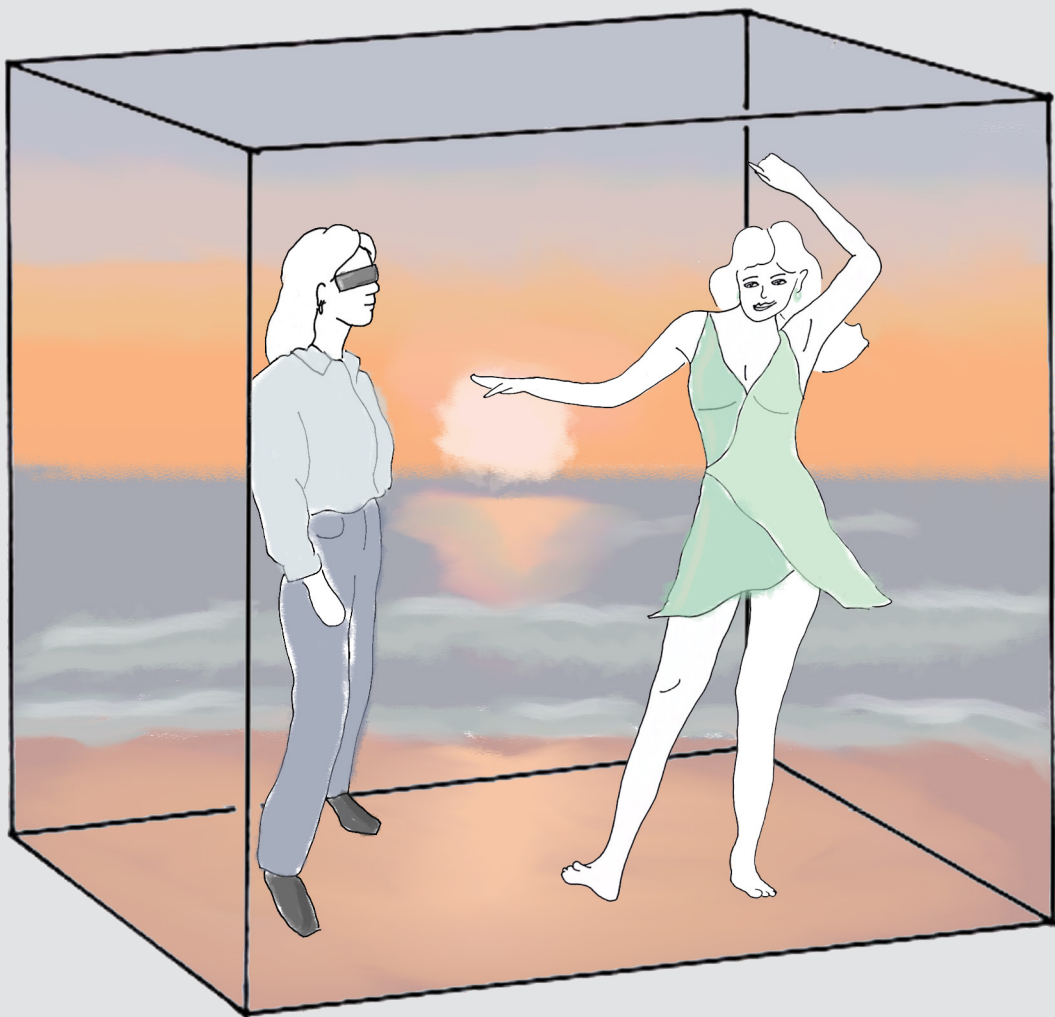# Designing a new customer experience for fashion in the metaverse

Master thesis

Strategic Product Design

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Designing a new customer experience for fashion in the metaverse

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Preface

Dear reader,

Before you lies my masters thesis, the result of more than six months of work. This thesis is the end point of the two-year Masters in Strategic Product Design at Technical University of Delft. The many lessons learned in recent two years are brought together and presented in this report. Because I have followed a somewhat unusual path in my student career, I am glad that I made the choice to follow this master. I have learned a lot over the past two years and look forward to putting this into practice. This thesis was made possible with the help of a number of people, whom I would like to thank.

First of all, Helen, I'm very grateful for the opportunity you gave me to do my thesis research at TBWA\X, even though you were not familiar with my masters and you dared to supervise my project. I have always experienced your guidance as very pleasant, you gave me the freedom to shape my project according to my own insight and you were open to all possibilities. Thank you for all your dedication, patience, guidance and trust in my project.

In addition, I would like to thank everyone at TBWA\X. I have always experienced the working atmosphere as very positive and helpful, everyone was always open for a nice chat.

Furthermore, I would like to thank my supervisory team. Thanks to your efforts, I was able to bring this project to a successful conclusion. Theresa, for the sharp insights in the area of structure, research design and result analysis. You knew how to ask the right questions to get me back on track. EJ, for giving me confidence by relying on the process (and stick to it) and for providing interesting approaches and methods that I hope to be able to use after this thesis.

Finally, I would like to thank my friends who have had to hear all my endless stories and theories about the metaverse, especially Kris. With Bo, Joor, Noor and Kris in particular for taking the time to review my thesis.

Enjoy reading!

Suzanne Cobben

Executive summary

After Facebook renamed itself Meta, the metaverse was brought to the attention of the public eye (Schram, 2021). Newspapers and other news sources started writing extensively about this innovation that would change the world forever. What the metaverse exactly is or might become as it doesn't exist yet, one can only speculate on. One way to describe the metaverse in simple terms is the worldwide web breaking free of its two-dimensional barriers and becoming three-dimensional through an immersive experience, unlocking many potential possibilities for new customer experiences. In particular, the metaverse has also evoked the interest of the digital customer experience agency TBWA\X. TBWA\X's mission is to become the agency of the future, so they were curious to explore and investigate what the metaverse could entail for them. With the curiosity and potential of the metaverse for TBWA\X as a main focus, the following research question emerged:

"How can a radical innovation such as the metaverse be used to design a new customer experience for fashion."

The element of fashion was added to the research question to scope the project. TBWA\X has several clients that operate in the fashion industry. Furthermore, various fashion brands are already exploring the possibilities of the metaverse (McDowell, 2021), paving the way for TBWA\X.

The methods applied to structure the project and achieve the desired results are the double diamond model, the Vision in Product design (ViP) method (Hekkert & Van Dijk, 2011) and the DIVE method (Mejia, 2021). The ViP method was applied to structure the first diamond, the research part. In order to obtain the necessary insights for the ViP process, a literature study was conducted, interviews were held, observations were recorded, news sources were monitored, and informal discussions were held. Next, the research phase led to the design vision. The design vision gives direction to the second diamond, the design phase. In this phase, the last two steps of DIVE were completed to arrive at a vision concept and an implementation strategy. As part of the design phase, co-creation sessions were held, and the end result was evaluated by experts.

The design outcome is a vision concept in the form of a video and accompanying strategy plan. The vision concept is envisioning the online shopping experience in 2032: the VR fitting room. The VR fitting room enables consumers to choose an immersive context, or backdrop, to their liking to achieve a hyper personalized and satisfying experience. To enter the VR fitting room, the consumer has to put on VR glasses. The consumer then moves into a virtual space that contains a digital twin, in other words, a photo-realistic representation of the consumer. This digital twin can try on clothes and the surrounding space can be adapted to the moment the clothes are worn. For example, when someone wants to buy swimwear, the environment can be set to the beach. This means that both the consumer and the digital twin will find themselves at the beach where the consumer can inspect the digital twin from every angle. The literature shows that the richer the context, the better the consumer can estimate whether the clothing meets the needs of the consumer.

This vision concept is a steppingstone for TBWA\X to start creating immersive experiences in the metaverse. TBWA\X requested an outcome that can be applied to all client categories and emerging innovations. Although these requirements do not directly apply to the VR fitting room concept, the individual elements of the VR fitting room and the design process do apply to these requirements. Namely, the software that needs to be understood to create the vision concept is applicable to make immersive experiences. The methods used in the process to build the VR fitting room, are aimed at exploring the possibilities of an innovation for SMEs, such as TBWA\X. Therefore, this thesis can be seen as a concrete step-by-step plan for TBWA\X on how to deal with innovation, as the methods described are applicable to emerging innovations, and where especially the DIVE method is suitable for TBWA\X.

The implementation strategy to make the vision concept a reality is a starting point for TBWA\X to start exploring future possibilities with their clients for creating immersive experiences.

Glossary

Avatar
A digital representation of a person in online worlds or video games. An avatar doesn't have to have any similarities with the person who creates or uses it.

Blockchain technology
Blockchain technology is a system that makes it possible to track ownership and make transactions more transparent, because everyone has access to the same information.

Customer experience
The consumers' holistic perception of their experience with a brand during all stages of the consumption process, including pre-purchase, consumption, and post-purchase stages.

Digital twin
Officially, a digital representation of a real-world physical system or process. In this thesis, a digital twin is the photorealistic representation of the consumer used in the immersive experience of the VR fitting room.

Immersive experience
An immersive experience is one of the five pillars on which the metaverse builds. An immersive experience is accessible through a VR/AR/XR headset, which immerses the user in a three-dimensional, digital world.

NFT
Non-Fungible-Token. A NFT is a package of information stored on the blockchain, used to certify authenticity and ownership. NFTs are best known to the public as digital art projects.

Skin

The skin is a means to dress and change the appearance of an avatar, like clothing.

VR / AR / XR technology
Virtual Reality, Augmented Reality and Extended Reality are forms of immersive experiences that can be accessed through a VR/AR/XR headset. AR is also accessible via smartphone, but then the experience is not immersive.

VR fitting room
The VR fitting room is the vision concept the implementation strategy is aiming for to achieve in 2032. The VR fitting room provides the consumer with an immersive and personalized context when shopping fashion online.

VR headset
The Virtual Reality headset is used to access an immersive experience. The headset is placed on the head and covers the eyes and sometimes the ears. The headset allows the user to interact with the immersive experience from a first-person view.

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INTRODUCTION

Set-up and purpose of the project

CHAPTER 1
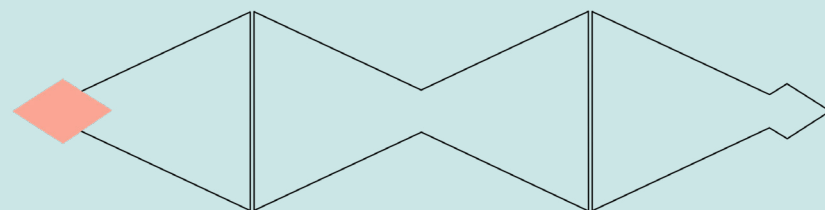
"Admit it, you don't believe in one reality anymore" - Arthur, photograph is still from the film *Inception* (2010)

Paragraph 1.1
COMPANY

This project is realized for and with the digital customer experience agency TBWA\X. TBWA\X was founded as Mobile Strategy in 2009, arising out of the possibilities offered by smartphone technology for the emerging development of mobile commerce. After the company was bought in 2014 by TBWA's global network and renamed as TBWA\X, it evolved into an overall digital customer experience agency targeting all digital touchpoints. TBWA\X is now a small to medium enterprise (SME) with approximate eighty people on their payroll. Half of the team is from Eastern Europe and is responsible for production, the responsibility of the Dutch teams is divided in strategy, account, design, and creation. A selection of TBWA\X current clientele is Adidas, McDonald's, Ab-Inbev, Philips, Esso, T-Mobile and Hunkemöller for which the following activities are carried out such as UI/UX Design, CRM approach, loyalty programs, development of website, applications and AR filters among other things.

Mission
TBWA\NEBOKO is known for creating high-level productions and having the best inhouse creatives, creating compelling stories in which emotions are conveyed. It can be said that they have mastered the art of producing television commercials. The commercials are characterized by the use of sympathetic characters and an engaging storyline provoking emotions which of examples can be seen at Albert Heijn, Koning Toto and Staatsloterij. This led

to numerous (inter)national awards in the past years, such as Cannes Lions, Effies and the well-known Dutch Gouden Loeki. Therefore, TBWA\NEBOKO is considered one of the top creative agencies in the Netherlands. However skilled TBWA\NEBOKO is in making commercials, responding to the digitization of society and the increasing demand from clients for digital solutions, TBWA\NEBOKO has engaged with the digital customer experience agency TBWA\X. The reason for the integration of a digital agency is TBWA\NEBOKO's mission to become a one-stop-shop. This means they have all the necessary expertise inhouse to offer clients a holistic marketing solution. For a complete structure of the multiple companies and divisions, see appendix A.

"Our mission is to transform the best agency now into the agency of the future." – TBWA\X

Digital customer experience is a fast-moving industry so when keeping the future in mind it is no surprise that TBWA\X's mission is to become the agency of the future. To twbecome the agency of the future, it is necessary to explore future possibilities in combination with figuring out its relevance to TBWA\X. This is reflected in activities undertaken such as NEXT and Innovation Lab. Both platforms offer employees the opportunity to immerse themselves in and be inspired by relevant innovations or knowledge of external professionals to put valuable insights in the work for their clients.

Paragraph 1.2
CONTEXT

The fashion industry is subject to constant changes in various cultural, social, political, economic, and aesthetic environments (Evans, 1989). Technological innovations have allowed the industry to grow its net worth to a worldwide market value of $759.5 billion in 2021 with the expectation of more than a trillion in 2025 (Fashion eCommerce Report, 2021). The technology behind ecommerce is responsible for creating a 24/7/365 digital availability for clothing, accessories, and shoes, making it the number one e-commerce sector in the world (Fashion eCommerce Report, 2021). The availability makes the industry highly competitive where companies try to distinguish themselves by an enriching customer experience that pulls the consumer in (McKinsey

& Company & Business of Fashion, 2022). Fashion consumers increasingly see retail activity itself as consumption and seek a holistic shopping experience through the shopping environment, atmosphere, and entertainment it provides (Kim et al., 2007), making it a necessity for retailers to provide consumers with a flawless shopping experience. Although shopping in-store is still as popular as shopping online, when looked at all touchpoints in the customer journey, people consume more fashion via a screen than physically. Gaining inspiration from social media is the biggest factor of digital consumption, making e-commerce the primary channel for retail (McKinsey & Company & Business of Fashion, 2022).

Paragraph 1.3
OPPERTUNITY

As a digital experience company, you deal with constant soft- and hardware innovations and rapid behavioural change. To keep providing the best value for clients and prevent gradually losing strategic-fit with their environment and therefore market share, continuous exploration of relevant technology innovations is needed. A current innovation gaining momentum is the concept of the 'metaverse'. How the metaverse wants to be, it's not there yet, it's a promise how it can be. It is the worldwide web breaking free from its two-dimensional restraints and becoming three-dimensional, making it immersive and accessible by virtual reality headset. The metaverse is part of the web3 transition to a decentralised internet.

Partly due to the covid-19 pandemic, trends that were in motion prior to the crisis are now accelerating, such as the adaptation of a more digital lifestyle. Building and maintaining connections in a digital environment became the norm for a while and suddenly a digital world such as the metaverse is more. Seen from a

brand perspective the potential of the metaverse is there, the question now for many companies is how to generate a sustainable income stream using the metaverse.

Most companies generally wait too long to innovate products, because it is difficult to change the mindset of people who are used to successful products. It is therefore not uncommon for the innovation process to begin in a situation where a company is already losing strategic-fit (Simonse et al, 2018) At the moment this is not yet the case with TBWA\X, but the rise of the metaverse is imminent, so it benefits them to know what is coming and how to approach.

"We expect in 2022 that companies will seek fresh approaches to online creativity and commerce, with nonfungible tokens, gaming "skins," and virtual fashion edging closer to the mainstream." – McKinsey & Company & Business of Fashion, 2022

Paragraph 1.4
ASSIGNMENT

This thesis contributes to TBWA\X its dilemma on how to approach an innovation. The metaverse has been identified as one of the potential innovations to explore. As the metaverse is undiscovered terrain for TBWA\X but already gaining momentum in the fashion industry, this research is aiming to provide TBWA\X with a recommendation for how to pursue with creating a customer experience for the fashion industry making use of an immersive experience. The result is in the form of a vision concept that stimulates discussion both internally with employees and externally with (potential) clients for envisioning the near and far future of TBWA\X.

The final deliverables provide advice for solutions on how to deal with an innovation such as the metaverse. This will be assessed on desirability, feasibility and viability and will be in line with the exciting strategic direction of TBWA\X.

The following sub questions are formed to give structure to the research phase:
- What is the metaverse?
- Why fashion in the metaverse?
- What does the consumer think of the metaverse?
- Why should TBWA\X create an experience for fashion in the metaverse?

The following research question to answer in this thesis is formed:

"How can a radical innovation such as the metaverse be used to design a new customer experience for fashion."

STAKEHOLDERS

As seen in figure 1, multiple groups are involved. Three bigger groups defied by colour can be distinguished, each with their own needs and values. The role of each group will be further investigated in the next chapters.
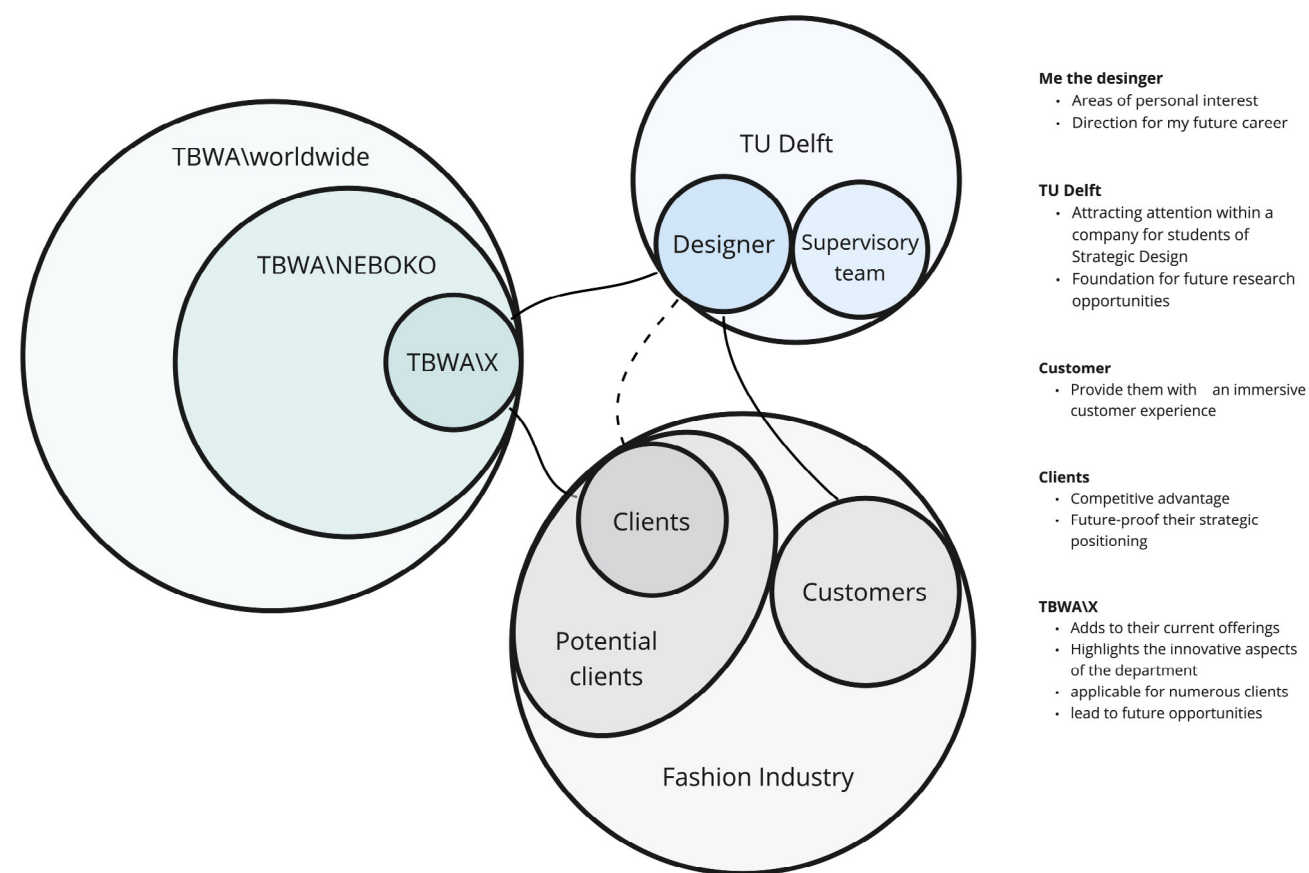

Me the desinger
- Areas of personal interest
- Direction for my future career

TU Delft
- Attracting attention within a company for students of Strategic Design
- Foundation for future research opportunities

Customer
- Provide them with   an immersive customer experience

Clients
- Competitive advantage
- Future-proof their strategic positioning

TBWA\X
- Adds to their current offerings
- Highlights the innovative aspects of the department
- applicable for numerous clients
- lead to future opportunities

Figure 1: The different stakeholders mapped out.

APPROACH AND STRUCTURE

The approach used to answer the research question is double diamond model. The model consists of a research phase and a design phase in which a process of diverging and converging is central. In the research phase, the problem is first looked upon by broadening it, done by examining the context of the problem thoroughly. Then, based on the insights obtained from the research, a design vision is created that is the basis for the design phase. The first part of the design phase is the development phase, where possible solutions are devised and tested. Co-creation and validation are the core activities in the development phase. In the final phase, the delivery phase, the final tests are performed for the last iterations and the final outcome is delivered. The diamond model is suitable for this project because of its problem-solving nature and the ability to use it for complex strategic situations. Figure 2 illustrates the double diamond approach. The matching chapters are marked in green below the diamond.

Methodology
Both methods of ViP (Hekkert & van Dijk, 2016) and DIVE (Meíja, 2021) are used to come to the desired design outcome. The methods are explained in the next sections. With ViP the focus lies on the research phase and creating the design vision. After the design vision, DIVE is used in the design phase to create a vision concept. ViP is applied during the first diamond, resulting in the design vision. In the second diamond DIVE is applied to create the design outcome from the design vision.
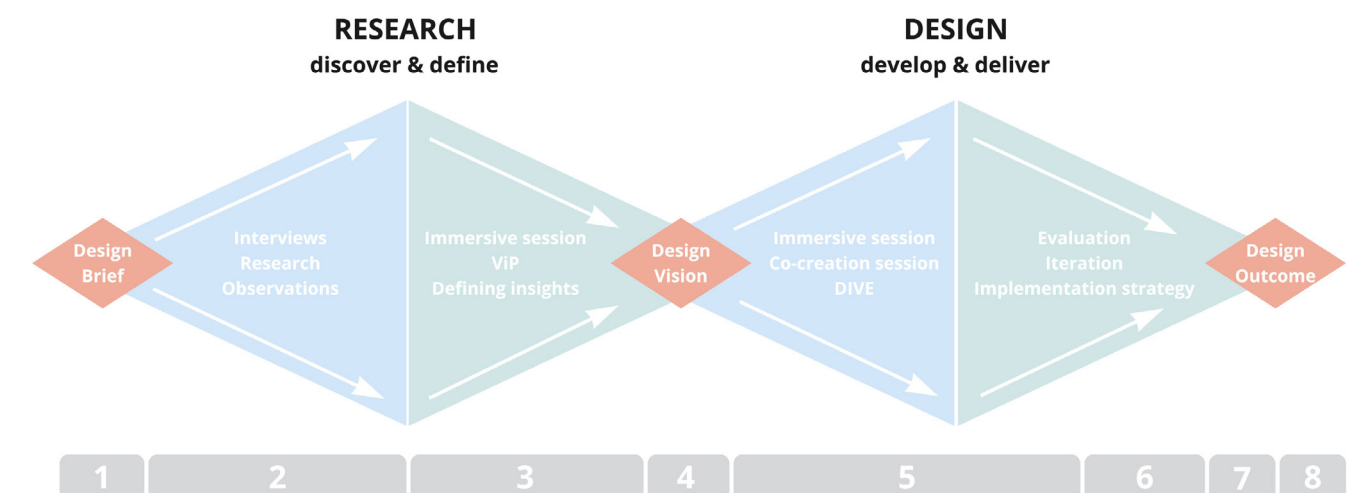

Figure 2: The double diamond approach this is the leading method in the thesis.

ViP

Vision in Product Design or in short ViP, is a user-centred and context-driven design approach, meaning it is "exploring what is possible tomorrow instead of solving the problems of today". ViP is a design approach to find out the 'why' of a design and to build an innovative design solution from this 'why'. This is achieved by going through eight steps in the design phase as shown in figure 3. The aim is to create an understanding of the future world the design outcome will be used in.

ViP is suitable for this project since it has an explorative character which fits the explorative nature of the project. Through ViP future possibilities of the fashion domain are explored, gaining insight into the future world so that a future vision can be created.
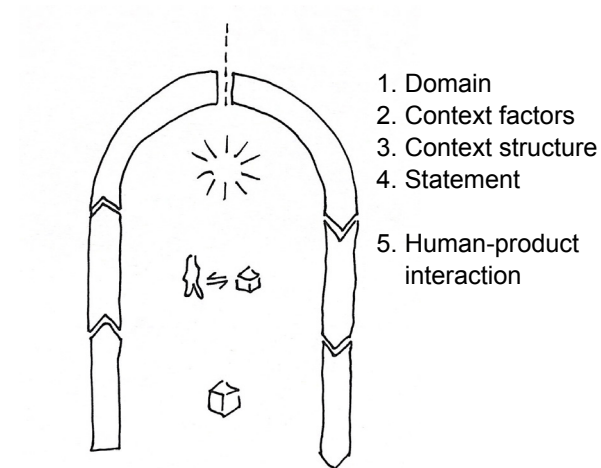

1. Domain
2. Context factors
3. Context structure
4. Statement
5. Human-product interaction

Figure 3: Eight steps of the process embedded in the ViP model, of which in this thesis step one till five is followed.

DIVE

DIVE stands for Design, Innovation, Vision and Exploration. DIVE consists of five steps that lead to a vision concept. The five steps are shown in figure 4. The idea of a vision concept is derived from the concept cars or concept prototypes that corporations develop. Concept cars are a useful means of communicating the strategy. That's why DIVE was conceived for Small to Medium enterprises that don't have the resources to create an extensive prototype such as a concept car, but do have the desire for a visual way of communicating their future vision as driver for innovation (Meíja, 2021).

DIVE fits perfectly with the future oriented approach and goals of the project. DIVE will help visualising and communicating the future of TBWA\X.
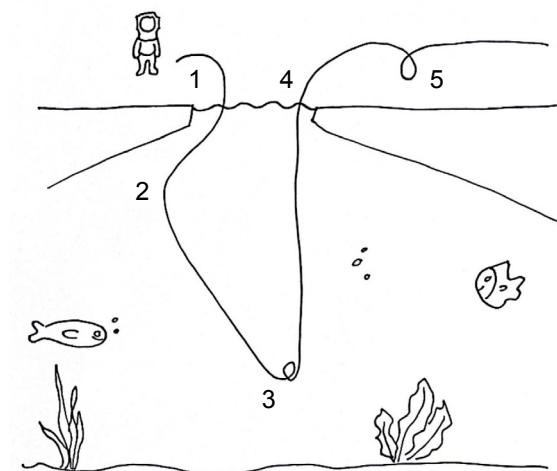

Figure 4: The five steps of the DIVE method.

ViP x DIVE

Because the ViP method is combined with the DIVE method in this project, only step one: Domain to step five: Human-product interaction from the ViP model has been completed. Where it was a parallel process till here (figure 5), from step eight on, the DIVE method distinguishes itself from the ViP method. Where ViP provides a product for use today, DIVE is a strategic foresight-technique to help companies innovate (Mejía et al, 2018). DIVE does this through a vision concept that supports the strategy and facilitates conversation.
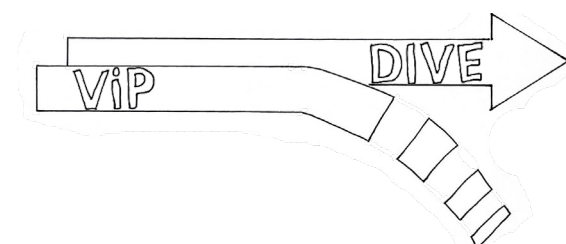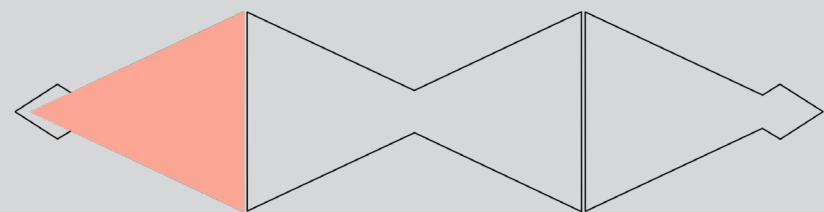

Figure 5: The illustratrion shows how DIVE and ViP follow the same path, but separate later on. The last part of the thesis follows the path of DIVE.

