a dimension, design direction and categories, using symbols/emoticons/wisdom symbols to link the same dimension, create a booklet with all the directions and categories, the form the concept is presented in or by fixing them together. Results of this section can be found in figure 23 and in appendix 4.

4.4.4 Brainstorming

After ideating on the shape of the tool in combination with the HOW-TOs brainstorm and considering the benefits found on existing design tools, I tried to come up with 3 different concepts of a Consumer Wisdom design tool. I wanted the concepts to vary from each other to help come up with the best fitting version of a tool for my final design. Designers are familiar with a lot of different types of design tools (see Chapter 4.2 and 4.3), which helps producing 3 varying concepts.

The concepts are shown with all the necessary details to understand the use and thoughts behind the creation. I did this to focus more on implementing the established requirements and creating a better tool after choosing the best concept. Furthermore, I wanted to choose the best concept and test it with designers as soon as possible to improve the tool.

Figure 23 Brainstorm session results

Figure 24 Informative website concept

4.5 CONCEPT 1: INFORMATIVE WEBSITE

With this concept I wanted to give the designer the option to have the tool by hand everywhere. The Consumer Wisdom theory consists of a lot of information and to put this together in a website, makes it more convenient to use. I saw also a lot of potential in this concept, because this form could consist a lot of information without becoming too complicated or unrecognisable. I choose to keep the colour scheme to a minimum, so the focus really lays on the choices the designer can make and the design directions (see figure 24). The designer gets the option to be guided by choices to make within the design process, but this optional. If they do not want to make a choice all the direction will be shown and the information provided will stay the same.

4.5.1 Details of concept

The usage of the website is divided into 4 sections where the designer could make decisions during the design process and to use the tool. These sections are to help guide the designer with choosing the right or most promising design direction for what they want to design. This is all optional to help the designer, but all the information can also be viewed without making a choice. The categories belonging to the same dimension are linked through the use of colour. Every dimension has its colour and all the categories fitting this dimension have the same colour as the dimensions. I did this to help the designer recognize the different categories linked to each dimension.

Figure 25 Design purpose in concept

Design purpose

With this section the designer can chose what the purpose of the design should be; a new product, a redesign, a change of context or market, a change of target group or a change of marketing. This helps the designer to show what to focus on at the start of the design process and what to think of when designing for their purpose. This choice was made, because the design process changes with every type of design purpose. Specific tips and tricks can be provided to the designer to use the CW theory to their preference with different types of purposes (see figure 25).

Figure 26 Level of well-being in concept

The level of well-being

Here the designer can make the distinction between designing for the individual and/or the collective well-being. The transcendence dimension falls under the collective well-being. This dimension is the only one with real focus on designing for the collective well-being without gaining something for the user themselves. Lifestyle responsibility is the one dimension with the real focus on individual well-being. The other four dimensions are focussed on individual well-being, but have a link with caring for others or the environment. I provide this option to help guide the designer with the CW theory and how to design for a specific level of well-being (see figure 26).

Figure 27 The design aim in concept

The design aim

Within this section the designer can chose between 10 design aims. Every aim is connected to one design direction. This

option offers more specific advice on the most promising design direction to use in their design project.

Lifestyle; user-centred design, responsibility design and mindful interaction design. Happiness; positive design, happiness design and design for emotion. Growth; experience design, product experience design and social design. Alternative consumption; alternative consumption design, end-of-life design, sharing economy and design for aging gracefully. Recognizable products; retrospective, prototypicality and simplicity. Unknown or future products; prospective and prototypicality. Objective value; symbolic incongruences, novelty and transparency. Subjective value; value design and product value design. Compassion; design for socially responsible behaviour. Interbeing consists of design for sustainability, design for circular economy and emotional durable design. This section can make a real difference in which type of design direction the designers could use. The separation was made to make the tool more feasible when a designer wants to design in a certain direction or with a certain aim (see figure 27).

My target group is...

☐ Students (18-30)
☐ Young Professionals (25-45)
☐ Millennials (20-40)
☐ Family
☐ Single mom or dad
☐ Working class (35-65)
☐ Retirees (65+)
☐ Elderly (75+)

Figure 28 The design aim in concept

The target group
An important part of designing is to know who to design for. The designer can implement who to design for by clicking one of the boxes on the website. The designer can chose between students, young professionals, millennials, family, single mom/dad, working class, retirees and elderly. These separations are made due to the fact that every target group has other wants and needs, and therefore needs to be taken into account. These target groups are a bit general, but only have to provide a starting point or inspirational purpose while the use of the CW theory. Tips and tricks to design for the specific target group are provided after the choice is made.

4.5.2 Results
When the designer has put in his or her preferences the website will provide the design directions with the most potential or most fitting their needs. Although a designer could only use one of the sections to help guide him or her, the website will still provide enough information to help with their design process. The aim of the concept is to show all the information of the Consumer Wisdom theory in an efficient and functional manner. Even if the designer sees all the design directions he or she can still find the one best fitting their needs. The designer can also search for a direction by typing in a name or keyword. When the designer clicks on the direction, a new screen will show him all the information about this direction and what kind of possible design categories he or she could use. The design categories are featured with design examples to help inform the designer about the use or implementation. Every design direction has his own colour to help the designer see which design category belongs to which direction.

The tool is playful and full of precious information. The format creates the opportunity to open and use the tool everywhere. Next, the tool can store a lot of information in a convenient and cohesive manner.

4.6 CONCEPT 2: A CARD GAME

I created this concept with the intention to provide the designer with a physical tool to design with. As seen in Chapter 4.3, a card tool is a frequently used format for a design tool, which I saw as a potential of creating my own card tool for the Consumer Wisdom theory. A card tool provides the option to play with different card sizes, use of colour, using both sides of the card for information and the flexibility of usage of the tool.

Figure 29 The design card tool; top left is a dimension card, right next to it is the back of the card, on the middle left is a design category card and underneath it is the back of the card presented, the middle right one is the design purpose card and the right bottom is the back of this card.

4.6.1 Details of concept

This concept exists of 1 informative card, 6 dimension cards, 48 design category cards and 5 design purpose cards. The informative card explains the Consumer Wisdom theory. The 6 dimension cards explain the different The category cards explain the design categories and show the two best examples, out of the table of appendix 3, per category. Furthermore, the design purpose cards help to decide what to design for or help the designer in their design process. With this concept I chose to add the lotus flower to connect the theory with the dimensions and to show the connection to wisdom in the tool. Every dimension has its own colour and the design categories are linked to the relevant dimension by different shades of the main colour. The designer can recognise which categories can be used for which dimension this way. The examples are placed on the back of the category cards with some tips to think about while designing products or services with this direction. By picking one card from the design categories and one card from the design purposes, the card tool can help design new and interesting products and services with the Consumer Wisdom theory focussing on well-being for all (see figure 29).

The dimension cards are 10 by 14 centimetres and have a portrait layout. The design direction and purpose cards are 5 by 7 centimetres and have a landscape layout.

The shape of the cards is rectangular to look professional and to help identify the tool as a card set. You can see the cards on the left page in figure 29.

4.6.2 Results

With this concept the designer could quickly read all the information about the theory and which design directions to chose from. The tool is easily to use during the design process and information can be put on both sides of the cards. The card tool does not necessarily push the designer in a direction, but by randomly choosing a design direction the designer could come up with new ideas or ideas never thought of. The aim of the tool is to provide the designer with information about the Consumer Wisdom theory and how to use it in a design process. The tool is playful and easy to use. The format creates the opportunity to take and use the tool everywhere. The tool inspires by giving examples with the categories and using bright colours.

4.7 CONCEPT 3: 'TINDER' APP

To make a playful and easy to use app with all the information of the Consumer Wisdom theory and design directions, concept 3 'Tinder' app was engendered. With this app I want the designer to easily make decisions about their design process and think about what they want to design for. I chose to use a phone format, because nowadays everyone has a smartphone and the information is at hand everywhere. By making an App the tool would become portable and easy to use everywhere.
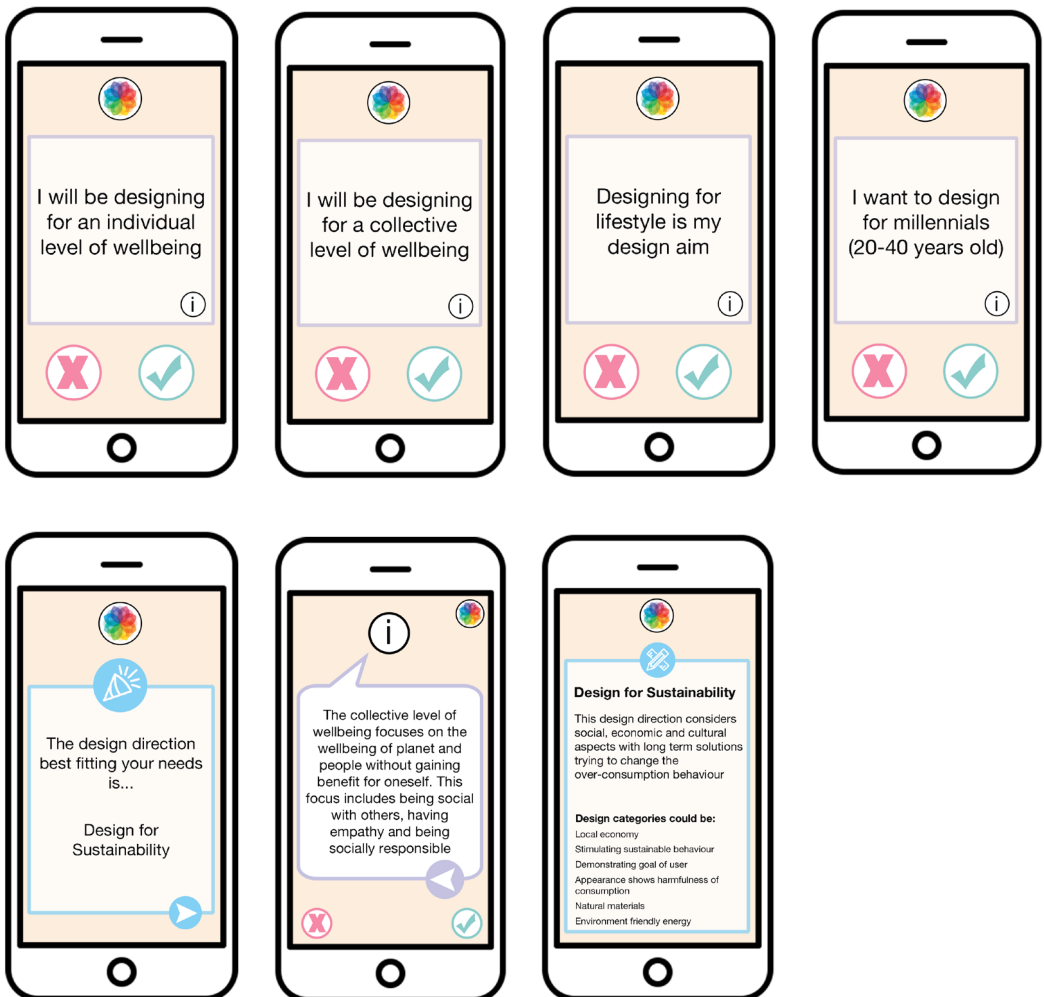
Figure 30 Different types of options of the 'Tinder' app concept

4.7.1 Details of concept

This concept is based on an app where the user can answer easy Yes or No questions concerning the design directions of the Consumer Wisdom theory. By answering the questions the designer will reach a design direction acquiring their needs and preferences. The questions are based upon the design purpose, the level of well-being, the design aim and the target group. I tried to make the CW information lighter and more manageable through the use of gamification. By asking Yes or No questions the designer is triggered to think about all the aspects involved in the design strategy. The designer will not recognize that all the statements are linked to certain directions, but could help trigger creativeness during the brainstorm session. The statements are short and sweet, so they cannot be interpreted in the wrong way. The statements are based upon the separation of section in the website concept. There are 25 statements to rate, divided into 4 sections. The 4 sections of the statements are about the design purpose, the level of well-being, the design aim and the target group. Purpose has 5 choices, the well-being level has 2 choices, the design aim has 10 choices and the target group has 8 choices to choose from. If an statement is answered with Yes, the other statements within the sections expire and the user will go to the statements of the next section.

4.7.2 Results

The concept provides the designer with the best design direction or the one with the most potential according to their needs and preferences. The designer has to answer all the questions of the statements before a direction is provided, this to sketch the best possible outcome. This concept really focuses on playfulness and making choices unconsciously. The tool is always close due to the phone format. It is easy to use and helps to find the right design direction in a convenient way.

4.8 CHOOSING THE BEST CONCEPT

For the decision on which concept is the best one I used the PMI and the C-Box method. The 'Plus-Minus-Interesting' method helps to formulate the pluses and minuses of every concept to determine which concept is the most interesting and where a concept could be iterated into a more interesting and usable tool. Even some minuses can be changed into pluses or concepts could be combined to make an overall better final design. I put my analysis in table 5. In the analysis the important requirements were: a cohesive tool, provided information is compact, the tool inspires, the format is understandable and easy to use.
According to this method the card tool comes out the most promising. It has some negative features, but these could be iterated into positive ones or adjusted into a more positive note. An explanatory text could help the usages of the tool and if it is necessary a digital part could be added to the tool. This version of the tool needs to be tested first in order to see if a digital part is necessary or usable.

Concept	Positive features	Negative features
(Informative) website	- A lot of information clustered in one tool - Always at hand - Designer can make choices themselves - Well-known format	- Some decisions may not be clear - Nobody to help or guide the designer - Digital tool - Not inspiring - A very static tool
Cards	- Information separated in understandable portions - Physical tool - A lot of information in a compact form - Playful - Inspiring - Understandable format	- A facilitator could be helpful when using the cards - There are a lot of design categories - No digital part - A lot of cards as a tool
'Tinder' app	- Playful format - An innovative tool - Easy to understand - Easy to use - A cohesive tool - Always at hand	- Takes a long time to get to the design directions - The design directions can not be viewed in between the process - A very linear process - Tied to a phone - No previous knowledge about the questions

Table 5 The Positive and Negative features of the three concepts

AC-Box matrices

A C-Box is a matrix helping categorize and evaluate my concepts.

The concepts are mapped based on their innovativeness and feasibility. Figure 31 shows the matrixes with the outcomes of using the C-box method.

Figure 31 shows that the 'Tinder' App concept is the most innovative and feasible, but looking at figure 32 the 'Tinder' App is very exciting although the design process is very linear.

The Website concept is not really innovative or new, but not really hard to use. Although, the website is not really exciting and a linear process. The Cards concept shows the most potential according to figure 32, because the design process is dynamic and the use of the cards is exciting. Although the concept of a card tool is not really new and could be found hard to use, this concept shows the most potential.

Designers like a dynamic design process and the card format is used multiple times for design tools.
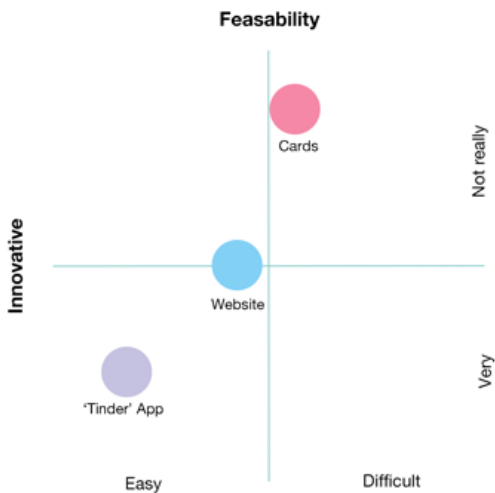
Figure 31 AC-Box matrix with the feasability and innovative variables
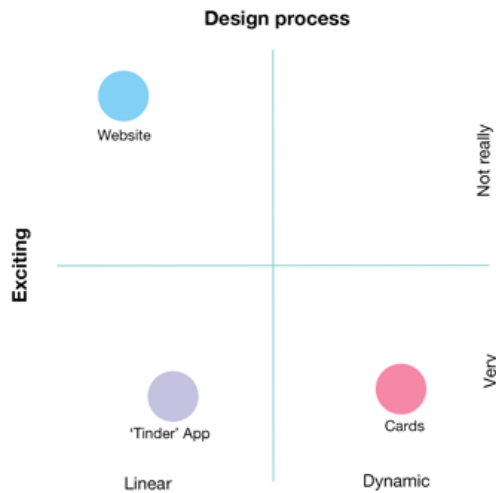
Figure 32 AC-Box matrix with the design process and exciting variables

4.9 CHAPTER CONCLUSION

When combining the outcomes of both decision methods the card concept shows the most potential of becoming an enjoyable and usable tool for designers. Although there are some negative sides to the concept, these can be iterated into positive ones or adjust into more positive ones. When looking at the trends of previous design tools the card format is popular and the designers use and understand them. This would help designers recognize my concept and understand how to use it for their design process. The concept shows potential to integrate all the information of the Consumer Wisdom theory even as the examples gathered out of the categorisation task and create a practical tool. Furthermore, the tool uses a wisdom symbol and guides the designers by connection the dimensions with the design directions through the use of a colour scheme. The tool is dynamic, portable and inspiring. The overall look and feel of the tool is cohesive and relatable for designers. For the evaluation with designers, I will use this concept to test the usability of Consumer Wisdom.