DISCOVER

Gaining insights in the domain of the online shopping experience

CHAPTER 2

Back in the days, when personal shopping entailed a mini fashion show. Photograph is still form the film *That Touch of Mink* (1962).

This section explores the concept of the metaverse and what it entails for consumers and companies. This is done by evaluating trend reports, news articles and blogposts from innovation focused journalist. The outcome of this section is a better understanding of the metaverse and how it can benefit TBWA\X and the consumer.

The metaverse was brought the attention of the public eye when Mark Zuckerberg announced the name change of Facebook to Meta, which is seen as an attempt to set foot in the metaverse to meet emerging consumer needs in a new digital world (Schram, 2021).

The concept of the metaverse as it is called in its total form is not there yet. It's a promise, a desire where the biggest tech companies of today are working on the make it happen (Verhagen, 2022). This promise of the metaverse can be described as a network of three-dimensional, virtual worlds inside a universe with a focus on social connection, facilitated using XR headsets (meaning extended reality and entails both virtual (VR) and augmented reality (AR)). Platforms such as Second Life and Minecraft are often cited as examples of precursors to the metaverse. Both are online worlds where the main elements are the social interaction with other avatars and the freedom to build your own part in the world.

The promise
The difficulty of not being its final form, is that there are multiple theoretical directions of
what it might look like, including the predictions when it will look like that. One thing they have all in common though, that it will be an 'immersive' experience. Instead of surfing the worldwide web through a screen like we do now, we will be inside the internet, as illustrated in figure 6. The worldwide web is an application to be on the internet and the metaverse is an application to be in the internet.

The mean three directions are:

A parallel virtual world | A mix of both | A digital layer
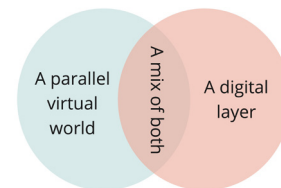
The three directions are discussed in the following paragraphs to determine which one is the most relevant for the design outcome.

Figure 6: the difference between how we use the worldwiede web of today (left) and the metaverse of tomorrow (right).
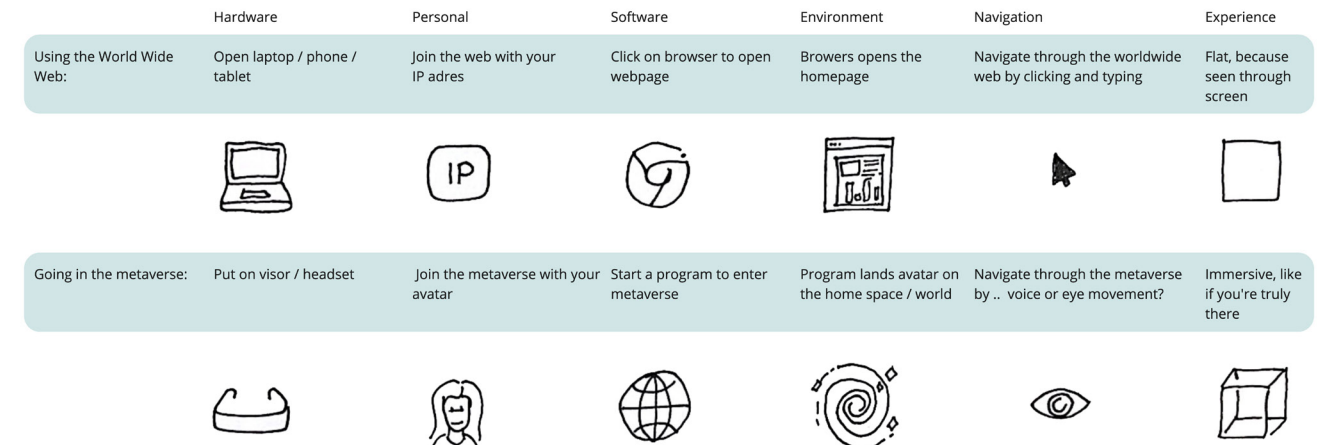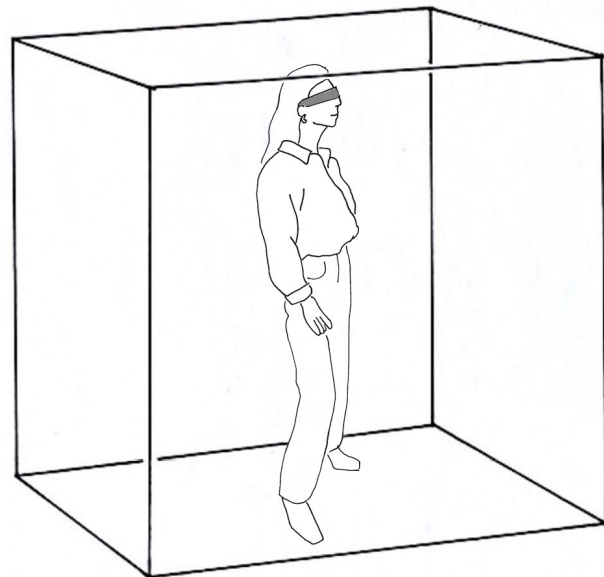

Figure 7: using the internet as we do now and how we might use the internet in a metaverse form. Instead of browsing different webpages we might be hopping worlds.

A parallel virtual universe
The first direction is a parallel virtual universe, a computer simulation, which requires hardware such as a VR headset to enter. In the future this might even be a complete haptic suit to give you a truly immersive experience. The consumer can create an avatar to explore these virtual worlds. An avatar is a digital representation of the user, but does not have to resemble the user. Figure 7 shows a journey map of the process to enter the metaverse in comparison to the worldwide web.

A parallel virtual world is the most compelling direction and is therefore expected to be the most difficult for consumers to adopt. Opinions differ on why an immersive experience is probably the hardest to adopt. It may be that closing off the senses when someone wears a headset, what makes you vulnerable, makes you feel unsafe. Or that purchasing the expensive hardware is too high of a threshold. It may also be that the usage is too far removed from what people are used to now. The question is whether it will achieve mass adoption or whether it will remain of interest only to a niche group of gamers and some forms of entertainment.

A digital layer on the physical world
The second direction is a digital layer over the physical world. This layer indicates someone is both actively present in the physical and digital world at the same time. People will be wearing visors, glasses or even lenses (www.mojo.vision) that display Augmented Reality (AR). Therefore, the metaverse won't be a separate universe we enter like described prior, but it will be all around us in the physical world (Radoff, 2022). Figure 8 shows an example of Japanese artist

Keiichi Matsuda envisioning a dystopian world where we are subjected to AR technology.

The second direction is closer by than the first one this is because digital filters are already widely used by social platforms like Snapchat and Instagram and are very popular by their users and easily accessible through a smartphone. Consequently, mass adoption of an AR world might be closert than we think. However, the Google glasses were withdrawn due to negative market response (Cuofano, 2022), a similar story happened to Snapchat glasses (BBC News, 2017).

Figure 8: An extreme and disturbing AR world.

A mix
The third direction is both VR and AR combined. Different situations will require different
reality-tech solutions. This is perhaps the most plausible direction, giving the consumer the choice of what to choose.

Five pillars

This section explains the five pillars on which the metaverse can be built. These pillars distinguish the metaverse of the worldwide web and create insight into what it entails. The description of a parallel virtual universe is very similar to current, widely known gaming and social virtual worlds, such as Habbo Hotel, Second Life, Roblox and Meta's Horizons. These worlds have in common that you enter a computer simulated three-dimensional environment with your avatar where you can build, explore, and play with others. These worlds attract different target groups and are different in seize and popularity. To answer the question what the metaverse is now: virtual world (of which some are already immersive, meaning accessible through a VR headset) or platforms where you have an avatar and can interact with other avatars. But to become the promised metaverse, apply in both directions as described above, the following five pillars come into play: (Ball, 2022; Loyst, 2022)

1 Immersive
2 Constant
3 Open
4 Decentralized
5 Interoperability

The key factors are briefly explained in the following sections.

1. Immersive

Immersive means a computer-generated three-dimensional image or space which appears to surround the user. This is achieved when someone puts on a VR headset or AR glasses and immerses themselves in the digital environment. Most of the current 3D environments are only accessible through screen hardware, so they are not truly immersive, but some of them are available for VR headsets. Horizon from Meta (formerly Facebook) is a three-dimensional environment where you can merely join when you have a VR headset. Immersion is the biggest differentiator for the metaverse with the world wide web from a consumer perspective, because instead of accessing the internet through a screen it is accessed through virtual reality.

2. Constant

Just like the world wide web, the metaverse can't be turned off. It is constant there and everyone is free to drop in and out when they like.

3. Open

An important part of creating the metaverse is that it will be built with opensource
technology, just like the worldwide web. There are no owners, and everyone will be able to create a three-dimensional space, just like everyone can create a website.

4. Decentralization

The next point is decentralization, meaning there is not one entity ruling over it all. The
software is built on blockchain technology to ensure this part. The current major platforms
that share the decentralized philosophy and thus built with blockchain technology are
Decentraland and Sandbox. Very simply put, blockchain is an information storing technology, accessible by everyone enabling transparency.

5. Interoperability

From a business perspective interoperability or open ecosystems is the hardest point to accomplish. With interoperability you can transfer your digital asset from platform A to platform B. The current virtual worlds are so called walled gardens or closed ecosystems, implying your Fortnite avatar is not transferable to Decentraland or the other way around. Corporations are not eager to open their ecosystems because of the created value for the digital goods that are sold within their own ecosystems. (Loyst, 2022)

Upcoming tech that will make it happen

This section highlights the technology that is needed to construct the metaverse. McKinsey differentiates four main categories of which the metaverse will be built of ("Value Creation in the Metaverse," 2022) as seen in figure 9. Each of these categories have their own technology opportunities, difficulties and pacing of maturing.

From a consumer perspective the rise of 5G internet that makes larger numbers of data transferability possible and the next generations of VR headsets with to ability to display a hyper realistic are most interesting. There is also a rise in software development by game studio's such as Unreal Engine that is developed by Epic games. This software provides developers to create not only hyper realistic virtual worlds, but also avatars with realistic facial mimicry and clothing movement.

To be able to process the hyper realistic environment, strong processing power is needed. Currently stronger GPU's coming to market for higher computing powers and creates the ability to generate details for a hyper realistic virtual surrounding.

To make sure there is worldwide availability to the internet Elon Musk is launching Starlink, providing internet through satellites.
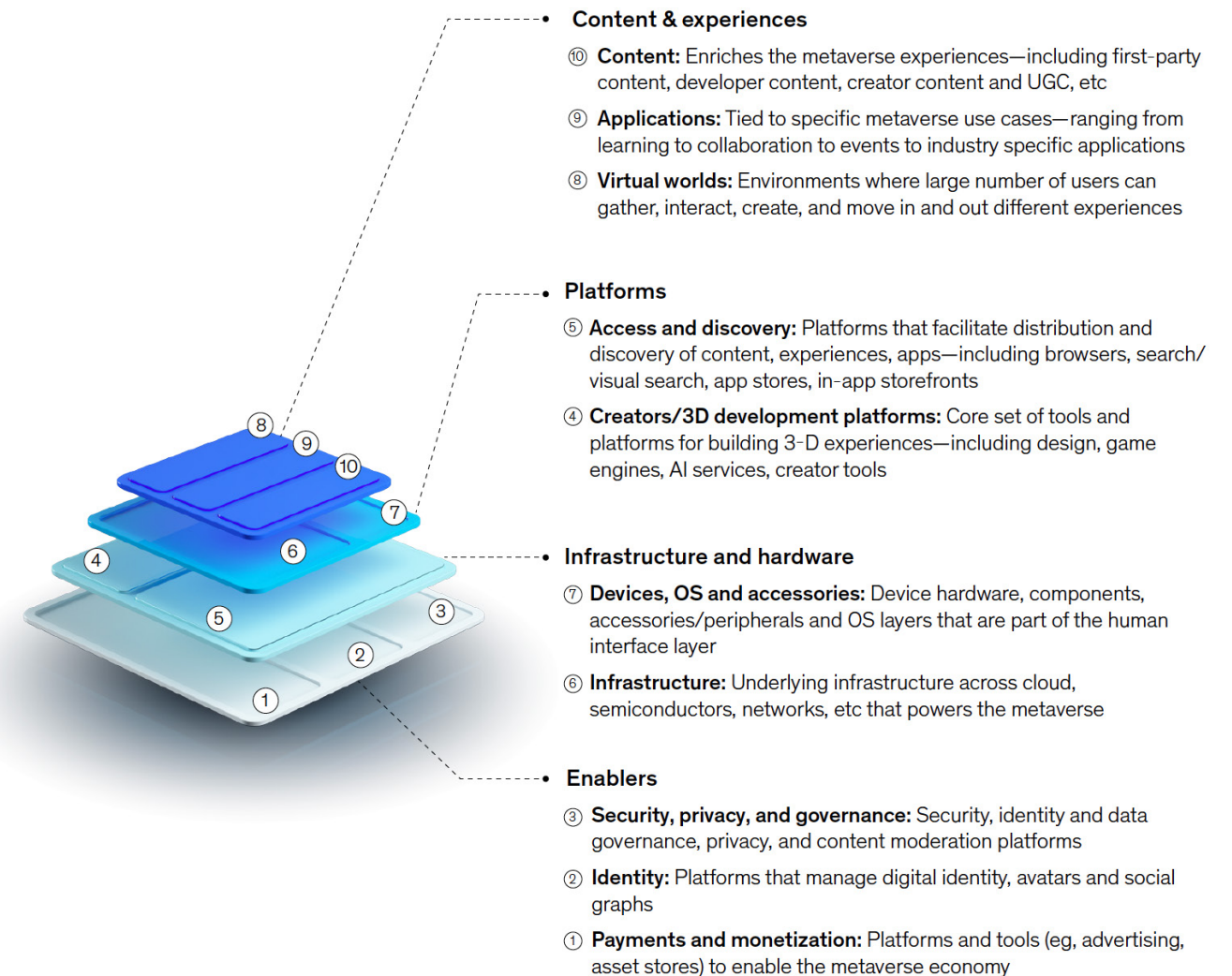

- **Content & experiences**
  - ⑩ **Content:** Enriches the metaverse experiences—including first-party content, developer content, creator content and UGC, etc
  - ⑨ **Applications:** Tied to specific metaverse use cases—ranging from learning to collaboration to events to industry specific applications
  - ⑧ **Virtual worlds:** Environments where large number of users can gather, interact, create, and move in and out different experiences

- **Platforms**
  - ⑤ **Access and discovery:** Platforms that facilitate distribution and discovery of content, experiences, apps—including browsers, search/visual search, app stores, in-app storefronts
  - ④ **Creators/3D development platforms:** Core set of tools and platforms for building 3-D experiences—including design, game engines, AI services, creator tools

- **Infrastructure and hardware**
  - ⑦ **Devices, OS and accessories:** Device hardware, components, accessories/peripherals and OS layers that are part of the human interface layer
  - ⑥ **Infrastructure:** Underlying infrastructure across cloud, semiconductors, networks, etc that powers the metaverse

- **Enablers**
  - ③ **Security, privacy, and governance:** Security, identity and data governance, privacy, and content moderation platforms
  - ② **Identity:** Platforms that manage digital identity, avatars and social graphs
  - ① **Payments and monetization:** Platforms and tools (eg, advertising, asset stores) to enable the metaverse economy

Figure 9: The building blocks of the metaverse, made up of ten layers which fall in four categories. ("Value Creation in the Metaverse," 2022)

Conclusion

Metaverse is a means of better communication and creating richer context on the moments you spend online. Today, the interoperable, decentralized, and immersive metaverse is still a future promise. Immersion and interoperability are the main factors that distinguish the metaverse from the worldwide web as we know it today on a consumer level. Billions are currently being spent by corporates to make this possible, so the question is not if, but when it will be available in its final form where the five pillars come into their own. Three directions are distinguished, VR, AR and mix of both. AR is already widely adopted as it is easily accessible with a smartphone. Therefore, the direction of a parallel virtual universe is more interesting for TBWA\X because it is more future oriented and leaves more room for exploration. This can be done in the first layer of the structure that is identified by McKenzie: Content and experiences.

Paragraph 2.3
AN IMMERSIVE EXPERIENCE FOR FASHION

The previous chapter argued that the most important consumer differentiator of the world wide web with the metaverse is the immersive experience. This section examines whether and how an immersive experience can benefit fashion. This is done by exploring the different activities and strategies that fashion brands undertake to become part of the metaverse. Since there are almost no immersive experiences for fashion so far, the scope of the thesis is set wider in this section to find more material, including other emerging activities concerning web3.0. By doing so, a more complete and relevant world view is created. Several collected insights are discussed on relevance for the design outcome. The outcome of this section are requirements and opportunities for the design outcome.

"The metaverse is going to impact the fashion industry on the scale that is comparable to the mobile web and social media, look at what happened with social media, it was pretty controversial that fashion bloggers and influencers where sitting front row at runway shows."
- Maghan McDowell, senior innovation editor of Vogue Business (Hackle, 2021)

Digital fashion experience
The world's largest multinational fashion holdings are entering the metaverse, each with their own set of products and accompanying strategies. Differentiating from merely experimenting in a virtual environment

and exploring what is possible, with the desire of taking market share in this emerging market early on. But also to engage with a different target group or as a marketing tool to hype up a physical collection, as described by the statement of Laudomia Pucci, the daughter of Emilio Pucci. Though ultimately, all strategies come down to drive sales, one way or the other.

"The metaverse can bring a heritage brand ahead in today's world, it can give it a new dimension that is all over that anyone can relate to and anybody can be part of that storytelling if you wish or participate in it."
- Laudomia Pucci, the VP of the Italian luxury brand Pucci (Hackle, 2021)

The first steps that brands can take towards creating a metaverse experience can be roughly divided in five directions:
- Skin collaboration in-game
- In-world collaboration
- Game experience
- Non-Fungible-Tokens (NFTs)
- Augmented Reality (AR) filters.

To get a complete impression of what is going on in the field of digital customer experience, each category is briefly described and explained with examples. The section after these examples describes where the opportunities for TBWA\X lie.

In-world collaborations
The sportwear apparel Nike created Nikeland, a game in Roblox where avatars can play and let their avatar try on virtual Nike's, building on its goal to turn sport and play into a lifestyle. Another example where Roblox is used for in-world collaboration is the Gucci Garden, where participants can roam around and buy rare virtual collectibles for their avatars.

Decentraland, an online virtual world, hosted the first Metaverse Fashion Week that my avatar attended to participate in some of the activities. After this, multiple brands followed and hosted their own runway show, including Dolce & Gabbana, Tommy Hilfiger, Ellie Saab and a couple others. Their aim was to draw attention to the opening of the fashion district in Decentraland with shops of a wide range of brands. The fashion shows were free to attend by anyone, were often glitchy and the models on the runway looked blocky. Making the experience not the high-quality experience you would expect from a fashion brand like Dolce & Gabbana (Leitch, 2022).

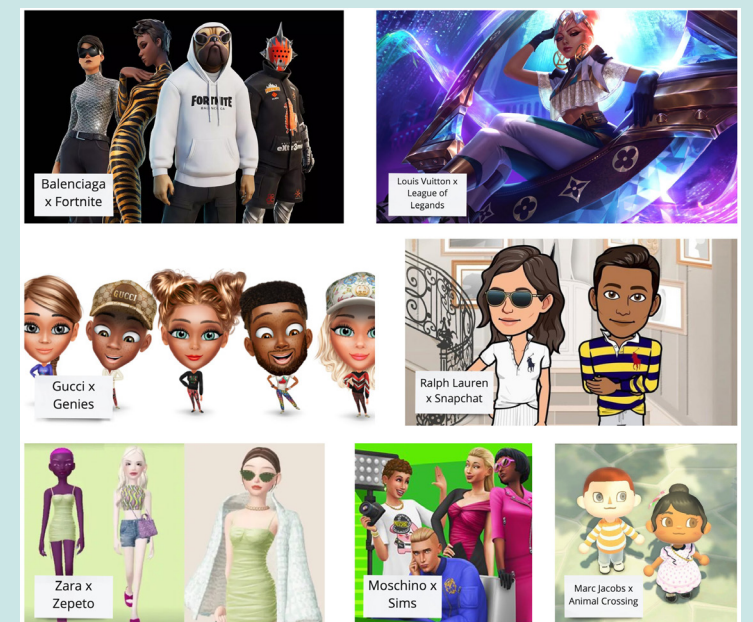Figure 11: Brands that build an experience in existing online worlds.
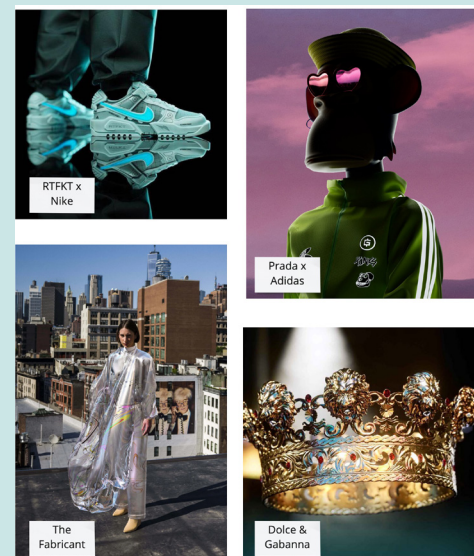
NFTs
The dress named Iridescence designed by the Fabricant, a digital clothing brand, is the first digital-only dress sold on the blockchain for 9500$USD. This sale made many reconsider what is valuable in fashion and how this is assessed. (Hackle, 2021).

D&G sold nine NFTs built by digital agency UNXD as part of the Genesis collection for a total of 5,5 million dollar. The Impossible Tiara is sold for over $300.000.

Figure 13: NFT project of brands.

Skin collaborations in-game
The skin of Louis Vuitton for League of Legends is the first collaboration between a heritage fashion brand and the gaming industry, with the aim to reach a wider audience for their apparels. The world championship of League of Legends in 2018 reached 99,6 million viewers (Park, 2019). After this partnership, the fashion industry realized that creating skins for the game industry opens up new revenue streams, Contributing to multiple brands collaborating with various gaming and other avatar-based online platforms, including Snapchat, Animal Crossing, Fortnite, Zepeto (Asian platform) and the Sims, as illustrated in figure 10.

Figure 10: Different fashion brands available as a skin to dress up an avatar.

Game experience

Game experience
During COVID19, Balenciaga introduced the Age of Tomorrow collection in a game format rather than a fashion show. Participants could walk around in a digital world and follow a storyline in which different characters wore and announced the new Balenciaga collection.

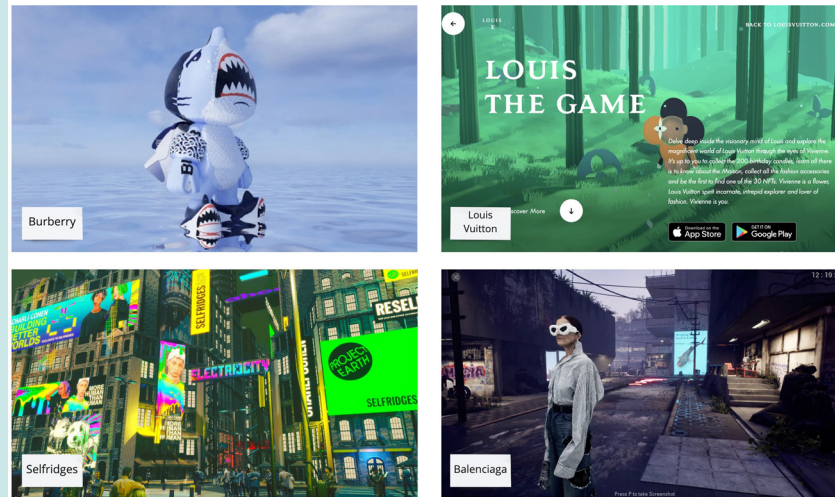Both Burberry and Louis Vuitton created a game where the player can collect NFTs of the brand.

Figure 12: Video games made by brands.

Figure 14: Augmented reality filters of brands accessible through Instagram or Snapchat.

Figure 15: Karen Cheng with the filter she created herself.

Augmented Reality filters
Augmented Reality filters are currently accelerating in popularity. Platforms like Snapchat and Instagram offer brands the opportunity to leverage their body-tracking technology that allows companies to project clothes on consumers. In this way, the consumer can test how the cloths look and assess whether it is satisfactory or not, as seen in figure 15 for Off-White and Dior. In addition, Zalando collaborated with Instagram to implement this feature in the online shopping experience (see figure 14)

One of the considered originators of AR filter trend is Carlings. They were the first to create a fully digital collection that consumers could project onto their bodies. This collection served as a marketing tool to draw attention to their new ecommerce website.

AR designer Karen Cheng showed off a dress where an AR filter was created on, seen on figure 15. By scanning the earring through the Instagram applications the filter is activated that recognizes the pattern created on the dress and shows an animated AR filter on the dress. This technique is possible on any image. Karen Cheng presented her dress at the Cannes Creative festival in June 2022.

The online shopping experience
As explained in the directions above, various possibilities are explored to interact with fashion in a new way, opening new possibilities for both consumer and brand. Digitization and the integration of new trends mainly focus on the product outcome (NFTs) or the entertainment aspect (games), not on improving the online shopping experience itself. This opens an opportunity for TBWA\X to fill this gap.

The shopping experience can roughly be distinguished in four paths as shown in figure 16. The digital assets can both be a standalone digital product (for example an NFT) and the digital representation of a physical product (for example an NFT plus the resembling physical item). Since the consumption of digital fashion is not yet mainstream, the focus of this thesis is on physical fashion and its digital representation.
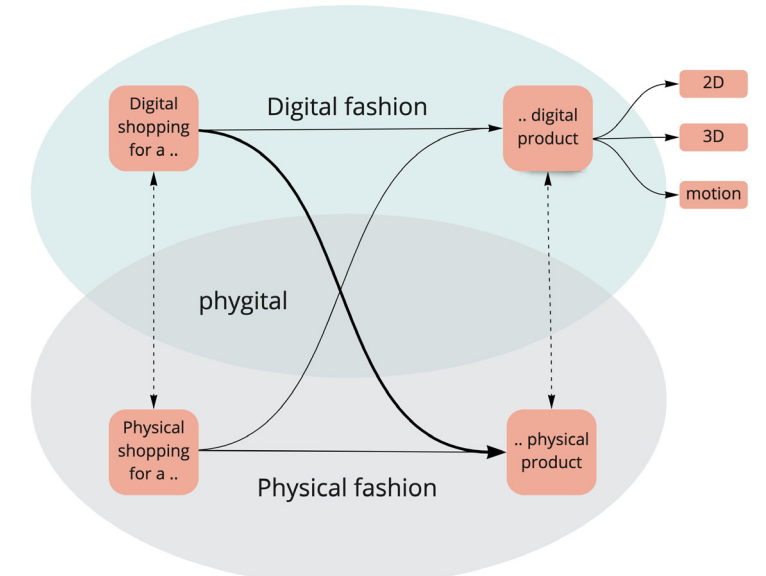

Figure 16: The focus on this thesis is on digital shopping for a physical product.

The future of fashion
The digital area is moving fast. Beyond the protection it gives our bodies, fashion is about communication. It is used to signal what role we play in society, what tribes we belong to and how we are feeling in the inside. It is a way to express ourselves. For many people, using digital fashion on a daily basis feels unusual and illogical, let alone a concept in which we will wear nothing more than a basic suit that adapts to temperature and were digital clothing is projected on with AR technology, as stated by Linda Plaude (personal communication, 2 March 2022), who is researching smart textiles at the faculty of Industrial Design Engineering. Being able to project digital clothing on physical clothing adds value for the consumer by opening up a new world of expressing identity.

Holly McQuillan, Assistant Professor in Materialising futures, states that most of the fashion is consumed through screens (personal communication, 8 March 2022). That would argue that it is a logical step to make a shift to a more digital environment. This is consistent with the insights gained from the interviews in chapter 2.2: Consumers in the metaverse. The participants indicated that they look at clothing online to pass the time, get entertainment and get inspired. Besides, the consumer engages in digital environments not only for information seeking and sharing but also for receiving a sense of belongingness, finding connections and building networks (Kim et al, 2014).

Conclusion
The examples described in this section illustrate the fruitful base for fashion to take it a step further in digitization by creating an immersive experience. It is an industry that is vastly expanding their digital abilities, making it likely the consumer adopts an immersive experience. Besides, there is no immersive experience yet that benefits the consumer during the online shopping process. Since digital fashion didn't hit mainstream yet, the opportunity for TBWA\X lies on the customer experience of online shopping for physical clothing.
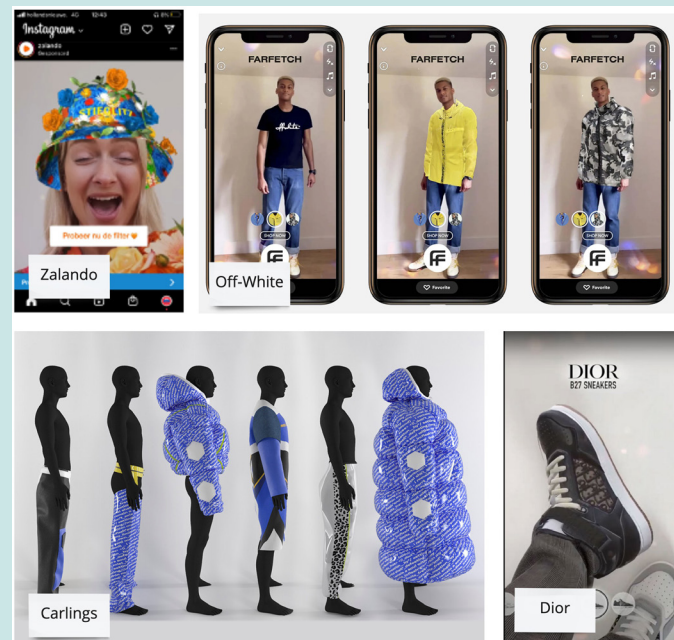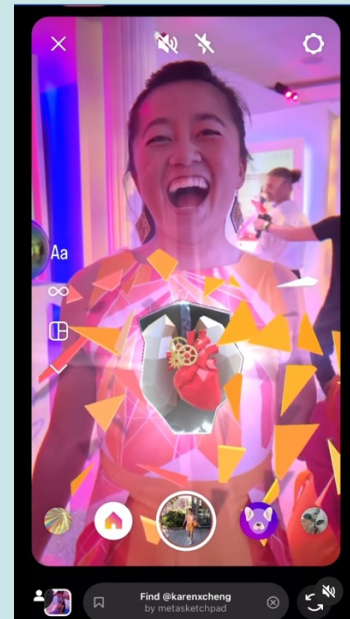
CONSUMERS IN THE METAVERSE

The previous chapter identifies the shopping experience of fashion as an opportunity for TBWA\X to create an immersive experience for. Therefore, this section elaborates the interview that is held with the target group centred about shopping behaviour and their attitude towards the metaverse. The related literature, method and outcomes are described and discussed. The outcome of this section are requirements for the design outcome.

Introduction
The goal of the interview is to gain understanding of the needs and dreams of young adults aging 15 to 24 years old when (online) shopping and their needs and dreams in relation to meeting up with friends (online), to identify opportunities in both fields that can be combined and be acted upon to create an online social shopping experience. The focus of the thesis is creating a customer experience in the metaverse, so the participants attitude towards the metaverse is explored. The themes (online) shopping, (online) meeting-up with friends and their attitude towards the metaverse are discussed separately. The insights are combined afterward to give direction to the design vision.

metaverse
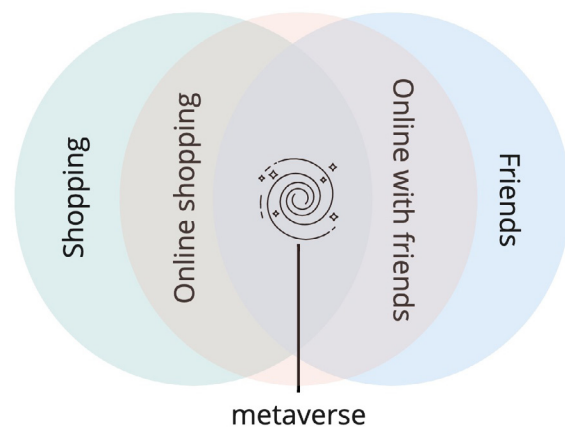
In figure 16 the structure and overlap of topics in the interview is shown and per topic the key finding of the literature search is presented.

(Online) shopping
Before the actual shopping process starts, Gen-Z participate in a so-called aspirational browsing period. Here the exploration starts and when something is found, the potential purchase is shared on social media to seek input from their friends. (Fromm, 2022)

Although they are the most internet savvy generation, research stated 66% of the Dutch young adults between 14 and 25 years old prefers to shop in-store

("New Fashion Monitor, 2021). This number might have decreased over the last years due to COVID-19 pandemic and improved online shopping capabilities. In-store shopping gives the ability to try-on clothing, making sure the item fits to the liking and to feel the fabrics. The lack of this is the biggest drawback of online shopping (Fromm, 2022). The try-before-you-buy benefit, the benefits of helpful sales associates and the instant gratification of owning the item are most appreciated when shopping in store. The biggest disadvantages of in-store shopping as stated by Gen-Z are the waiting lines and lack of inventory in stores (Digital Marketing Community, 2017).

When shopping in brick-and-mortar Gen-Z goes to predestined stores instead of wandering around, they are on a mission (Generation Z Driving Influence on New Consumer Spending Patterns, 2016). The joy of the hunt is what Gen-Z is after, finding the gems, this applies to both online and offline shopping. Then, after their purchase, they enter the show-and-tell phase in their shopping process, where they immediate connect online with their friends to share their purchase when they are home and when they don't get the desired response the items get returned easily (Fromm, 2022).

The shopping experience is important in both online and in-store shopping. When shopping in-store, the experience is desired to be fun in order to attract Gen-Z to your store (IBM, 2017). An emerging trend stores participate in to lure them in is incorporating TikTok worthy aesthetics with outrages retail displays (Miller, 2022). When online shopping it's all about convenience and efficiency, creating a smooth experience for the shopper meaning that the experience from opening the webpage to paying is easy and fast (Fromm, 2022). When you don't, a competitor is just one click away and they will go (Content Square, 2017), so a really good first impression is important.

(Online) Friends
The desire of being social and experience connection is not only relevant to Gen-Z, but applies to every human being (Bregman, 2019). Due to social media, we are the most connected society ever (Kardaras, 2016) and that impacts Gen-Z both positive and negative. It is a means for connection with friends and can make them feel more empowered, but it can also lead to cyberbullying. (Sales, 2017) Gen-Z is hyperconnected, which is a way to engage and build relationships (Koulopoulos & Keldsen, 2014) following a need for social recognition which is manifested in pressure to present the coolest version of yourself on social media (Fromm, 2022).

Research question
As discussed in the previous paragraphs, multiple studies are conducted about Gen-Zs thoughts and behaviour towards (online) shopping and meeting with friends (online). But a link is missing between these topics. This missing link can be seen as shopping online with friends, what can be converted to shopping in the metaverse, since the elements of social and online are part of the metaverse. Therefore, the following research question to answer in this interview section is formed:
Where lie the opportunities for creating a social shopping experience in the metaverse for the Dutch Gen-Z youth?

There is no research done yet using the Technology Acceptance Model (TAM) to explore the attitude of Gen-Z towards the metaverse. The Technology Acceptance Model (Davis, 1986) is a widely used to investigate people's acceptance towards a new technology and therefore suitable for researching the metaverse acceptance among Gen-Z. Subsequently the second research question to answer in this interviews section is as follows:
What is the attitude of Dutch young adults between the ages of 15 and 25, who also can be regarded as Gen-Z, towards the metaverse?

Both research questions are accompanying the mean research question as formulated in 1.4 The assignment. The research questions mentioned in this section are solely used to give the interview focus to come to deeper insights.

Methode
To answer the research questions a qualitative interview is held with eleven participants. In the following paragraphs is elaborated on the method design and procedure of the interview.

Consumer of focus
Dutch young adults born between 1997 and 2013 are the field of interest, also considered to be generation z, or in short Gen-Z (Dimock, 2018). TBWA\X highlighted their interest in this particular age group for its ability

to attract them as loyal customers for a lifetime. Plus, young people look more attractive in commercials which makes a product appealing to a wider audience. Research shows that Gen-Z is the most positively accepting metaverse technology (Aburbeian, 2022). This generation is the first generation to have grown up with smartphones, learning to use the technology from a very young age. They state to be 'almost always' connected to the internet (Parker & Igielnik, 2020) and can't recall a life without social media (Fromm, 2022) which creates fertile soil for adopting an online based technology such as the metaverse. But it can also be tricky, since generation Z expects technology to be intuitive, relevant and engaging, so take into account that their last great experience is their new expectation (IBM, 2017). Finally, Gen-Z is accountable for 143$ billion annually, in the United States alone, in direct spending and is consisting of 40% of all consumers, making them the largest spending generation (Fromm, 2022).

Sampling
The sample consists of six woman and five men, all Dutch, between 15 and 24 with different educational backgrounds. The participants were selected and invited for an interview through my own network of friends and acquittances, selection happened through my own judgement that the sample would represent the target population.

Procedure
The interview took one hour and consisted of say and make activities. Three themes were discussed: (online) shopping, meeting (online) with friends and the metaverse. The complete interview protocol can be found in appendix B1. The say activity consisted of an interview where the questions are a combination of semi-structured and standardized open-ended approach. In a standardized open-ended interview, a set of carefully formulated questions is made with the intention to take each participant through the same sequence (Patton, 2002). A combination with the semi-structured approach gives the interview a clear focus but leaves room for exploration during the conversation.

Sequencing questions

For the sequencing of the questioning a mix of two methods is used: Sanders & Stappers path of expression (2013) and Patton's sequencing (2002). The Path of expression is illustrated in figure 17 and evolves around questions about the past, present and future. First the present and then the past are recalled and reflected upon. This way the participant gains a grounded base for his or her opinion of the future. Resulting in that the participant is always prepared for the next step throughout the interview, moving from the scope towards the focus on the hopes and dreams of the future experience (Sanders & Stappers, 2013). To acquire accurate hopes and dreams of the future a collage is made during the make activity. Afterwards the collage is discussed to so the participant can elaborate on his or her thoughts about future desires.
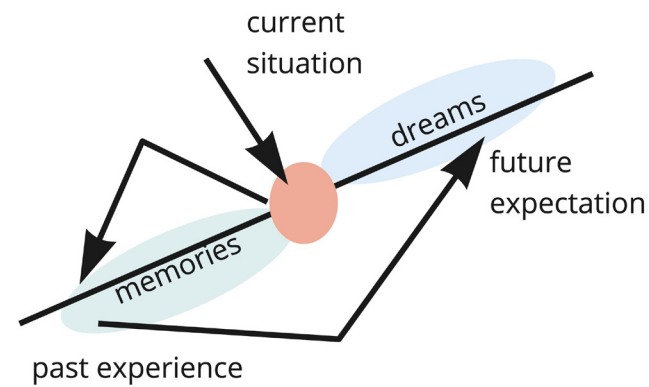

Figure 17: The path of expression(Sanders & Stappers, 2013)

TAM

In this study the Technical Acceptance Model by Davis (1986) formed the base for obtaining the participants understanding of the acceptance on the metaverse. The model consists of three factors: Perceived Usefulness, Perceived Ease of Use and Attitude Towards Using. Both perceived usefulness and perceived ease of use have a direct impact on attitude towards using, as seen in figure 18. These factors are translated into questions where the answers to these question give a degree of acceptance of the metaverse. Many studies consider other external elements that influence perceived usefulness or ease of use to understand better new technologies (Oh, 2021), but considering the length and open structure of the interview, it is chosen to stick with the three main factors. Also, because participants were able to elaborate more on their thoughts towards the metaverse in the make activity other factors may come to the surface presented by the participant themselves when relevant.
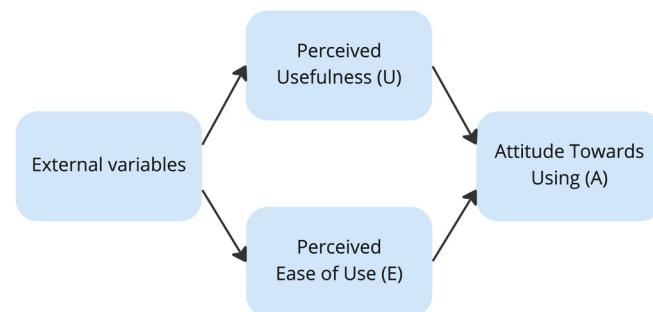

Figure 18: Technology acceptance model (Davis, 1986)

Materials
Sensitizing

Prior to the interview the participants were asked to fill in a sensitizing document consisting of a couple small assignments (see appendix B4). Filling in this document helps the participants to get an understanding of the topics, gather personal experiences and get a feeling for the goals and topic of the study. Resulting that when the session begins, they come well-prepared but with an open mind. (Sanders & Stappers, 2013) One of the assignments was creating an avatar of themselves with use of the digital avatar creating platform readyplayerme.com, which uses photo scanning software to automatically create a digital look-a-like that can be adjusted to the liking of the creator. The participants were asked to create an avatar to give a face to the participants without losing their anonymity. This way the participants are shown as real and complete as possible to convey their thoughts and opinions in an engaging manner.

Make-toolkit

The Make toolkit consisted of trigger sets included a diverse set of images that are open for own interpretation (Sanders & Stappers, 2013) for participants to use when creating the collage. The ambiguous nature of the subject of the metaverse can make it hard for participant to put their thought into words, making a collage about a future experience can help the participant to reach latent and tacit needs (Sanders & Stappers, 2013). Around 100 images are collected by an online random image generator (https://www.generatormix.com/random-image-generator) and checked afterwards and supplemented where necessary to have a large variation in images. The participants also had colourful markers, scissors and glue to their disposal.

Making sense of the data

After the interviews were conducted the text was coded. This is done by noting relevant statements of the participants. These statements were clustered, and coherence was searched to find patterns. These patterns lead to insights that are described in the next section.

Results

The results are presented in the three themes posed during the interview: (online) shopping, (online) meeting with friends and the metaverse. The insights from the interview are substantiated with quotes from the participants.
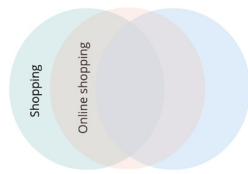
Insights shopping + online shopping
As found in the literature, the interview results show both young woman and man highly value the opinion of their friends during the (online)shopping process. In male friend groups this is expressed by shopping in groups where they advise each other and can either be spontaneous or organised around another activity. In female friend groups they either prefer to go together for the same reason, or they prefer to go by themselves where they are looking for hidden gems and don't want to be distracted by others, but still craving advice. They are therefore in constant contact with their friends while shopping with whom they share found outfits and ask for advice.

"I buy clothes more confident when I'm with my friends instead of alone."

The community that is linked to a brand or store is highly important, when the community is considered as cool, the Gen-Zers are drawn in because they want to be part of it.

"It's just a really cool place with relaxed people, both staff and other customers. There is a very good vibe."

As described in literature, The participants mention the same advantages and disadvantages as in the literature for (online)shopping. Additionally, the results show that these found factors influences the in-store shopping experiences that can alter the mood, which in turn can influence their buying behaviour.

"Pushy staff, brightly lit booths and overcrowded shops. I'd rather not be there, but on the other hand, when you order online you never really know if it will fit."

One drawback I found that is not described in the literature is the awkward process of fitting. Women in particular indicated that they were bothered by the lack of privacy during fitting. Often one has to leave the fitting room to take a good look in the mirror, which is experienced as unpleasant.

"I had to leave my fitting room to look in the mirror, I didn't like that as much. I want a spacious fitting room that I don't have to get out of."

When shopping, Gen-Z checks clothes and brands online before going to the store, this process is consistent with the literature found (Fromm, 2022). In addition, the participants indicated that online shopping is also an easy and fun activity at boring moments.

"Out of boredom I spend a lot of time looking at clothes online."
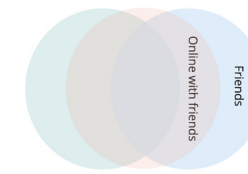
Insights of the interview, part friends & socials
Generation- is always online, on various social platforms (sometimes simultaneously) and they switch effortlessly from one platform to another, message or call each other at unplanned moments. They can enjoy each other's company while video calling or playing online games while they chat with each other.

"It's nice to chat while gaming, then the gaming also goes better. We also often chat on after the game is over."

Each group of friends has its own way of interacting online. In this way they know each other's lives down to the smallest details, such as always knowing where their friends are through location tracking.

*"It really is not done to turn off your location tracking on Snapchat for your friends."*

They agree that even online interaction can be very a very fun and connecting interaction. One girl described a videocall with a bunch of friends that lasted for eight hours straight as a very fun experience. Although they are in constant online contact with each other, they indicate a preference to meet each other physically over online.

"One time I joined Houseparty* for eight hours straight. Yea, that was a bit much, but it was so much fun to be with my friends."
*A smartphone application similar to Zoom where you can videocall with your friends.
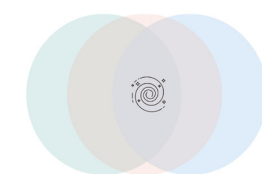
Insights metaverse
Both factors Perceived Usefulvness and Perceived Ease of Use from the technical acceptance model (figure 18) have a positive outcome but don't have the predicted positive correlation with Attitude of Using. When asked about the perceived usefulness the participants came up with numerous and a broad range of examples how to use the metaverse, even examples they were enthusiastic about themselves and would like to try out themselves.

"It can be useful to try out and experience the atmosphere somewhere, for example a culture or a restaurant."

Following, when asked about the perceived ease of use, they indicated not expecting any difficulties in learning how to navigate in the metaverse, that everything would work intuitive and easy. But then, when asked about their attitude towards the metaverse they could only come up with negative examples, they find it scary because they are afraid of how people will behave when they can me be anonymous in the metaverse and they are afraid people get addicted to living in a fake, virtual world.

"I just hope the metaverse doesn't get too big, so it doesn't go too far, that we stay social and don't disappear somewhere with a headset on."

On a personal level they say something is missing to make it truly appealing and there is nothing yet to be found for them.

"During corona I might would have met with my friends in the metaverse, but I don't think there is much to do. I think it would be more fun if more is possible."

Summary of results

The results for the theme of friends meet-up online are shown in the coordinate system of figure 19. The x-axis indicates whether it is a spontaneous meeting, or a planned activity and the y-axis indicates the degree of immersion. All social activities of young people can be located on the coordinate system. These social activities can roughly be divided into three categories: low-key contact, being in each other's presence and participating in an activity together. Social media mainly meets the need for low-key contact, young people are in constant contact with each other via these platforms. When moving up in the coordinate system, the contact becomes physical in the category of being in each other's presence. The last category is about doing an activity together and this is seen as the most immersive because in some sense the activity transvers you to a different world. When these three categories and their activities are placed on a coordinate system, it can be seen that there is free space in terms of high immersion level and spontaneous meet-up. Here the opportunity arises for an immersive experience that is easily accessible to meet friends. This is in line with what the participants indicated that they wouldn't consider planning to meet friends in the metaverse anytime soon. Random encounters such as on current social media are more desirable. To create an appealing immersive experience for young adults, accessibility is key. An opportunity could be to create an activity that is spontaneous in nature and can be joined any moment.

When asking the TAM factors, it was interesting that participants did have positive relations with perceived use and perceived usefulness, but still gave a negative response to perceived attitude towards using. They immediately switched from a positive mindset to a negative one, where the metaverse is nothing more than the ability to gobble people up. This may have to do with the association of the word metaverse with Mark Zuckerberg, who has been in the news recently about privacy scandals surrounding Facebook and later a name change from Facebook to Meta. The grandeur with which the metaverse is presented by various media as the new digital life can also play a role (Junte, 2022; Fit, 2022; Kanis, 2022), people might experience loss aversion (they have to change habits and start a new one in the metaverse) what they react negatively to (Kahneman, 2013). This implicates that the final outcome shouldn't be presented as a metaverse application or experience, but rather as an immersive experience for the consumer to adopt the experience.

The outcomes of the make activity can be divided in two main directions. The first is from the participants that prefer a metaverse that is as normal as possible, an almost exact replica of the physical world. The second direction is the group of participants that prefer an unrealistic metaverse, because they see possibilities in creating exceptional worlds and would love to go and explore it. Also, the possibility and importance to meet or explore with friends is mentions several times by the participants, it is not something they would like to do alone.
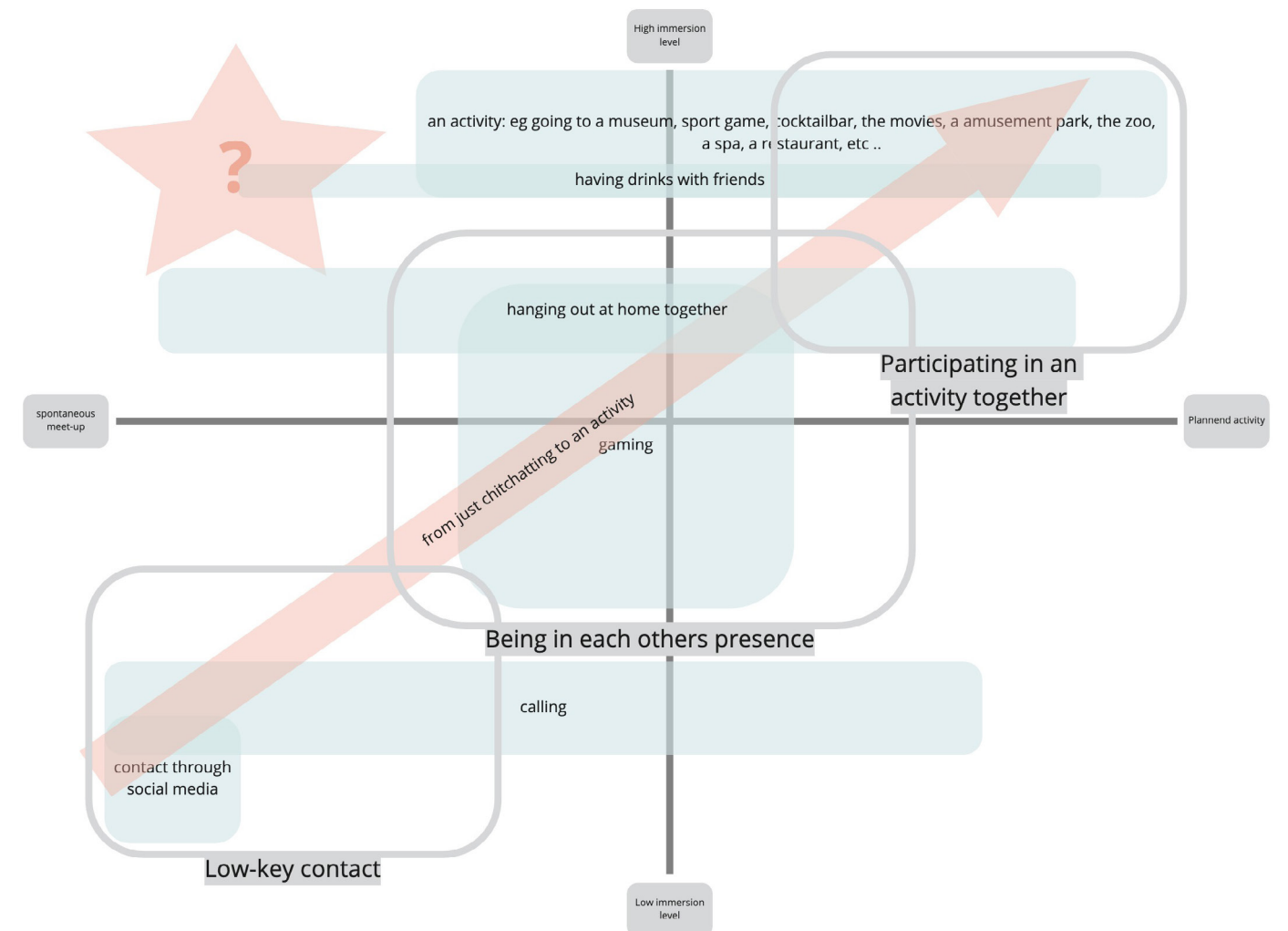

Figure 19: Where does a virtual immersive activity with friends fit best?

TBWA\X IN THE METAVERSE

This section explains what investing in a metaverse experience for TBWA\X can mean and examines how it fits with corporate identity and strategy. The outcome of this section are requirements for the design outcome.

Viability

Investments in the metaverse hit over 120$ billion already and consultancy company Mckinsey predicts in "Value creation in the metaverse" (2022) that the value may reach 5$ trillion by 2030 (which is equivalent to the economy size of Japan today). Of this, an expected market value between $2 trillion and $2.6 trillion comes from e-commerce and a $144 billion up to $206 billion value comes from the advertising market. In short, there is money to be made. A valuable asset of TBWA\X is their client Adidas. They created multiple NFT collections (https://www.adidas.nl/metaverse) and a customizable avatar dressed in Adidas where you can explore different online game worlds with, indicating that they are open for innovations in the field of web3.0. Not unimportantly, Adidas spent $2.547 billion in 2021 on marketing purposes, including everything from point-of-sale activations, store interiors and sponsorships with athletes (Adidas, 2022). When 1% (2,5 million dollars) is made available of Adidas marketing budget to create an immersive experience, a wonderful opportunity can arise for both Adidas and TBWA\X. The Business of Fashion conducted research in collaboration with McKinsey speculating that fashion companies focused on commercialisation of the metaverse could generate over 5% of revenues from activities in the metaverse in the next two to five years (McKinsey & Company & Business of Fashion, 2022). Meanwhile, a competitor of TBWA\X is already serious about creating a customer experience in the metaverse ("A Unique Web3 Experience for H&Mbeyond," 2022). Digital customer experience agency Dept, in collaboration with virtual space creator Journee, has built a virtual world for H&M that functions as an extension of the physical showrooms which is only accessible to invited guests.

Disrupt marketing

To expand their growth and fulfil their mission of becoming the agency of the future, TBWA\X wants to disrupt marketing. In this way they want to maintain their market position and remain a future-proof company in the field of customer experience. They see opportunity to do so in the successor of the worldwide web, the metaverse. Although they understand the potential, they don't know how to approach the innovation, afraid of either being too early or too late and therefore miss the window of opportunity. Besides, they stated that they are looking for a more general approach on how to handle innovation, so that they are prepared not only for the metaverse that is relevant today, but also relevant for emerging technologies in the future.

Inhouse design skills

TBWA\X is specialized in building all sorts of digital environments, such as websites and applications, and the metaverse is in general one big digital environment. For this reason alone, there is huge potential for TBWA\X in the metaverse. The building blocks of the metaverse can be grouped in four categories: Content & Experience, Platforms, Infrastructure & Hardware, and Enablers "Value creation in the metaverse" (2022). In the upper layer, Content & Experience, TBWA\X can add most value. Specifically, TBWA\X' digital design team consists of a wide range of different disciplines in the field of digital design, such as multiple frontend application and website developers, visual designers, 3D content designers, motions designers and UI/UX designers. Although the employees might have to master new software or hire someone who has specialist knowledge, the basics are there. In conclusion, there is sufficient knowledge and experience inhouse to make a good start with building content for the metaverse, because the design team of TBWA\X has the necessary knowledge, skills and experience in the field of digital design.

Brand DNA

TBWA\ calls itself the pirates, because of its aim to be rebellious in marketing by breaking convention. By breaking convention, they want to create disruptive marketing, and that requires a bold attitude. This is reflected in their visual identity by making use of images like shown in figure 20. Getting active in creating customer experiences in the metaverse is a bold move and therefore fits into the pirate brand DNA.

Figure 20: The X of TBWA\X on the background with a pirate skull in front of it. Derived from the website www.tbwa-x.com

Conclusion

TBWA\X wants to take the next step and disrupt marketing instead of creating disruptive marketing. To do so, they currently see most potential in the metaverse. The metaverse is an innovation that together with blockchain and NFTs is driving change, but what is the next relevant innovation for TBWA\X, and how can they best approach it? Therefore, the design outcome also needs to be applicable to future innovations in the field of customer experience. Lastly, although scoped to the fashion industry, the design outcome contains generative principles that can be applied to multiple clients to make it as relevant as possible for TBWA\X.

"A good pirate understands the rules in order to break them"

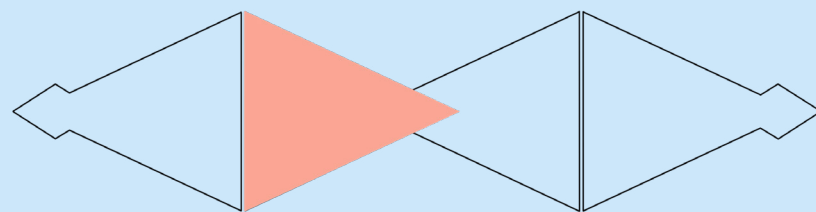*– Agathe Guerrier, Global Chief Strategy Office of TBWA\Worldwide*

DEFINE

**Designing a future worldview based
on the insights found**

CHAPTER 3

Someone enjoying three-dimensional glasses, as a form of immersive experience.