Figure 33 The iterations made on the Consumer Wisdom design tool

4.10 ITERATIONS

Before testing the tool, iteration on the concept was necessary to make it more usable and presentable. The product and service examples on the cards were a bit to small to read everything about them, so they needed to be bigger and more present on the cards. The examples really help the designer to understand and use the design category. The card size of the design category cards was change into the same size as the dimension cards, 10 by 14 centimetres. I also made the different types of categories different shades of the dimension card colour. This way the designer recognizes the consistency within the cards. Besides, the layout of the categorisation and purpose cards was changed from landscape to portrait. I made this choice to have more space for the examples and create more consistency between the dimension and category cards. The colour of the cards changed into pastels, because the colours of the previous version were too loud. This change caused the change of lotus pictures as well. The picture used now has softer, pastel colours as well and fits more with the colour scheme of the cards right now. The layout of the cards also changed into more professional looking card tool. Previously the cards were nothing special and I wanted them to inspire the designer more. Lastly, the design purpose cards changed from 5 to 3 cards. The focus now is on new design, redesign and concept development. This remark came from professor Michael Luchs, because the theory mainly focuses on these three topics and could really help when used in these circumstances. Some of the interations made in the concept can be found in figure 33 and in appendix 8.

5 EVALUATION

To see if the Consumer Wisdom design tool is usable for designers, I will evaluate the tool in this chapter. The evaluation will be done through testing the tool with design students and ask them feedback about the usage.
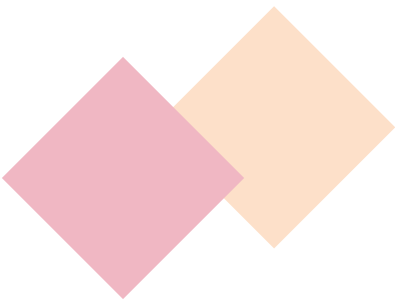
5 EVALUATION

In the previous chapter I designed a card tool for designers to understand and use the Consumer Wisdom theory into practice. After iterating on the first version, it is ready to be tested by designers within a brainstorm session. To validate if all the requirements made in Chapter 4.4.2 are met and to answer the following questions about the design tool:

How might existing design practices be integrated into a cohesive tool?
Is the tool usable and practical for designers?
Does the design tool inspire designers to create something new?
Does the design tool explain the Consumer Wisdom theory in a way designer can use it for their design process?

The validation was done with TU Delft Master design students. The purpose was to let them test the design tool during a brainstorm session, with me as facilitator. I will provide them the CW design tool and papers like during a normal design brainstorm session.

5.1 METHOD

To validate if the Consumer Wisdom design tool works for designers and meets all the established requirements, it was tested with 6 TU Delft IDE Master design students; 3 Design For Interaction and 3 Integrated Product Design students. The test was done in pairs of two, to stimulate and inspire each other within the design process, the test set up can be seen in figure 34. They started with a small exercise to empty their minds and think about design in wisdom through answering a questionnaire ranking the iFixit product from 1 till 5 on consumer wisdom topics (see appendix 9).

In the next part the participants got the CW design tool. They were asked to read the information card about the CW theory and all the dimensions. Then they needed to choose a dimension and a category to design a new product or service with. The choice to design a new product or service was made due to the fact that the designers were not yet working on concepts or products in a design process. I wanted to test if the tool could be used from scratch within the design process. Then they used the tool in a brainstorm session by creating ideas with the chosen design category. After the test I asked them questions about the use and feasibility of the tool. The questions were: ' Was all the information clear?', 'Did you have enough information to use the tool to design?', 'Would you have liked more information or inspiration?', 'Would you like to change anything to the tool to make it better?'. The outcomes were recorded through photos and voice recordings.

Participants

Activity

Duration
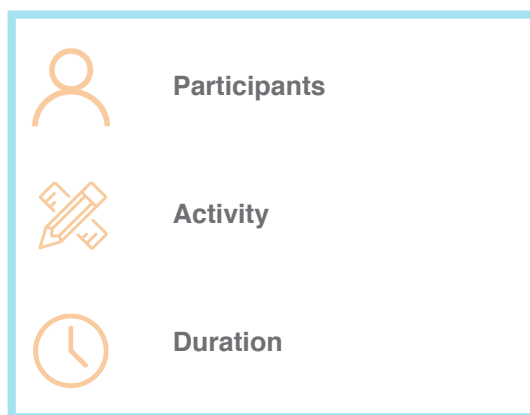
Figure 34 Test set up

5.2 RESULTS

I wanted to test the tool on its usability during a brainstorm session for designing a new product or service and see if all the requirements made in Chapter 4.4.2 are met. I evaluated the test results according to the way the requirements are addressed and the results are:

Purpose: The Consumer Wisdom theory was clear for all the participants and what can be done with the tool. The information on all the cards was clear and understandable.

Look: The information was found clear, compact and easy to understand. The design tool was inspiring enough to be used during a brainstorm session.

Content: The instructions for the task were clear for the participants, although sometimes they needed some help to start up due to the fact that I was the facilitator and they did not have a manual on how to use the tool. For my final design I already planned to include a manual in my design tool. The examples on the cards helped the designers with understanding the design directions or categories. Now the examples were big enough to read and understand.

Process: The design tool easily fitted the design process of the designers and they adapted it to their preferences well. The tool was flexible enough to come up with some new and surprising solutions.

The tool in general: The division between all the cards was clear according the participants.

2 students

1 brainstorm session

45 - 60 minutes

Figure 35 Testing the tool with designers

5.3 IMPROVEMENTS

I evaluated the improvements also according to the method used to address the requirements and these results are:

Look: The cohesiveness of the design tool felt a bit off according to one participant, according to him the colours could be more integrated to create a more cohesive tool and see which dimension corresponds with the categories.

Content: The designers would like more examples or information with the harder design direction. Retrospection was hard for 2 of the 3 couples to design with.

"For the harder kinds of directions I would like something more to help me really understand and in order to be able to use it."

The text of the 'think about' could be changed into steps or smaller tips to help the designer. For instance there could be more focus on people's own behaviour and how to change that. Forced fit could be a method for using the tool when someone already has some sort of idea or thought.

"Maybe put some more examples or 'how could you' questions on the categorisation cards to encourage designers to use the strategy more."

Process: The designers felt the need for a topic, context or boundary to focus on for the first time use of the design tool. Without a project the context missed, so for practising the use the tool some context will help with the brainstorm. Some product categories could help designers to think in a certain direction. For the first use of the tool or the help designers understand the tool, cards with products or product categories could be added to the deck. Someone thought that probing questions could help with a creative exercise or to become more creative with the tool.
For inspiration the participants also would like more examples of products and examples. A digital tool on the side with more examples could help inspire the designer, but they did not feel the need to have more examples in the tool. But more examples should be available somewhere in cause it is needed.

The tool in general: The link between the design directions and categories could be stronger through the use of colour on the front side of the dimension cards. Some participants felt the need of more cohesiveness in the tool to understand the (desired) flow better.

5.4 CHAPTER CONCLUSION

To conclude the findings of this chapter, the overall purpose of the tool was communicated well according to the participants and Consumer Wisdom was understood properly. The cards mostly satisfied the designers needs and helped them along the way during their design process. The changes needed for the cards are more cohesiveness between the cards, a better segregation between the dimension and category cards, the text on the back side of category cards needs changes, some topic changes on the purpose cards and adding an informative booklet about the tool.

6 FINAL DESIGN

The final design is a Consumer Wisdom card set toolkit to help designers use the Consumer Wisdom theory into practice.
The tool, the content and the use will be presented in this chapter.
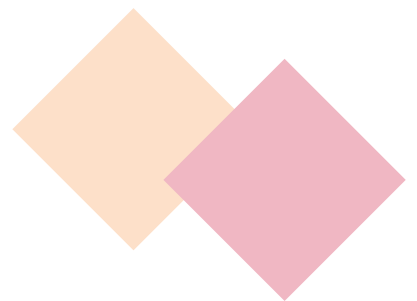
6 FINAL DESIGN

In the previous chapter, 5, I evaluated the design tool and improvements were offered. In this chapter I will present the final design of the tool, what the tool consist of and how designers can use it.

The Consumer Wisdom tool helps designers use the Consumer Wisdom theory into practice and is the final representation of my research question:

How can the Consumer Wisdom theory be used to integrate existing design theories that address well-being?

The tool consists of 1 instruction manual, 1 card with information about Consumer Wisdom, 6 dimension cards, 48 design category cards and 3 design purpose cards.

6.1 THE CONSUMER WISDOM TOOL

This Consumer Wisdom design tool is an iteration on the design tool evaluated by designers. Through the use of colours on the front side of the dimension cards I wanted to create more cohesiveness between the design directions and their linked categories. I changed the height of the design category cards to imply more diversity between the different levels of cards. The 6 dimension cards and the information cards are now a bit bigger which shows a higher level of importance compared to the category and the even smaller purpose cards.

Furthermore, I changed the text on the back of the category cards. In the previous version of the tool the sentences were a bit long and hard to understand. Now the sentences are real tips and tricks, which help the designer to understand the categories and to create products or services with the category.

I also made some changes to the instruction manual. Designers did not test this part of the tool yet, because I provided them the necessary information of the manual to facilitate the test. Providing steps to follow is a necessary element of the manual even as the information about the different cards and their use.

THE CONSUMER WISDOM TOOL

The cards:

The set up
- When using the tool you need designers or yourself

- The card set

- Something to document your brainstorm session on

The information card is just to provide information about the Consumer Wisdom design theory.

The cards
The tool consists of 1 information card, 6 dimension cards, 48 design category cards and 3 design purpose cards.

The 6 dimension cards will provide information about the different design dimension there are within the theory on the front side. On the back you can read more about the different design direction within every dimension.

The usage
The tool can be used in a group or individually. Take the time, there is no time limit or goal. Use the tool as long as necessary due to your preferences. You can stand or sit while using the tool. Make it yourself comfortable and in a designing surrounding.

The 48 design direction cards provide information about proposed the design categories within the design direction. On the you can find tips on how to design for a certain direction.

3 Design purpose cards provide information about what kind of aims you can use with the theory.

How to use the cards:

0

When using the tool for the first time, it is essential to read the information card and the dimension cards first. Read the cards carefully and try to put the information at the back of your head. If you are very curious you could take a look through the design category cards as well.

1

Lay out all the 48 design category and the design purpose cards in front of you. Choose one design category cards and one of the design purpose cards. Read the cards.

2

Try to combine the design category and the purpose together to create a product or service in a brainstorm session to design for Consumer Wisdom and well-being for all. If the cards really do not combine, choose a new design category or purpose. Do not do this when ideas do not come directly to mind. First try and only change when they really do not combine.

3

When brainstorming nothing is wrong, even far fetched ideas are good ones. Do not overthink it and just design.Try to design according to the category, the tips and tricks could help you and the examples will show you what direction to think of.

4

When you have a preference to design for a certain dimension or if you already know which dimension to design for choose one of the colour related design strategies. The dimension cards could also help understand the design direction better. The same applies for the design purpose cards. If you know what you want, choose it.

5

When designing together with your colleague(s) try to inspire, help each other and ask each other questions when you are stuck in the process.

This is just an example of how you can use the card set. The use is not set in stone, so change it up if you like. The cards are here to inspire and help you out. Enjoy the process and create something for the well-being of all!

The instruction manual
The booklet provides the designer information about the purpose, the cards and use of the tool. This manual was added to help the designers on their way with the tool and to exclude the need for a facilitator. The tool can be used whenever and wherever.

CONSUMER WISDOM

The information card
This card provides a brief explanation about Consumer Wisdom on the back and a helping hand during the design session, because the designer can keep the card at hand during the brainstorm session. It also signifies the first cards of the deck and a link between the design directions and the theory.

CONSUMER WISDOM

Consumer wisdom is defined as the pursuit of well-being for oneself and for others through mindful management of consumption-related choices and behaviours. Consumer wisdom offers a positive alternative whose objective is to simultaneously promote the well-being of the individual, society, and the natural environment. The Consumer Wisdom theory is composed of 6 facets; Lifestyle Responsibility, Purpose, Flexibility, Perspective, Prudent Reasoning, and Transcendence (Luchs & Mick, 2018).

TRANSCENDENCE

The Transcendence facet is about compassion (e.g., caring for general welfare, local businesses) and interbeing (e.g., relations with others, nature). Transcendence is about the empathy a consumer has for people and planet, including being social with others and gaining no benefit for oneself.

The dimension cards
The dimensions cards present the 6 dimension that are found within Consumer Wisdom:
Lifestyle responsibility
Purpose
Flexibility
Perspective
Prudent reasoning
Transcendence

The front side of the cards have a short explanation of the dimensions and every dimension has its own colour (see figure on the top right side). On the back the design strategies fitting within the dimensions are presented with clarifying descriptions (see figure on the bottom right). The figures on the right represent one of the 6 dimension cards, the others can be found in appendix 10.

TRANSCENDENCE

Proposed design directions:

Design for sustainability
Considering social, economic and cultural aspects with long term solutions trying to change the over-consumption behaviour

Design for circular economy
An alternative to the usual linear model to use materials for as long as possible and recycling where possible

Design for socially responsible behaviour
The relation between social implications, behaviour and human-product interaction is important when designing for a social responsible behaviour

Emotional durable design
The target is to reduce the consumption and waste of resources by increasing the resilience of relationships between consumer and product

Design category cards

The design category cards present the 48 categories within the design strategies. Every design category has its own card, so the designer could really focus on a certain design strategy or help to inspire the designer to think within a certain direction of the strategy.

To illustrate what type of card this is, the card has a title of its dimension and the design strategy on it. The focus is on the design strategy and this is made clear through its coloured line. Underneath, there is a title of the category and a brief explanation about the category.

On the back there are some tips and tricks in the form of 'how can you' questions the designer could use. Furthermore, the category is highlighted through 2 examples best fitting the category and helping the designer to think in a certain direction.

These cards are a little bit shorter in size then the dimension cards, 10 by 12 centimetres, this to help segregate the cards. The cards portrayed on the left is one of the 48 categories. The top figure is the front of the card and the bottom figure is the back of the card. In appendix 10 the other 47 cards can be found.

Think about:

How can you use the chosen design direction to design a new product or service?

How can the new design provide consumer wisdom and create well-being for the user or it's surrounding?

Design purpose cards

The design purpose cards show the 3 purposes the tool can be used for. The designer can always use the tool whenever they want, this could help to think towards a certain direction.
The 3 offered purposes are:
New product or service design
Redesign of existing product or service
Concept development

On the front the purpose is presented (see left figure).

On the back the purpose is specified through the use of probing 'how can you' questions (right figure).
These questions are offered to make the designer think harder about designing for this purpose or make them aware of the end result –designing for well-being, and how to implement this within their design.

The colour of these cards is natural, to show that they are separate from the dimension and category cards. Furthermore, the size of these cards is smaller then the other cards. This is done to show the significance of the cards, because the tool could be used without these cards. These cards are to help the designer, when the tool is being used without a certain purpose or for thinking about something else within a certain purpose.

7 CONCLUSION

This chapter looks back on my project and my final design of the Consumer Wisdom design tool.
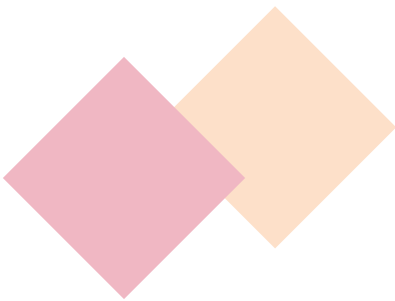
7 CONCLUSION

In chapter 6 I presented my Consumer Wisdom design tool as the end result of my project. The purpose of my project was to create a tool for designers to use and understand Consumer Wisdom. This would be done through the use of existing design theories, strategies and practices concerning Consumer Wisdom or have well-being for people and planet as goal.

My main research question was:
How can the Consumer Wisdom theory be used to integrate existing design theories that address well-being?

The 3 sub questions derived from the main question were:
• *Which existing design theories/guidelines, practices relate to consumer wisdom?*
• *How can existing design practices be clustered into the 6 dimensions?*
• *How might they be integrated into a cohesive tool?*

7.1 THE PROJECT CONCLUSION

The basis of the design tool was conducted through literature and field research. Through a literature research existing design direction with links to the CW dimensions were found and with the help of my supervisory team design categories were formed within the existing design direction. The literature research helped to answer the research question; *'Which existing design theories/guidelines, practices relate to consumer wisdom?'* From the field research session insight were gathered on how to cluster all found information into the 6 CW dimensions and what kind of information to put in the design tool. This step answered the question; *'How can existing design practices be clustered into the 6 dimensions?'*

Development of the tool
With these insights and the insights on what designers want and need in a design tool, I generated three concepts of a design tool. With each concept I wanted to provide different options on a cohesive tool. The concepts were rated with different methods and one concept came out the best. The first iteration of the tool was made after the selection of the best concept. This version of the tool was tested with designers.
This evaluation caused a second iteration of the design tool. During the evaluation with designers some recommendations came up to generate more cohesiveness in the tool. With these recommendations the tool also became more feasible.

The design tool
The design tool fulfils the need of combining existing design theories, strategies and practices concerning Consumer Wisdom within one tool and providing this information in a compact and structured way. The tool

helps designers understand the theory and provides feedback on how to use the theory in to practice.

Consumer Wisdom
At the start of my project the aim was to help designer change the consumers' behaviour towards a more sustainable one. This evolved into helping designer create products for the well-being of people and planet through using the CW theory into practice. With my tool I wanted to provide basic knowledge on the Consumer Wisdom and how to implement this into a design process. The Consumer Wisdom theory stayed the same, but was broadened to fit designing. The focus of the theory shifted from consumers towards designers and how they adopt it into their process.

To conclude, this project produced a Consumer Wisdom design tool and how to use this in a design process. However, more iteration on the tool could be done to really help the designer understand and use the theory into practice, which I will explain in the next chapter.

8 RECOMMENDATIONS

This chapter will show which improvements could be made to my Consumer Wisdom design tool or what could be done in future reseach.
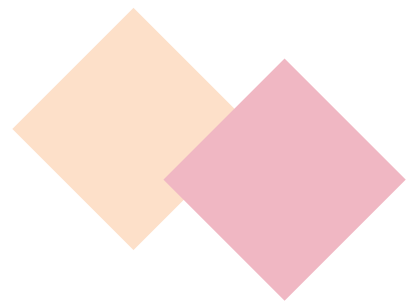
8 RECOMMENDATIONS

As I mentioned in the previous chapter, more iteration on my Consumer Wisdom design tool could be made. I believe a design tool is never finished, due to the fact that behaviour and needs change over time. Furthermore, some recommendations could be done due to the time limit of my project.

I will recommend on the biggest topics within my project:
The Consumer Wisdom tool
Validation of the tool
Consumer Wisdom
The categorisation

8.1 THE CONSUMER WISDOM TOOL

Some changes could be made in the tool to give it a more professional look and make it more universal to use.

The cards
The cards could be made more playful, less static or could possess more lively illustrations. Right now the cards only have practical examples as illustrations. The overall look of the tool is straight forward, with not a lot of playfulness. The cards could be illustrated more.

Furthermore, the shape of the cards is rectangular and I did not try any other form. Although none of the designers found anything wrong about the shape, this could be something to make the tool stand out more in comparison to other design tools.

Moreover, the information on the cards could be split up into more cards. All the cards contain a lot of information at the moment and could be split to have more types of cards. I made the cards in the tool compact and not an overload on cards and information. It could be tested if spreading the information of the cards would help the creative process or that the cards are perfect the way they are.

The tool could be presented in a nice way like in a box, folder or bag to help sell it.

Some recommendations from the evaluation by the designers are not processed yet in the tool like; the card set could be expended with a context or boundary, products and product categories. These elements could help the designer with getting to know the tool or its use and help to be more creative. Cards with probing questions could also help the designer be more creative or think deeper about the design.

Finally, a digital element could be linked to the tool, to be used online as well, provide more information about the theory or show more product and service examples. The digital element could help store more information then fitting the card tool.

8.2 VALIDATION OF THE TOOL

The focus of my project was on integrating existing design theories addressing well-being in the Consumer Wisdom theory and creating a cohesive tool out of it. After an iteration of the Consumer Wisdom design tool, it was tested with 6 design students of the TU Delft. To validate the tools feasibility, practicality, usability and likeability, the tool should be tested more thorough. I would recommend testing the design tool further with more participants and in different environments, both professional and educational. The tool is tested with a limited amount of students and not with design professionals; these could be the next steps of validating the design tool.

8.3 CONSUMER WISDOM

The goal of my project was to explain and address Consumer Wisdom with my design tool. With my tool Consumer Wisdom is explain through and by existing design theories. Although I still doubt if the theory is explained enough and if the designer understands that every theory fits within Consumer Wisdom. Furthermore, this tool is a stepping-stone towards using CW in practice. There could be more design theories fitting the CW, which not have

been mentioned by me. I made a selection of the most promising theories and could have easily skipped an important one. Furthermore, every design direction has its own strategy and goal, due to time limitations I did not deep dive into all the strategies or goals for my project. I gave a brief overview about the design direction and how it could be used. For further research a deep dive into all the design direction could help improve the explanation and categorisation cards.

8.4 THE CATEGORISATION

The categorisation was done with my supervisory team and me. We did the categorisation according to our understanding of the Consumer Wisdom theory and with the examples found in my literature research. Although the results provide a good overview of the design categories that can be found within the design directions found in the literature research, these are just suggestions. For further research the categorisation could be done with more services added to the examples. In our categorisation service examples were limited and this could help explaining some design directions further. The range of examples were broad and the categorisation took a long time due to the big amount of examples. Less examples could help speed up the process, but the example range should not be limiting the task or make it difficult.

8.5 SPREADING THE TOOL

When the improvements have been processed, we should think about how and where to spread the tool. Right now the focus of this thesis is on creating something meaningful out of the Consumer Wisdom for designers. These designers need to be reached, so the tool can be used according to its purpose. The tool is created for design students even as for design professionals and both groups should be reached when spreading the tool. With students it can be done through providing the tool via their study materials. Design professionals could get to know the tool through conferences or selling the tool in shops with design materials or online.

9 DISCUSSION

In this chapter I will discuss the outcome of my thesis and all the activities that came with it.

9 DISCUSSION
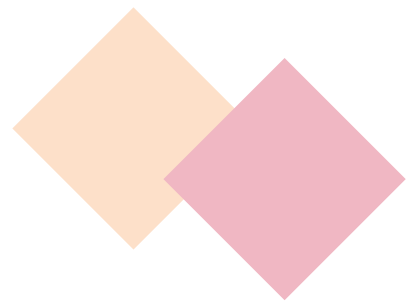
Consumer Wisdom
There are different types of design strategies and theories existing focussing on the well-being for people and planet. Some of these strategies, practices or theories were overlapping, others differ but have the same goal and others address the topic but are not focussed on it. With my project I wanted to create a tool that gathers all the design strategies, practices and theories concerning consumer wisdom and creating well-being and put them together in one informative tool.
This evolved into helping designer create products for the well-being of people and planet. Although this sounds ambitious or even like a big topic, the literature research gave a good structure on defining Consumer Wisdom for design. The established design directions and strategies give a respectable basis on how to change the Consumer Wisdom theory into a design strategy.

Categorisation
The categorisation was conducted with my supervisory team and me. This is a small amount of participants, but the results gathered were wide-ranging and elaborate. I believe this developed in extensive explanations for all the design directions and categories of the Consumer Wisdom dimensions. Although during the categorisation it became clear that translating the Consumer Wisdom theory into a design strategy was a bit more challenging, but I believe at the end of my project the translation of the Consumer Wisdom in a design strategy succeeded. The explanation of the Consumer Wisdom, its dimensions and the linking design directions is well defined and rich enough to be used in future use or research.

The Consumer Wisdom design tool
This overall tool shows the designer what Consumer Wisdom is and how they could design for this topic. The tool itself is unique due to the fact that it combines different aspects of Consumer Wisdom and shows the links between the design theories. Testing the tool was only done with 6 design students, but it provides a suitable evaluation on its feasibility and visibility. I believe the tool could

Final design
The final design was an iteration on the tested version of the Consumer Wisdom design tool. It has not been tested yet, so this should be done in further research to indicate if the tool is suitable for every designer and if the tool is fully matching the Consumer Wisdom theory.

10 REFLECTION

In this chapter I will look back on my project on a personal level and reflect on the whole graduation project.

10 REFLECTION
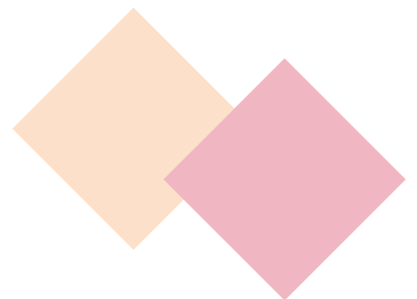
Discover

I started this project with an interest of Consumer Wisdom and how I could translate the consumer perspective towards designers. Trying to discover all the design theories with links to consumer wisdom or well-being was quit challenging. There was so much information to be found and sometimes I was lost in all the information. With my midterm meeting I already found out that finding the right kind of information was difficult. With the help of my supervisors I found the right track of my project. I really enjoyed the literature research and during my whole project I kept on improving the literature found. Some students don't like doing research, but I found it very interesting to see what kind of researches already have been done and how many links there are between previous researches. Before starting this project, I thought that circular economy and happiness design would have a big impact on my project. This turned out not to be the case and the Consumer Wisdom theory was broader and more complicated then I thought. During every step of my project I found out a bit more about CW and how to translate it into a design strategy. In this phase I learned more about conducting a literature research and writing a research paper.

Define

During the define phase I had to let go of some of the discovered information, find a way to generate something meaningful out of the categorisation and process all the information into a structured format. The categorisation took a bit more time then I anticipated, but this resulted in well-defined and structured overview of the design directions and categories.

Develop

In this phase I had to be a designer again and make the change of researching into designing. I struggled a bit to generate perfect and inspiring first versions of the concepts. The concepts lacked a bit of originality, but I tried to change this in my tested and final design. This phase was really a test of how to translate found information in a logical and structured way.

Deliver

I had to test the chosen design tool and I liked to see that all my efforts put in this tool resulted in designers being able to use the Consumer Wisdom theory into practice. They understood the information provided and could use it in their brainstorm session. This was one of the skills I wanted to gain during my project and the workshop I created was a success. This will help me in the future with facilitating a group session or with interviewing users.

Overall reflection

The start of my project was rough, but I was determined to create a successful ending to this project. I thought the subject of the project was interesting; this is what kept me going during the project. Some personal issues made going on with the project after my midterm hard, but I was still headstrong on finishing on a positive note. Thanks to my supervisors and their understanding of the situation I got the time to take a step back and find my way back with the project.

During the whole project I had to keep my focus and try to enjoy the ride. Sometimes this took me a bit of effort and I had to remind myself about the goal: a nice graduation project with new skills to use in the future. Overall I liked graduating and seeing what I created from start to finish. I had some obstacles, but I managed to end up with a result I am proud of. I know the tool is not finished yet, but I hope my project could add value to the view on how to translate the Consumer Wisdom theory into a design strategy.

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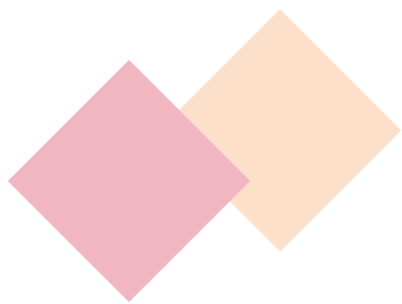
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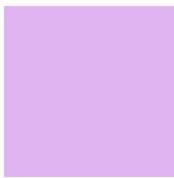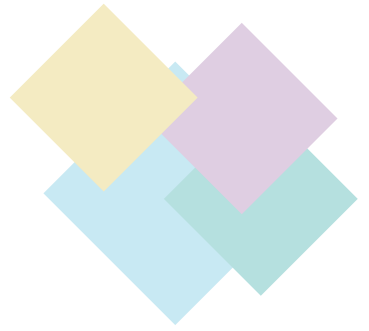
APPENDIX
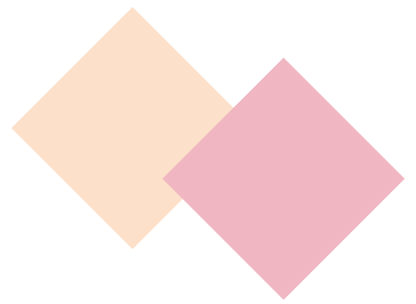
TABEL OF CONTENT

APPENDIX 2: PRODUCT AND SERVICE EXAMPLES

	Product	Reason	Link, retrieved on 18 October 2018
1	ReTyre	Retain lifestyle, changeable, thought before buying, long-lasting	http://www.yankodesign.com/2018/10/26/imagine-being-able-to-zip-new-treads-onto-your-bicycle-tires/
2	Coffee cub from coffee	Caring for planet&people, special lifestyle, easy use, thought about before buying	http://www.yankodesign.com/2018/07/18/a-cup-for-coffee-made-from-coffee/
3	Smart back-pack	Retain lifestyle, special edition of backpack, connect to others	https://www.urdesignmag.com/lifestyle/2017/12/05/visvo-tech-filled-backpacks-collection/
4	Quinque	Caring for planet&people, retain lifestyle, connect to others	http://www.yankodesign.com/2016/04/04/the-washing-sharing-machine/
5	Table	Connect to others, retain lifestyle, combining products	http://www.yankodesign.com/2011/01/05/walnut-table/
6	Biodegrad-able shoes	Caring for planet&people, retain lifestyle, connect to others	https://www.urdesignmag.com/lifestyle/2016/11/18/adidas-futurecraft-biofabric/
7	Dog toy	Caring for planet&people, retain lifestyle, connect to others	https://www.urdesignmag.com/technology/2018/05/02/wicked-bone-smart-dog-toy/
8	Wireless charger	Retain lifestyle, using everywhere, upgrade of charger	http://www.yankodesign.com/2018/07/13/a-sleek-and-modular-wireless-charger/
9	Anywhere tool	Using everywhere, retain lifestyle, gaining skills and knowledge, easy use	http://www.yankodesign.com/2018/05/14/the-secret-to-incredible-edc-isnt-multiplicity-its-modularity/
10	Cookisland	Retain lifestyle, changeable, thought before buying, long-lasting	http://www.yankodesign.com/2007/08/07/cookis-land-work-tabledining-table-by-muthesius-kunsthochschule/
11	Changable furniture	Retain lifestyle, changeable, thought before buying, long-lasting	https://www.dezeen.com/2018/08/09/lifeedited2-tiny-new-york-apartment-graham-hill-functions-like-one-twice-its-size/
12	Hammer	Retain lifestyle, special edition of hammer, connect to others, no negative emotions	http://www.yankodesign.com/2015/01/07/hammer-no-hurt-%E2%80%98em/
13	Toothbrush and app	Retain lifestyle, special edition of toothbrush, connect to others, no negative emotions	https://www.dezeen.com/2017/09/24/benjamin-brush-smart-musical-toothbrush-bleepbleeps-map/
14	Wallet	Caring for planet&people, retain lifestyle, connect to others	http://www.yankodesign.com/2017/04/29/handmade-wallet-for-the-self-made-you/

15	Personalized fragrance	Retain lifestyle, changeable, thought before buying, long-lasting	http://www.yankodesign.com/2018/05/29/your-very-own-personalized-fragrance/
16	Social subscription box	Connect to others, retain lifestyle	https://www.dezeen.com/2018/07/18/social-oven-magda-sabatowska-central-saint-martins-design/
17	Puma shoes	Retain lifestyle, changeable, thought before buying, long-lasting	https://www.urdesignmag.com/lifestyle/2018/05/28/puma-and-mit-design-lab-unveil-self-adapting-sportswear/
18	Cutlery	Retain lifestyle, upgrade of cutlery, caring for planet&people	http://www.nendo.jp/en/works/skeleton/
19	Straw alternative	Caring for planet&people, special lifestyle, easy use, thought about before buying	http://www.yankodesign.com/2018/10/24/the-chew-is-an-aluminumsilicone-alternative-to-the-disposable-straw/
20	Expandable table	Retain lifestyle, changeable, thought before buying, long-lasting	https://www.dezeen.com/2017/10/04/heatherwick-studios-friction-table-expands-adapt-different-spaces-design-furniture/?li_source=LI&li_medium=rhs_block_1
21	Transformable table	Retain lifestyle, changeable, thought before buying, long-lasting	http://www.yankodesign.com/2009/11/19/expandable-transformable-table-deluxe/
22	Bed	Retain lifestyle, changeable, thought before buying, long-lasting	https://www.dezeen.com/2018/08/07/yesul-jang-tiny-home-bed-compact-living-ecal-graduate-design/?li_source=LI&li_medium=bottom_block_1
23	Electric skateboard	Retain lifestyle, caring for people&planet, upgrade of skateboard	https://www.urdesignmag.com/technology/2014/05/27/marbel-worlds-lightest-electric-skateboard/
24	Vaper	Retain lifestyle, caring for people&planet, upgrade of cigarette	https://www.urdesignmag.com/lifestyle/2017/09/21/3-great-gift-ideas-vapers/
25	Travel bottle	Caring for planet&people, special lifestyle, easy use, thought about before buying	http://www.betterlivingthroughdesign.com/personal/personal-accessories/que-collapsible-travel-bottle/
26	Pika plant jar	Easy use, retain lifestyle	https://www.dezeen.com/2015/05/04/pika-plant-self-watering-systems-milan-2015/
27	candle extinguisher	Retain lifestyle, upgrade of candle stand	https://www.dezeen.com/2015/09/07/moment-candle-extinguisher-lars-beller-wrong-for-hay-maison-objet-2015/
28	BMW i3	Caring for planet&people, retain lifestyle, connect to others	https://www.dezeen.com/2013/08/03/i3-electric-car-by-bmw/
29	Surfboard bike	Custom made, special lifestyle	https://www.urdesignmag.com/technology/2017/06/01/sea-sider-deus-ex-machina/