APPROACH

This chapter describes the steps that are completed to create the design vision. The first three steps of the Vision in Product design method (ViP) are followed to explore future possibilities in the domain of online fashion shopping. This way a worldview with four possible directions is formed to investigate multiple solution spaces. The worldview describes where the world inside the domain could be in ten years from now. The approach includes the definition of the domain, followed by collecting factors, clustering them into driving forces, and eventually creating a future worldview that is based on the relations between the driving forces of the future. This forms the guideline for creating the design vision in the next chapter: Design Vision.

Setting the domain
The first step in the ViP process is to determine a domain that gives guidance for the collection of context factors. For this project the following domain is set:
Fashion shopping online
The domain has a more flexible perception than just online shopping behaviour, because it is influenced by different online activities related to fashion such as described in chapter 2.3: An immersive experience for fashion. The concept of online fashion shopping describes the activities that people undertake in the process of discovering, purchasing and showing-off clothing, shoes and accessories. The projected future of this project is 2030, this timeframe fits best with the vision of TBWA\X to become the agency of the future and still presents a feasible design outcome.

3.1.2 Generation of context factors
The second step is the collection of context factors. Factors are observations, thoughts, theories, laws considerations, beliefs or opinions and can be found anywhere (Hekkert & Van Dijk, 2016) A broad exploration of literature, articles, podcasts, video's, talks, conversations and interviews is used to determine the collected factors. When considering a factor, it is subject to the following three criteria as described by Hekkert & Van Dijk (2016); originality, relevance and appropriateness. In total, more than 130 factors were collected in different varieties. The full list and differentiation of factors can be found in appendix C.

Structuring the context
The goal of this step is to create a coherent structure that forms a unified whole from the collected context factors. This is done by clustering the factors to form a composition that explains how separate elements are connected. The trick is to maintain the richness of the factors while allowing patterns to emerge (Hekkert &

Van Dijk, 2016). After clustering a fair understanding of the future world that is connected to the domain of online fashion shopping is developed.

After a thorough evaluation, nine key drivers emerged from the clusters that best capture the future worldview: Kids taking over the internet, Hyperconnectivity culture, Client satisfaction take-over, Digitalisation of experiences, New types of beauty explored, Affiliated through fasion, Connecting with non-humans, Limitless exploration, Cautiousness towards the metaverse.

Some key drivers focus more on a general future of online or shopping behaviour while other clusters are more defined towards the future of online shopping experience. The clusters are briefly described on the section 3.2 Key drivers.

Describing the worldview
Once the clusters are defined, they are plotted against each other in a system of axes to understand how they are related to create a future worldview. Four possible futures emerged, each of them originated from a niche that is present in today's world. The niches are not based on the chosen domain, but together with the description of the fashion vision of the future, it forms a holistic description of the future context of the domain. This was chosen because today's niches lie at the heart of popular culture of tomorrow. Based on the formulated worldview, the statement was formulated which lays the foundation for the ideation phase.
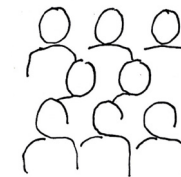
KEY DRIVERS

The clustering of the context factors was started during a session together with a part of the strategy team. The aim was to immerse them in the project and have them think along, through a professional view, about a possible worldview formed by the clusters. Nine key drivers are derived from the clusters, the clusters are formed after collecting and organizing of the context factors. The nine key drivers that form the worldview are described below. In appendix C3 shows an image with the corelation between the clusters.
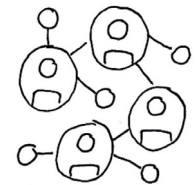

Kids taking over the internet
When the first personal computers came out in the 1980s, these devices were reserved for people who knew about it. Today, children are already being introduced to a computer in the form of a smartphone when they are in the cradle. It is therefore not surprising when (new) generations are so used to online contact that they prefer it to physical contact (Loyt, 2022). This might be the reason why children experience more safety, control and autonomy in virtual worlds than in real life (Rich, 2020). Fashion brands see this as an opportunity to reach new customer segments and gratefully make use of existing avatar platforms such as Ralph Lauren for Snapchat and Fortnight for Balenciaga where the brands provide skins for the avatars to show-off (Hawkings, 2022).

Hyperconnectivity culture
96% of the Dutch population has access to internet at home (CBS, 2019). That access is used for an increase in media consumption through smart devices such as phones and tablets (Maker, 2019) creating a culture of the possibility to always be online, always be available for connecting and always being able to connect. This connectivity does not only apply to people among themselves, but also to the connectivity with our belongings, our pets and more abstract matters such as climate control (Chui et al., 2021). Everything and everyone will always be traceable, connectable, and available, giving us the ability to stay up-to-date on people's lives we don't even know. This connectivity can be used beneficially and creating access to things and places that were not accessible before.

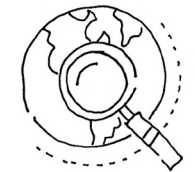## Affiliated through fashion
Fashion is an important means for communication. It signals which role we play in society, how we feel and what tribe we belong to (Hackle, 2021). To identify with and be accepted by a tribe is important, since the next generations are more prone to fear of being alone ("Generation Alpha & the Death of the Teenager," 2020). Also, fashion brands can use this 'connecting to community' to engage more deeply with their consumers. Smart consumers enter digital environments for a sense of belongingness, finding connections and building networks (Kim et al. 2014). Online communities are growing and additionally people start looking for an online identity that fits them, creating opportunity for brands to come into play and offer the right online identity in the form of a skin for an avatar.

Limitless exploration
People are naturally curious, so they are willing to explore new things. This might either be a new digital world or just the coffee place around the corner. Fashion stores make use of this by creating stores that are so called hyperphysical with fur walls and swimming pool aesthetics for picture perfect backdrop in order to lur new consumers in (Chitrakorn, 2022). This type of fun shopping experiences might be exactly what Gen-Z is looking for (IBM, 2018). Digitally even more is possible, the most sensational and inspiring digital art can be created and explored. That creates benefits for the increase of people seeking new forms of escape from reality and mood alteration in the progressively stressful society where they can deviate from everyday routine to wind down.

Client satisfaction take-over

Convenience is in the core of our existence (Kahneman, 2013) and points out a "customer is king" development in e-commerce. If the customer is unsatisfied, it is not accepted, and a negative review can be written that can have a big effect on future customer revenue. The importance of good reviews has become important enough that companies pay big money for good reviews, offered by a wide variety of companies (NOS, 2019). In contradiction to this phenomenon of fake reviews, Gen-Z expects brands and influencers to be transparent about their values, pick sides and act accordingly. 'Wokefluencers' and 'greenwashing' are publicly pilloried (Ortiga, 2020). It is yet to be seen to what extent brands and influencers still dare to express their opinion for fear of losing market share or of being pilloried for a wrong statement or the like.
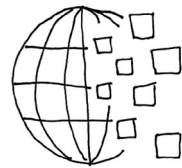
New types beauty explored

New diensions of beauty led to the exploration of the balance between fake and real. The use of filters contributes to this phenomenon, as singer Olivia Rodrigo shows in her video clip 'Brutal'. Here she uses various face altering filters to apply colourful and animated make-up like applications (Olivia Rodrigo - Brutal (Official Video), 2021). Face altering filters are a widely used phenomenon made popular for the mass by social media and will continue to grow since the technology is invested in heavily (Microsoft, n.d.). These filters are quite easy to recognise, but more and more 'deep fakes' are in the making. These filters can mislead the public by making it difficult to distinguish what is real and what is not. Digital artists are also eagerly using this new technology, for example to imitate celebs in a surprisingly realistic way (vfxchrisume, Instagram).

Cautiousness towards the metaverse

When asked about their opinion on the metaverse, many would think about the nextflix series black mirror. Black Mirror is a tv series about an abstrusely dystopian future facilitated by innovative technology ("Black Mirror (TV Series 2011–2019)," 2014). In a limitless digital world, there is the possibility to lose yourself online. The most popular videogames are infinite (Staff, 2022). They are online worlds, where players can participate whenever and for however long they like, with success measured in achievements instead of a single, finite objective. In online environments you can decide who you want to be. This raised problems in Roblox (online gaming platform with mostly kids) when adults organised virtual orgies and the BBC called it 'The children's game with a sex problem' (Dyer, 2022). This emphasizes that there are problems that need to be tackled before mass adoption of the metaverse will be reached. People will be eased in and experience that the advantages outweigh the disadvantages.

Connecting with non-humans

After creating the Chinese chatbot Xiaoice to conquer loneliness the creators of the robot found people falling in love with the Artificial Intelligence software of the robot (Gaubert, 2021). These occurrences proving the possibility to not only form a deeper connection with non-human things, but even with AI. Anthropomorphism of objects and animals comes from a need for social interaction (Bess, 2018) and because people are attracted to things similar to themselves. An extension to this is the Proteus-effect, were the player of the avatar goes beyond identifying and start adopting character traits of his avatar (Yee & Bailenson, 2007). This might mean that in the future metaverse we even have (romantic) relationship with AI avatars. Social interaction in the form of experiences and activities are in the forefront of adolescents interest (Postma & Stappers, 2006), but this might not be with other humans but with AI avatars.

Digitalisation of experiences

Wherever you are or whatever you do, much more than you think is nowadays a digitalised experience. From trying on clothes digitally through an AR filter (www.dressx.com) to a 'Cybrothel' where you can make love through a VR headset and sex dolls (www.cybrothel.com), and don't forget the fast-food chain Wendy's opening a restaurant in Horizon, Meta's VR world (Kulp, 2022), to the implementation of VR technology in teaching programmes (own observation). Digitalisation of fashion means there won't be any limitations as we experience in the physical world. It is not surprising that professions such as 'influencer' have become a normal career path, exploiting online media, which will only continue to develop since expectations are 25% of people will spend at least additionally one hour per day in the metaverse by 2026, doing activities such as work, entertainment, social and shopping (Rimol, 2022).

WORLDVIEW

A worldview containing four directions is designed out of the above described key drivers, as seen in figure 21. These directions have the overarching themes of connectivity and the increasing desire to enhance the perfectibility of life. The four quadrants are: A world where.. fashion becomes restrained; A world where.. fashion merges with entertainment; A world where..

fashion is a means to communicate your tribe; A world where.. fashion is no more limited to physical means. Each quadrant is based on a niche group that is present today and could develop into the popular culture of the future, because today's niches lie at the heart of popular culture of tomorrow.

Figure 21: the future world view of shopping fashion, a more detailed version with accompanying clusters and explanation of the images is found in appendix C4.

The first hatched egg that prefers to stick to the group
The quadrant: A world where.. fashion is a means to communicate your tribe is based on current niche of NFT-community. The shift to a digital community means building digital society accessible from anywhere in the world, blurring traditional land borders. For example, since people have the need to belong, owning an NFT is a means of showing the community you are part of being a proud supporter of your community. The communities are at the forefront when it comes to shaping online social conduct. Joining communities is the norm, here the new rules of interaction are explored, understood and regulated. Similar as we see happening today with 'WhatsApp etiquette' and what not is accepted Zoom behaviour, but than on a larger scale and incorporated in our lives on a daily basis.

The frontrunner that dares to take the leap
The quadrant: A world where.. fashion is no more limited to physical means is based on current niche of online virtual worlds. The increasingly digital life means that people also want to look good in the digital world, making digital fashion mainstream. This is reflected in both the dressing of avatars online and the development of AR fashion projected onto one's clothes. For fashion brands, this means that new revenue streams are being tapped because, in addition to physical clothing, a digital version can also be sold. The digitization of clothing opens up a range of new possibilities that fashion brands were unable to discover before.

Doesn't dare to step away from the establishment
The quadrant: A world where.. fashion becomes restrained is based on current niche of wokeism. Nowadays, In a world where everything is considered, or has the potential to be, offensive, and were being offensive results in huge backlash by consumers causing exclusion, there is no more extravagance or experimentation, and making mistakes is de-humanised. Wokeism (meaning alert to prejudice and discrimination) has taken over socio-cultural norms and operates under the guise of radical inclusion where there is no room for people with different opinions. Brands prefer to play it safe, resulting also in fashion trends and collections that are dull and emotionless. Although stirred up by just a small group that is very vocal, insignificant mistakes or different way of thinking can potentially lead to elimination of the playing field, meaning loss in revenue. Brands will therefore do everything they can to prevent that, to keep everyone satisfied.

Daring to take the leap, but doesn't dare to go off the beaten track.
The quadrant: A world where.. fashion merges with entertainment is based on current niche of fashion-branded entertainment. Shopping is all about engaging the consumer in a fun experience where the consumer gets immersed in the world created by the brand. Shopping becomes more than fashion, it becomes a truly memorable experience. Brands dare to step outside their comfort zones and start exploring gaming opportunities that go beyond tools for marketing and provide a new way to engage with the consumer, build brand loyalty and to tell their story. The meaning of what fashion brands entail is stretched to a lifestyle experience. In this way, fashion brands create new channels for engagement with the brand and selling their products and explores which entertainment option best suits the brand, much like what happened when the fashion industry shifted from brick-and-mortar shopping to e-commerce.cv

The reaction to the world view, that forms the first part of the design vision is captured in the following statement:

I want to enable TBWA\X to become dauntless creators of fashion experiences by giving people the opportunity to discover new shopping rules.

In the next chapter the statement is explained further, and the accompanying human-product interaction is defined to complete the design vision for the ideation phase.
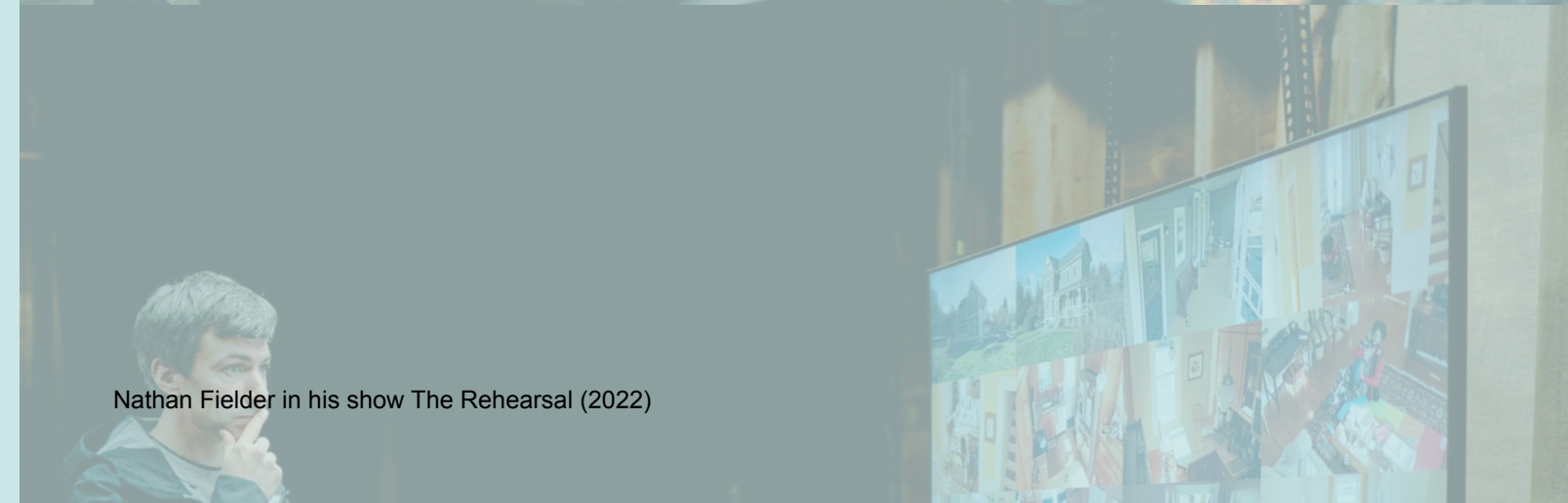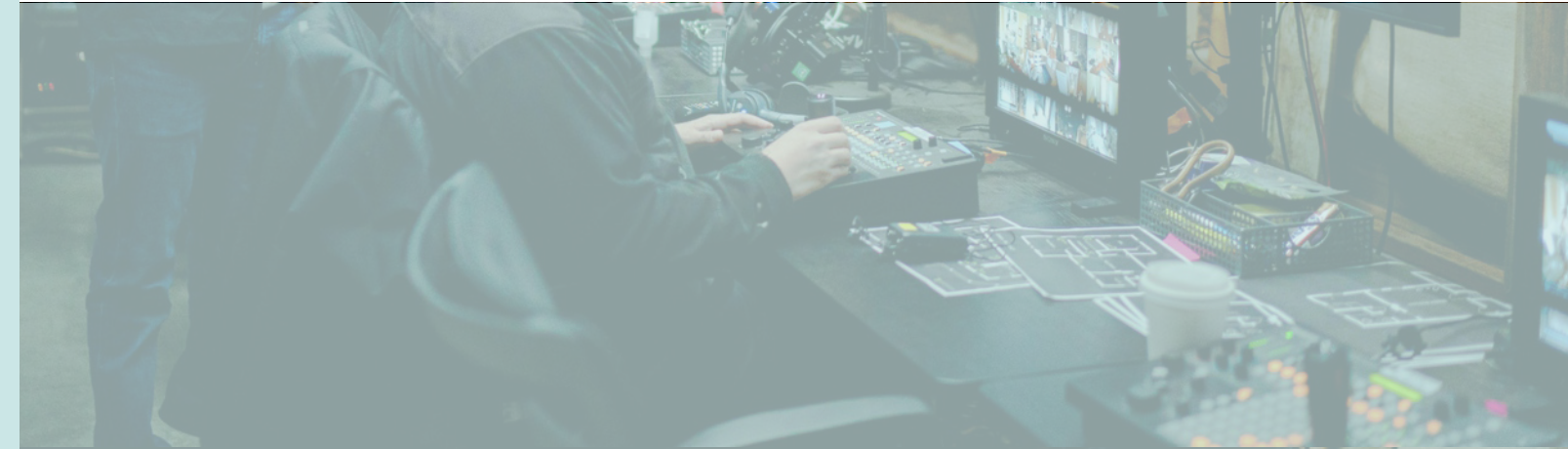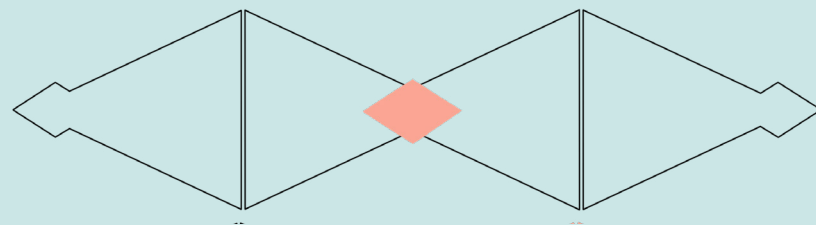
DESIGN VISION

Creating a design vision based on the worldview to guide the design phase

CHAPTER 4

Nathan Fielder in his show The Rehearsal (2022)

STATEMENT DEFINITION

Once the worldview is created by means on key drivers, the next steps, step four: Creating the statement and five: designing the human-product interaction, are followed from the ViP approach. This chapter elaborates the statement that emerged as a reaction on the world view. To properly understand this statement and the subsequent worldview, a metaphor is devised. The metaphor is helpful in describing the interaction between human and product. Together they form the design vision that is the starting point for the ideation phase. The purpose of the design vision is to express the reaction to the outlined world view.

To form a response to the future worldview the following statement is formulated:

I want to enable TBWA\X to become dauntless creators of fashion experiences by giving people the opportunity to explore new rules of shopping.

The statement should accomplish that TBWA\X becomes dauntless because this fits their brand DNA of being rebellious pirates. They state that they hate boring and that they have the desire to be disruptive. To be disruptive in nature, you need a dauntless mindset, because you encounter an unknown space and therefor you need to be brave and determined.

Unknown equals unproven, and unproven give clients chills because it's risky to deal with as it is not sure what the outcome will be. Therefore, something needs to be created that eases the way to the unknown. A design solution that enables TBWA\X to become dauntless and help them create a customer experience for fashion that will stir them in the desired direction of becoming the agency of the future, as their mission states.

ESTABLISHING A RELATIONSHIP

Now that the worldview has established meaning and direction, the relationship between the user and the to-be-designed product is described. This is done by means of an interaction description that fits the sum of the key drives derived from the collected context factors, the created world view and statement that has emerged from it. The interaction description is the way how someone interacts with a product, service, or experience to reach the desired goal of that use (Hekkert & Van Dijk, 2016). When the appropriated interaction is described, it reaches an understanding of how your to-be-designed product is experienced when reaching its desired goal. A metaphor is used to help capture and describe the interaction in the best possible way.

Metaphor
A metaphor can help seeing the interaction from a fresh perspective (Hekkert & Van Dijk, 2016) To reach a suitable metaphor multiple situations have been explored that revolve around similar interactions. This exploration can be found in appendix D. Ultimately, the following metaphor was chosen that deems to fit well:

A pirate sailing his ship to unknown territory.

From the metaphor the following three interaction descriptions are derived: Empowering activation, deliberate selectivity and explorative adaption. The metaphor is supported in a narrative written to clarify the interaction descriptions, indicated in bold in the text.

The captain and his pirate crew sail the oceans full of uncertainty. Reaching unknown territory is not knowing what to expect, which means explore adaptively to what lies ahead, such as uncertain weather conditions or unexpected enemies. They stay motivated by strengthening each other by chanting, empowered to conquer the ocean together. It gets them excited and ready to explore. They have the freedom to choose where they go, but the ocean is unforgiving, so they must select deliberately to make sure they don't get caught in a storm. Sometimes something lingers in the water that makes the crew curious to explore further, such as when they saw the hint of a glittering mermaid or when the waving palm trees are waiting for them on the horizon.

CONLUSION

The statement, I want to enable TBWA\X to become dauntless creators of fashion experiences by giving people the opportunity to explore new rules of shopping, together with the interaction description; empowering activation, deliberate selectivity and explorative adaption serve as a design goal for the ideation phase. The interaction qualities are formed in such as way that they help reach the desired product interaction in order to fulfil the statement. The next chapter describes how the design vision is used for the design phase.

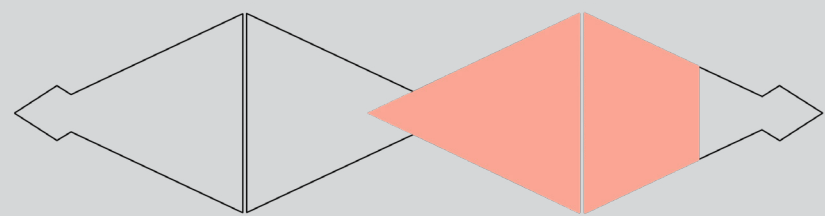# FINAL DESIGN

Presentation of the vision concept
arising from the design vision

CHAPTER 5

A composition of stills from the film *Everything Everywhere all at Once (2022)* in which the main character teleports through different universes.

Paragraph 5.1
INTRODUCTION

The following paragraphs describe how the final design based on the vision statement came about. At this point, the DIVE method takes over from the ViP method, as described in the section of 1.6.1: Methodology. This chapter is based on the fourth step of DIVE: Communicating the future and is about creating a prototype, visuals, and narrative to convey the vision in visual style for engagement and clarification (Mejía et al, 2018; Sanders & Stappers 2013), which is the outcome of this chapter. The outcome is a vision concept, designed to facilitate conversation in the next step, step five: Looking back at the future, which the next chapter describes.

Paragraph 5.2
APPROACH IDEATION

For this part of the process, and two co-creation sessions are held. One with the strategy team of TBWA\X and one with students from the Delft University of Technology. The results of these sessions provided an understanding and direction for the vision concept.

DIVE
In this thesis DIVE is used to explore the future of the shopping experience for fashion. DIVE stands for Design, Innovation, Vision and Exploration and is a design-led strategic foresight method to create and share vision concepts (Mejía et al, 2018). The vision concept is used to envision and communicate the possible futures of a company internally and externally in order to boost innovation within the company. This is done by creating a concept for the future in a visual manner, resulting in artifacts consisting of images of the future that are concrete and specific. These artifacts have the goal to inspire and spark conversation about a company its present and future. The making of concept cars is a similar practise, with similar goals. The DIVE method is derived from this, but is less recourse intensive which make it suitable for small to medium enterprises, like TBWA\X, since they don't have the resources to create extensive projects such as seen in concept cars but benefit just as well from this strategic foresight method.

Testing the waters
The first step in the ideation was an immersion session with the strategy team. This was done during the regular weekly team meeting. Despite the early hour on a Monday, the team participated enthusiastically. The goal was to immerse them in the project and get an understanding of their attitude towards a design-led approach. The participants of this session were eight members of the strategy team. Their role within the team differs per person, most work for TBWA\X for several years as customer experience director and some have more specialized tasks in, for example, social media strategies or NFTs. The session started by explaining the project and an immersion session was held to estimate their understanding of the metaverse. Lastly, How-Tos were presented that were formulated prior on big sheets for them to brainwriting on and the sheets were rotated every two minutes in the group. Brainwriting is an activity where someone writes down multiple ideas or answers to a given question or problem statement. Key element in brainwriting is quantity over quality, since the participants read each other's ideas to get inspired by them. How-Tos are question starting with 'How to ..' in order to evoke solutions for a problem. By brainwriting on the questions and rotating the questions among the participants, a wide variety of solutions is collected, which inspires for the rest of the design phase. The participants were enthusiastic about the design-led approach of the DIVE method and recognized that it can add value for future thinking within TBWA\X. The immersion session about the metaverse revealed the participants didn't have a full understanding of what the metaverse means or might entail for TBWA\X. This made it clear that the first step is creating an internal understanding about this new concept and for which DIVE is the perfect means since one of its goals is to stimulate internal conversation which can be used for employees of TBWA\X to create an understanding about the metaverse.

Idea generation
After the session with the strategy team a co-creation session was held with fellow students. The goal of the session was some first inspiration for the ideation phase, a fresh look from others and subsequently arranging the session to put my own thoughts into order which helped in the development of the process. The group consisted of two IDE students and two TU Delft students from different faculties. The participants were selected and invited to the session through my own network of friends and acquaintances, selection was made by the availability of the invitees. In this session, the concept metaverse wasn't mentioned, but instead, it was named 'immersive experience'. This was done after reflecting on previous conversations and interviews where people couldn't grasp the concept of the metaverse clearly enough, which resulted in superficial outcomes. Explaining the topic as the concept of an immersive experience is easier to understand and is more relatable. Prior to the session five simplified personas are created to help the participants gain a better understanding of the employees of TBWA\X and to help inspire the participants during the brainwriting activity. Every persona has dreams and concerns based on their attitude towards the metaverse and other developments around web3, see figure 22. Also, the personas are designed in such a way that they correspond to Rogers' diffusion of innovation theory (2003), because the bell curve of the theory applies to every group, including the employees of TBWA\X. Before the brainwriting activity, each participant chose a persona to inspire them at moments they were uninspired. The session consisted of a brainwriting activity based on How-Tos similar as described in the previous section, following a selection activity. In selection activity the participants decided what ideas could be relevant for TBWA\X based on the design vision. The outcome of the session gave a better understanding of what can be created for the vision concept in line with the design vision. After this session, the idea arose to design an immersive experience in the form of a VR fitting room to make it tangible for TBWA\X and give them the opportunity explore the concept of an immersive experience.

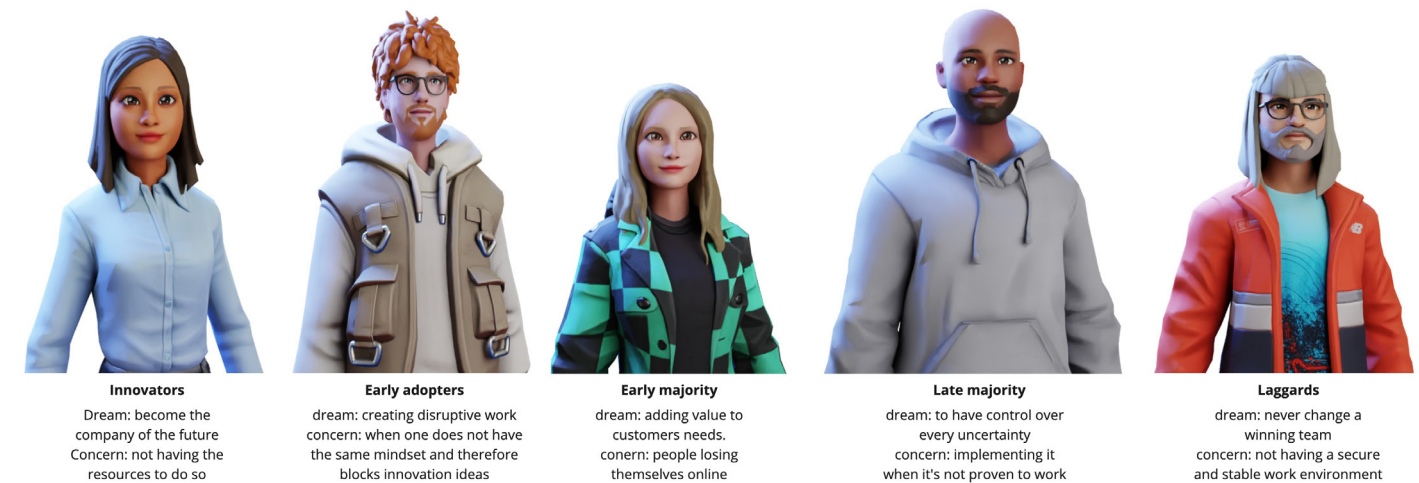| Innovators	Early adopters	Early majority	Late majority	Laggards
Dream: become the company of the future Concern: not having the resources to do so	dream: creating disruptive work concern: when one does not have the same mindset and therefore blocks innovation ideas	dream: adding value to customers needs. conern: people losing themselves online	dream: to have control over every uncertainty concern: implementing it when it's not proven to work	dream: never change a winning team concern: not having a secure and stable work environment

Figure 22: The five simple personas used to inspire participants during the session.