30	Conversion crib	Retain lifestyle, changeable, thought before buying, long-lasting	https://www.dezeen.com/2016/10/03/teehee-kids-adjustable-customisable-units-childrens-furniture/
31	Desktop garden	Easy use, retain lifestyle, combining of products	http://www.yankodesign.com/2015/11/27/the-modern-desktop-garden/
32	Somnox	Caring for planet&people, special lifestyle, easy use, thought about before buying	https://www.urdesignmag.com/technology/2017/12/04/somnox-sleep-robot/
33	Furniture that gives back	Caring for planet&people, retain lifestyle, connect to others	https://www.dezeen.com/2018/10/12/one-for-hundred-wooden-furniture-sustainable-vienna-design-week/
34	Kids chair	Thought before use, upgradable, retain lifestyle	http://www.yankodesign.com/2013/03/28/high-chair-that-grows-up-too/
35	Little helper	Makes life easier	http://www.yankodesign.com/2014/07/28/cooking-starts-in-the-garden/
36	New technic for shoes	Special edition, retain lifestyle, connect to others	https://www.dezeen.com/2015/12/06/new-balance-nervous-system-3d-printed-personalised-soles-trainers-footwear/
37	Fitness mirror	Special edition, retain lifestyle, connect to others	https://www.urdesignmag.com/technology/2018/09/12/connected-fitness-device-mirror-brings-the-workout-to-your-home/
38	Collapsible	Retain lifestyle, special edition helmet, connect to others	http://www.betterlivingthroughdesign.com/personal/closca-fuga-foldable-helmet/
39	Water filter	Caring for planet&people, retain lifestyle, connect to others	https://www.dezeen.com/2018/03/04/graphene-water-filter-produces-drinkable-water-in-just-one-step/
40	Watering vessel	Caring for planet&people, retain lifestyle, connect to others	http://www.betterlivingthroughdesign.com/accessories/growoya-watering-vessel/
41	Self-cleaning bottle	Caring for planet&people, retain lifestyle, connect to others	http://www.yankodesign.com/2017/11/08/quartz-self-cleaning-bottle/
42	Watering Can	Retain lifestyle, thought before buying	http://www.betterlivingthroughdesign.com/accessories/kaenjusai-watering-can/
43	Easy suitcase	Retain lifestyle, special edition of backpack, connect to others	http://www.nendo.jp/en/works/kame-2/?
44	Design your shoe	Retain lifestyle, special edition of shoes, connect to others	http://www.nendo.jp/en/works/marker-shoes-2/?egenre
45	Backpack	Retain lifestyle, special edition of backpack, connect to others	https://www.yankodesign.com/2017/06/23/the-backpack-redefined/
46	Emotion track watch	Caring for planet&people, retain lifestyle, connect to others	http://www.yankodesign.com/2018/02/23/a-wearable-for-feels/

47	Watch	Special edition of watch, retain lifestyle, connect to others	http://www.yankodesign.com/2010/02/03/guessing-game-continued/
48	Hybrid tooth-brush	Caring for planet&people, retain lifestyle, connect to others	https://www.urdesignmag.com/design/2017/12/01/be-hybrid-toothbrush/
49	Cat furniture	Caring for planet&people, retain lifestyle, connect to others	https://www.urdesignmag.com/design/2018/02/27/a-cat-thing-creates-modular-cardboard-furniture-collection-for-cats/
50	Pop-up tent	Caring for planet&people, retain lifestyle, connect to others	https://www.dezeen.com/2018/07/24/sebastian-maluska-car-rooftop-tent-ecal-graduate-design/
51	Spork	Lifestyle maintenance, using everywhere, caring for planet&people	http://www.yankodesign.com/2018/03/22/from-nutella-to-steaks-the-morsel-lets-you-eat-all/
52	Grow bikes	Retain lifestyle, changeable, thought before buying, longlasting	https://www.dezeen.com/2012/07/03/orbea-grow-by-alex-fernandez-camps/
53	Recycled jewellery	Caring for planet&people, retain lifestyle, connect to others	http://www.yankodesign.com/2014/07/28/industrial-chic-wear/
54	Wooden furniture	Caring for planet&people, retain lifestyle, connect to others	https://www.dezeen.com/2015/09/18/max-lamb-planks-wood-furniture-collection-benchmark-hidden-storage/
55	Special hammer	Retain lifestyle, special edition of hammer, connect to other	http://www.yankodesign.com/2017/05/16/put-your-rhino-to-work/
56	Metal tweezers	Upgrade of tweezers, caring for planet&people, lifestyle retaining	https://www.dezeen.com/2013/06/07/tweezers-by-clemens-auer/
57	Keyboard	Upgrade of keyboard, using everywhere, retain lifestyle, gaining skills&knowledge	https://www.dezeen.com/2014/04/30/roli-seaboard-tactile-keyboard-designs-of-the-year-2014/
58	Compostable dinnerware	Caring for planet&people, special lifestyle, easy use, thought about before buying	http://www.betterlivingthroughdesign.com/accessories/verterra-compostable-dinnerware/
59	Teapot with strainer	Retain lifestyle, upgrade of teapot, connect to others	https://www.dezeen.com/2014/06/07/sowden-soft-brew-teapot-by-george-sowden/
60	Desk lamp	Retain lifestyle, upgrade of desk lamp, thought before buying	https://www.dezeen.com/2016/01/05/design-industry-pays-tribute-to-richard-sapper-instagram-posts-favourite-products/
61	Medicine bottle	Retain lifestyle, upgrade of pill box, using everywhere	http://www.yankodesign.com/2017/01/09/medicine-made-easy-by-shima/
62	Bambu plates	Caring for planet&people, special lifestyle, easy use, thought about before buying	http://www.betterlivingthroughdesign.com/accessories/bambu-veneerware%C2%AE/
63	Infuse water-bottle	Caring for planet&people, retain lifestyle, connect to others	http://www.yankodesign.com/2016/03/10/infused-water-to-go/

64	Pill box	Retain lifestyle, upgrade of pill box, using everywhere, caring for planet&people	http://www.yankodesign.com/2013/06/03/the-carry-pill/
65	Hotel trailer	Retain lifestyle, using everywhere, upgrade of trailer	http://www.yankodesign.com/2009/11/23/camping-with-consciousness/
66	Turntable	Retain lifestyle, special edition, downgrade of digital radio	http://www.yankodesign.com/2018/08/24/a-turntable-without-compromise/
67	Parfume	Special edition, retain lifestyle, connect to others	https://www.dezeen.com/2016/12/08/francesca-gotti-conceals-perfume-inside-glebanite-blocks-oneofthose-design-miami-2016/
68	Motor	Retain lifestyle, custom made, connect to others	https://www.dezeen.com/2017/04/12/tom-dixon-custom-tomoto-motorcycle-moto-guzzi-pirelli-milan-design-week-2017/
69	Wireless headphone	Retain lifestyle, using everywhere, upgrade of headphones	https://www.urdesignmag.com/technology/2015/01/07/bangolufsen-introduces-all-new-beoplay-h8-wireless-headphones/
70	Filtering Water bottle	Caring for planet&people, special lifestyle, easy use, thought about before buying	https://www.dezeen.com/2010/03/05/bobble-by-karim-rashid/
71	eReader	Upgrade of books, usable everywhere, caring for planet&people	http://www.yankodesign.com/2018/10/05/kobo-wants-to-steal-the-e-reader-spotlight-from-the-kindle/
72	Waka Waka	Caring for planet&people, special lifestyle, easy use, thought about before buying	http://www.betterlivingthroughdesign.com/accessories/wakawaka-power/
73	Lamborghini electric	Retain lifestyle, think about planet&people, connect to people	https://www.dezeen.com/2017/11/09/lamborghini-teams-up-with-mit-researchers-create-self-healing-sports-cars-transport-design/
74	Acoustic Poetry	Makes life easier, creating connection with others	http://www.yankodesign.com/2011/05/17/written-sound-for-the-hearing-impaired/
75	Recycled pouf	Caring for planet&people, retain lifestyle, connect to others	http://www.betterlivingthroughdesign.com/furnishings/recycled-pouf/
76	Suga yoga matt	Caring for planet&people, retain lifestyle, connect to others	http://www.betterlivingthroughdesign.com/personal/personal-accessories/suga-wetsuits-yoga-mat/
77	Bic Biro	Usages is known, works like expected	Ortíz Nicolás, J. C., Aurisicchio, M., & Desmet, P. M. A. (2013). How users experience great products.
78	Senz	Upgrade of umbrella, life long use	http://www.betterlivingthroughdesign.com/personal/personal-accessories/senz-windproof-umbrella/
79	Self-watering pot	Easy use, retain lifestyle	http://www.yankodesign.com/2015/04/10/flower-pot-for-the-forgetful/

80	Phonecase and wallet	Retain lifestyle, combining products, upgrade of phone case&wallet	http://www.betterlivingthrough-design.com/personal/backpock-et-phone-wallet/
81	Lunchbox	Retaining a certain lifesyle, re-usable	http://www.yankodesign.com/2009/02/19/moben-heats-your-lunch-doesnt-play-itunes/
82	The 365 knit-ting clock	Showing physical representation of time	Casais, Mugge & Desmet (2015). Extending product life by intro-ducing symbolic meaning: an exploration of design strategies to support subjective well-being
83	Favourite things lamp	Making something special of normal lamp, relating to others/family	https://www.dezeen.com/2010/02/12/favour-ite-things-by-chen-karlsson/
84	MijMo	Alternative use of watch, helps with lifestyle	Desmet, P. M. A., & Pohlmeyer, A. E. (2013). Positive design: An introduction to design for subjec-tive well-being
85	Adidas 3D printed	Limited edition, custom made, upgrade of normal shoes	https://www.urdesignmag.com/lifestyle/2015/10/08/adidas-in-troduces-3d-printed-perfo-mance-footwear/
86	Samsung Gal-axy Note 8	Retain lifestyle, using everywhere, upgrade of phone	https://www.urdesignmag.com/technology/2017/03/29/sam-sung-galaxy-s8/
87	Adidas parley collaboration	Shoes made out of plastic waste, limited edition	https://www.dezeen.com/2017/10/05/adidas-origi-nals-unveils-its-first-shoe-made-with-parley-ocean-plastic/
88	Tesla	Care about planet&people, compared before buying, upgrade of normal cars	https://www.dezeen.com/2017/07/31/tesla-unveils-model-3-worlds-first-mass-mar-ket-electric-car-design-technol-ogy/
89	Happiness tree	Re-energize with light	Ruitenberg, H.P. & Desmet, P.M.A. (2012). Design thinking in positive psychology. The development of a product-service combination that stimulates happiness-enhancing activities http://studiolab.ide.tudelft.nl/diopd/projects/de-sign-projects/happy-tree-an-en-ergizing-moment-anytime-to-en-hance-the-feeling-of-happiness/
90	TinyTask	Gaining skills and knowledge, retain lifestyle, changing lifestyle	Desmet, P. (2018). Positive design: Delft students design for our well-being.
91	Volvo subscription service	Service for usage of car, retaining lifestyle, relating to others	https://www.urdesignmag.com/technology/2017/09/21/vol-vo-xc40/
92	Wheelchair	Customizable to user	Ruitenberg, H.P. & Desmet, P.M.A. (2012). Design thinking in positive psychology. The development of a product-service combination that stimulates happiness-enhancing activities
93	The tyrant	Acting on annoyance, negative emotions, relating to others	Fokkinga, S., & Desmet, P. (2012). Darker shades of joy: The role of negative emotion in rich product experiences.

94	Rubbermaid	Maintain food quality wherever, retain lifestyle	Luchs (2017). Presentation slide on Design for the Wise Consumer
95	Kitchen Safe	Upgrade of storage bins, helps with bad behaviour	Pohlmeyer, A., & Desmet, P. (2017). From good to the greater good.
96	Amazon echo	Upgrade of home, retain/upgrade lifestyle,	https://www.dezeen.com/2017/04/27/amazons-echo-look-personal-robot-stylist-camera-helps-you-decide-what-wear-design-technology/
97	Life counter	New knowledge every day, upgrade of normal clock	Fokkinga, S., & Desmet, P. (2012). Darker shades of joy: The role of negative emotion in rich product experiences.
98	Military name tags	Special moment for user, relating to others	Casais, M., Mugge, R., Desmet, P. M. A., Fokkinga, S. F., Ludden, G. D. S., Cila, N., & Van Zuthem, H. Symbolic meaning attribution as a means to design for happiness.
99	Baby stroller	Upgradeable, connect to others, longer lasting to avoid depth	http://www.yankodesign.com/2013/12/06/the-stroller-that-grows-up-too/
100	Hair straightener	Does what it needs to, user can relate to others	Ortíz Nicolás, J. C., Aurisicchio, M., & Desmet, P. M. A. (2013). How users experience great products.
101	Wine cork saved in 3D frame	Special moment of intimacy, relating to others	Casais, M., Mugge, R., Desmet, P. M. A., Fokkinga, S. F., Ludden, G. D. S., Cila, N., & Van Zuthem, H. Symbolic meaning attribution as a means to design for happiness.
102	Sowing machine	Gaining skills while using, relating to others	Casais, M., Mugge, R., Desmet, P. M. A., Fokkinga, S. F., Ludden, G. D. S., Cila, N., & Van Zuthem, H. Symbolic meaning attribution as a means to design for happiness.
103	Personalized trainers	Personalisation, lifestyle maintenance	https://www.dezeen.com/2015/12/01/shiftwear-trainers-personalised-customised-moving-graphics-animations-e-paper/
104	Levitating turntable	Lifestyle maintenance, special edition, thought before buying	https://www.urdesignmag.com/design/2016/10/14/mag-lev-audio-levitating-turntable/
105	Vans shoes	Lifestyle maintenance, special edition, thought before buying	https://www.urdesignmag.com/lifestyle/2018/08/03/vans-x-van-gogh-museum-collection/
106	360 camera	Lifestyle maintenance, upgrade of normal camera, using everywhere	http://www.yankodesign.com/2018/06/05/kandaos-qoo-cam-will-be-whatever-camera-you-want-it-to-be/
107	Smart showerhead	Caring for planet&people, special lifestyle, easy use, thought about before buying	https://www.urdesignmag.com/technology/2018/04/13/4-smart-home-devices-to-save-money-energy/
108	Pot bbq	Connect to others, retain lifestyle, combining products	http://www.betterlivingthroughdesign.com/accessories/hot-pot-bbq/

109	Electric guitar (custom made)	Custom made, special lifestyle, relate to others	Casais, M., Mugge, R., Desmet, P. M. A., Fokkinga, S. F., Ludden, G. D. S., Cila, N., & Van Zuthem, H. Symbolic meaning attribution as a means to design for happiness.
110	Dyson vacuum cleaner	Better version of vacuum cleaner	Luchs (2017). Presentation slide on Design for the Wise Consumer
111	Ipod	Best choice compared to others	Luchs (2017). Presentation slide on Design for the Wise Consumer
112	NEST	Upgrade of normal thermostat, easy living, caring for planet	http://www.betterlivingthrough-design.com/renovate/nest-ther-mostat/
113	Electric mountain bike	Retain lifestyle, think about planet&people, connect to people	https://www.urdesignmag.com/technology/2018/04/11/the-supercharger-mountain-e-bike-from-riese-muller/
114	Instant camera	Different use than normal camera, different every time, special lifestyle	Ortíz Nicolás, J. C., Aurisicchio, M., & Desmet, P. M. A. (2013). How users experience great products.
115	Socks	Special socks for certain lifestyle, extra strong socks	https://www.dezeen.com/2015/08/20/swiss-barefoot-company-free-your-feet-footwear-socks-material-stronger-than-steel-dyneema/
116	BBQ	Retain lifestyle, upgrade of normal bbq, usable everywhere	http://www.yankodesign.com/2011/09/27/bbq-special/
117	Toothbrush	Caring for planet&people, upgradable, retain lifestyle	http://www.yankodesign.com/2013/11/22/one-tooth-brush-to-replace-them-all/
118	External hard-drive	Using as an extension of computer / extra space	Ortíz Nicolás, J. C., Aurisicchio, M., & Desmet, P. M. A. (2013). How users experience great products.
119	Do scratch	Usages is different than normal wall decoration, new skills	http://www.guixe.com/products/DROOG_do_scratch/do_scratch.html
120	999 bottles	Counting saved plastic bottles, helping planet&people, lifestyle maintenance	Casais, Mugge & Desmet (2015). Extending product life by introducing symbolic meaning: an exploration of design strategies to support subjective well-being
121	Pinboard	Makes life easier, creating connection with others	http://www.yankodesign.com/2014/04/03/the-hp-con-nection/
122	Lightbox	Connect to others, retain lifestyle	http://www.yankodesign.com/2014/03/12/life-share-in-real-time/
123	Bugdet tool	Makes life easier, creating connection with others, caring for budget	http://www.yankodesign.com/2010/07/19/visual-ize-your-finances-ouch/
124	Smart water-bottle	Caring for planet&people, retain lifestyle, connect to others	https://www.urdesignmag.com/design/2018/06/01/equa-smart-water-bottle-makes-hydration-simple-and-stylish/
125	Maternity wearable	Makes life easier, creating connection with others	http://www.yankodesign.com/2016/06/15/the-first-ev-er-maternity-wearable/

126	Sofa bed	More functions than 1, adding to lifestyle	Luchs (2017). Presentation slide on Design for the Wise Consumer
127	Croquet set	Social connection with others	Luchs (2017). Presentation slide on Design for the Wise Consumer
128	The city scooter	Sharing, caring for people/planet	http://www.yankodesign.com/2014/05/13/the-city-bike/
129	Blank wall clock	Designing own clock, different use every time, gaining knowledge	Casais, Mugge & Desmet (2015). Extending product life by introducing symbolic meaning: an exploration of design strategies to support subjective well-being
130	GoPro	Filming while sporting/creative, gaining knowledge, lifestyle maintenance	Luchs (2017). Presentation slide on Design for the Wise Consumer
131	Black & White	Custom-made surfboard, special lifestyle	Luchs (2017). Presentation slide on Design for the Wise Consumer
132	iFixit	Gaining skills & knowledge while using, retain lifestyle, Do it yourself	http://www.yankodesign.com/2017/03/30/ifixit-essential-electronics-toolkit/
133	Surly frame	Designed for every circumstance, special lifestyle	Luchs (2017). Presentation slide on Design for the Wise Consumer
134	Birkenstock	Choice of style, relation to others	Luchs (2017). Presentation slide on Design for the Wise Consumer
135	Spin on earbuds	Retain lifestyle, using everywhere, upgrade of earplugs	http://www.yankodesign.com/2018/01/22/a-literal-spin-on-wireless-earbuds/
136	Yi chair	Special lifestyle, long-lasting, resilient material	https://www.dezeen.com/2013/10/29/yi-chair-by-michael-young-for-eoq/
137	Leather weekend bag	Special lifestyle, long-lasting, resilient material	http://www.betterlivingthroughdesign.com/personal/handmade-canvas-leather-weekend-bag/
138	Everyday mugs	Special lifestyle, long-lasting, resilient material, emotional connection	Lacey (2009). Contemporary ceramic design for meaningful interaction and emotional durability: A case study.

APPENDIX 3: CATEGORISATION RESULTS

Consumer Wisdom

Lifestyle responsibility	Purpose	Flexibility	Perspective	Prudent reasoning	Transcendence
User-centred design Responsibility design Mindful interaction design	Design for emotion Happiness design Well-being design Experience design Social design Empathic design Emotional design Emotional durable design Product experience design	Alternative consumption design Sharing economy design Consumer engagement design	Design for behavioural change Simplicity Classic design Prototypically Form follows function	Value design Product value design Symbolic meaning design Novelty Transparency	Sustainability design Circular economy design Environment responsible design Social responsibility design End-of-life design Spirituality design

Categorisation outcomes

Lifestyle responsibility	Purpose	Flexibility	Perspective	Prudent reasoning	Transcendence
Upgradable (time/situations) Recource management Durability (tools/long-lasting products) Budgeting Healthy lifestyle Avoiding negative emotions Customized products Personalisation Make decisions Reconciling time Reminding to take action/decision Reconciling conflicting values	Improve performance Trigger positive emotions (use/social interactions/look) Learning new skills Express creativity Maintain good memories Develop specific behaviour Creating nice experiences Sharing experiences Remembering friends Small-batched goods	Home made (food/repair products) Promote reusability Sharing consumption Leasing	Make time tangible Improve behaviour Influence negative consequences of consumption Most basic usage New technology in 'old' form	Improved (novel) products	Animal welfare Local economy Stimulate sustainable behaviour Use of natural materials Recycled materials Environment friendly consumption Appearance shows harmfulness of consumption Demonstrating goal of user Promote social interactions

Facet	Design direction	Category	Explanation	Categorisation examples	Best product examples
Lifestyle Responsibility	**User-centred design**	Upgradable 1. Time 2. Situations	1. Products that can be changed according to the user's preferences. The products keep their value over time and consumer does not have to buy new products 2. Products that can be changed according to the situation the consumer needs them in, so they do not have to buy new products for different situations		
		Durability 1. Tools 2. Long-lasting products	1. Helping consumer to lengthening lifetimes of owned products 2. These products are durable because of the good quality and they will last a long time until they need replacing		
		Avoiding negative emotions	Products that help achieve difficult or time consuming tasks and avoid negative emotions when using them		
		Customized products	To show the personal or special lifestyle of the consumer. Consumer is willing to pay a bit more to customize the products according to their preferences and performance indication		
		Personalisation	Common products that can be personalised by the consumer according to their preferences. The product is mass production, but has the option to personalised when bought		
	Responsibility design	Resource management	Products that reduce consumption in order to live a virtuous lifestyle and helps the consumer save money		
		Budgeting	Products that help consumers with wisely spending their money and help their keeping track of their budget		
		Healthy lifestyle	Products that stimulate the behaviour for living a healthy life and make it easier to live a healthy lifestyle		

111

Mindful interaction design			
	Reminding to take action/decision	Products that help the consumer to take action or make a decision through the use of the product	
	Reconciling conflicting values	Products that reconcile existing issues for the consumer by helping them	
	Make decisions	Products forcing the consumer into desired behaviour	
	Reconciling time	Products that show time is limited and that life should be spend wisely	

Purpose	**Positive design**	Trigger positive emotions through the use of products	Through the use of the products the consumer will experience happiness. The products help or promote a positive behaviour
		Maintain good memories	By usage of products the consumer will keep their memories and can revisit them whenever
		Development of specific behaviour	Through usage the consumer behaviour can be influenced and help pursuing positive emotions
	Happiness design	Learning new skills	Through usage of products the consumer will learn new skills
		Express creativity	With the use of these products the consumer can show their creativity
	Design for emotion	Small-batched goods	Products that are produced in a small batch in order to make them special and make consumers care more for them

		Trigger positive emotions through a funny/deviating look	Products triggering positivity through their appearance	Children's wheelchair / Rhino		Children's wheelchair / Rhino
	Product experience	Improve performance	Products that help improve the consumer's performance through usage	Adidas 3D / Electric guitar / Black and White Surfboards / Swiss barefoot socks / New Balance 3D printed midsoles / Samsung Galaxy Note 8 / Little helper / Surfs Bike / Adidas & SKT Solar / Sixboard / Logispen turntable		Swiss barefoot socks / Little helper
	Experience design	Creating nice experiences	Accessories that help to create nice(r) experiences (positive emotions)	Blow / Nest / Sixboard / Logispen turntable		Nest / Logispen turntable
	Social design	Sharing experiences	Through the products share personal events or experiences with others	Pinboard / GoPro / Lightbox / Kandoo EpoCam		GoPro / Lightbox
		Trigger positive emotions through social interactions	Products stimulating positivity through social interactions	Cookery Kit / Croquet set / Hot Pot bbq / Acoustic Poetry		Cookery set / Croquet set

Flexibility	**Alternative consumption**	Home made Food	Through usage produce own food. Products that extended the value of owned goods and prevents to buy different products	GrowDay / Little helper / Glass lamp / Organic Table / Pure		Organic Table / Pure
		Leasing	Products that stimulate non-ownership	Care by Volvo		Care by Volvo
	End-of-life design	Promote reusability	Extending value of owned goods by not having to throw products away after usage	Chew / Que		Chew / Que
		Repair products	Through usage helping or promoting repairing owned products or make things themselves	Sewing machine / iFixit		Sewing machine / iFixit
	Sharing economy	Sharing consumption	Products that promote sharing instead of owning products	Quinque / The City scooter		Quinque / The City scooter
	Design for aging gracefully	Graceful aging material	Products that can be used for a long time and keep their charm, due to the fact that the material ages gracefully	Leather weekend bag / Yi chair		Leather weekend bag / Yi chair

Perspective	Prospection	Improve behaviour	Products that provide feedback or monitor behaviour to help improve it
	Retrospection	Influence negative consequences of consumption	Products that help solve well-known bad experiences and help learn from other's past consumption behaviour
	Simplicity	Most basic usage	The appearance of the product is the most basic or simple shape so the consumer can easily recognize the usage
	Prototypicality	New technology in 'old' form	Products with a prototypical shape of old technology so the consumer recognize the usage of the new technology

Prudent Reasoning	Value design	Best feature focus	The product is designed so the best feature catches the eye immediately
		Brand recognition	The brand can be recognized by the product's aesthetics
	Novelty	Improved (novel) products	Products that have a superior technical value over existing alternatives
	Transparency	See-through products	The use can be understand by the use of seeing through the product
	Symbolic incongruences	Different look	The look of the product differ from the regular products within the category Purpose is clear, but it is in a new/different design than the consumer is used to

Transcendence	**Design for sustainability**	Local economy	Through consumption promote the local economy, any local economy possible		
		Stimulate sustainable behaviour	Products that could stimulate a change in the consumer behaviour towards a more sustainable way		
		Demonstrating goal of user	These products help the consumer reach a certain sustainable goal and show this to the outside		
		Appearance shows harmfulness of consumption	Focus on ugliness to show disruptive effect of consumption behaviour		
		Natural materials	Products or part of products made of biodegradable material		
		Environment friendly energy	Products helping consumers use more environment friendly energy		
	Design for socially responsible behaviour	Promote social interactions	Products that promotes relationships with the community and make consumers care for social interactions		
		Animal welfare	Promote animal welfare or wellbeing through the help of these products		
	Design for circular economy	Recycled materials	Products making use of recycled or repurposed materials to create new products		
	Emotional durable design	Creating a bond between product and consumer	The consumer creates a bond with the product, which makes it hard to throw it away and causes long time usage		

APPENDIX 4: BRAINSTORM RESULTS
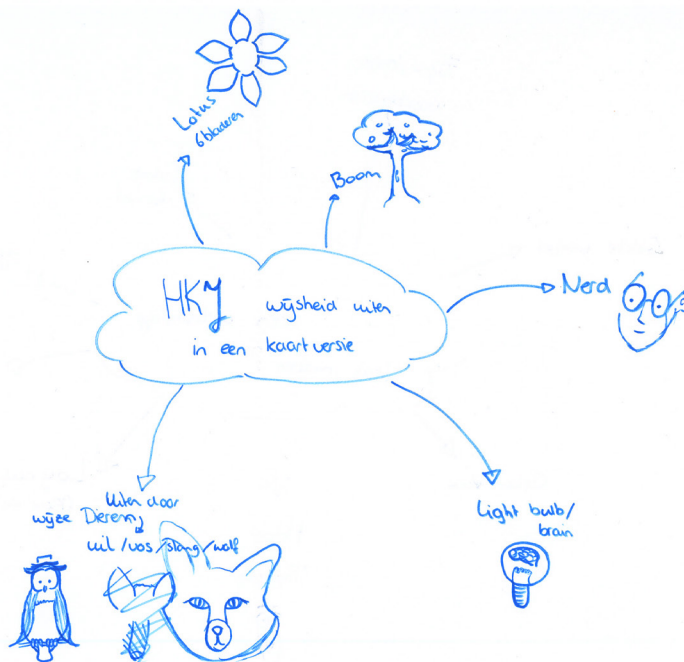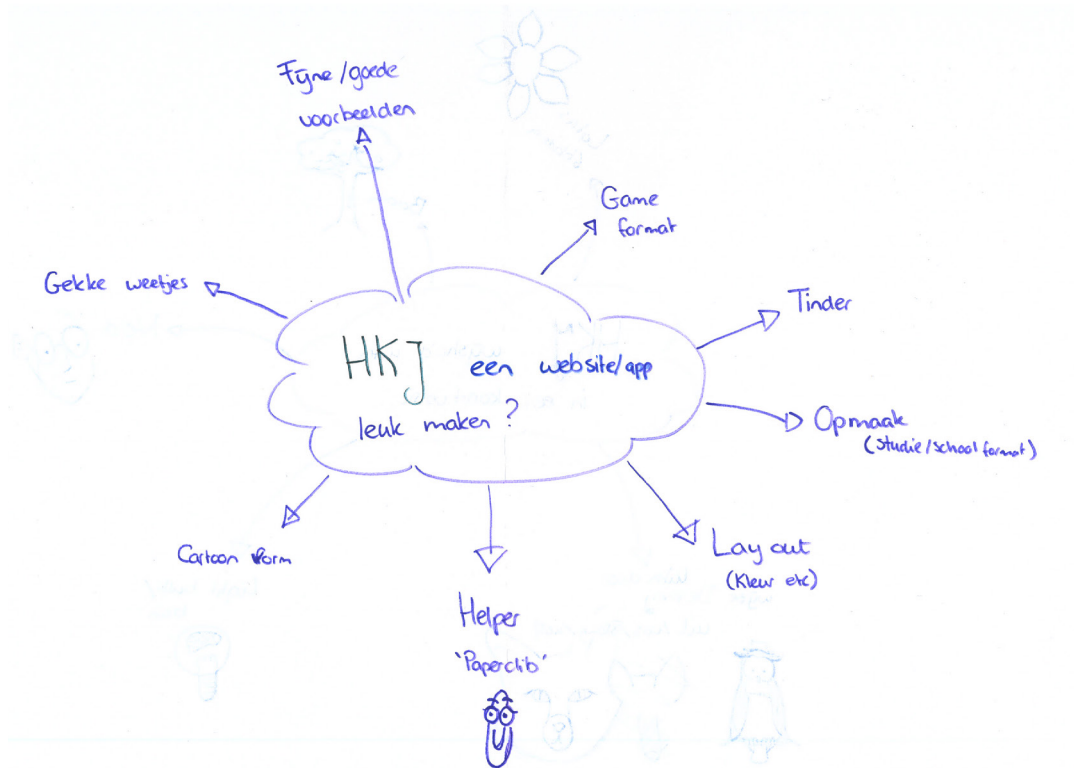
Cards → User / Need / Aim / Info } p choose & design

Website / app (informative) → A lot of info. Designer chooses which to use ♥

"Tinder" app → Yes/No questions ♥

Dice → every side a dimension + info cards

Role play → UX-design first

Poster → With path/method to help design according to dimension

Bord game → Cards only more playful

"Tinder" Yes/No
(what kind of product)
NP — Yes
No — Redesign — Yes
No

New product/service →
Lifestyle
Purpose
Flexibility
Perspective
Prudent Reasoning
Transcendence
→ Guidelines
User
Context
Aim = dimension

Redesign →
Purpose
Perspective
Prudent Reasoning
Transcendence
→ Aim
Guidelines
Product
User
Context

Marketing change →
Lifestyle
Flexibility
Transcendence
→ Guidelines
Product
User
Aim

Context/market change →
Purpose
Perspective
Prudent Reasoning
Transcendence
→ Product
User
Market
Aim
Guidelines

User change →
→ Product
market
Aim
Guidelines

New Product? — Yes
No — Yes
Redesign?
No
New marketing plan? — Yes — Same Product? — Yes
No
Context/market change? — Yes — Important features?
No
Change of target group? — Yes
No
This design method is not for you

What kind of product? Tech etc.

Target group info

Market info

Important features?

117
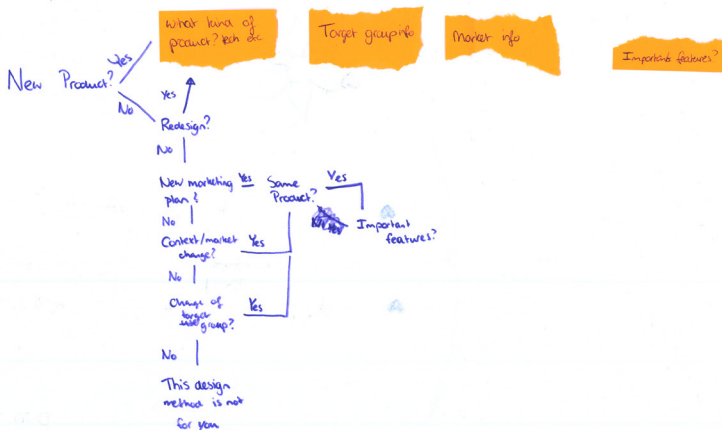
Aim = **Step 1**
- New ! product / service   ▷ Step 2 = user   ▷ Step 3 = Context *
- Redesign
- Marketing change
- Context / market change   Existing ▷ Step 2 = ▷ Step 3 = Context ▷ Step 4 =
- User change   product /   user   Product /
              service   service

Users

♀ n
  L
  2
  m

Users necessary in design process?
→ stage of life enough?

♂ s
  2
  u

Excluded :
- Children (don't choose own products)

♀

♂ Retired
    68
    married
    cares for environment

User groups

Families (kids) ⟨ man (single parent) / woman (single parent)

Students ♂ (18 - 30)

(Millennials ~~28-85~~ (20 - 40)
(Young professionals (25 - 45)

Elderly (75⁺)

Retirees (65⁺)

Working class (35 - 65)

Step 2

Dimensions

Lifestyle →
budget
resources
no negative emotions
their lifestyle

Purpose →
positive emotions = happiness / well-being
gaining knowledge / skills = growth mindset

Flexibility →
alternative consumption
behavioral change

Perspective →
retrospection = history of purchases
prospection = future purchases

Prudent Reasoning →
gaining knowledge before purchase
value of product / money
novelty

Transcendence →
compassion = caring general welfare
interbeing = relations with others (no self benefit)

Step 3

Design for Consumer Wisdom

Clear filters

Search By Method Name

Search...

My design purpose is…
- New product or service
- Redesign
- Context or market change
- Target group change
- Marketing change

The level of well-being is…
- Individual
- Collective

The design aim is…
- Lifestyle
- Happiness
- Growth
- Alternative Consumption
- Recognizable Products
- Unknown or future Products
- Objective Value
- Subjective Value
- Compassion
- Interbeing

My target group is…
- Students (18-30)
- Young Professionals (25-45)
- Millennials (20-40)
- Family
- Single mom or dad
- Working class (35-65)
- Retirees (65+)
- Elderly (75+)

Method cards:

- User-centred design
- Responsibility design
- Mindful interaction design
- Positivity design
- Happiness design
- Design for emotion
- Product experience design
- Experience design
- Social design
- Alternative consumption
- End-of-life design
- Sharing economy
- Design for aging gracefully
- Prospection
- Retrospection
- Simplicity
- Prototypicality
- Value design
- Novelty
- Transparency
- Symbolic incongruences
- Product value design
- Design for sustainability
- Design for socially responsible behaviour
- Design for circular economy
- Spirituality and design
- Emotional durable design
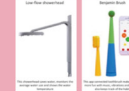
APPENDIX 6: CONCEPT 2 THE CARD TOOL

LIFESTYLE RESPONSIBILITY

Lifestyle responsibility emphases on lifestyle envisionment, personal resource management and avoiding negative emotions. This facet is about empowering consumers to make the right decisions based upon their life and budget. How they can make consumption choices for self-identity and self-expression according their way of living.