THEORETICAL FRAMEWORK

The VR fitting room is an immersive experience in which the consumer can bring the desired context to life, instead of having to imagine themselves in a situation where they would like to wear the clothing. In the subsequent section the vision concept of the VR fitting room is explained in detail. This section describes the theoretical Hoframework surrounding the VR fitting room. Figure 23 was drafted to map out the correlation between the literature found on the importance of context and atmosphere during shopping.
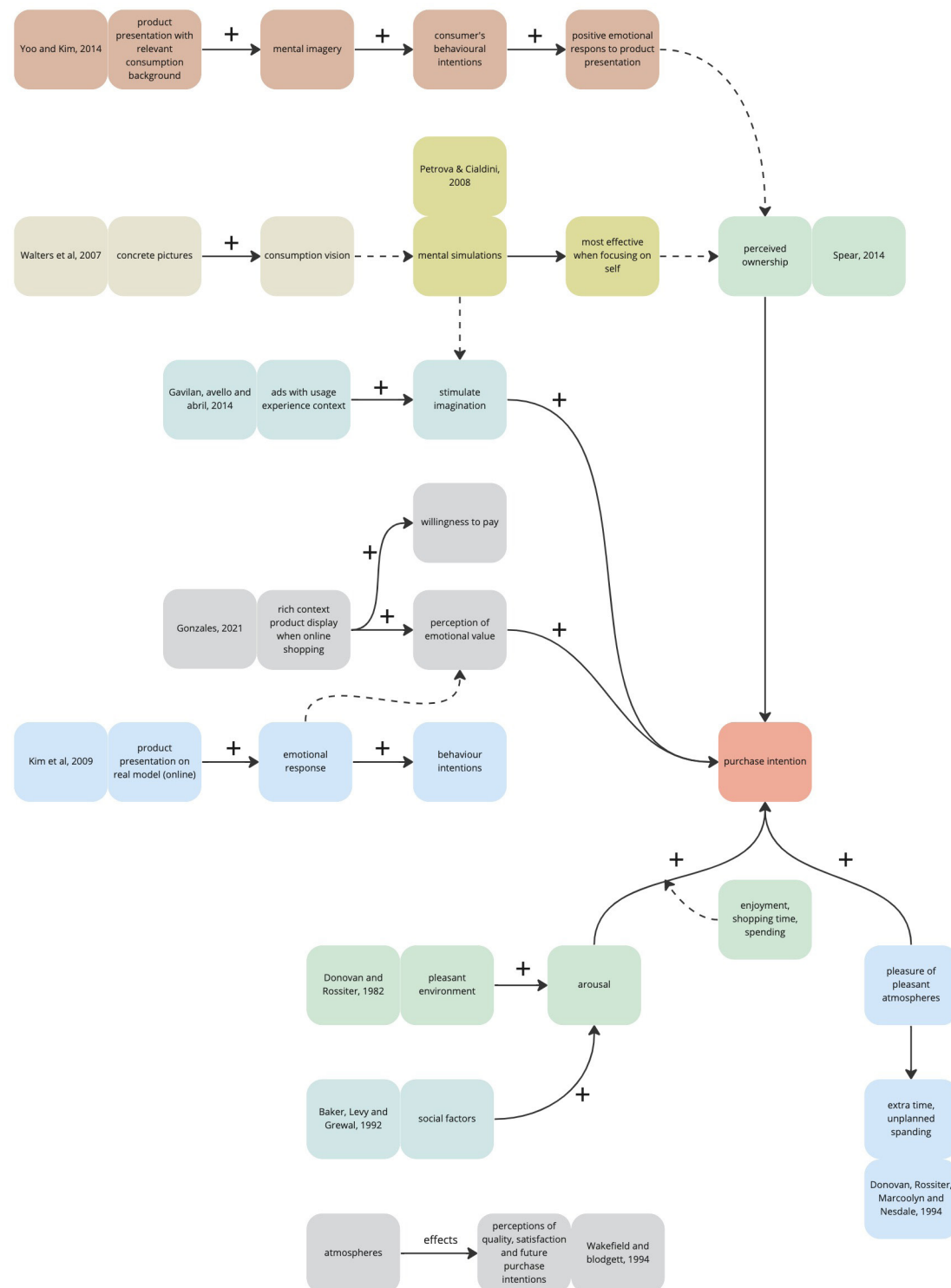

Figure 23: Show the correlation between the different literature on context and atmosphere.

Importance of context
The core of the vision concept is to enhance the consumer's imagination when buying clothes online. The imagination plays an important role on the purchase intention when shopping for an outfit (Gavilan et al, 2014 & Spears, 2014; Petrova & Cialdini, 2008; Yoo & Kim, 2014; Walters et al, 2007). Stimulating the imagination with rich context leads to a higher perception of emotional value, which in turn leads to a higher purchase intention (Gonzales, 2021). The imagination can be stimulated in an online environment by presenting the product in a rich context (Gonzales, 2021), with concrete pictures (Walters et al, 2007), with relevant consumption background (Yoo and Kim, 2014), with usage experience context (Gavilan et al, 2014) or on a real model (Kim et al, 2009). These mental simulations are most effective when the consumer finds similarities with themselves (Petrova & Cialdini, 2008). The designed vision concept takes it a step further and let the consumer adjust the context to their own liking to remove imaginative difficulties and stimulate the consumer to make better purchase decisions.

Importance of atmosphere
Since the experience is immersive, the immersive context can be seen as the atmosphere one normally experiences in a store. Therefore, a literature study was conducted into the effect of atmosphere on shopping behaviour. Atmosphere in this context is understood to mean anything that stimulates perceptions during shopping (Turley and Miliman, 2000). When shopping, the atmosphere perceived in the store influences consumer purchasing behaviour such as shopping time and spending (Donovan and Rossiter, 1982), when shopping online the atmosphere is non-existent while a pleasurable atmosphere has a positive contribution to shopping intention (Donovan and Rossiter, 1982; Donovan et al 1994; Wakefield and Blodgett, 1994). So, the atmosphere in a virtual reality environment is expected to have a positive contribution on the shopping behaviour when designed properly and to the consumers liking. Also, perceived atmosphere outside a retail environment can contribute to perceptions of quality, satisfaction, and future purchase intentions (Wakefield and Blodgett, 1994). When a pleasant shopping environment is experienced, arousal is increased what in turn increases purchase intention (Donovan and Rossiter, 1982). Baker et al (1992) found that social factors increase arousal and thus purchase intent for undergraduate students. The social factors are the number and attitude of the employees present in the store.

Creating photogenic moments
The next section elaborates on the importance for Gen-Z to create perfect photo opportunities. Gen-Z needs social recognition, which manifests itself in pressure to present the coolest version of yourself on social media (Fromm, 2022). This is reflected in the Dutch youth between 12 and 25 years old of which 96,8% uses social media (CBS, 2020). Sharing pictures online is seen as a fun activity to engage in as a Gen-Zer, where they share their own and comment on friends (Van Driel et al, 2019), see figure 24. To obtain the desired photos, a lot of effort can be put into it and companies are responding to this need. For example, Dutch influencer Anna Nooshin has opened an interactive Instagram museum in Amsterdam. This is the third location in Amsterdam specifically aimed at providing visitors with photogenic installations for the purpose of taking photos that are shared on social media. The museum makes the implicit promise that the photos taken will catch on online (the-UpsideDown. com), what is highly valued by the youth (Van Driel et al, 2019).

Figure 24: Party goers sharing their pictures on Instagram from the club Jimmy Who in Amsterdam, all in the same 'famous' corner. Pictures found under the Instagram tag of Jimmy Who. (https://www.instagram.com/jimmywho_tlv/tagged/)

Conclusion
The framework shows that the VR fitting room is a product that can increase the purchase intention of the consumer. It can also be concluded that entering and creating photogenic moments is important for Gen-Z. The vision concept can help them achieve these moments by selecting the most appropriate outfit beforehand. As consumers make a more balanced choice when using the VR fitting room, it is expected that overall satisfaction will also increase, which in turn contributes to brand loyalty.

THE VR FITTING ROOM

In this section, the result of the vision concept is presented. The result consists of a descriptive part written in this thesis to explain the idea in the most thorough way, and a video that explains the concept in an engaging way. Since the ambiguous nature of a new concept, in the thesis a visual scenario is used for explaining. To emphasize and clarify the various benefits of the vision concept, a couple of user scenarios are highlighted by means of user examples. A framework is derived from the existing literature to theoretically support the vision concept. The goal of the concept visions is to spark conversation internally at TBWA\X to ultimately drive TBWA\X's innovation process in becoming the agency of the future. For the consumer, this equates to an enriching shopping experience.

Link with design vision
In chapter 4: Design Vision, the following statement is derived from the created worldview:

I want to enable TBWA\X to become dauntless creators of fashion experiences by giving people the opportunity to discover new shopping rules.

This statement led to a metaphor to help come up with a product-interaction description:

"Like a pirate crew on a ship; they empower each other to activate, they deliberate select what to do for the best result and they will explore adaptively where to go."

The metaphor of interaction between the pirates functioned as a guide for the ideation process. The product-interaction is matches as follows for the vision concept:

Explorative adaption
Since it is a new customer experience making use of a new technology, TBWA\X explores what works and what not to create the most value for the user.

Deliberate selectivity
The product gives the freedom to choose the most desirable background that best suits the consumer's situation. The consumer can therefore be selective in what fits best.

Empowering activation
Consumers can share outfits including backdrop to get feedback from friends. This process of sharing and giving feedback is in line with the user's needs, with the goal to empower them to make the right choice.

What is the VR fitting room?
The vision concept is the 'Virtual Reality fitting room'. The VR fitting room is an immersive experience accessibly by a VR headset. Within the virtual experience, the user sees a photorealistic digital twin of themself. With this digital twin the user has the ability to try on different clothing digitally and to place the digital twin in the desired context where the clothing might be worn. In the scenario it is explained visually for a better understanding.

1
This is Rob, he is a potential customer looking for an outfit for festival in the woods next week.

2
He opts for VR shopping, which combines the advantages of online and in-store shopping. He puts on his headset that puts him in the immersive experience and opens up the VR environment.

3
Earlier, he scanned his body in 3D. This allows a photo-realistic representation of him in the virtual environment. This is his digital twin. Illustration three is seen from his perspective, so we see the same as what he sees when he is in the VR fitting room. Since his digital twin is standing in front of him in an immersive experience, Rob can walk around his twin, and study him from all angels. He cannot interact with the digital twin, but it is programmed to move a little bit, like a person waiting somewhere and changing weight from one leg to the other and looking around, for a more hyper realistic experience. His twin in standing in the home environment of Rob, this is the environment that always opens-up first and from here Rob can easily navigate to the described features. He has three options: he can start searching for the desired backdrop first, or the fashion items he is looking for and he has the possibility to check his friends' outfits and share his own with his friends for feedback.
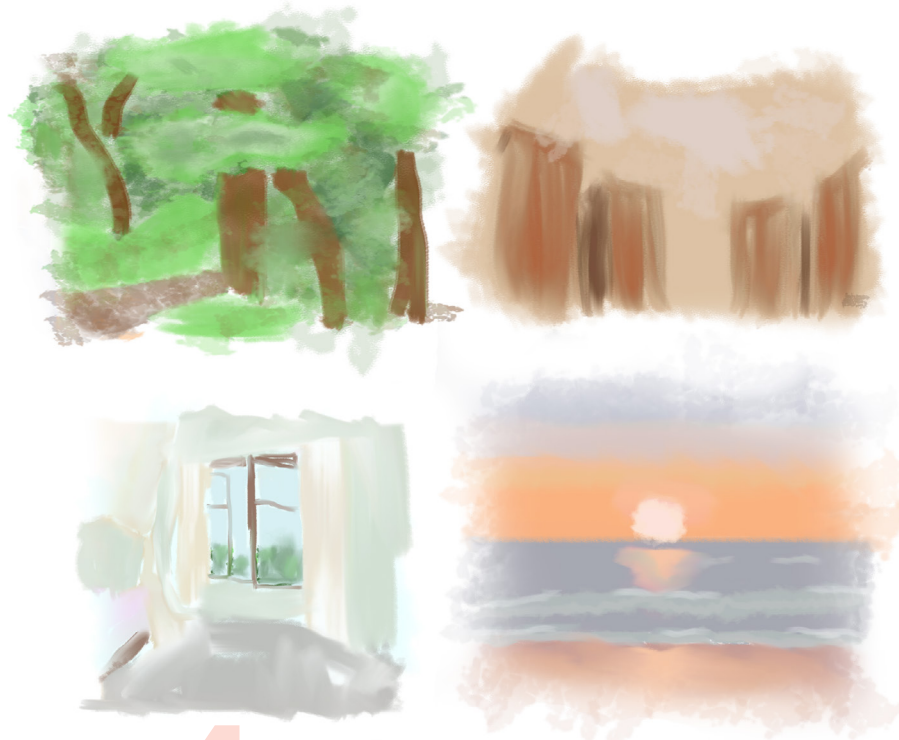
4 He navigates to the backdrop menu, when it opens up, he can choose between multiple backdrops. He scrolls through them until he finds what he deems fit for the moment.

5 Since he has a festival in the woods, he selects the desired background to see what it would be like to wear it outside in the forest.

6 Next, he navigates to the online store. He searches for fashion brands and items he finds interesting

7 He selects an outfit from the collection, and the avatar wears it immediately.

8 Rob sees his digital twin in the woods. He walks around his digital twin in the new outfit and studies it carefully. Yes he likes it!

9 Rob craves feedback from his friends, so he sends them his digital twin in the woods for them to give advice on. They will receive a notification and can either opt for a quick view of the outfit with backdrop on their phone or they can enter the scene themselves in an immersive experience. Rob hopes they will respond quickly, so he knows if he should buy the outfit.

Consumer benefits

In the next paragraphs, four situations are highlighted that focus on the consumer benefits and emphasize the possibilities of immersive shopping.

Example 1: Shopping for a special outfit

Kim her birthday party is coming up. She has invited a bunch of friends to celebrate so now she is looking for a dress that matches the party setting. The thing that bothers her when shopping, is that she is limited by the screen of her phone or laptop and the design of the website. Some websites try to make an effort with cool campaigns and inclusive models, but most of the time it's just difficult to imagine yourself in the outfit, let alone at the desired moment.

When shopping in the virtual environment, Kim can set the preferred backdrop she wants to shop her outfit for. In this case, it will be the club she is celebrating her birthday at. She can also choose to add her friends for the most realistic scene possible, they are added as NPCs (Non Playable Characters). When people are added, their digital twins are animated in a way that suits the scene. In this example, they have drinks and chat with each other. This allows her to better judge whether the outfits fit into the context of the party. Everyone is enjoying themselves and Kim is the centre of attention. How does that feel with this dress on? This one might be a bit boring, so does she prefer another one? Kim also wants a picture-perfect moment when it's time to blow out the candles. The dress needs to fit this moment best, because she wants to share this on her social accounts to impress her friends. Let's see what looks best! She has a better idea on what she wants to wear this evening, therefore she doesn't have to order five dresses to check at home and ask her friends. She just picks one since she is sure it will look good.

> **Problem: Missing context when shopping**
>
> *"Does my outfit not only fit me but also fit the evening?"*

Example 2: Getting in the right mood

Kylie is looking for some intimate wear she feels comfortable but sexy in. She wants to head over to the store the check what they have available. But the thing is, the moment she takes off your clothes in a fitting room is almost always fraught with discomfort. Standing there naked in the narrow space and the bright light from above is not flattering. The underwear on her body looks nothing like what she imagined when she picked it up from the rack. Last time she stood there studying herself in the mirror as she tried different poses when doubt set in. Kylie just doesn't get the right feeling in a fitting room, and she lets out a deep sigh of disappointment.

Shopping in an immersive experience gives Kylie the opportunity to swap the uncomfortable fitting room for an environment that makes her feel comfortable. Where does she prefer to try on intimate apparel? Kylie's digital twin is placed in the context where she wants to be, an environment that makes her feel the way she wants to feel when she wears the outfit. Maybe she prefers to feel sexy, something that is hard to achieve in a normal fitting room. She is also curious how she will feel when her partner is present, so she opts for the option to make him present as an NPC to check out how that will make her feel. She has a few options she really likes, and she send the scene to her boyfriend so he can check it out too.

> **Problem: Not getting the proper mood in a fitting room & feeling uncomfortable.**
>
> *"Getting in the right vibe for the right moment."*
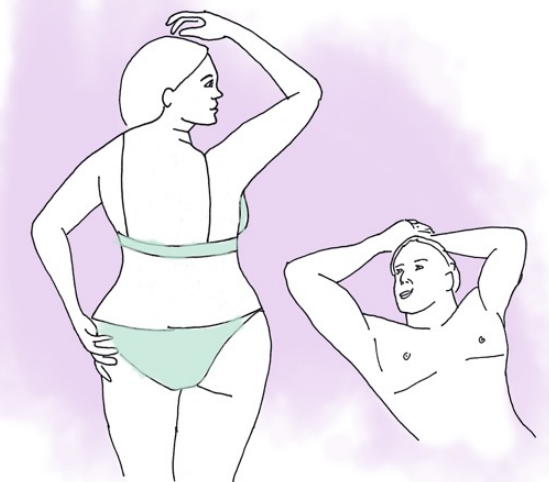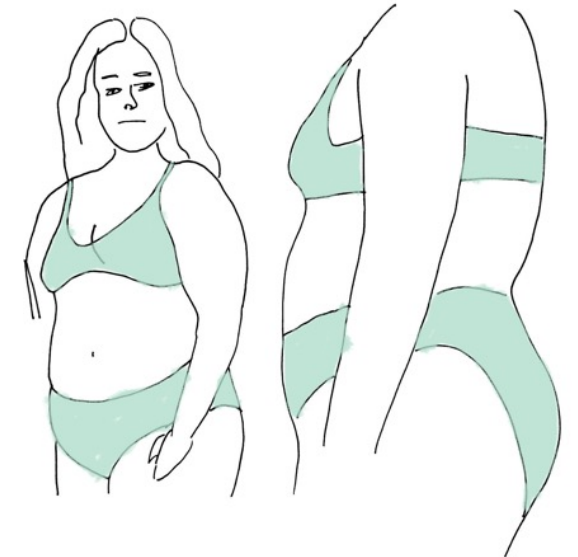
Example 3: Shopping for the right fit

Brody is looking for a new shirt, so he opens an online store on his phone to look for one. The perfect looking models on the website, trying to sell him the dream are staring at him. But Justin, with him awkward long body, knows that shirts never fit well and it's hard to find a proper one online.

Immersive shopping is quite what he needs to find an item that fits as wished. He tries different shirts online, and voilà, after a few tries he found the one. It is so convenient! Brody let his digital twin flex a bit to make sure the muscles come through and he is sold. This immersive shopping made his life much easier when it comes down to buying shirts.

Although not the core of the concept, a side effect is that the consumer experiences show how the garment looks on the digital twin. This makes it possible to examine whether a garment has the correct fit and an initial selection can be made without having to physically try on an item to see if it fits as desired. Given TBWA\X' experience in creating digital environments, the opportunities for them lie in creating in the digital context for the consumer shopping process and not in digitally tailoring the clothing and creating a digital twin. Consequently, the focus of the vision concept is on the digital background, but the presence of the digital twin explains this feature as being a valuable addition for both consumers and businesses and is therefore explained.

Problem: Clothes bought online rarely fit properly.

Example 4: Sharing with friends

An important element for Gen-Z when shopping is the ability to share which outfit interests them to get feedback from their friends. This is done by sharing photos and videos via social media. They take the feedback serious and if there is no positive response form their friends, they either don't buy it or they won't hesitate to return an item (Fromm, 2022).

That is why it's essential that the ability the share an outfit with friends is incorporated. What this feature will look like exactly, needs to be explored further, but a description is given of how it can be approached.
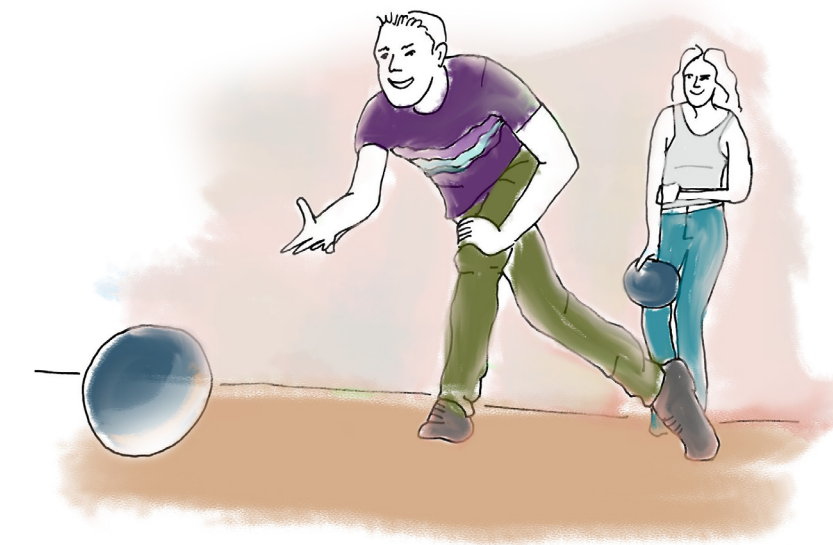
For example, when organizing an event with a dress code, like a typical Dutch twenty-one-dinner party, a setting can be created where everyone's digital twin is added in and hangs around in a digital environment. When an outfit is picked by someone, either for advice, to inspire or to show, the digital twin and a notification is sent to everyone present to check it out.

But there will also be the availability to share more random, daily outfits. Take Scott for example. He goes on a bowling date, and he doesn't really know what to wear, so he sends his digital twin bowling with an outfit he deems fit, to his friends to give feedback on.

EVALUATION

The evaluation helps understanding how intended stakeholders value the vision concept. The evaluation is held to determine which aspects should be improved and where applicable tested against the requirements. Due to time, it is chosen to only focus on the expert evaluation and literature and not on the consumer.

Requirements

At the start of the project, TBWA\X set three requirements for the design result. These requirements help to evaluate the vision concept. The evaluation was carried out by means of our own critical view of the design outcome. It has been elaborated for each requirement whether and to what extent this has been achieved. This is important because meeting the requirements contributes to the benefit for TBWA\X. The three requirements are:

1.   The outcome contains generative principles that can be applied to multiple clients of TBWA\X.

The vision concept is designed as a customer experience for the fashion industry and aligns with current clients such as Adidas and Hunkemöller. In addition, the vision concept fits well with the innovative character of Adidas, and Hunkemöller has shown interest in a comparable customer experience. The vision concept itself is not relevant to brands outside the fashion industry, but the skills and knowledge needed to realize the immersive experience can be used to create an immersive experience for any

brand and functions as a steppingstone for creating future metaverse experiences. Therefore, it can be stated that the design outcome contains generative principles that apply to multiple clients of TBWA\X.

2.   The outcome is applicable to future innovations in the field of customer experience.
The methods that are learned during the master Strategic Product Design are made for dealing with, mapping and developing around innovation. For example, this thesis used two design-led futuristic foresight methods, namely the ViP method and DIVE method, which together have mapped out the future. This thesis can therefore be seen as a case study that gives TBWA\X an example of how to deal with innovation through the use of design-led methods. When a new innovation comes into play, TBWA\X could use this thesis to carry out the steps as described in the thesis so that a concrete vision for the future is formed with regard to the innovation.

3.   The result is disrupting marketing, instead of disruptive marketing.
To claim that the vision concept can disrupt marketing is premature. But that doesn't change the fact that it's a completely new customer experience that not only solves various problems for the consumer, but also benefits the client. There is only one way to find out if it is possible to disrupt marketing with this concept, and is implementing it in the clients customer experience.

Figure 25: Innovation Decision Process, the five steps a person undertakes to whether or not adopt an innovation, Rogers (2003).

	Webshop	In-store	VR fittingroom
Fitting in the store is experienced as annoying.	In a webshop you order clothes to fit in the comfort of your own home, but the problem is that you don't know in advance whether you like it.	Making people feel uncomfortable and uncomfortable. It also takes time and energy.	In the VR fitting room it is possible to see how the item fits on your body, without having to undress.
Going to the store takes time.	In a view clicks, 24/7/365 availability of almost every clothing brand.	Going to the city centre or shopping centre, walking in and out of multiple stores, takes time.	Just like a website where everything is instantly at one's disposal.
When you buy something online, you never know what it will look like on you.	That's why people tend to buy more than they need and return what they don't need.	Instant gratification when an item can be tried on and purchased.	In the VR fitting room it is possible to see how the item fits on your body, with the ability to check from multiple angles
The metaverse is seen as something unwanted in which people can be swallowed.	Online shopping is a save and known environment.	In-store shopping is an save and known envrionemt	By creating an immersive experience that feels like a separate application or an extension of a website, the feeling is evaded of being part of the grandeur of the metaverse.
There is nothing in the metaverse that draws them in or make them curious.	Some fashion brands experiment with shops and experiences in the metaverse.	No application yet of a similar experience.	This immersive experience adds a distinct benefit to the consumer shopping experience and creates a metaverse experience to engage in.
Desire for feedback from friends on items.	Send the webshop link to friends for feedback.	Sending pictures to friends for feedback.	Sending the scene to friends for feedback.
Importance of fun while (online) shopping.	The activity is considered fun, the experience itself is more based on functionality.	Depends on the brand but some really go out of their way to create the most desirable atmosphere and others are uninspiring.	Gamification of the shopping experience that can be explored and used to connect with friends.
Online moments with friends are experienced as pleasant.	Online shopping can contribute to this by sharing web links for an outfit to get feedback or get inspired.	In-store shopping can contribute to this by sharing pictures of an outfit to get feedback or get inspired.	Ability to get instant feedback from friends and create a space where the digital twins are updated to check out.

Table 1: The left column describes the problems and needs derived from the interviews. Then colour codes indicate which channel best solves these problems and needs.

Consumer evaluation

To evaluate a possible consumer acceptance of the vision concept, the Innovation Decision Process by Rogers (2003) is studied to determine the likelihood it gets adopted by the target group. Rogers defines the process as "an uncertainty reduction process", what entails that a person seeks information and processes it to reduce uncertainty about the advantages and disadvantages of an innovation. The process involves five steps, from gaining knowledge by asking critical question up till the last step of seeking conformation for the made decision, as seen in illustration 25.

The second step, persuasion, is influenced by attributes of innovation, whereof the first attribute, Relative advantage is the most important one for the rate of adoption. Since the vision concept is an incomplete product, and because of the importance of the relative advantage, the vision concept is evaluated solely on the relative advantage and not the other attributes. The other attributes should be taken into account when developing the VR fitting room.

The relative advantage is the degree to which the

expected benefits of a new product, in relation to the relative costs of adoption, are superior to the existing products. During the interviews, what the target group experience as problems when (online) shopping and online social behaviour is mapped out. The experienced problems plus other important elements are described in detail in Chapter 2.2: Consumers in the metaverse, and are briefly mentioned in table 1.