PURPOSE

Purpose emphases on pursuing positive emotions and a growth mindset (e.g., gaining knowledge or skills). Through life and experiences a consumer gains knowledge and skills, which can be used to purchase the right products for oneself. The more interactions with products and services, the more knowledge the consumer gains and the wiser they become.

FLEXIBILITY

Flexibility is about alternative consumption (e.g., share, swap, borrow) and how consumers could join this movement. With alternative consumption we talk about repurposing, remanufacturing, refurbishing products and sharing. This facet concerns the people who are willing to change the way consumptions are acquired nowadays, to stop the consumerism and the negative impact mass consumption could have.

CONSUMER WISDOM

PERSPECTIVE

Perspective focuses on what the consumer already knows about products through their own and others' purchases and how they can make well-considered choices. Furtermore, it is about future products and usage that could be new for the consumer.

PRUDENT REASONING

Prudent Reasoning is about gaining knowledge before the purchase, spending time and effort considering options and their consequences. This facet concerns around the value products have for the consumer as well as what they communicate towards the consumer.

TRANSCENDENCE

The Transcendence facet is about compassion (e.g., caring for general welfare, local businesses) and interbeing (e.g., relations with others, nature). Transcendence is about the empathy a consumer has for people and the planet, including being social with others and gaining no benefit for oneself.

LIFESTYLE RESPONSIBILITY

Proposed design directions:

User-centred design
Design towards the user (their needs, wants and experiences) and if they get the use of the design

Responsibility design
To help users make responsible consumer choices and steer them towards choices focused on their lifestyle or needs

Mindful interaction design
Mindful interaction design exists of the frame of the mind and its content, so the triangle relation between person - object - person

PURPOSE

Proposed design directions:

Product experience
It is concentrated around the function of products and how products fit the user's activities. A product experience is based on the user's knowledge about the product or service, a conscious and subconscious matter

Experience design
Experience as the root of designing and the source for new possibilities, ensuring a human-centred approach. Making technology work for people

Happiness design
Helping the user in their pursuit of a pleasurable, satisfying life and flourish in life

Positive design
The goal is to design to increase people's subjective well-being and appreciation of life

Design for emotion
This direction is linked to the emotions the users feel with the product, service or initiative, when seeing, using or buying it. Design to evoke or prevent certain emotions with the consumer

Social design
Design for social needs and preferences

FLEXIBILITY

Proposed design directions:

Alternative consumption
Alternative consumption is about repurposing, remanufacturing, refurbishing products, borrow or non-ownership.

End-of-life design
This initiates the potential of reusing, service, remanufacturing, recycling with/without disassembly or even disposing of the product by the user

Sharing economy
Share what you have, to create less waste and lower the mass consumption rate. Most important issue with this strategy is trust

Design for aging gracefully
Engaging the consumer in the material changes that could occur over time the designer can make extending the product life span socially acceptable

CONSUMER WISDOM

Consumer wisdom is defined as the pursuit of well-being for oneself and for others through mindful management of consumption-related choices and behaviours. Consumer wisdom offers a positive alternative whose objective is to simultaneously promote the well-being of the individual, society, and the natural environment.
The Consumer Wisdom theory is composed of 6 facets; Lifestyle Responsibility, Purpose, Flexibility, Perspective, Prudent Reasoning, and Transcendence (Luchs & Mick, 2018).

PERSPECTIVE

Proposed design directions:

Prospective
Products that have no predecessors. The products may be new in form or usage, but could combine existing features or looks

Retrospective
Tracing usage back over time by collecting information about past and present related products or services s

Prototypically
The degree of a product is the representation of a category by the look, aesthetics and brand recognized by the consumer

Simplicity
Products or services those are easy to understand and use by consumers. Explanations are not necessary, because by the look the consumer knows what it is and how to use it

PRUDENT REASONING

Proposed design directions:

Value design
With value design the focus lays on understanding of recognition, perception, and interpretation of various design features and connecting them to a brand or to recognize a product

Product value design
Product value of consumer is based on needs and emotions. To create successful products they must fulfil existing and rational needs

Novelty
absolute novelty – something that has never been experienced before, and relative novelty – a product with a new combination of previously experienced elements

Transparency
Transparency is about how much light goes through the product or the surface to show what is inside the product

Symbolic incongruences
Incongruences in product appearance (e.g. incongruences among impressions elicited by visual and tactile aspects of product appearance)

TRANSCENDENCE

Proposed design directions:

Design for sustainability
Design for sustainability considers social, economic and cultural aspects with long term solutions trying to change the over-consumption behaviour

Design for circular economy
This is an alternative to the usual linear model to use materials for as long as possible and recycling where possible

Design for socially responsible behaviour
The relation between social implications, behaviour and human-product interaction is important when designing for a social responsible behaviour

Spirituality and design
The focus lies upon positivity and inner growth of the consumer through the use of products. The consumer wants to buy only what they feel is good for them and others

Emotional durable design
Emotional durable design targets to reduce the consumption and waste of resources by increasing the resilience of relationships between consumer and product

USER-CENTRED DESIGN

Time upgradable
Products that can be changed according to user's preferences. The products keep their value over time and prevent purchasing new products

Situation upgradable
Products can be changed according to the situation, so buying less products

USER-CENTRED DESIGN

Personalisation
Common products that can be personalised by the consumer according to their preferences. The product is mass production, but has the option to personalised when bought

RESPONSIBILITY DESIGN

Reminding to take action or make a decision
Products that help the consumer to take action or make a decision through the use of the product

POSITIVE DESIGN

Trigger positive emotions through usage
Through the use of the products the consumer will experience happiness. The products help or promote a positive behaviour

USER-CENTRED DESIGN

Durable tools
Helping consumer to lengthening lifetimes of owned products

Long lasting products
These products are durable because of the good quality and they will last a long time until they need replacing

RESPONSIBILITY DESIGN

Resource management
Products that reduce consumption in order to live a virtuous lifestyle and helps the consumer save money

RESPONSIBILITY DESIGN

Reconciling conflicting values
Products that reconcile existing issues for the consumer by helping them

POSITIVE DESIGN

Maintain good memories
By usage of products the consumer will keep their memories and can revisit them whenever

USER-CENTRED DESIGN

Avoiding negative emotions
Products that help achieve difficult or time consuming tasks and avoid negative emotions when using them

RESPONSIBILITY DESIGN

Budgeting
Products that help consumers with wisely spending their money and help their keeping track of their budget

MINDFUL INTERACTION DESIGN

Make decisions
Products forcing the consumer into desired behaviour

POSITIVE DESIGN

Development of specific behaviour
Through usage the consumer behaviour can be influenced and help pursuing positive emotions

USER-CENTRED DESIGN

Customized products
To show the personal or special lifestyle of the consumer. The consumer is willing to pay a bit more to customize the products according to their preferences and performance indication

RESPONSIBILITY DESIGN

Healthy lifestyle
Products that stimulate the behaviour for living a healthy life and make it easier to live a healthy lifestyle

MINDFUL INTERACTION DESIGN

Reconciling time
Products that show time is limited and that life should be spend wisely

HAPPINESS DESIGN

Learning new skills
Through usage of products the consumer will learn new skills

Think about...
how the product or service can help the consumer maintain their lifestyle without buying new objects over time or how products can be upgradable over time

Think about...
the consumer and how they can personalise common products or services on their own

Think about...
how the product or service can help the user reminding without being annoying and in an convenient way

Think about...
how to help consumer increase their happiness through the usage of products or services

Think about...
how products or services could help the consumer lengthening the life of or how products can be durable over time

Think about...
how the product or service can help consumers make responsible choices and life a virtuous life

Think about...
how the product or service can help consumers make responsible choices for their lifestyle or according to their needs

Think about...
how to help consumer increase their happiness and appreciation of life

Think about...
how the product or service could help the consumer avoid negative emotions or enrich their life

Think about...
how the product or service can help consumers make responsible choices focussing on their lifestyle and needs

Think about...
helping the consumer change their behaviour through the use of products or services

Think about...
how to help consumer change their behaviour and increase their happiness

Think about...
how products or services can be special towards the consumer, so they are willing to spend a bit more on it

Think about...
how the product or service can help consumers maintain or create a healthy lifestyle

Think about...
how the product or service can help consumers make them aware of how precious life or time is and needs to be spend wisely

Think about...
how to help the consumer pursuit a pleasurable and satisfying life through the use of the products or service

HAPPINESS DESIGN Express creativity With the use of these products the consumer can show their creativity	**EXPERIENCE DESIGN** Creating nice experiences Accessories that help to create nice(r) experiences through usage of the product or service	**ALTERNATIVE CONSUMPTION** Leasing Products that stimulate non-ownership	**DESIGN FOR AGING GRACEFULLY**
DESIGN FOR EMOTION Small-batched goods Products that are produced in a small batch in order to make them special and make consumers care more for them	**SOCIAL DESIGN** Sharing experiences Through the products share personal events or experiences with others	**END-OF-LIFE DESIGN** Promote reusability Extending value of owned goods by not having to throw products away after usage	**PROSPECTION** Improve behaviour Products that provide feedback or monitor behaviour to help improve it
DESIGN FOR EMOTION Trigger positive emotions through a funny/deviating look Products triggering positivity through their appearance	**SOCIAL DESIGN** Trigger positive emotions through social interactions Products stimulating positivity through social interactions	**END-OF-LIFE DESIGN** Repair products Through usage helping or promoting repairing owned products or make things themselves	**RETROSPECTION** Influence negative consequences of consumption Products that help solve well-known bad experiences and help learn from other's past consumption behaviour
PRODUCT EXPERIENCE Improve performance Products that help improve the consumer's performance through usage	**ALTERNATIVE CONSUMPTION** Homemade food Through usage produce own food	**SHARING ECONOMY** Sharing consumption Products that promote sharing instead of owning products	**SIMPLICITY** Most basic usage The appearance of the product is the most basic or simple shape so the consumer can easily recognize the usage

Think about... how to help the consumer flourish in life and show others they do	Think about... how technology could help the consumer create positive emotions	Think about... how to change the behaviour of ownership and stimulating non-ownership	Think about... how about the material change over time in order to create willingness with the consumer to buy second hand, share products or reuse them
Think about... which emotions the consumer should feel in order to see, buy and use the products or services with care	Think about... how to design for the social interactions and which social needs or preferences could be linked with the product or service	Think about... how a product or service could help consumers change their throwing away behaviour into extending the life by reusing	Think about... how products or services could change the consumer's needs or context and how a consumer could recognize the future product or service
Think about... which emotions the consumer should feel in order to see, buy and use the products or services to trigger positivity	Think about... how to design for happiness through social interactions and which social needs or preferences could be linked with the product or service	Think about... how products or services could help extend the lifespan of other products through consumers maintaining them on their own	Think about... how to implement existing knowledge about purchases in new products or service to improve previous problems or behaviour
Think about... using your own and consumers' experience to create products or services that help the consumer by provoking the right interaction	Think about... how to stimulate producing own food and to make it easy for consumers to do this at home	Think about... creating trust between consumers to let products or services help lower waste or the mass consumption rate	Think about... how products or services can be easily understood and used by the consumer to downscale the appearance to the most basic

122

PROTOTIPICALITY	TRANSPARENCY	DESIGN FOR SUSTAINABILITY	DESIGN FOR SUSTAINABILITY
New technology in 'old' form Products with a prototypical shape of old technology so the consumer recognize the usage of the new technology	**See-through products** The use can be understand by the use of seeing through the product	**Stimulate sustainable behaviour** Products that could stimulate a change in the consumer behaviour towards a more sustainable way	**Environment friendly energy** Products helping consumers use more environment friendly energy
VALUE DESIGN	**SYMBOLIC INCONGRUENCES**	**DESIGN FOR SUSTAINABILITY**	**DESIGN FOR SOACIALLY RESPONSIBLE BEHAVIOUR**
Best feature focus The product is designed in a way the best feature catches the eye immediately	**Different look** The look of the product differ from the regular products within the category. Purpose is clear, but it is in a new/different design than the consumer is used to	**Demonstrating goal of user** Extending value of owned goods by not having to throw products away after usage	**Promote social interactions** Products that promotes relationships with the community and make consumers care for social interactions
VALUE DESIGN	**PRODUCT VALUE DESIGN**	**DESIGN FOR SUSTAINABILITY**	**DESIGN FOR SOACIALLY RESPONSIBLE BEHAVIOUR**
Brand recognition The brand can be recognized by the product's aesthetics		**Appearance shows harmfulness of consumption** Focus on ugliness to show disruptive effect of consumption behaviour	**Animal welfare** Promote animal welfare or wellbeing through the help of these products
NOVELTY	**DESIGN FOR SUSTAINABILITY**	**DESIGN FOR SUSTAINABILITY**	**DESIGN FOR CIRCULAR ECONOMY**
Improved (novel) products Products that have a superior technical value over existing alternatives	**Local economy** Through consumption promote the local economy, any local economy possible	**Natural materials** Products or part of products made of biodegradable material	**Recycled materials** Products making use of recycled or repurposed materials to create new products

Think about...	Think about...	Think about...	Think about...
how the consumer could still recognise the future product or service by using existing product categories	how to use transparency in the product to help change the consumer's behaviour and perception towards a product	how to make it easy and appealing for consumer to adopt the desired sustainable behaviour	how a product could use environment friendly energy to help a consumer become more sustainable
how to create value for the consumer by recognizing the product and the best feature through the aesthetics of the product	how to use incongruences in the appearance to surprise and further interest the consumer	how the appearance of a product or service could communicate what the consumer think is important	the relationship between collective and social concerns. Focus on the user's motivation or motivating users
how to create value for the consumer by recognizing the product and the brand through the aesthetics of the product	how products or services could fulfil existing and rational needs through stimulate the right emotions through the aesthetical use	how aesthetics could help show the consumer, which way the environment is going through mass consumption	what the interaction between product and user is, and which message the products conveys towards the user or others
creating uniqueness within the product or service appearance to generate a competitive advantage, but keep recognitions for the consumer	how products could help the consumer purchase local produced products	how to make it easier for consumer to contribute to a more sustainable world by using natural materials	how to put the user as the core of the design circle and help them participate in the circular economy

123

SPIRITUALITY AND DESIGN	NEW PRODUCT OR SERVICE DESIGN	REDESIGN OF EXISTING PRODUCT OR SERVICE	CONTEXT OR MARKET CHANGE
EMOTIONAL DURABLE DESIGN	TARGET GROUP CHANGE	MARKETING CHANGE	
Think about... focussing on positivity; the link between the inner self and the other social actions, so what is good for the consumer and others	Think about: How can you use the chosen design direction to design a new product or service? How can the new design provide consumer wisdom and create well-being for the user or it's surrounding?	Think about: How can you use the chosen design direction to redesign a product or service? How can the redesign provide consumer wisdom and create well-being for the user or it's surrounding?	Think about: How can you use the chosen design direction to change the context or market of ? How can the change in context or market provide consumer wisdom and create well-being for the user or it's surrounding?
Think about... reducing the consumption and waste of resources by increasing the relationship between consumer and product	Think about: How can you use the chosen design direction to design for a different target group? How can the change of the target group provide consumer wisdom and create well-being for the user or it's surrounding?	Think about: How can you use the chosen design direction to change the marketing strategy? How can the change of marketing strategy provide consumer wisdom and create well-being for the user or it's surrounding?	

RULES GUIDE

These are the rules when using the Consumer Wisdom design tool within your design process.

The tool consists of 1 information card, 6 dimension cards, 27 design direction cards and 5 design aim cards.

The tool can be used in a group or individually.

The cards:

The information card is just to provide information about the Consumer Wisdom design theory.

The 6 dimension cards will provide information about the different design dimension there are within the theory on the front side. On the backside you can read more about the different design direction within every dimension.

The 27 design direction cards provide information about proposed the design categories within the design direction. On the backside you can find tips on how to design for a certain direction.

5 Design aim cards provide information about what kind of aims you can use within the theory.

How to use the cards:

When using the tool for the first time, it is essential to read the information card and the dimension cards first.

Then choose one card out of the 27 design direction cards and one of the design aim cards. Read the cards

Try to combine the design direction and the aim together to create a product or service in a brainstorm session to design for consumer wisdom and well-being for all. If the cards really do not combine, choose a new design direction or aim. Do not do this when ideas do not come directly to mind. First try and only change when they really do not combine.

When brainstorming nothing is wrong, even far fetched ideas are good ones. Do not overthink it and just design.

When you want to design for a certain dimension or if you already know which dimension to design for choose one of the colour related design directions. The dimension cards could also help understand the design direction better.

Try to design together with your partner and ask him/her a question when you are stuck in the process.

Enjoy the process and create something for the well-being of all!

124

I will be designing for an individual level of wellbeing
ⓘ
❌ ✅

I will be designing for a collective level of wellbeing
ⓘ
❌ ✅

Designing for lifestyle is my design aim
ⓘ
❌ ✅

I want to design for millennials (20-40 years old)
ⓘ
❌ ✅

The design direction best fitting your needs is...

Design for Sustainability
▶

ⓘ
The collective level of wellbeing focuses on the wellbeing of planet and people without gaining benefit for oneself. This focus includes being social with others, having empathy and being socially responsible
◀
❌ ✅

Design for Sustainability

This design direction considers social, economic and cultural aspects with long term solutions trying to change the over-consumption behaviour

Design categories could be:
Local economy
Stimulating sustainable behaviour
Demonstrating goal of user
Appearance shows harmfulness of consumption
Natural materials
Environment friendly energy

APPENDIX 9: QUESTIONNAIRE TOOL EVALUATION

Please rate the product by ticking the box you find most fitting.
1 = terrible, 2 = bad, 3 = okay, 4 = good, 5 = perfect.