Each element is colour coded. Red indicates an unresolved problem or consumer need. Orange indicates that the immediate problem is solved, or a need is being met, but that leads to a secondary problem. Green indicates that it meets the wishes of the consumer. Gray indicates that the indicated need or problem is not relevant for this channel. The colour coding makes it clear which of the three channels (online, in the store or the VR fitting room) solves the identified user's problems and needs. This shows that the VR fitting room solves all problems and is in line with the needs. Therefore, it can be concluded that based on the relative advantage for the consumer in comparison to the current customer experiences on websites and when shopping in-store, the innovation has a high chance of adoption by the target group.
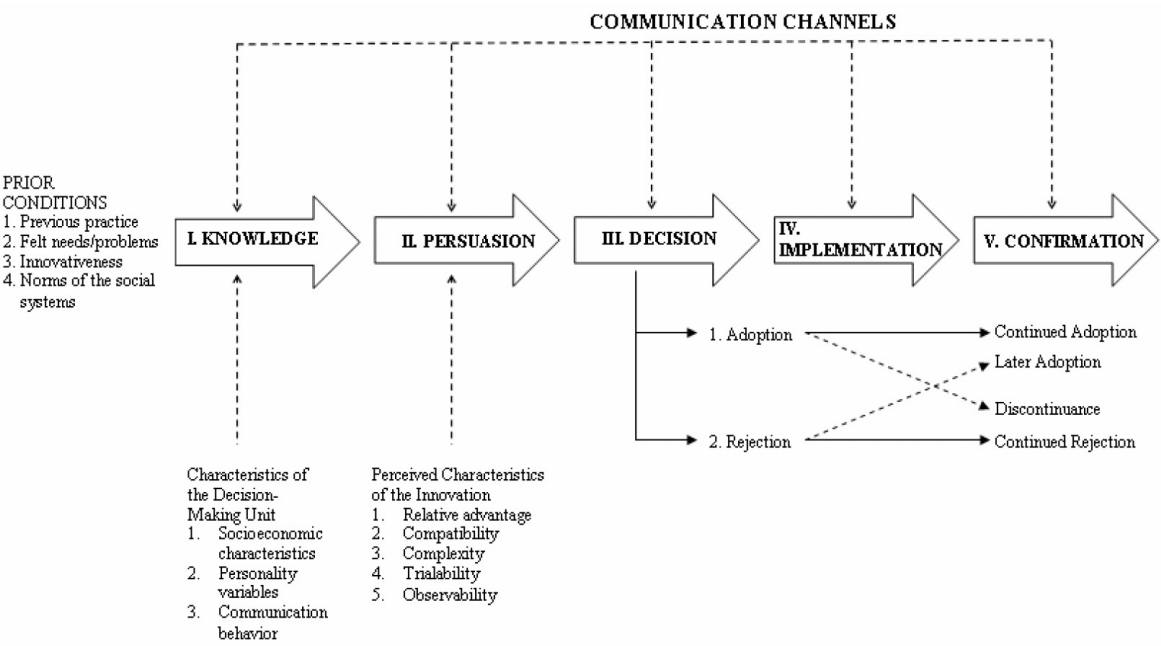
VR Expert evaluation

The external expert is chosen based on his knowledge of creating VR environments. The evaluation is conducted offline through an interview including a presentation of the vision concept. The evaluation for the feasibility of the VR fitting room was held with Luuk Goosens from the VR lab of Delft University of Technology. Luuk is an employee of VR lab, making him knowledgeable about all things concerning VR, from the software to the hardware and he has been building different kind of VR environments for the university for years. The predetermined issues to be discussed are the development in accessibility of the software and the quality of the renderings of the software to define what software is best to use for the VR fitting room. Accessibility and quality are both important factors for the vision concept to succeed. Higher accessibility means the possibility of creating the digital environments more easily and faster, resulting in less cost per environment. Something that is desirable for both TBWA\X and clients to keep within the marketing budget. Better quality results in a more desirable experience for the consumer, making it more likely they will purchase an item.

The most widely used software for creating virtual environments is Unreal Engine (UE) from Epic Games, which is also used by VR lab. This software is free for to use for everyone (up to the point the product makes over one million in revenue). That is why the focus is one this software for the evaluation for its use for building a VR fitting room. Luuk stated that the usability of UE most likely won't improve tremendously, since the people using UE are mainly professionals. It's not like the Adobe programs that people learn as hobby on the side. But, the implementation of AI technology could enhance the usability by great extent. Software such as Megascan already makes three-dimensional pictures to implement in VR environments, making the objects close to photorealistic. AI could accomplish to create environments faster, more easy and more realistic. It is therefore very likely that the idea behind the vision concept can be realized within a period of ten years.

IMPLEMENTATION

Making the vision concept concrete

CHAPTER 6
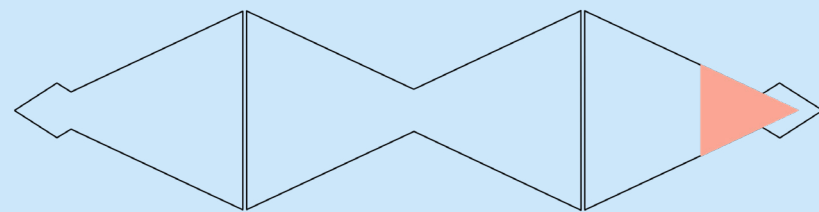
Wade Watts, the main character of *Ready Player One* (2018), entering the Oasis with VR headset and haptic gloves.

INTRODUCTION

This chapter builds on the fifth and final step of the DIVE method: Looking back at the future. In this step stakeholders get invited to map the company's future based on the vision concept. For this, an implementation strategy is first made by using elements of the road mapping method. Next, a creative session is held to execute step five of the DIVE method: Looking back at the future, for exploring and mapping the future of TBWA\X. The outcome of the session will lead to the first set-up of an implementation strategy. This strategy is a rough outline for future steps, which TBWA\X can use as a guideline to make a more concrete strategy. The outcome as described in chapter 5 Final Design, together with the video and the VR environment, will function as the vision where the strategy is aiming for to reach. Before focussing on the implementation strategy, it is important to know how the vision concept can be created, because it contributes to the overall picture of the vision concept with the aim to arrive at a correct implementation strategy. Besides, the pace of technology development is one of the leading elements to set the pace for the implementation strategy.

Paragraph 6.2
HOW IT CAN BE DONE

Three core elements that make the VR fitting room are highlighted in the following paragraphs: A VR environment, a digital twin and digital fashion. In addition, the necessary hardware and software that is expected the consumer will need to participate in this technology is discussed.

What does the consumer need
To join an immersive experience, the consumer needs a VR headset and an internet connection. 5G makes it possible to solve the needs for faster networks to process large amounts of data that are needed when creating hyper realistic digital surroundings (Udoji, 2021). VR devices aren't yet mainstream. In 2021 eleven million headsets were sold (in comparison with 1350 million smartphones (Ubrani, 2022) and the International Data Corporations predicts an increase to 35 million sold headsets by 2026. The anticipated launch of an Apple VR headset makes it likely there will be faster consumer adoption of VR headsets, as Apple is known for disrupting the market with high quality and user-friendly products (Clover, 2022). Bringing the market from 5 billion revenue annually to 50 billion in 2030 (GlobalData, 2022). Truly immersive experiences will be perceived by the integration of haptic wear (technology that stimulates the senses of touch), 3D audio, eye tracking, motion tracking, cloud services and artificial intelligence. It is hard to determine how many people will own a headset in ten years. Given the exponential growth in headset sales, the large amount of investments that are made (Pritchard, 2022) and that some of biggest tech-companies in the world are working on creating a headset, it can be expected that by 2032 the majority of the current Gen-Z will have a headset at their disposal.

VR environment
The digital environment can be created with software such as Unreal Engine (UE) which is specialized in constructing hyper realistic digital worlds. UE is part of Epic Games and is already widely used in a broad range of applications in the entertainment industry. It is labour-intensive and requires skill to create a realistic digital environment. In the coming years the process of creating a virtual environment will be facilitated by AI applications (Hinkel, 2021). This means machine learning is applied to create digital art through neutral language or pictures someone took of a setting. A technology that is developing rapidly these days as seen with the Dall-E 2 software (openai.com). Where now developers have to spend hours of craft to reach the desired level of quality in a digital world, in the future a developer uses an AI algorithm that auto-generates a world where a digital artist then makes adjustments to make the environment completely to their liking. This will eliminate the current workload and ensures that many digital environments can be created more quickly and easily, providing the user an unlimited number of options to choose the right digital background.

Given TBWA\X' experience in creating digital environments, the opportunities for them lie in creating in the digital immersive context for the consumer shopping process and not in digitally tailoring the clothing or creating a digital twin. Consequently, the focus of the vision concept is on the digital background.

Digital twin
One of the key challenges of the fashion industry is solving size and fit for consumers buying garments through ecommerce. The problem with this is that when shopping online, one cannot properly estimate how an item will fit on one's own body. This results in people ordering more clothes than necessary and then returning items that are not to their liking. This causes unnecessary costs for clothing brands and inconvenience for consumers. Nowadays, online clothing stores try to solve this by getting the most detailed picture possible of the consumers body by filling in sizes, weight and length. However, this solution is only 50% accurate, as stated by Amanda Cosco, a multimedia technology journalist (personal communication, 24 July 2022). Digital fit and digital tailoring are currently a hot topic as it is seen as a solution to the problems and costs associated with returns. Both start-ups (www.BODS.me; www.FitMatch.ai), established platforms selling fashion such as Amazon (Lomas, 2017) and Zalando (corporate.zalando.com) and research groups ("Automated Suit Tailoring Using Budget 3D Scanning Technology," 2021) are developing software to make digital tailoring available to consumers when shopping online. Given the large investments and the research that is being done in the development of this technology for an improved customer experience, it can be concluded that this technology will eventually be useful for the consumer and can therefore be implemented in the vision concept.

Digital clothing
Now the digital twin is there, it needs get dressed. Digitizing garment manufacturing helps the fashion industry to improve efficiency, product quality and flexibility. Due to the digital transition, it is possible to put together a garment that only consists of a sewing pattern by means of software before it is stitched. This is done by software such as Marvelous Designer and CLO3D, which are also compatible with the software of Unreal Engine. Adjustments can easily be made in the software, which are immediately translated into the pattern. HATCH studio (www.hatchstudio.io), part of PVH and H&Mbeyond, H&M's innovation studio in Berlin use these digital representations in showrooms for B2B sales. Various fashion brands are already working with this software, which means that the collections are already available digitally. Given the afore mentioned advantages of digitizing, it stands to reason this technology will only spread further among the fashion brands, resulting in digital clothing that is useful for the vision concept conceived.
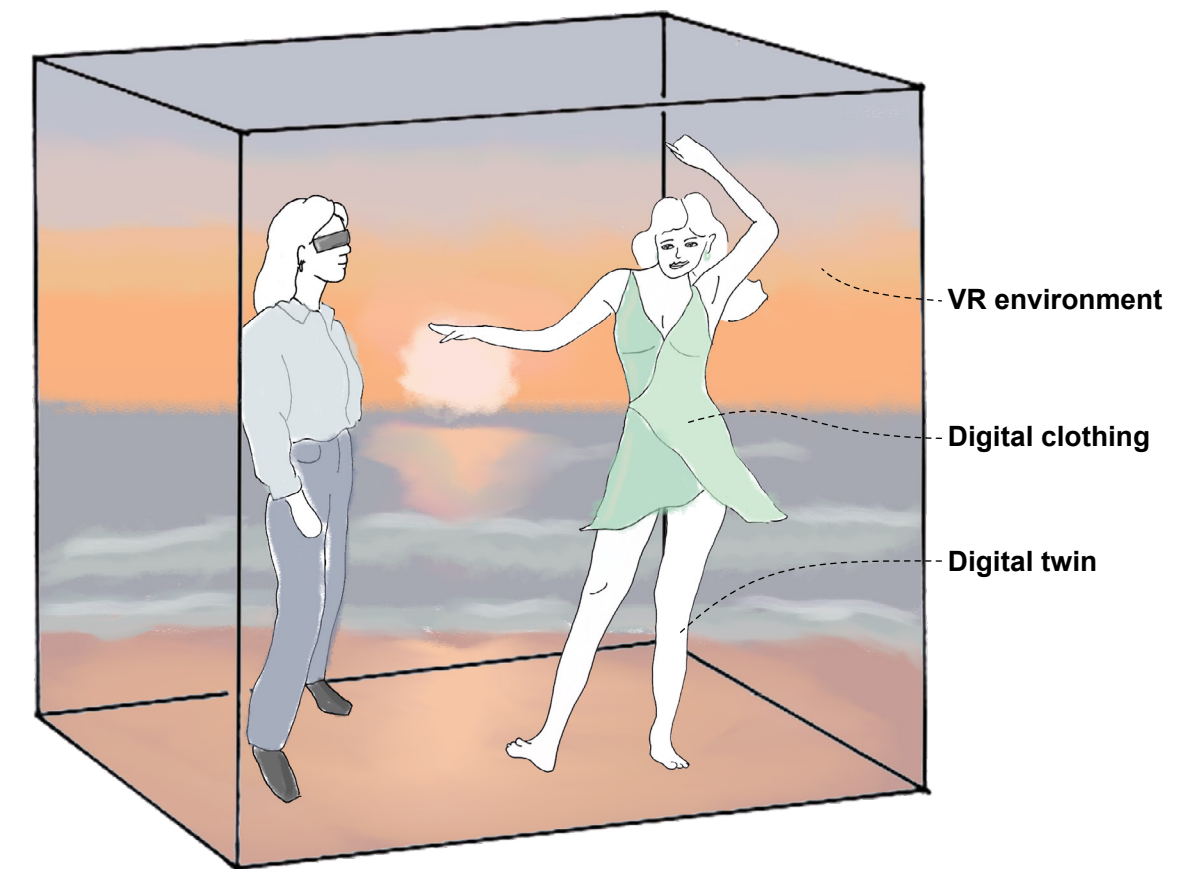

VR environment

Digital clothing

Digital twin

Figure 26: The VR fitting room taken apart in the three main elements.

MAPPING THE FUTURE

To map the company's future, a session is facilitated where three company representatives take part in. During this session, the vision concept is used to help the participants express their feelings, ideas and thoughts about the company's future. (Mejía et al, 2018) Outcomes of the session are strategic recommendations for the near and far future of TBWA\X, where components from the road mapping method are used for guidance of the conversation.

Participants
The three participants are chosen because they have a clear sense of the company's evolution and enough influence to define its future (Mejía et al, 2018), insofar that their knowledge and experience about the business contribute to mapping the future and giving strategic recommendations. The participants are Marloes, Onno and Robert, whom all work for TBWA\X in different areas of the company. They were chosen as their knowledge touches different fields, so that the exercise is approached from different angles.

Marloes van den Heuvel, Customer Experience Director. Marloes has worked at TBWA\X for over two years and is responsible for the strategy behind loyalty, CRM and digital campaigns. Before TBWA\X she has worked at the marketing department of different clients giving her excessive knowledge of both agency and client side.

Onno van Gijssel, Solution Designer. Onno has been with TBWA\X from the start, even before it was part of TBWA\NEBOKO. Onno is experienced in developing the back-end part of TBWA\X' products. In addition, he is part of the team that manages the employees in Eastern Europe. He experienced a couple of additions within the product line of TBWA\X from application design to website design to a more holistic approach to all things digital, which gives him knowledge of both the internal processes of TBWA\X and its relationship with the client.

Robert Slot, Chief Innovation Officer. Robert has been in the industry for almost twenty years. He had been working for TBWA\NEBOKO for over seven years, before he made the switch to TBWA\X. As a CIO, he focuses on the organizational innovation through technology. His years of experience give him a broad technical expertise of customer experience.

Method
The session started with a presentation of the vision concept. It was explained what the vision concept is and why it is relevant to both the consumer and the client. Subsequently, the roadmap was introduced and explored. The discussed elements of the roadmap are derived from the business model canvas. This was used as the viability of the vision concept plays a major part in creating revenue for TBWA\X. The roadmap was printed out on a large sheet so that the participants could easily gather around it. The participants were given cards with conversation starters to help to get the flow of conversation started. They wrote down their thoughts on sticky notes to put these on the printed roadmap. There was also the possibility to substantiate and change what had been inputted in advance. This led to a lively discussion among the participants about how TBWA\X could benefit from this vision and possible tactics to reach the vision of the roadmap. The different elements that the participants came up with provided input for the designer to work out a strategic implementation strategy.

Outcome
The outcome of the session was a roadmap of the near and far future with strategic recommendations on the viability of the vision concept. This input was a starting point to make an implementation strategy for the vision concept with which TBWA\X can start the project. This implementation strategy is further explained in the next subchapter.

"Something similar was shown to Hunkemöller and they responded very well."
– Marloes van Den Heuvel, customer experience director.

During the session, the attendants discussed that a similar concept was presented during a pitch to the lingerie brand Hunkemöller to which that client responded enthusiastically. This offers potential for the vision concept that has been devised and therefore Hunkemöller is also included in the implementation strategy. In addition, it became clear that TBWA\X wants to focus on a select group of larger clients for which they manage the entire marketing plan together with TBWA\NEBOKO instead of several smaller clients. This lead to an approach where a new product such as the vision concept was pitched to existing clients instead of looking for new ones. The participants also concluded that the core activities of TBWA\X will remain the same over the years, but that their interpretation might change. Loyalty programs were mentioned as an example, the metaverse will merely complement the current channels to increase customer loyalty.

"At the moment we say to the client: 'We can do anything.' We then look internally at what is possible."
– Onno van Gijssel, solution designer.

In general, when a client asks for a digital solution, TBWA\X tries to achieve it, as it strives for clients to get all their digital products from TBWA\X. However, in order to get clients to buy a new product, a showcase needs to be created. This can be done by means of a case that provides proof that the new product really catches on with the consumer. In the case of the VR fitting room, proof is needed that shows that people are more satisfied with the purchased items than when shopping online or in a store.

IMPLEMENTATION STRATEGY

TBWA\X is engaging with the metaverse to become the agency of the future. To achieve this goal, a steppingstone is created through an immersive shopping experience, making an immersive experience part of the client's current customer experience is the vision where the implementation strategy is aiming for. To scope the project, it is decided to create an immersive experience suitable for the fashion industry. Once the vision concept has been implemented, tested and appears to be functioning properly, it can be expanded into a product that is feasible for all (potential) clients.

Goal
The strategy consists of four phases, of which phase zero is this thesis. TBWA\X can proceed to the other three phases after the thesis is submitted, therefore the focus is on these three phases. The three phases are the following: The preparation phase, the pilot phase and the scaling up phase. When every phase is followed correctly, the desired outcome of the vision concept should be the result. Before a client designates TBWA\X for a metaverse experience, TBWA\X needs a poster boy to show that the product they want to sell works, so the upcoming years are dedicated to rolling-out the first immersive experience(s) with a client that is willing to experiment in this new field.

In addition, as a means of realizing the vision concept, the implementation strategy is also in line with the design vision of chapter 4:

I want to enable TBWA\X to become dauntless creators of fashion experiences by giving people the opportunity to explore new rules of shopping.

The strategy elaborates on how TBWA\X can position itself as a dauntless fashion experience creator and thus take a leading position in the creative industry, not only in the Netherlands, but also worldwide.

Time Pacing
The three phases describe what TBWA\X goes through to reach the desired vision concept. Each phase has a different opportunity space and strategic cycle. The pace of the phases is based on maturing and consumer adoption of the technology and the clients budget planning pace.

TBWA\X struggles with finding a balance in a technology push and market pull strategy. Figure 27 illustrates how design value bridges market pull and technology push, bringing them closer together. These value creations are included when designing the three phases.

It will take a business several years to develop new value propositions that might influence the business model as well, making the time pacing more long term (Simonse et al, 2018). In conjunction with the maturing of the technology, the horizon of the third phase is set at ten years, in 2032. For setting up a plan to introduce the product, the horizon of the first phase is estimated at approximately two years, as described in book of Design Roadmapping, which will set the horizon of the first phase in 2027. The horizon of the second phase is based on the clients' budget planning pacing. Clients plan their budget allocation approximately two years in advance, therefore the second horizon is set in 2027.

Figure 27: Value creation by three approaches of design innovation (Simonse & Hultink, 2017)
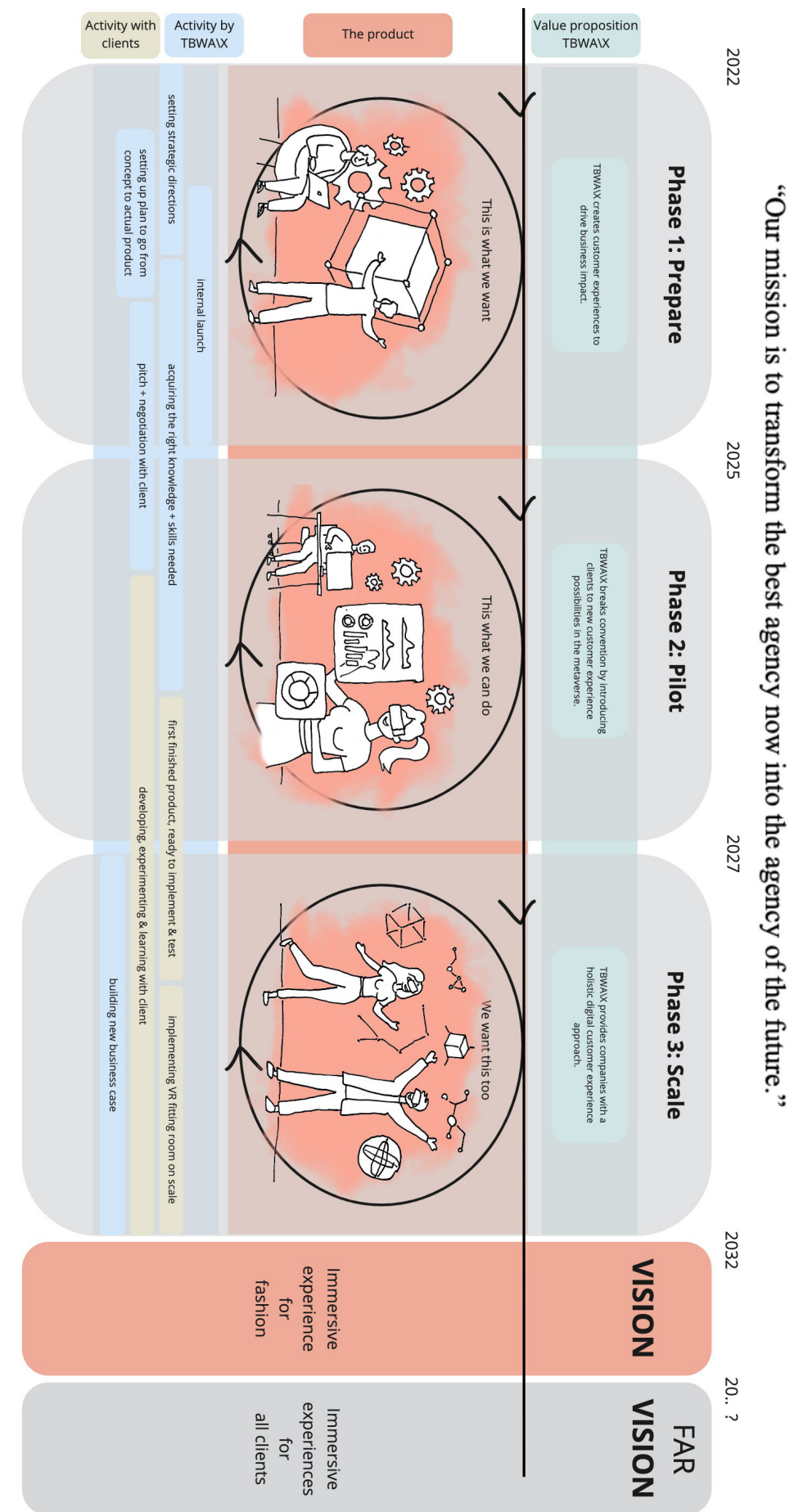
Figure 28: Schematic overview of the implementation strategy.

Phase 0: Discover
Phase zero finished when this paper was handed in. During this phase, I explored the opportunities for TBWA\X to become the agency of the future by creating a customer experience for fashion in the metaverse. During this phase, multiple presentations and sessions were held with and for employees of TBWA\X to immerse them in the project and to co-create together. All with the goal to gain insight and feedback to ultimately deliver a project that is the best possible fit for TBWA\X and their clients. The design outcome consists of a vision concept and an accompanying implementation strategy. The vision concept was created in the form of an explanatory video, which is a means to communicate and explain the vision concept.

Phase 1: Prepare
The focus of this phase is on the preparation to create momentum in the next phase, which results in an internal launch. The value proposition in this phase remains the same as the current one: Creating customer experiences to drive business impact, because the current key activities of TBWA\X stay unchanged to provide for a continuous flow of value improvement for their current products.

Parallel to the unchanged key activities of TBWA\X, the management makes a plan for the direction of the next ten years. After a detailed plan has been created on how to go from concept to product, an internal launch will be held to prepare the employees for the second phase. The building of knowledge and expertise starts by acquiring expertise knowledge of a VR specialist who will have the responsibility over the execution of the plan. Clients for whom the vision concept is interesting, such as Hunkemöller and Adidas, can be involved in the development of the concept. This can begin by pitching the VR fitting room to the relevant employees at the clients, such as the head of Adidas' web3 global or Hunkemöllers Global Marketing & Communications Director, which are both invested in innovating by adopting new technology and have enough influence to define the company's future. Hunkemöller is an interesting client to approach as buying intimate wear is fraught with consumer inconveniences, as described in Chapter 2.2 Consumer in the metaverse, for which the VR fitting room can serve as a solution. Also, Hunkemöller already showed interest in a similar experience during a pitch, making it even more likely they have an interest in the product. Adidas is a proven tech-savvy client who is not afraid to experiment with innovations, so there is a chance that such a product will appeal to them as well, especially as they like to cater to a younger audience, exactly who the product is

targeting. Both Hunkemöller and Adidas will be asked to participate in the development of the first case for TBWA\X, and with one of the them the first case is build, in which they can expect a discount to make it attractive for them to participate.

A VR environment prototype is made that functions as proof-of-concept. As experiencing an immersive experience is such a new phenomenon that it is practically beyond words, someone simply has to experience it in order to form a valid opinion about it. By showing the experience at meetings, it becomes tangible for stakeholders, and it will engage them with the concept, convincing them to take part of it. The VR fitting room prototype is used for experimentation and building knowledge of the software by TBWA\X employees.

Since it won't be TBW\X's core business (at least not in the coming five - ten years), there is no rush. The main revenue stream will keep delivering income. In addition, the technology must mature further in order to deliver a well-functioning customer experience with the quality that TBWA\X strives for. This gives TBWA\X time to explore possibilities and to prepare together with their clients when the technology is ready in the coming years.

Phase 2: Pilot
In this phase, the shift that started in the previous phase needs to be expanded in order to build momentum so that the product can be accepted and scaled up in the following phase. The goal of this phase is getting into the next one by making sure a critical mass accepts the product. Therefore, a solid case is needed with preferably one of TBWA\X' current clients that functions as a proof-of-concept for other (potential) clients. Product growth and process transformation are central in this phase to gain insights about the desires and dilemmas of clients and consumers. This is done through a guided process of research and development, in which try-outs are carried out to observe and test how the product resonates with TBWA\X, the client and the consumer.

The value proposition of the phase is breaking convention by introducing clients to new customer experience possibilities in the metaverse. As key activities of TBWA\X start to change, more developers and designer will either be retrained or hired to help build the immersive experience. TBWA\X is gaining more and more professional knowledge, which will ultimately make them experts in the field of immersive experiences. Therefore, they can create an experience with the desirable qualitative standard.

In addition, during this phase, a product that will be implemented at the clients' customer experience is build. With this product, TBWA\X shows the industry what they are capable of by rolling out their plan and starting to implement an immersive customer experience for consumers to use.

To get into the next phase, a critical mass of clients interested in the immersive experience needs to adopt the product. In phase one, TBWA\X determined in the project approach what the critical mass should entail. This can be just one other current client getting on board or engaging with a completely new client. For example, a potentially interesting client could be PVH. PVH, formerly known as the Phillips-Van Heusen Corporation, is an American clothing company which owns brands such as Tommy Hilfiger and Calvin Klein. Their European headquarter is positioned in Amsterdam. Importantly, they already have their product line that is available online for B2B purposes (McDowell, 2019) and they made their digitally clothing available for consumers last month (Apriliris, 2022). Moreover, PVH has the kind of magnitude that TBWA desires from its clients.

Phase 3: Scale
In the last phase, a strategic scenario is captured that focuses on growth for the long run.
A new value proposition is created, which requirest a new business model to integrate the new technology with the new market. Besides, new players will emerge, but it is not possible at this point to determine who they will be as these new players are most likely based on technology that doesn't exists yet.

The team of TBWA\X is expanded with people that have knowledge on creating and implementing immersive experiences, who together deliver a product of high quality. They know the ins and outs for TBWA\X to get ready for scaling up the product. At this point in time, the new product will make up a good share of the revenue stream. This way, other parties outside the fashion industry are attracted that show interest in creating an immersive customer experience for them. TBWA\X provides fashion companies with a holistic digital customer approach. The company has profound knowledge on all digital channels. Their expertise extends beyond just the fashion industry, which will reach (potential) clients from different industries.

The technology that is used for creating the immersive experience will mature greatly in the upcoming years. It will be possible to deliver an experience with photorealistic digital twin, clothing, and backgrounds. Changing the way we shop forever.