The product ..

Focuses on a certain lifestyle.

1	2	3	4	5
Terrible	Bad	Okay	Good	Perfect
☐	☐	☐	☐	☐

Focuses on the user's needs, wants and experiences.

1	2	3	4	5
☐	☐	☐	☐	☐

Helps the user to make responsible consumer choices.

1	2	3	4	5
☐	☐	☐	☐	☐

Steers the user towards choices focused on their lifestyle and needs.

1	2	3	4	5
☐	☐	☐	☐	☐

Creates a bond between product and user or between users.

1	2	3	4	5
☐	☐	☐	☐	☐

Helps the user to think about their life(style).

1	2	3	4	5
☐	☐	☐	☐	☐

-
Is based on the user's knowledge (consciously and subconsciously).

1	2	3	4	5
☐	☐	☐	☐	☐

Is based on the experience users have with or through the use.

1	2	3	4	5
☐	☐	☐	☐	☐

Helps the user in the pursuit of a pleasurable, satisfying life and flourishing in life.

1	2	3	4	5
☐	☐	☐	☐	☐

Focuses on subjective well-being and appreciation of life.

1	2	3	4	5
☐	☐	☐	☐	☐

Concentrates around emotions the user feels.

1	2	3	4	5
☐	☐	☐	☐	☐

Focuses on social needs and preferences.

1	2	3	4	5
☐	☐	☐	☐	☐

-

Promotes repurposing, remanufacturing, refurbishing, reusing or repairing.

1	2	3	4	5
☐	☐	☐	☐	☐

Promotes sharing with others.

1	2	3	4	5
☐	☐	☐	☐	☐

Ages gracefully to promote reusability.

1	2	3	4	5
☐	☐	☐	☐	☐

-

Is a totally new product or has new technology.

1	2	3	4	5
☐	☐	☐	☐	☐

Is a new way of an existing product or problem.

1	2	3	4	5
☐	☐	☐	☐	☐

Is a clear representation of a product category.

1	2	3	4	5
☐	☐	☐	☐	☐

Is easy to use and understand.

1	2	3	4	5
☐	☐	☐	☐	☐

-

Is recognizable through its look, aesthetics or brand features.

1	2	3	4	5
☐	☐	☐	☐	☐

Is superior relative to existing alternatives.

1	2	3	4	5
☐	☐	☐	☐	☐

Uses transparency in its design (e.g., see-through features).

1	2	3	4	5
☐	☐	☐	☐	☐

Has a new or interesting look, but with a recognizable function.

1	2	3	4	5
☐	☐	☐	☐	☐

-

Is sustainable.

1	2	3	4	5
☐	☐	☐	☐	☐

Is made for circular economy.

1	2	3	4	5
☐	☐	☐	☐	☐

Thinks about social interactions.

1	2	3	4	5
☐	☐	☐	☐	☐

Reduces waste through a relation with the user.

1	2	3	4	5
☐	☐	☐	☐	☐

APPENDIX 10: EVALUATION RESULTS
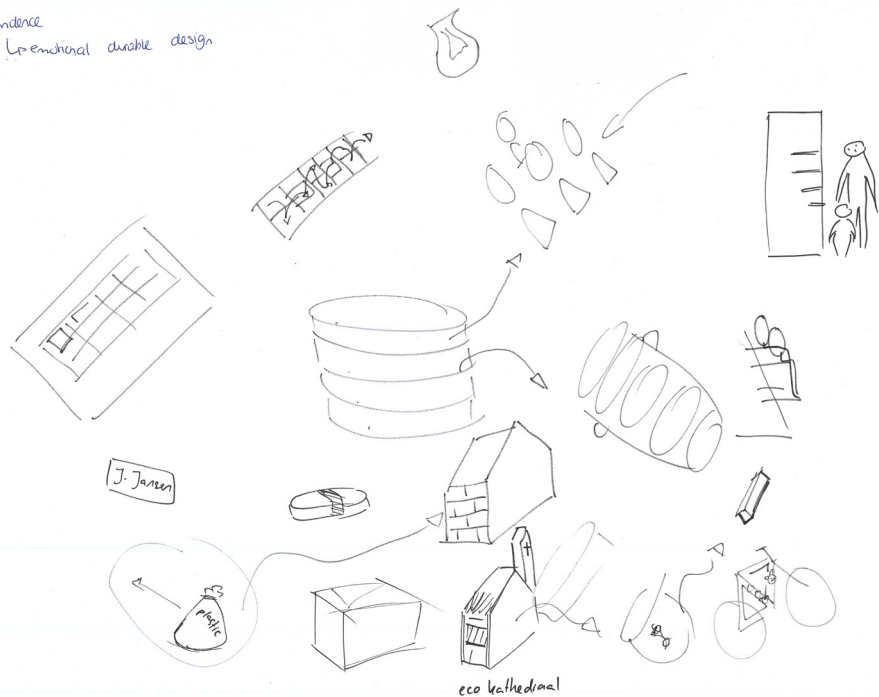
Transcendence
└→ emotional durable design

J. Jansen

plastic

eco kathedraal

Perspective
Retrospection

rood

Stort

5

adapt to
eating habit

children (~18yr)
↳ grow-up
↳ move out

cutlery

melting
growing plants

memories
form and color
design
(heritage)
custom made
usage special occassions

identity
unique

floating.

131
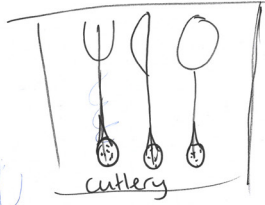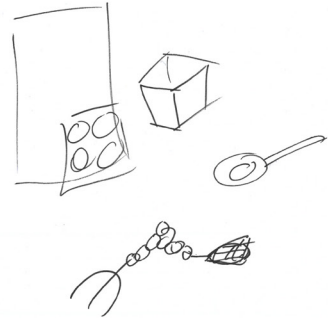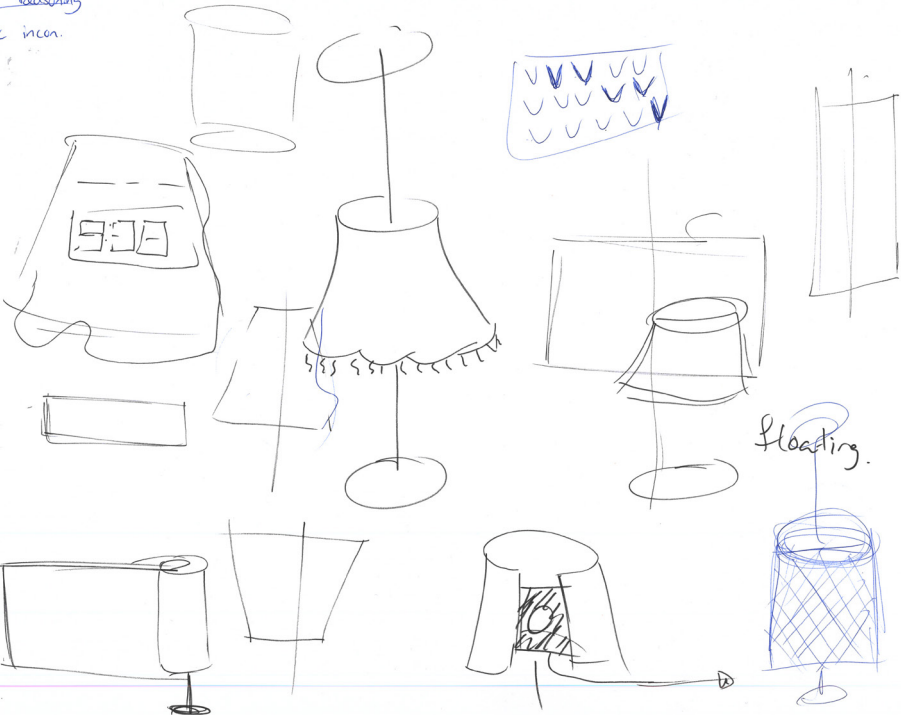
THE CONSUMER WISDOM TOOL

The set up

- *When using the tool you need designers or yourself*

- *The card set*

- *Something to document your brainstorm session on*

The cards

The tool consists of 1 information card, 6 dimension cards, 48 design category cards and 3 design purpose cards.

The usage

The tool can be used in a group or individually. Take the time, there is no time limit or goal. Use the tool as long as necessary due to your preferences. You can stand or sit while using the tool. Make it yourself comfortable and in a designing surrounding.

The cards:

The information card is just to provide information about the Consumer Wisdom design theory.

The 6 dimension cards will provide information about the different design dimension there are within the theory on the front side. On the back you can read more about the different design direction within every dimension.

The 48 design direction cards provide information about proposed the design categories within the design direction. On the you can find tips on how to design for a certain direction.

3 Design purpose cards provide information about what kind of aims you can use with the theory.

How to use the cards:

0

When using the tool for the first time, it is essential to read the information card and the dimension cards first. Read the cards carefully and try to put the information at the back of your head. If you are very curious you could take a look through the design category cards as well.

1

Lay out all the 48 design category and the design purpose cards in front of you. Choose one design category cards and one of the design purpose cards. Read the cards.

2

Try to combine the design category and the purpose together to create a product or service in a brainstorm session to design for Consumer Wisdom and well-being for all. If the cards really do not combine, choose a new design category or purpose. Do not do this when ideas do not come directly to mind. First try and only change when they really do not combine.

3

When brainstorming nothing is wrong, even far fetched ideas are good ones. Do not overthink it and just design. Try to design according to the category, the tips and tricks could help you and the examples will show you what direction to think of.

4

When you have a preference to design for a certain dimension or if you already know which dimension to design for choose one of the colour related design strategies. The dimension cards could also help understand the design direction better. The same applies for the design purpose cards. If you know what you want, choose it.

5

When designing together with your colleague(s) try to inspire, help each other and ask each other questions when you are stuck in the process.

This is just an example of how you can use the card set. The use is not set in stone, so change it up if you like. The cards are here to inspire and help you out. Enjoy the process and create something for the well-being of all!

LIFESTYLE RESPONSIBILITY

Lifestyle Responsibility emphasises on lifestyle envisionment, personal resource management and avoiding negative emotions. Lifestyle Responsibility is about empowering consumers to make the right decisions based upon their life and budget. How they can make consumption choices for self-identity and self-expression according their way of living.

PURPOSE

Purpose emphases on pursuing positive emotions and a growth mindset (e.g., gaining knowledge or skills). Through life and experiences a consumer gains knowledge and skills, which can be used to purchase the right products for oneself. The more interactions with products and services, the more knowledge the consumer gains and the wiser they become.

FLEXIBILITY

Flexibility is about alternative consumption (e.g., share, swap, borrow) and how consumers could join this movement. With alternative consumption we talk about repurposing, remanufacturing, refurbishing products and sharing. Flexibility targets the people who are willing to change the way consumptions are acquired nowadays, to stop the consumerism and the negative impact mass consumption has.

CONSUMER WISDOM

PERSPECTIVE

Perspective focuses on what the consumer already knows about products through their own and others' purchases and how they can make well-considered choices. Furthermore, it is about new or future products and usage that could be new for the consumer.

PRUDENT REASONING

Prudent Reasoning is about gaining knowledge before the purchase, spending time and effort considering options and their consequences. Prudent Reasoning concerns around the value products have for the consumer as well as what they communicate towards the consumer.

TRANSCENDENCE

The Transcendence facet is about compassion (e.g., caring for general welfare, local businesses) and interbeing (e.g., relations with others, nature). Transcendence is about the empathy a consumer has for people and planet, including being social with others and gaining no benefit for oneself.

CONSUMER WISDOM

Consumer wisdom is defined as the pursuit of well-being for oneself and for others through mindful management of consumption-related choices and behaviours. Consumer wisdom offers a positive alternative whose objective is to simultaneously promote the well-being of the individual, society, and the natural environment. The Consumer Wisdom theory is composed of 6 facets; Lifestyle Responsibility, Purpose, Flexibility, Perspective, Prudent Reasoning, and Transcendence (Luchs & Mick, 2018).

FLEXIBILITY

Proposed design directions:

Alternative consumption
Alternative consumption is about repurposing, remanufacturing, refurbishing products, borrow or non-ownership.

End-of-life design
Initiating the potential of reusing, service, remanufacturing, recycling with/without disassembly or even disposing of the product by the user

Sharing economy
Share what you have, to create less waste and lower the mass consumption rate.

Design for aging gracefully
Engaging the consumer in the material changes that could occur over time. The designer can make extending the product life span socially acceptable

PURPOSE

Proposed design directions:

Positive design
The goal is to design to increase people's subjective well-being and appreciation of life

Happiness design
Helping the user in their pursuit of a pleasurable, satisfying life and flourish in life

Design for emotion
This direction is linked to the emotions the user feels with the product or service, when seeing, using or buying it. Design to evoke or prevent certain emotions with the consumer

Experience design
Experience as the root of designing and the source for new possibilities, ensuring a human-centred approach. Technology could help enriching consumer's experiences

Product experience
It is concentrated around the function of products and how products fit the user's activities. A product experience is based on the user's knowledge about the product or service, a conscious and subconscious matter

Social design
Design for social needs and preferences

LIFESTYLE RESPONSIBILITY

Proposed design directions:

User-centred design
Design towards the user (their needs, wants and experiences) and if they understand the use of the design

Responsibility design
To help users make responsible consumer choices and steer them towards choices focused on their lifestyle

Mindful interaction design
Mindful interaction design exists of the frame of the mind and its content, so the triangle relation between person - object - person

TRANSCENDENCE

Proposed design directions:

Design for sustainability
Considering social, economic and cultural aspects with long term solutions trying to change the over-consumption behaviour

Design for circular economy
An alternative to the usual linear model to use materials for as long as possible and recycling where possible

Design for socially responsible behaviour
The relation between social implications, behaviour and human-product interaction is important when designing for a social responsible behaviour

Emotional durable design
The target is to reduce the consumption and waste of resources by increasing the resilience of relationships between consumer and product

PRUDENT REASONING

Proposed design directions:

Product value design
Understanding of recognition, perception, and interpretation of various design features by users and connecting them to a brand or to recognize a product

Novelty
There are two types of novelty; absolute novelty – something that has never been experienced before, and relative novelty – a product with a new combination of previously experienced elements

Transparency
How much light goes through the product or the surface to show what is inside the product

Symbolic incongruences
Incongruences in product appearance (e.g. incongruences among impressions elicited by visual and tactile aspects of product appearance)

PERSPECTIVE

Proposed design directions:

Prospective
These products have no predecessors. The products may be new in forms of changing the needs and context of the consumer

Retrospective
Creating products with the help of learning's from other's and your own past and present consumption (behaviour)

Prototypicality
The degree a product is the representation of a category by the look, aesthetics and brand recognized by the consumer

Simplicity
Products or services those are easy to understand and use by consumers. Explanations are not necessary, because by the look the consumer knows what it is and how to use it

USER-CENTRED DESIGN

Customized products
To show the personal or special lifestyle of the consumer. The consumer is willing to pay a bit more to customize the products according to their preferences and performance indication

USER-CENTRED DESIGN

Avoiding negative emotions
Products that help achieve difficult or time consuming tasks and avoid negative emotions when using them

USER-CENTRED DESIGN

Durable tools
Helping consumer to lengthening lifetimes of owned products

Long lasting products
These products are durable because of the good quality and they will last a long time until they need replacing

USER-CENTRED DESIGN

Time upgradable
Products that can be changed according to user's preferences. The products keep their value over time and prevent purchasing new products

Situation upgradable
Products can be changed according to the situation, so buying less products

RESPONSIBILITY DESIGN

Healthy lifestyle
Products that stimulate the behaviour for living a healthy life and make it easier to live a healthy lifestyle

RESPONSIBILITY DESIGN

Budgeting
Products that help consumers with wisely spending their money and help their keeping track of their budget

RESPONSIBILITY DESIGN

Resource management
Products that reduce consumption in order to live a virtuous lifestyle and helps the consumer save money

USER-CENTRED DESIGN

Personalisation
Common products that can be personalised by the consumer according to their preferences. The product is mass production, but has the option to personalised when bought

---

Tips and tricks
How could the product or service help to maintain a certain lifestyle?

How could the product or service be upgraded over time?

How does the products or servide help spending less on new objects?

ReTyre

The tires of this bike can be changed according to different types of ground

Piv-o stroller

This baby stroller grows with the child from stroller into a walker into a tricycle

Tips and tricks
How could you help the consumer lengthen the life of your product or service?

How could the product or service be durable over time?

iFixit

Toolkit for the DIY with all the tools necessary to fix everything you want

Senz Umbrella

Smart umbrella. Can withstand all weather types and moves with the wind direction, so it won't break

Tips and tricks
How could the product or service help consumers avoid negavite emotions?

How does the product or service enrich a consumer's life?

Kitchen Safe

Time locking container. The inside of the storage container can only be opened after the time is over

Pikaplant jar

This biotope provides the plant with all the nutrients it needs inside the jar

Tips and tricks
How can you make products or services special towards the consumer?

How will this help make consumers spend a bit more on the product or service?

Black and White Surfboards

Custom made surfboards

New Balance 3D-printed midsoles

Shoes with customized 3D-printed midsoles for cotimized walking experience

Tips and tricks
How could the product or service be personalised?

How could the product or service be common, but still personalisable?