The outcome of this phase is a high-quality digital product that is ready to be implemented in any company that is active in the fashion industry. Word has spread about TBWA\X' disruptive experience and companies outside of fashion has started to shown interest, which will make TBWA\X ready to truly scale up the product. As the software has matured and evolved over time, it is now possible to create high-quality photorealistic environments at an efficient speed. This means that it is viable for TBWA\X to create multiple environments for multiple brands. Also, through blockchain technology, companies and designers can receive value for their work, ultimately impacting the revenue stream. When multiple companies or designers create digital backdrops for a brand, blockchain can help to differentiate revenues in a clear and fair way.

Paragraph 6.5
CONCLUSION

During the implementation strategy, the roadmapping method was used to give the process guidance and the strategy is designed with the help of three employees of TBWA\X. The strategy is still a rough plan, which must endure change and needs to become more concrete. Nevertheless, it can be useful for TBWA\X as a guide to start building the metaverse to become the agency of the future.

Central in each phase of the implementation strategy is the learning and experimenting stage. This stage is highly important as virtual reality a new technology for TBWA\X to work with, that needs to be mastered and get accustomed by different teams at TBWA\X. Time pacing of the horizons make it possible to do so. The pacing of the maturing technology and the pacing of the budget planning of clients is leading for the general time pacing of the strategy.

Most important elements of the strategy are gaining a companywide, thoroughly understanding of the new product that everyone quickly gets acquainted with in order to build momentum for the VR fitting room to be ready when the window of opportunity arises at client side.
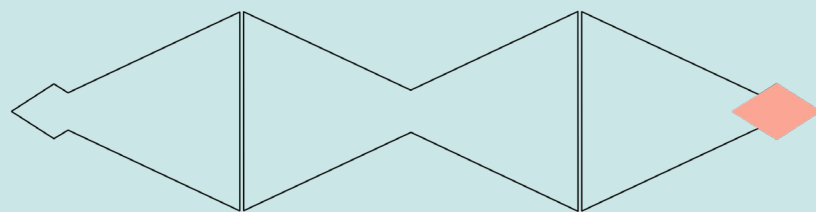
CONCLUSION

Responding to the assignment and process

CHAPTER 7

When Neo meets the Architect in *The Matrix Reloaded* (2003)

CONCLUDING THE PROJECT

The initial research assignment was: "How can a radical innovation such as the metaverse be used to design a new customer experience for fashion." To address this assignment, a study at TBWA\X, affiliated with TBWA\NEBOKO, part of the worldwide TBWA\ network has been conducted.

Research findings
To answer the research question, four sub questions have been formulated with the aim of gaining insight into the various areas to be researched and thus deducing where opportunities lie for the design outcome.

De double diamond model is used to formulate the answers to these questions and to determine design activities in the design phase of the project. An extensive research phase was conducted where many insights were gained about the relevant themes. The activities undertaken to arrive at the outcomes of the thesis include eleven in-depth interviews with the target group, three co-creations sessions with employees from TBWA\X, a co-creation session with students from the TU Delft university and multiple expert interviews. In addition, a literature review was carried out, and discussions were held with several experts of the methods used or a specific area. Furthermore, several meetings have taken place throughout the project to provide updates and give feedback with both my supervisory team and other parties involved.

After the research phase, the ViP model is introduced to contain all gained insights and give structure to the project. The outcome is a design vision that guides the second diamond. During the design activities it is explored how TBWA\X can contribute to creating an immersive experience for fashion. In the second diamond, the ViP method transitions into the DIVE method with a vision concept as outcome. This vision concept consists of a video and a VR environment and functions as a basis for TBWA\X to explore this strategic path further.

Vision concept
The vision concept is a future take on shopping in a VR fitting room that the consumer can use during their online shopping process. The VR fitting room is an immersive experience that is accessible by VR headset in 2032, based on future technology. When the consumer participates in the experience, one sees itself as a digital representation. With this digital twin, outfits can be tried on and different backdrops can be added for the consumer to make a more considered choice. This will ultimately result in greater customer satisfaction with both the experience and the product.

The vision concept functions as a steppingstone for TBWA\X and their clients to enter the metaverse playing field. By engaging in the VR space, knowledge is gained and skills are mastered to ultimately add the creation of immersive experiences to the digital product repertoire of TBWA\X.

Implementation
To arrive at the vision concept, an implementation strategy has been designed with the aim of providing TBWA\X with a plan to take the first steps after this thesis. The strategy consists of three phases that initiate after this thesis. The outcome of the thesis itself with the vision concept can be viewed as phase zero.

DISCUSSION

This section discusses what the results indicate for the stakeholders involved in response to the initial research question.

Setting the scope
The first challenge TBWA\X is facing is how to handle innovations in general, and if and when they should implement an innovation. This stems from the innovation of web3.0. Web3.0 has gained popularity from 2021 onwards and is identified by TBWA\X as a potentially interesting innovation that includes elements such as the metaverse and NFTs that can enhance the customer experience of clients. Because of the ambiguity that comes with innovation, TBWA\X doesn't know how and when to go about it; afraid to misjudge the window of opportunity. This problem definition made the assignment very broad and was initially scoped down to make it specific for the fashion industry. Eventually, the focus became to design a new customer experience for fashion with the help of a radical innovation such as web3.0. During the project, the problem definition was scoped down further to the metaverse and the customer experience of shopping to ultimately give the project more depth and to deliver a desirable outcome for all stakeholders. However, as the scope was still quite broad, it became a very explorative project. Multiple angles were researched to discover how the metaverse can be most useful to TBWA\X. This resulted in a final product that is believed to be a good match for TBWA\X in several areas, but which has not yet been tested with both the client and the consumer within the time of the project.

Process
TBWA\X is used to managing-led futuristic foresight techniques. Introducing them to design-led techniques, such as the ViP and DIVE methods, can be a first stap in approaching the overarching question on how to handle innovation in the future. In particular, DIVE can be an interesting technique for TBWA\X to explore further, as the method is designed for SME's. In addition, TBWA\X is a creative agency where the DIVE method can come into its own, not only to help management to share the envisioned future in a more engaging way with their employees and other stakeholders, but also to create a vision concept to help approach clients with new ideas.

Predicting the future of technology
During the process, a lot of questions were formed about the accuracy of the designed worldview. Exploring the future of ten years from now is difficult with a technology that is being updated rapidly and invested in heavily. The technology that makes the metaverse possible is still a young child. This means that some elements are already clearly visible and unlikely to change much further, but many are still unknown and are formed while growing up. In other words, a part of the thesis on this technology might already be outdated, incorrect or might even have reached mass attention when it is handed in, because new features or applications are brought to light. It is important to stay well informed of updates so as not to overlook relevant matters.

LIMITATIONS

Research outcome
One of the research results from the literature studies confirms that when context is added to an article when shopping online, the purchase intent increases. This probably sounds like music to clients' ears, who often have the sole aim of selling as much as possible to make as much money as possible. In the current state of the environment and economy, this should not be the starting point for businesses. One should rather focus on long-term customer satisfaction to build on loyalty. The vision concept can be an entry point for this, where the consumer is not more effectively persuaded to buy something, but offered help to make a more conscious decision. This is an element that needs further research. Because it is a completely new product, which is designed on the basis of innovation, little research has been done on this. Although some studies have been done on the effect of immersive shopping on the consumer and on the use of VR as a predictor of product desirability (e.g., Harz et al., 2021), this is a topic that needs to be clarified before an agency such as TBWA\X and their clients can experiment with it.

On a personal note, the world doesn't need another mechanism to make people buy more things they don't need. The product is most suitable for premium fashion brands such as Scotch&Soda, Diesel and Calvin Klein, which are on the expensive side for the target group of Gen-Zers. Therefore, when it is achieved with the tool that someone decides to buy just one shirt of a brand in a higher segment instead of ten shirts of a fast fashion brand, I would consider it a good outcome.

Design outcome
The VR fitting room and accompanying implementation strategy is addressing the challenge of TBWA\X on how to handle innovation, which ultimately presents a concrete outcome that they can use to build further. Where the VR fitting room focuses on shopping fashion, the knowledge and skills that are required for building the different backdrops can also be used for building immersive experience for different industries. However, one should keep in mind that the VR fitting room is a conceptual idea that needs to be tested and iterated. It is part of a starting point for TBWA\X to explore a potentially interesting direction, where the design outcome is expected to contribute to.

Handling returns
Currently one of the problems the fashion industry is dealing with is handling returns from online orders. 41% of the customer states as reason for the return due to size and fit issues. (Incisiv, 2021) Implementing an immersive experience in today's online shopping experience can drive a behavioural change in consumers that is valuable to consumers, business and environment. If the vision concept manages to reach a higher satisfaction rate with the VR fitting room, returns could be reduced. Therefore, this could be an interesting direction for TBWA\X and their clients to explore further.

By pointing out the limitations of this thesis, it is intended that these points are taken into account when deciding to further develop the vision concept in order to eventually realize it.

Interviews
During the interviews with the target group a make-activity was held, but the results of the activity are not as insightful as expected. What might have contributed to a decrease in insights is the lack of focus in the question guiding the make-activity. Asking what a desired future metaverse might look like, is a broad and challenging question to answer. Participants might have found it difficult to decide where to start the discussion and what to focus on. This might have eventually resulted in generic answers. The question for the make-activity could have been more focused and should incorporate the before discussed elements such as friends & (online) shopping. This results in a perception of why the participant do or don't' like the metaverse in general, but lacks the deeper insight of desires for shopping in the metaverse.

Looking back on the interview, the concept of the metaverse could have also been phrased differently, and perhaps not have been mentioned at all, because even after introduction in the sensitizing document and explanation during the interview the concept might have remained to abstract for the participants to grasp. The short time available for the interview didn't allow enough time to delve deep into the subject matter to explain the concept so that the participants could form a good enough picture of it and formulate corresponding wishes about it in the make-activity. Terms such as 'immersive experience' or 'virtual reality' would probably have been more appropriate as it is the most relevant element for consumers regarding the metaverse. In addition, it is a concept that this age group is probably more familiar with.

Evaluating vision concept
As it is a concept that will only be introduced in many years' time, it's difficult for the consumer to get into the desired frame of mind to identify the right need during an interview.

In contrast, the desirability test with the client is of great importance. However, after several contact attempts, this was unfortunately not successful. This should be TBWA\X's first activity to make progress with the vision concept, which could take place during a pitch, a meeting or an even more informal moment. The key here is to find out if the vision concept fits the brand and focuses on the growth opportunities for the brand by implementing this product. A means by doing so could be repeating the co-creation session of step five from DIVE held with employees of TBWA\X with the client to find out what the benefits could be.

VR environment
To truly understand what the vision concept entails, an VR environment is needed to experience the concept. An immersive experience is a new experience that cannot be captured in words or images. Therefore, it's important for TBWA\X to have an immersive experience at their disposal with which they can experiment while building. In particular, they will have to test with clients and consumers to exchange thoughts while using the immersive experience as a showcase. During this thesis, it was meant to deliver a VR environment for TBWA\X, but due to time pressure it wasn't possible to finish the environment before the deadline of the deliverables. Bringing the opportunity into the office to play around with immersive experience is important.

This section provides concrete recommendations for the future. These recommendations arose from the evaluation interviews, the co-creation session and other interesting factors that emerged during the thesis.

Back-end

While the research has been thorough in several areas, little attention has been paid to the back-end of developing an immersive experience to become part of the metaverse. Since it is a channel just like a website or application and the difference is mainly in the front-end part, it is necessary to delve into this and find out exactly what this means for TBWA\X and where possible opportunities and threats lie. Designing an immersive experience will bring its own difficulties and these have not yet been clearly mapped out. It is therefore advisable for TBWA\X to include this in time in the development of the process.

Baby steps

Implementing the VR fitting room in the customer experience is a big step when a brand has only worked with images and videos on a website or app. While it acts as a steppingstone for future metaverse applications, the vision concept itself may need a springboard before it can be applied. It was suggested to break the concept down into a smaller, more manageable format. Initiatives such as Gucci Garden and Nikeland on the Robolox platform are similar concepts, where one walks with an avatar through a digital environment created by the brand. Instead of adding a VR fitting room directly on a website, the possibility can be explored to work with the current online world's first. Here, for example, a brand could build an environment where avatars can visit different 'spaces' with an avatar in the clothing of the brand.

Webby

TBWA\X has expressed the ambition to participate in the Webby Awards. This is an annual award for excellence on the Internet by the International Academy of Digital Arts and Sciences. In order to create a potential product for this, once every few months, TBWA\X sets up an evening for a brainstorm session on various Webby categories. With the vision concept from this thesis, the road to the Webby could get off to a flying start. Given the innovative nature of the immersive customer experience and the problems it solves for consumers, it could be a serious contender.

Digital ownership

Blockchain is changing digital ownership and, as a result, it becomes easier for digital content creators to obtain value for their content when they share it in online spaces. However, it is difficult to predict how it will develop long-term revenue streams for agencies like TBWA\X. Blockchain technology makes it possible to track ownership and make transactions more transparent, because everyone has access to the same information. For TBWA\X, this could result in a more open revenue structure where designers and other employees sell their projects and ideas to clients. As a result, TBWA\X will then become more of a platform for buying and selling digital assets. This is a trend that can greatly change the business model of agencies and could therefore be an interesting direction of TBWA\X.
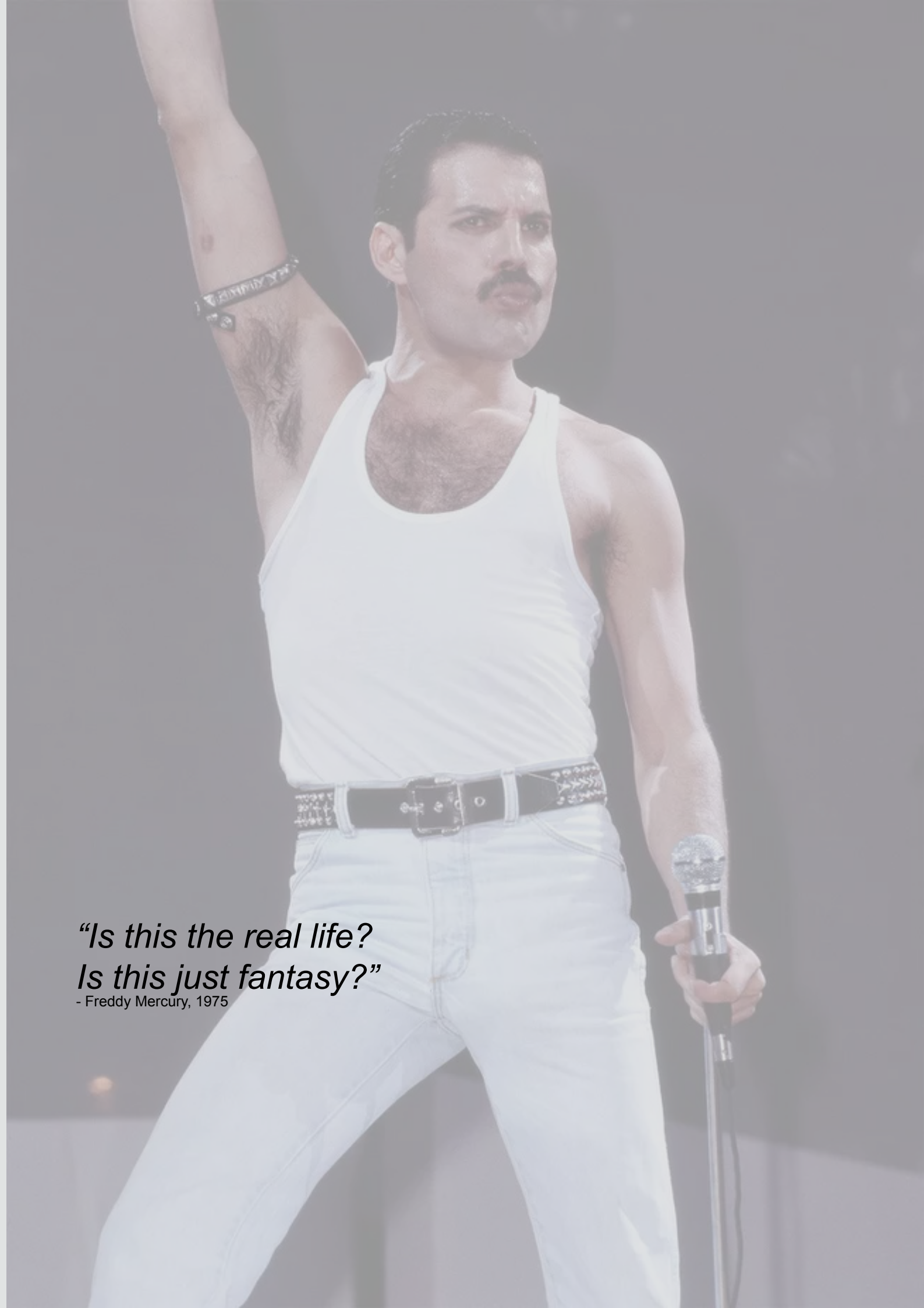
PERSONAL REFLECTION

See you in the metaverse

CHAPTER 8

*"Is this the real life?
Is this just fantasy?"*
- Freddy Mercury, 1975

PERSONAL REFLECTION

This section describes a personal reflection of the process and outcome. The reflection is based on the personal objectives drafted in the design brief.

Working at TBWA\X

The relaxed atmosphere within TBWA\X always made me feel comfortable asking for help, advice, or a chat. Everyone at TBWA\X is excited about their work, so they were eager to advise me on my project from their professional point of view. In particular, the involvement within the strategy team contributed to the possibility of realizing the co-creation sessions. These were very instructive moments within the process because of the responsibility to steer the session to something interesting not only for me, but also for the participants. The only downside for me was the difficulty of getting in touch with the clients of TBWA\X. If this had been possible within the process, I believe it would have contributed well to the design result. To achieve that, I should have presented myself bolder with concrete arguments about why it is important that my project also involves the client.

Becoming a Strategic Product Designer

During the thesis, I familiarized myself with two new methods: ViP and DIVE, which provided the structure I needed within the project. I knew about ViP because it appeared in some courses during the master, although I've never used it in a project before. DIVE was a completely new method that I dived into. Where ViP managed to structure my thoughts to arrive at a design vision, DIVE helped me to convert this design vision into a design outcome. What I liked about ViP was that it left me free to be a loose cannon, so this method suits me well because I like to explore more unexpected areas for relevant information. ViP then provided a structured path to frame the information found. I also found DIVE to be a useful method and it fitted in very well with my project. In addition, I think that the introduction of DIVE for TBWA\X is a good start for a more design-led approach to innovation. By using these methods in my project I have broadened my competences in the field of creative thinking and ideation, truly becoming a Strategic Product Designer.

Conducting interviews

Being an expert in something is relative, so I won't measure myself against that, but I can say that I'm happy with the result. I have always found conducting interviews interesting because this is the moment when you are in direct contact with the user. When these moments are executed correctly, it is invaluable to a project. In hindsight, I could have sharpened the structure of the interviews, but the interview process itself went very well. I noticed that during the interviews I managed to establish to build trust so the participants dared to open up to me, so that I came to the latent needs which gave me valuable insights for the project.

Working in marketing

As a child, I dreamed of creating commercials. The psychology of persuading someone, combined with the visual aspect and the created story of a commercial, fascinated me. It was therefore with great pleasure that I started my internship at TBWA\NEBOKO and then my graduation project at TBWA\X. Apart from the fact that both TBWA\NEBOKO and TBWA\X produce interesting projects, I would rather not work in advertising. This is because my ideals have changed over time. I think we consume too much, and society has a overly capitalistic mindset, especially when it comes to fashion. A topic I would like to devote myself to is making the fashion industry more sustainable. My thesis made me realize that the digitization of fashion can contribute to this. I therefore hope to be able to work at an innovation hub affiliated with a fashion house that contributes to making clothing production and consumption more sustainable.

"Every new medium brings along a healthy fear that the newest invention will ruin society. But, the truth is that people will always be looking for new ways to be entertained, consume media, and engage with each other."

– Gary Vaynerchuk in "This Generation Will Be Fine: Why Social Media Won't Ruin Us," 2016

References

A unique Web3 experience for H&Mbeyond. (2022, September 19). DEPT®. Retrieved October 14, 2022, from https://www.deptagency.com/case/a-unique-web3-experience-for-hmbeyond/

Aburbeian, A. M., Owda, A. Y., & Owda, M. (2022, April 11). A Technology Acceptance Model Survey of the Metaverse Prospects. AI, 3(2), 285–302. https://doi.org/10.3390/ai3020018

Adidas. (2022). Annual Report 2021. Retrieved October 14, 2022, from https://report.adidas-group.com/2021/en/servicepages/downloads/files/annual-report-adidas-ar21.pdf

Ahn, S. K., & Forney, J. A. (2014, October 24). Shifting paradigms for fashion: from total to global to smart consumer experience. Fashion and Textiles, 1(1). https://doi.org/10.1186/s40691-014-0015-4

Apple's VR headset will trigger faster adoption of VR tech, a segment worth $50 billion by 2030, says GlobalData. (2022, August 1). Global Data. Retrieved October 14, 2022, from https://www.globaldata.com/media/technology/apples-vr-headset-will-trigger-faster-adoption-vr-tech-segment-worth-50-billion-2030-says-globaldata/

Apriliris. (2022, August 29). Tommy Hilfiger is Betting That You'll Buy Their Digital Clothes. Blog Cryptostars. Retrieved October 14, 2022, from https://blog.cryptostars.is/tommy-hilfiger-is-betting-that-youll-buy-their-digital-clothes-595621da174e

Automated suit tailoring using budget 3D scanning technology. (2021, September 13). Fieldlab UPPS. Retrieved October 14, 2022, from http://www.upps.nl/en/2021/09/13/automated-suit-tailoring-using-budget-3d-scanning-technology/

Baker, J., Grewal, D., & Levy, M. (1992, season-04). An experimental approach to making retail store environmental decisions. Journal of Retailing, 68(4), 445.

Ball, M. (2022, June 11). The Metaverse: What It Is, Where to Find it, and Who Will Build It. MatthewBall. Vc. Retrieved October 14, 2022, from https://www.matthewball.vc/all/themetaverse

BBC News. (2017, November 8). Snapchat loses $40m on flop Spectacles. BBC News. Retrieved October 14, 2022, from https://www.bbc.com/news/technology-41915068

Black Mirror (TV Series 2011–2019). (2014, January 6). IMDb. Retrieved October 14, 2022, from https://www.imdb.com/title/tt2085059/

Bregman, R. (2019, September 13). De meeste mensen deugen: een nieuwe geschiedenis van de mens (Dutch Edition) (01 ed.). De Correspondent BV.

CBS. (2019, May 29). Trends - Maatschappij. Trends in Nederland 2019. Retrieved October 14, 2022, from https://longreads.cbs.nl/trends19/maatschappij/trends/

CBS. (2020, December 18). Wie gebruikt het vaakst sociale media? - Nederland in cijfers 2020. Wie Gebruikt Het Vaakst Sociale Media? - Nederland in Cijfers 2020 | CBS. Retrieved October 14, 2022, from https://longreads.cbs.nl/nederland-in-cijfers-2020/wie-gebruikt-het-vaakst-sociale-media/

Chitrakorn, K. (2022, May 4). From Jacquemus to Balenciaga: Luxury fashion brands go hyperphysical. Vogue Business. Retrieved October 14, 2022, from https://www.voguebusiness.com/consumers/from-jacquemus-to-balenciaga-luxury-fashion-brands-go-hyperphysical-retail

Chui, M., Collins, M., & Patel, M. (2021, November). The Internet of Things: Catching up to an accelerating opportunity. McKinsey & Company.

Clover, J. (2022, September 29). Apple Glasses. MacRumors. Retrieved October 14, 2022, from https://www.macrumors.com/roundup/apple-glasses/

Content Square. (2017). Generation Z, The coming of (shopping) age.

Cuofano, W. I. G. (2022, October 1). What Happened To Google Glass? How Google Glass Set The Stage For The AR Revolution. FourWeekMBA. Retrieved October 14, 2022, from https://fourweekmba.com/what-happened-to-google-glass/

Davis, F. D. (1986, December 20). A technology acceptance model for empirically testing new end-user information systems: Theory and results. Massachusetts Institute of Technology.

Digital Marketing Community. (2017). Gen Z Shopper Report | Smartphones Impact On In-store Shopping. Retrieved October 14, 2022, from https://www.digitalmarketingcommunity.com/researches/gen-z-2017shopping-trends-euclid/

Dimock, M. (2022, April 21). Defining generations: Where Millennials end and Generation Z begins. Pew Research Center. Retrieved October 14, 2022, from https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/

Donovan, J., & Rossiter, R. (1982, season-01). Store Atmosphere: An Environmental Psychology Approach. Journal of Retailing, 58, 34–57.

Donovan, J., Rossiter, R., & Marcoolyn, G. (1994). Store Atmosphere and Purchasing Behaviour. Journal of Retailing, 70, 283–294.

Dyer, J. C. J. B. &. (2022, February 15). Roblox: The children's game with a sex problem. BBC News. Retrieved October 14, 2022, from https://www.bbc.com/news/technology-60314572

Engbers, P. (2020, March 9). Interview nieuw TBWA\X: "Better be a pirate than join the navy." Adformatie. Retrieved October 14, 2022, from https://www.adformatie.nl/bureaus/interview-tbwax-better-be-pirate-join-navy

Evans, M. (1989, July 1). Consumer Behaviour towards Fashion. European Journal of Marketing, 23(7), 7–16. https://doi.org/10.1108/eum0000000000575

Fashion eCommerce report 2021. (2021, July). In Statista. Retrieved October 14, 2022, from https://www.statista.com/study/38340/ecommerce-report-fashion/

Fit, M. (2022, June 16). Hoe ver weg is de metaverse als opvolger van het internet nog? NRC. Retrieved October 14, 2022, from https://www.nrc.nl/nieuws/2022/06/16/hoe-ver-weg-is-de-metaverse-als-opvolger-van-het-internet-nog-a4133703

Fromm, J., & Read, A. (2018). Marketing to Gen Z: The Rules for Reaching This Vast--And Very Different--Generation of Influencers. AMACOM.

Gaubert, J. (2021, August 26). Meet Xiaoice, the AI chatbot lover dispelling the loneliness of China's city dwellers. Euronews. Retrieved October 14, 2022, from https://www.euronews.com/next/2021/08/26/meet-xiaoice-the-ai-chatbot-lover-dispelling-the-loneliness-of-china-s-city-dwellers

Gavilan, D., Avello, M., & Abril, C. (2014, August). The mediating role of mental imagery in mobile advertising. International Journal of Information Management, 34(4), 457–464. https://doi.org/10.1016/j.ijinfomgt.2014.04.004

Generation Alpha & The Death Of The Teenager. (2020, April 30). Crowd DNA. Retrieved October 14, 2022, from http://www.crowddna.com/features-posts/death-of-the-teenager/

Generation Z Driving Influence on New Consumer Spending Patterns. (2016, November 21). Business Wire. Retrieved October 14, 2022, from https://www.businesswire.com/news/home/20161121005253/en/Generation-Z-Driving-Influence-on-New-Consumer-Spending-Patterns

González, E. M., Meyer, J. H., & Paz Toldos, M. (2021, February). What women want? How contextual product displays influence women's online shopping behavior. Journal of Business Research, 123, 625–641. https://doi.org/10.1016/j.jbusres.2020.10.002

González, E. M., Meyer, J. H., & Paz Toldos, M. (2021b, February). What women want? How contextual product displays influence women's online shopping behavior. Journal of Business Research, 123, 625–641. https://doi.org/10.1016/j.jbusres.2020.10.002

Hackle, C. (2021, November). Fashion's Future Moment (episode 7). Adweek.

Hawkins, L. (2022, February 8). Choose your fighter: the fashion brands outfitting video gamers. Wallpaper*. Retrieved October 14, 2022, from https://www.wallpaper.com/fashion/video-games-luxury-brands

Hinkel, L. (2021, December 6). Generating a realistic 3D world. MIT News | Massachusetts Institute of Technology. Retrieved October 14, 2022, from https://news.mit.edu/2021/generating-realistic-3d-world-1206

IBM Institute for Business Value. (2017, January). Uniquely Generation Z (No. GBE03799USEN). IBM Corporation.

IBM Institute for Business Value. (2018, March). What do Gen-Z shoppers really want? (No. GBE03895USEN). IBM Corporation.

Junte, J. (2022, April 17). Zo krijgt de metaverse, de wereld waarin we straks massaal gaan bivakkeren, stukje bij beetje vorm. De Volkskrant. Retrieved October 14, 2022, from https://www.volkskrant.nl/cultuur-media/zo-krijgt-de-metaverse-de-wereld-waarin-we-straks-massaal-gaan-bivakkeren-stukje-bij-beetje-vorm~b90ec3ab/

Kahneman, D. (2013, April 2). Thinking, Fast and Slow. Farrar, Straus and Giroux.