Blank wall clock by Alessi

This clock comes without anything on it and with a marker. The user can put on everything they want and change it whenever they like

Pinboard

This pinboard lets users connect through uploading anything from the phone on magnetic interfaces or through writing

Tips and tricks
How could the product or service help consumers make responsible choices?

How could the product or service create a virtuous life for the user?

Nest

Smart thermostat. It helps saving energy by being easily acceptable

Low-flow showerhead

This showerhead saves water, monitors the average water use and shows the water temperature

Tips and tricks
How could the product or service help focus on a certain lifestyle?

How could the product or service help the consumer make responsible choices for their needs?

Care by Volvo

VOLVO XC40 DEBUTS WITH CARE BY VOLVO SUBSCRIPTION SERVICE

A subscription service offering digital concierge, repair, insurances, streaming, in-car delivery, access to premium cars

Budget Tool

This tool helps to see into the financial budget of an user. Physical diagrams show incomes and outgoings

Tips and tricks
How could the product or service help create a healthy lifestyle?

How could the product or service help maintain a healthy lifestyle?

Somnox

This robot will help the user fall asleep with breathing, lullabies, the sound of heartbeats, meditation and warmth

Mirror

An all-in-one responsive screen to create a fully immersive fitness experience within the home

MINDFUL INTERACTION DESIGN

Reconciling time
Products that show time is limited and that life should be spend wisely

MINDFUL INTERACTION DESIGN

Make decisions
Products forcing the consumer into desired behaviour

RESPONSIBILITY DESIGN

Reconciling conflicting values
Products that reconcile existing issues for the consumer by helping them

RESPONSIBILITY DESIGN

Reminding to take action or make a decision
Products that help the consumer to take action or make a decision through the use of the product

HAPPINESS DESIGN

Learning new skills
Through usage of products the consumer will learn new skills

POSITIVE DESIGN

Development of specific behaviour
Through usage the consumer behaviour can be influenced and help pursuing positive emotions

POSITIVE DESIGN

Maintain good memories
By usage of products the consumer will keep their memories and can revisit them whenever

POSITIVE DESIGN

Trigger positive emotions through usage
Through the use of the products the consumer will experience happiness. The products help or promote a positive behaviour

---

Tips and tricks

How could the product or service remind the consumer to take action?

How could the product or service help the consumer make a decision?

How could this be done in an convenient or non-irritating manner?

The Birthstone

This wearable alerts pregnant woman when there is radiation near, so they can distance themselves for the babies sake

AutoMed+

This device helps to take liquid medicine by reminding and with every touch pouring the right amount of liquid

---

Tips and tricks

How could the product or service help making responsible choices?

How could this help the consumer's lifestyle or needs?

MijMo

This watch helps elderly balance their mental and physical well-being. Tracks activities and reminds user of activities to do

Equa

This bottle reminds the user to drink water with a light on the bottom

---

Tips and tricks

How could the product or service help change behaviour?

How could the use help the consumer with this change?

Reveal watch

An analog watch that reveals the time in a digital format and only shows what is necessary

Kitchen Safe

Time locking container. The inside of the storage container can only be opened after the time is over

---

Tips and tricks

How could a product or service create awareness of how precious life or time is?

How could the product or service make consumers spend their life wisely?

The Moment candlestick

This cast iron candleholder has a bundle in mechanism to put out the flame when the candle is run out of wax

Aura

This wearable detects stress, anger, sadness and happiness by showing lines. It also shows the time

---

Tips and tricks

How could the product or service help increase happiness?

How could the usage help increase consumers their happiness?

Tinytask

Small task to change up the user's day

Acoustic Poetry

This device connects deaf people with their environment by making the sounds written poetry

---

Tips and tricks

How could the product or service help increase happiness?

How could the the product or service help appreciate life?

GoPro

Filming everywhere, in every circumstance and during every activity

Instant Camera

Take a picture and it will be printed right away

Tips and tricks

How could the product or service help increase happiness?

How could the the product or service help change the consumer's behaviour?

Low-flow showerhead

This showerhead saves water, montors the average water use and shows the water temperature

Benjamin Brush

This app connected toothbrush makes brushing more fun with music, vibrations and games. It also keeps track of the habits

---

Tips and tricks

How could the product or service help pursuit a pleasurable life?

How could the usage of the product or service help pursuing a statifying life?

iFixit

Toolkit for the DIY with all the tools necessary to fix everything you want

Lightbox

This camera makes it possible to share life streaming videos with your friends and family

PRODUCT EXPERIENCE

Improve performance
Products that help improve the consumer's performance through usage

DESIGN FOR EMOTION

Trigger positive emotions through a funny/deviating look
Products triggering positivity through their appearance

DESIGN FOR EMOTION

Small-batched goods
Products that are produced in a small batch in order to make them special and make consumers care more for them

HAPPINESS DESIGN

Express creativity
With the use of these products the consumer can show their creativity

ALTERNATIVE CONSUMPTION

Homemade food
Through usage produce own food

SOCIAL DESIGN

Trigger positive emotions through social interactions
Products stimulating positivity through social interactions

SOCIAL DESIGN

Sharing experiences
Through the products share personal events or experiences with others

EXPERIENCE DESIGN

Creating nice experiences
Accessories that help to create nice(r) experiences through usage of the product or service

---

Tips and tricks

How could the product or service help the consumer flourish in life?

How could the product or service show to the outside that the consumer does well?

Sowing machine
User can make all types of creations with this machine

Van Gogh Vans
This special edition of the vans have the design of Van Gogh paintings on them

---

Tips and tricks

How could the product or service help the consumer care more for it?

Which emotions could be linked in order to see, buy and use the product or service?

Adidas Parley
Shoes made out of ocean plastic waste. Launched as a limited edition of 50 pairs

Inaccessible Perfume
This perfume is enclosed in limited-edition packaging made out of a recycled fiberglass material

---

Tips and tricks

How could the product or service trigger positivity?

Which emotions should be felt by the consumer in order to see, buy and use the product or service?

Children's wheelchair
This wheelchair can be changed into the best settings for the child's preferences

Rhino
A hammer that can be changed into a small rhino to easily put away

---

Tips and tricks

How could the product or service provoke the right interaction?

How could you use your own experience to create products or services?

How could you use consumers' experiences to create products or services?

Swiss barefoot socks
Socks made out of extra strong material and anti-slip, so they can be used outside to walk or while surfing

Little helper
It helps to grow vegetables and eat healthier with the help of a sensor to add to the garden and an app

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Tips and tricks

How could a product or service elicit positive emotions from the consumer?

How could technology help consumers create positive emotions?

Nest
This tent can be placed on top of a car. This made out of an aluminum frame and waterproof sailing fabric

Logigram turntable
This turntable doesn't comprise on audio quality neither on design for the music lover. Made out of wood, composite and MDF

Tips and tricks

How could you design for social interactions?

Which social needs or preferences could be linked with the product or service?

GoPro
Filming everywhere, in every circumstance and during every activity

Lightbox
This camera makes it possible to share life streaming videos with your friends and family

---

Tips and tricks

How could you design for happiness through social interactions?

Which social needs or preferences could be linked with the product or service?

Cookery Kit
This subscription cooking kit engages social activities through cooking for neighbors

Croquet set
A complete set to play croquet together

Tips and tricks

How could the product or service stimulate producing own food?

How could you make it easy for consumers to produce food at home?

Organic Table
This table combines eating and gardening. The table is made of walnut and the user can grow whatever they want in the middle

Puro
An autonomous planter that lets the user know when the plant needs water in the water basin

137

SHARING ECONOMY

Sharing consumption
Products that promote sharing instead of owning products

END-OF-LIFE DESIGN

Repair products
Through usage helping or promoting repairing owned products or make things themselves

END-OF-LIFE DESIGN

Promote reusability
Extending value of owned goods by not having to throw products away after usage

ALTERNATIVE CONSUMPTION

Leasing
Products that stimulate non-ownership

SIMPLICITY

Most basic usage
The appearance of the product is the most basic or simple shape so the consumer can easily recognize the usage

RETROSPECTION

Influence negative consequences of consumption
Products that help solve well-known bad experiences and help learn from other's past consumption behaviour

PROSPECTION

Improve behaviour
Products that provide feedback or monitor behaviour to help improve it

DESIGN FOR AGING GRACEFULLY

Graceful aging material
Products that can be used for a long time and keep their charm, due to the fact that the material ages gracefully

---

Tips and tricks

How could you design to change the consumer's behaviour?

How could you stimulate non-ownership through a product or service?

Care by Volvo

VOLVO XC40 DEBUTS WITH CARE BY VOLVO SUBSCRIPTION SERVICE

A subscription service offering digital concierge, repair, insurances, streaming, in-car delivery, access to premium cars

Tips and tricks

How could the product or service help consumers change their throwing away behaviour?

How could you stimulate extending the life of a product through reusing?

Chew

A portable environment friendly straw

Que

This BPA-free silicon bottle is made for easy travel. When it is empty just crunch it down half the size

Tips and tricks

How could a product or service help extening the lifespan of other products?

How could consumers maintaining products on their own?

Sowing machine

User can make all types of creations with this machine

iFixit

Toolkit for the DIY with all the tools necessary to fix everything you want

Tips and tricks

How could you create trust between consumers?

How could products or services help lower waste or the mass consumption rate?

Quinque

Departments in this machine makes sharing possible and through time programming all the clothes will be washed separately

The City scooter

This is a bike rental system to share bikes in a city

Tips and tricks

How does the material change over time?

How could the material change create willingness with the consumer to buy second hand, share products or reuse them?

Leather weekend bag

This bag is made from leather to resistant to years of intensive use

Yi chair

This chair is made from ash and wood. The purpose of the chair is to withstand usage over time

Tips and tricks

How could products or services change the consumer's needs or context?

How could a consumer recognize the future product or service?

Low-flow showerhead

This showerhead saves water, monitors the average water use and shows the water temperature

Budget Tool

This tool helps to see into the financial budget of an user. Physical diagrams show incomes and outgoings

Tips and tricks

How could you implement existing knowledge about purchases in new products or service?

How could this knowlegde improve previous problems or behaviour?

One for Hundred

A furniture line that plants a hundred trees for every piece of wooden furniture sold

Water filter

A graphene-based water filter to produce drinkable water by just running the water through

Tips and tricks

How could you downscale the appearance of the product to most basic?

How could a product or service be easily understood?

How could the use of the product or service be easily understood?

Skeleton collection

Cutlery bring down to the most basic form of use

GrowOya

A terracotta vessel to bury mostly underground to naturaly seep water into the soil for plants

NOVELTY

Improved (novel) products
Products that have a superior technical value over existing alternatives

PRODUCT VALUE DESIGN

Brand recognition
The brand can be recognized by the product's aesthetics

PRODUCT VALUE DESIGN

Best feature focus
The product is designed in a way the best feature catches the eye immediately

PROTOTYPICALITY

New technology in 'old' form
Products with a prototypical shape of old technology so the consumer recognize the usage of the new technology

DESIGN FOR SUSTAINABILITY

Local economy
Through consumption promote the local economy, any local economy possible

EMOTIONAL DURABLE DESIGN

Creating a bond between product and consumer
The consumer creates a bond with the product, which makes it hard to throw it away and causes long time usage

SYMBOLIC INCONGRUENCES

Different look
The look of the product differ from the regular products within the category. Purpose is clear, but it is in a new/different design than the consumer is used to

TRANSPARENCY

See-through products
The use can be understand by the use of seeing through the product

---

Tips and tricks

What could a future product or service look like?

How could you use existing product categories to create recognizable future products or services?

Kobo e-reader
A device to read books everywhere with the help of a light for darker days and storage for hundreds of books

Marbel
A light and electric skateboard

Tips and tricks

How could you create value for the consumer throught the aesthetics of the product?

How could the consumer recognize the product and the best feature through these aesthetics?

Organic Table
This table combines eating and gardening. The table is made of walnut and the user can grow whatever they want in the middle

999 Bottles
Count how many plastic bottles you safe every time you fill up the bottle

---

Tips and tricks

How could you create value for the consumer throught the aesthetics of the product?

How could the consumer recognize the product and the brand through these aesthetics?

BMW i3
An electric car with all the benefits the BMW brand has to offer

iPod
User can listen to music everywhere and add there own preferred music

---

Tips and tricks

How could you create uniqueness within appearance of the product or service?

How could you generate a competitive advantage with this uniqueness?

How could you keep the recognitions for the consumer?

iPod
User can listen to music everywhere and add there own preferred music

Dyson vacuum cleaner
Clean without a wire and bag to make vacuuming easy and a nice task

---

Tips and tricks

How could you use transparency in the product?

How could this help change the consumer's behaviour and perception towards a product?

Wine cork saved in 3D model
This cork was saved by a couple after their first bottle drunk together

Fruit skewer bottle
An infuse water bottle featured with a filter, skewer, divider and juicer. So the inside can be change to the user's preference

---

Tips and tricks

How could you use incongruences in the appearance of the product?

How could this help to surprise and further interest the consumer?

Inaccessible Perfume
This perfume is enclosed in limited-edition packaging made out of a recycled fiberglass material

Pangolin
An eye-catching backpack made out of recorded tire tubes and big enough to store a helmet in it

---

Tips and tricks

How could you increase the relationship between consumer and product?

How could this help to reduce the consumption and waste of resources?

Electric guitar
This electric guitar is custom made for the user

Piv-o stroller
This baby stroller grows with the child from stroller into a walker into a tricycle

---

Tips and tricks

How could products help the consumer purchase local produced products?

How could a product promote local produced products?

Wingback cash wallet
A handmade and customizable leather wallet for easy use

139

DESIGN FOR SUSTAINABILITY

Natural materials
Products or part of products made of biodegradable material

DESIGN FOR SUSTAINABILITY

Appearance shows harmfulness of consumption
Focus on ugliness to show disruptive effect of consumption behaviour

DESIGN FOR SUSTAINABILITY

Demonstrating goal of user
These products help the consumer reach a certain sustainable goal and show this to the outside

DESIGN FOR SUSTAINABILITY

Stimulate sustainable behaviour
Products that could stimulate a change in the consumer behaviour towards a more sustainable way

DESIGN FOR CIRCULAR ECONOMY

Recycled materials
Products making use of recycled or repurposed materials to create new products

DESIGN FOR SOCIALLY RESPONSIBLE BEHAVIOUR

Animal welfare
Promote animal welfare or wellbeing through the help of these products

DESIGN FOR SOCIALLY RESPONSIBLE BEHAVIOUR

Promote social interactions
Products that promotes relationships with the community and make consumers care for social interactions

DESIGN FOR SUSTAINABILITY

Environment friendly energy
Products helping consumers use more environment friendly energy

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Tips and tricks

How could a product or service help create a more sustainable consumer behaviour?

How could you make it easy and appealing for consumer to adopt the desired sustainable behaviour?

Chew
A portable environment friendly straw

Morsel
This product is a fork and a spoon in one. It is light, easy to clean and made for inside and outside use. Made out of BPA plastic

Tips and tricks

How could the appearance of a product or service communicate what the consumer think is important?

How could a product or service help create a more sustainable consumer behaviour?

999 Bottles
Count how many plastic bottles you safe every time you fill up the bottle

One for Hundred
A furniture line that plants a hundred trees for every piece of wooden furniture sold

Tips and tricks

How could aesthetics show which way the environment is going through mass consumption?

How could this help the consumer to change their consumer behaviour?

Kaffeeform
Cubs and mugs made out of coffee ground (waste) and are 100% biodegradable

Be. (Beyond Electric)
Battery and electric-free vibrating toothbrush with a 100% biodegradable brush head and recyclable build

Tips and tricks

What kind of natural materials can be used for the product?

How could you make it easier for consumer to contribute to a more sustainable world by using natural materials?

Verterra
Compostable dinnerware made out of eco friendly palm-leafs

Bambu Veneerware
Plates and cutlery made 100% out of bamboo and certified organic

Tips and tricks

How could a product could use environment friendly energy?

How could the product help the consumer become more sustainable?

BMW i3
An electric car with all the benefits the BMW brand has to offer

WakaWaka
A compact solar charger that can charge a phone or small electrical device within a few hours

Tips and tricks

How could a product or service create a relation between the collective and social concerns?

How could a product or service focus on the user's motivation or motivating users?

Acoustic Poetry
This device connects deaf people with their environment by making the sounds written poetry

Cookery Kit
This subscription cooking kit engages social activities through cooking for neighbors

Tips and tricks

How could you create an interaction between the product and user?

How could the product or service convey a message towards the user or others?

The Room collection
A system of small-sized cardboard boxes that can be stacked to form tiny indoor architectures for cats

WickedBone
An automatic interactive dog toy to prevent boredom and loneliness for dogs

Tips and tricks

How could a product or service put the user as the core of the design circle?

How could the product or service help them participate in the circular economy?

Suga
This yoga mats is made out of old wetsuits

Recycled Pouf
This pouf is made out of recycled fabric

NEW PRODUCT OR SERVICE DESIGN

REDESIGN OF EXISTING PRODUCT OR SERVICE

CONCEPT DEVELOPMENT

Think about:

How can you use the chosen design direction to design a new product or service?

How can the new design provide consumer wisdom and create well-being for the user or it's surrounding?

Think about:

How can you use the chosen design direction to redesign a product or service?

How can the redesign provide consumer wisdom and create well-being for the user or it's surrounding?

Think about:

How can you use the chosen design direction help to develop your concept further?

How can you implement consumer wisdom and creating well-being for the user or it's surrounding with your concept?
Does it needs adjustments in order to do so?