Kanis, S. (2021, November 5). Metaverse, de dystopische nachtmerrie. FD.Nl. Retrieved October 14, 2022, from https://fd.nl/tech-en-innovatie/1418019/metaverse-de-dystopische-nachtmerrie-k3h2caBdCrfU

Kardaras, N. (2016, September 1). Generation Z: Online and at Risk? Scientific American. Retrieved October 14, 2022, from https://www.scientificamerican.com/article/generation-z-online-and-at-risk/?error=cookies_not_supported&code=ac65b56e-93a1-4590-b07a-edd987c15b56

Kim, H., Ahn, S. K., & Forney, J. A. (2014, October 24). Shifting paradigms for fashion: from total to global to smart consumer experience. Fashion and Textiles, 1(1). https://doi.org/10.1186/s40691-014-0015-4

Kim, J. (2007, May 22). An integrative framework capturing experiential and utilitarian shopping experience. International Journal of Retail &Amp; Distribution Management, 35(6), 421–442. https://doi.org/10.1108/09590550710750313

Kim, J., Kim, M., & Lennon, S. J. (2009, March 27). Effects of web site atmospherics on consumer responses: music and product presentation. Direct Marketing: An International Journal, 3(1), 4–19. https://doi.org/10.1108/17505930910945705

Koulopoulos, T., & Keldsen, D. (2016, December 1). Gen Z Effect: The Six Forces Shaping the Future of Business (1st ed.). Routledge.

Kulp, P. (2022, March 30). Wendy's Brings Burgers to the Metaverse With New Restaurant in Meta's Horizon Worlds. Adweek. Retrieved October 14, 2022, from https://www.adweek.com/commerce/wendys-brings-burgers-to-the-metaverse/

Leitch, L. (2022, March 29). Glitches, Glamour, and Graphics Cards: Notes From Decentraland's First Metaverse Fashion Week. Vogue. Retrieved October 14, 2022, from https://www.vogue.com/article/metaverse-fashion-week-decentraland

Lomas, N. (2017, October 3). TechCrunch is part of the Yahoo family of brands. Techcrunch. Retrieved October 14, 2022, from https://techcrunch.com/2017/10/03/amazon-has-acquired-3d-body-model-startup-body-labs-for-50m-70m/

Loyst, M. (2022, January 5). The Metaverse: 101. Meagan.Mirror.Xyz. Retrieved October 14, 2022, from https://meagan.mirror.xyz/kUmuLvRKFs6CimhFGVmlP7kBHPKCswPra_U05Clwncw

Maker, M. (2019, June 11). Internet Trends 2019. Bondcap. Retrieved October 14, 2022, from https://www.bondcap.com/report/it19/

McDowell, M. (2019, November 7). Tommy Hilfiger switches to 100% digital design. Vogue Business. Retrieved October 14, 2022, from https://www.voguebusiness.com/technology/tommy-hilfiger-pvh-corp-3d-design-digital-clothing-innovation-sustainability

McKinsey & Company & Business of Fashion. (2022, May). The State of Fashion Technology.

Mejía Sarmiento, J. R., Stappers, P. J., & G.J.,Plasman, H. J., Hultink. (2018, November 26). Vision Concepts for Small- and Medium-Sized Enterprises : Developing a Design-Led Futures Technique to Boost Innovation. Delft University of Technology.

Microsoft. (n.d.). Mixed Reality Partners for HoloLens 2 | Microsoft HoloLens. Microsoft. Retrieved October 14, 2022, from https://www.microsoft.com/en-us/hololens/mixed-reality-partners

Miller, D. (2022, June 2). How to Open a Store in 2022. The Business of Fashion. Retrieved October 14, 2022, from https://www.businessoffashion.com/articles/retail/how-to-open-a-store-in-2022/

New Fashion Monitor. (2021). Winkelstraat.nl. Retrieved October 14, 2022, from https://www.winkelstraat.nl/fashionmonitor

NewMine & Incisiv. (2021). Retail Returns. Retrieved October 14, 2022, from https://www.incisiv.com/report-2021-state-of-the-industry-retail-returns

NOS. (2019, February 28). Online gesjoemel: reviews eenvoudig te koop. NOS.nl. Retrieved October 14, 2022, from https://nos.nl/op3/artikel/2273850-online-gesjoemel-reviews-eenvoudig-te-koop

Oh, S., Zhong, Y., & Moon, H. C. (2021, February). Service transformation under industry 4.0: Investigating acceptance of facial recognition payment through an extended technology acceptance model. Technology in Society, 64, 101515. https://doi.org/10.1016/j.techsoc.2020.101515

Olivia Rodrigo - brutal (Official Video). (2021, August 23). [Video]. YouTube. Retrieved October 14, 2022, from https://www.youtube.com/watch?v=OGUy2UmRxJ0

Ortiga, K. (2020, September 30). Social Justice on Social Media: The Rise of Woke Micro-Influencers. VICE. Retrieved October 14, 2022, from https://www.vice.com/en/article/m7jzy8/social-justice-social-media-woke-influencers-philippines-macoy-dubs-dora-dorado
Park, G. (2019, October 29). This is what Louis Vuitton looks like in League of Legends. Washington Post. Retrieved October 14, 2022, from https://www.washingtonpost.com/video-games/2019/10/29/this-is-what-louis-vuitton-looks-like-league-legends/

Parker, K., & Igielnik, R. (2020, September 17). On the Cusp of Adulthood and Facing an Uncertain Future: What We Know About Gen Z So Far. Policy Commons. Retrieved October 14, 2022, from https://policycommons.net/artifacts/616196/on-the-cusp-of-adulthood-and-facing-an-uncertain-future/1596804/

Patton, M. Q. (2002). Qualitative interviewing. In: Qualitative research & evaluation methods (3rd ed., pp. 339-380). Thousand Oaks: SAGE Publications.

Petrova, P., & Cialdini, R. (2008, December). Fluency of Consumption Imagery and the Backfire Effects of Imagery Appeals. Journal of Consumer Research, 32(3), 442–452. https://doi.org/10.1086/497556

Postma, C. E., & Stappers, P. J. (2006, September). A vision on social interactions as the basis for design. CoDesign, 2(3), 139–155. https://doi.org/10.1080/15710880600888527

Radoff, J. (2022, January 14). The Metaverse Value-Chain - Building the Metaverse. Medium. Retrieved October 14, 2022, from https://medium.com/building-the-metaverse/the-metaverse-value-chain-afcf9e09e3a7

Rich, G. (2020, October 14). My kids' online gaming drove me crazy — until I joined them. Washington Post. Retrieved October 14, 2022, from https://www.washingtonpost.com/road-to-recovery/2020/10/14/roblox-online-gaming-family-covid/

Rimol, M. (2022, February 7). Gartner Predicts 25% of People Will Spend At Least One Hour Per Day in. Gartner. Retrieved October 14, 2022, from https://www.gartner.com/en/newsroom/press-releases/2022-02-07-gartner-predicts-25-percent-of-people-will-spend-at-least-one-hour-per-day-in-the-metaverse-by-2026

Rogers, E. M. (2003, August 16). Diffusion of Innovations, 5th Edition (5th ed.). Free Press.

Sales, N. J. (2016, February 23). American Girls: Social Media and the Secret Lives of Teenagers. Random House Audio.

Sanders, L., & Stappers, P. J. (2013, January 22). Convivial Toolbox: Generative Research for the Front End of Design (Illustrated). Laurence King Publishing.

Schram, E. (2021, October 28). Facebook heet voortaan Meta. FD.nl. Retrieved October 14, 2022, from https://fd.nl/tech-en-innovatie/1417693/facebook-heet-voortaan-meta-lnj2cakzuDiC

Simonse, L., & Hultink, E-J. (2017). Design roadmapping: Managing transitions of the strategic life cycles. 1-1. Abstract from 24th Innovation and Product Development Management Conference (IPDMC), Reykjavik, Iceland.

Simonse, L., Whelton, J., & Iwanicka, B. (2018, September 4). Design Roadmapping: Guidebook for Future Foresight Techniques. Laurence King Publishing.

Spears, N., & Yazdanparast, A. (2014, July). Revealing obstacles to the consumer imagination. Journal of Consumer Psychology, 24(3), 363–372. https://doi.org/10.1016/j.jcps.2014.01.003

Staff, T. (2022, June 13). Most Played Games in 2022, Ranked by Peak Concurrent Players. Twinfinite. Retrieved October 14, 2022, from https://twinfinite.net/2022/06/most-played-games-in-ranked-by-peak-concurrent-players/

Turley, L., & Milliman, R. E. (2000, August). Atmospheric Effects on Shopping Behavior. Journal of Business Research, 49(2), 193–211. https://doi.org/10.1016/s0148-2963(99)00010-7

Ubrani, J. (2022, September 20). IDC - AR & VR Headsets Market Share. IDC: The Premier Global Market Intelligence Company. Retrieved October 14, 2022, from https://www.idc.com/promo/arvr

Udoji, A. (2021, July 13). The Metaverse is coming — it just needed 5G. About Verizon. Retrieved October 14, 2022, from https://www.verizon.com/about/news/5g-makes-metaverse-real

Value creation in the metaverse. (2022, June). In The Real Business of the Virtual World. McKinsey & Company.

Van Driel, I. I., Pauwels, J. L., & Beyens, I. (2019). Posten, scrollen, appen en snappen. Center for Research on Children, Adolescents and the Media (CcaM).

Verhagen, L. (2022, April 19). Een maand in de metaverse: zijn we hier getuige van de grote nieuwe tech-doorbraak? De Volkskrant. Retrieved October 14, 2022, from https://www.volkskrant.nl/wetenschap/een-maand-in-de-metaverse-zijn-we-hier-getuige-van-de-grote-nieuwe-tech-doorbraak~b1354f1a/

VIP Vision in Design: A Guidebook for Innovators. (2016). Van Haren Publishing.

Wakefield, K. L., & Blodgett, J. G. (1994, September 1). The Importance of Servicescapes in Leisure Service Settings. Journal of Services Marketing, 8(3), 66–76. https://doi.org/10.1108/08876049410065624

Walters, G., Sparks, B., & Herington, C. (2007, August). The Effectiveness of Print Advertising Stimuli in Evoking Elaborate Consumption Visions for Potential Travelers. Journal of Travel Research, 46(1), 24–34. https://doi.org/10.1177/0047287507302376

Yee, N., & Bailenson, J. (2007, July). The Proteus Effect: The Effect of Transformed Self-Representation on Behavior. Human Communication Research, 33(3), 271–290. https://doi.org/10.1111/j.1468-2958.2007.00299.x

Yoo, J., & Kim, M. (2014, November). The effects of online product presentation on consumer responses: A mental imagery perspective. Journal of Business Research, 67(11), 2464–2472. https://doi.org/10.1016/j.jbusres.2014.03.006

Appendixes

I TABEL OF CONTENT

Personal Project Brief - IDE Master Graduation

*TU*Delft

Designing a new customer experience for fashion in web3.0   project title

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

start date   14 - 02 - 2022   29 - 08 - 2022   end date

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

The digital world and the marketing industry are both fast-moving worlds. Let alone when you combine those two together. New technologies and software pop up around the clock whereby hypes tend to dominate the market. As a digital marketing company operating in this fast-moving world, you need to stay on top of your game to keep your market position and remain a future-proof corporation in use of technology. To expand their growth and become the agency of the future, TBWA\X wants to innovate marketing disruptively.

TBWA\X is part of TBWA\NEBOKO, a Dutch award-winning marketing agency that is part of the worldwide TBWA\ network, also known as the Disruption company. This is due to the methodology they have developed; the Disruption method. TBWA\ has used its Disruption methodology to help companies generate some of their most creative ideas. The Disruption model aims to create radical innovation by defining a vision that breaks market conventions and creates a new platform for growth. It aims to inspire, open your mind, and create new ideas on how to reach consumers.

TBWA\X focusses building brand equity by using digital or digitally-led touchpoints to make a difference in customer experience. They do this by data-driven decision making where creativity ultimately always provides a distinctive character in comparison with other agencies.

Besides the Disruption model that is focused on disrupting markets, TBWA\X is interested in disrupting marketing itself. TBWA\X sees the new digital trend, web3.0, as most promising to do so. What web3.0 will look like exactly does no-one know yet. But there are some good predictions. Some say it's the new internet, others believe it's a new way of living. Part of web3.0 are NFT's and the metaverse, which are built with blockchain technology. Now we surf the worldwide web from a screen (computer, smartphone or tablet). In web3.0 it will be possible to access the worldwide web through a three-dimensional, digital environment, which will be called the metaverse (see figure 1). This 3D environment consists of multiple 'worlds' or 'spaces' in which you can move freely from one to other. This open-ecosystem idea is one of the key criteria. Another key criterium that differentiate web3.0 from the world wide web as we know now, is that web3.0 is built on blockchain, what means it is decentralized. In addition, web3.0 will be accessible to everyone, through conventional hardware, as well as through new means such as visors and with haptic wearables for a truly immersive experience. Another important factor is that web3.0 is an open source so that there are no rules when it comes down to interacting with or building web3.0.

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Personal Project Brief - IDE Master Graduation

*TU*Delft

introduction (continued): space for images

	Hardware	Personal	Software	Environment	Navigation	Experience
Going on the web:	Open laptop / phone / tablet	You join the web with your IP adres	Click on browser to open webpage	Browers opens the homepage	Navigate through the worldwide web by clicking and typing	Flat
Going in the metaverse:	Put on visor / haptic gloves	You join the metaverse with your avatar	Start a program to enter metaverse	Program lands avatar on the home space / world	Navigate through the metaverse by .. flying? (Voice - movement controlled?)	Immersive

image / figure 1:   Simplified customer journey of using the worldwide web and the metaverse.

TO PLACE YOUR IMAGE IN THIS AREA:
- **SAVE THIS DOCUMENT TO YOUR COMPUTER AND OPEN IT IN ADOBE READER**
- **CLICK AREA TO PLACE IMAGE / FIGURE**

PLEASE NOTE:
- **IMAGE WILL SCALE TO FIT AUTOMATICALLY**
- **NATIVE IMAGE RATIO IS 16:10**
- **IF YOU EXPERIENCE PROBLEMS IN UPLOADING, COVERT IMAGE TO PDF AND TRY AGAIN**

image / figure 2:

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

TBWA\X seeks a suitable marketing strategy for goods in web3.0 to ultimately deliver an improved customer experience for the consumer, but they don't know where to start due to the ambiguity of a new innovation. Besides, today it's the metaverse that is hot and happening and everyone wants to join in on, but in a few years a new technology or software breakthrough may change the digital marketing landscape all over again.

Considering the broad aspect of the web3.0 topic, it is preferable to focus on a particular industry to give the project more depth. Looking at TBWA\X's portfolio consisting of multiple clients operating in the fashion industry and the consumers' willingness to spend money on digital clothing (Kivits, 2021), the fast-growing industry of digital fashion has been selected for this project.

The fashion industry is a concrete starting point to deepen the project, after which research is carried out to generalization of principles and broader applicability.

Kivits, N. (2021, 21 februari). De toekomst van mode is virtueel. FD.nl. Geraadpleegd op 5 april 2022, van https://fd.nl/samenleving/1428879/de-toekomst-van-mode-is-virtueel-ned2caRM4nfa

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

RQ: How can a radical innovation (web3.0: metaverse & NFTs) be used to design a new customer experience that is suitable for the fashion industriy by integrating it in a customer journey?

Desirability:
Why digital fashion?
- What are (digital) fashion needs of different generations, now and in the future?
- What opportunities brings digital fashion for X and their clients?
- What are technological pull factors that are emerging?

Feasibility:
How can digital fashion best be offered to different generations?
- How can different opportunities and requirements be met in a digital fashion experience?

Viability:
What needs to be done to offer digital fashion in this manner?
- What business model can be best used?
- What are generalising principles for wider applicability?

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

start date   14 - 2 - 2022   29 - 8 - 2022   end date
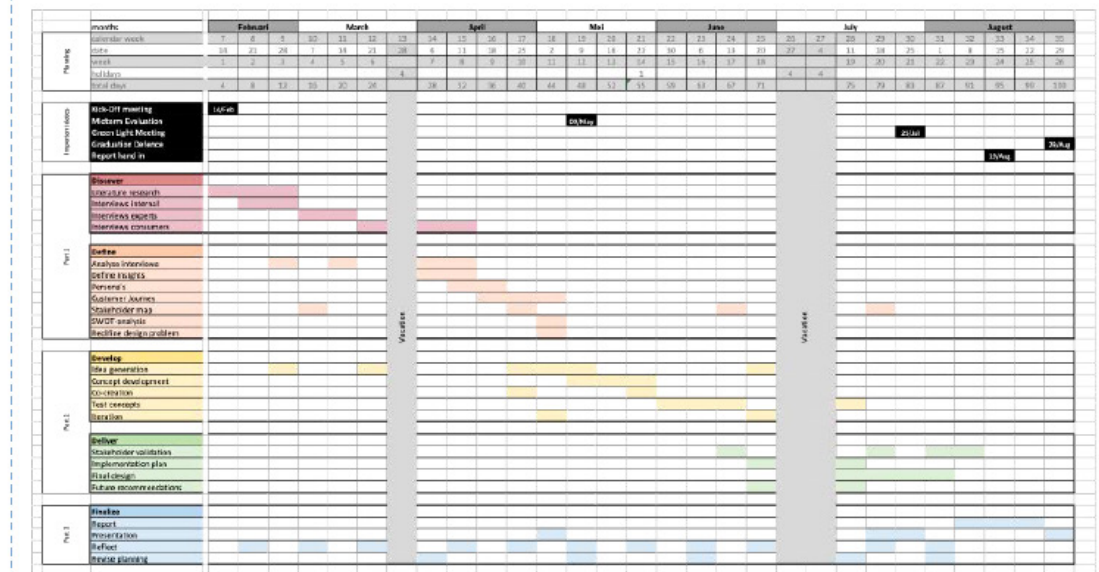
The double diamond model is leading in the planning, consisting of 2 parts, each divided into 2 phases. First, I will diverge in the discovery phase through research, both literature, and interviews. The information obtained is then in the defining phase converged, synthesized, and processed into insights so that it can be used appropriately to initiate the development of a new concept in the second part of the planning. During the project, feedback will be requested from experts/stakeholders/users.

Personal Project Brief - IDE Master Graduation

*TU*Delft

MOTIVATION AND PERSONAL AMBITIONS

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

During my internship at TBWA\NEBOKO I got to know the Dutch marketing industry, especially how to create communication for television, as they are specialized in producing TV commercials. It inspired me to dive deeper into the marketing industry and its processes. What I doubt though, is the durability of TV commercials in the long run. At TBWA\NEBOKO they don't seem to worry about that and that's when I got in touch with TBWA\X, the division at TBWA \NEBOKO that specializes in digital customer experiences. I feel they are more future-oriented and more open to innovation and therefore a better fit for my studies and career. Because TBWA\NEBOKO had a positive experience with me on the strategy team, TBWA\X was pleased to hire me as a graduate student. I am very happy with the idea of working for the company TBWA a little longer because I really like the working environment. I contacted Helen, TBWA \X's Chief Strategic Officer, and we discussed the appropriate topics. She mentioned interest in the metaverse, and I was hooked. I am fascinated by subjects that are a bit dystopian, but also realistic and close, yet ambiguous. After an introductory meeting, we arrived at the final assignment that resulted in this project assignment.

Competences I want to prove and learn:
- Bringing structure in the process.
- Deepening knowledge about innovation in a (digital) marketing agency.
- Broaden my competencies in creative thinking and ideation.
- Creating and setting up co-creation and ideation sessions.
- Becoming an expert in conducting interviews

FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.
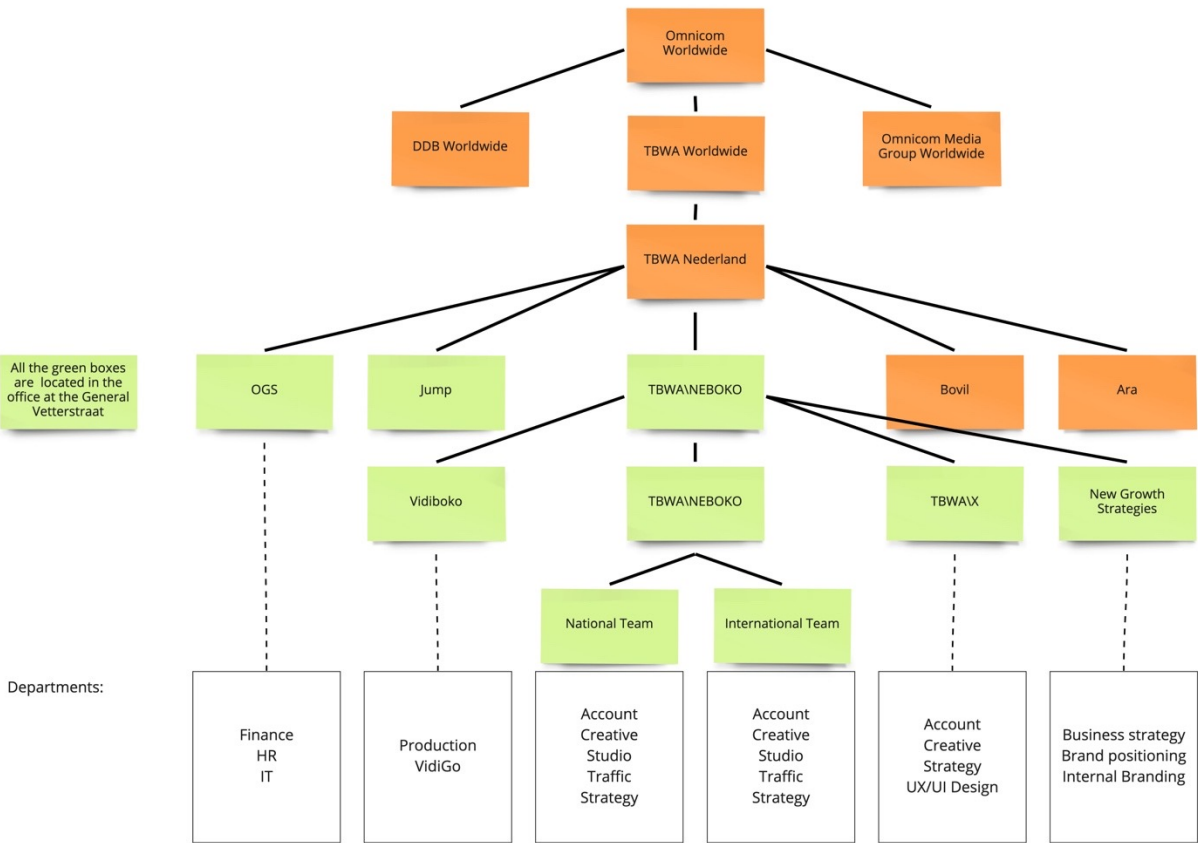
0 intro - 3 min

Hi! Goed dat je er bent. Laten we gaan zitten. Heb je wat te drinken?
Vind je oke als ik het opneem? Dit doe ik zodat ik het later rustig terug kan luisteren, verder gebeurt er niks met de opname. Alles wordt anoniem verwerkt. Daarnaast gaat het om jouw ervaring, er zijn geen goede of foute antwoorden.
Ik zie dat je het sensitizing document heb ingevuld, heel fijn! Hoe vond je dat om te doen?
We beginnen zo met wat vragen en als laatst maken we een collage. Het zal ongeveer een uurtje duren. Is het erg als het wat uitloopt? Anders zal ik goed de tijd in de gaten houden.
Hier de eerste vragen:

1 shoppen - 10 min   present

1. Je gaat naar je favourite winkel om kleding te kopen. Stel ik zou je volgen, wat zie ik je dan allemaal doen?
Wat neem je waar in de winkel?
Zijn er nog andere dingen die in de winkel gebeuren?

2. Wat is je mening over de winkel waar je heen gaat?
wat zijn de plus en minpunten?

3. Hoe voel je je wanneer je in de winkel bent?
Waar komt dit gevoel door?

Op een andere dag heb je ook kleding nodig. Nu blijkt alleen alles dicht behalve die ene winkel die je verschrikkelijk vind < uit sens. doc >. Je hebt echt nu kleding nodig, dus je gaat er toch maar heen.
4. Kan je beschrijven hoe de winkel eruit ziet?
Wat doe je in de winkel?

5. Kan je vertellen waarom je niet positief bent over de winkel?

6. Hoe voel je je wanneer je in de winkel bent?

Wat is het grootste verschil met je favourite winkel?
Waar komt dat door?

past

Als je nu teug denkt aan vroeger, dat kan bv toen je kind was en met je ouders ging naar de winkel ging. Had je toen een winkel waar je graag was?

7. Kan je mij meenemen in wat deed je in deze winkel?

8. Kan je je nog herinneren hoe je je voelde als je daar was?

9. Heb je dat gevoel nu nog wel eens ergens?

2 vriendschap - 10 min   present

Het volgende onderwerp gaat over vriendschap en wat jij graag doet met je vrienden. Ik ben benieuwd naar de huidige mensen met wie jij graag omgaat en hoe dat gaat.
Je gaat met je vrienden afspreken, je hebt er helemaal zin in.

10. De laatste keer dat jullie met elkaar waren, stel ik zou jullie van een afstandje observeren, wat zie ik je dan doen?
Wat bindt jullie als groep?

11. Wat vind je leuk aan je vrienden groep?
Wat vind je minder leuk?

12. Hoe voel je je als je bij je vrienden bent?

past

We gaan nu terug naar vroeger. Is er een herinnering aan een vrienden groep van vroeger waar je je heel goed voelde? Het kan van de basisschool zijn maar misschien ook iets recenters? Weet je nog wie dat waren?

13. Jullie zijn bij elkaar en doen jullie ding. Ik ga jullie weer van een afstandje observeren, wat zie ik jullie doen?
Wat bindt jullie als groep?

14. Wat vind je leuk aan je vrienden groep?
Wat vind je minder leuk?

15. Hoe voel je je als je bij je vrienden bent?
Heb je dat gevoel tegenwoordig nog ergens? zo ja, waneer?

Wat zijn de overeenkomsten met je huidige vrienden groep?
En de verschillen?

3 online - 10 min

16.Wat doe je nu vooral online?
Hoe spreek je je vrienden online?
Hoeveel ben je online?
17.Hoe vind je het online zijn met vrienden?
Wat zijn plus en min punten?

18.Hoe was dat vroeger? Zat je bv veel op msn en habbo hotel?
Wat deed je daar?
19.Hoe vond je dat?

verschil / overeenkomsten met nu?

4 metaverse - 10 min

We gaan het nu hebben over de metaverse, een vaag begrip. In het sensitising document heb
je beschreven / getekend hoe jij het kan gebruiken. Kan je mij hier meer over vertellen?
< door vragen over vage begrippen >

Wat vind je van <noem iets uit tekening>

20.PU:
Welke voordelen zou het jou kunnen bieden?
Wat zou jij er kunnen doen?

21.PE:
Hoe zou je het gebruiken? Denk je dat het moeilijk of makkelijk is?
Hoe denk je dat het is om dat daar iets te doen/ondernemen?

22.A:
Wat is je mening over de metaverse?
Wanneer zou je het gebruiken?
Welk gevoel geeft de metaverse jou?

Hoe zou jij willen dat de metaverse eruit komt te zien?

5 Future - 15 min

We hebben het gehad over winkelen, vrienden en over de metaverse. Laten we deze drie
combineren om de ultime metaverse shopping experience te maken. Dit mag je doen door
van alles wat hier ligt gebruik te maken. Je ziet hier allemaal afbeeldingen, ik wil je vragen om
deze afbeeldingen te bekijken en degene die jij toepasselijk vindt mag je opplakken. Je mag
ook de kleurtjes gebruiken om er dingen bij te schrijven.

< maakt collage >

23.Kan je mij vertellen wat je gemaakt hebt?
< in gaan op wat persoon verteld >
24.Waarom is dit goed/fijn/positief?
25.Waarom is dit vervelend/ongewenst/negatief?
26.Hoe zou je dit willen aanpassen?

27.Wat hoop je voor de toekomst?

6 Demographics - 2 min

Als laatst nog een paar vragen over wie jij bent:
Naam
Leeftijd
Opleidingsniveau? / opleiding
(voor homogeniteit vd groep te controleren)
Gem. inkomsten?
Uitgaven aan kleding?

Outro - 1min

Dat was het! Heel erg bedankt voor je deelname.
Zijn er nog dingen die je kwijt wil?
Hoe vond je het gaan?

The avatars of the participants created through the website of Ready Player Me.

f, 24	f, 24	m, 24
f, 17	f, 18	f, 21
m, 24	m, 21	f, 22
m, 18	m, 15	

Make toolkit consisting off:
100 images
collourfull pencils and markers
siccors
glue
A3 size sheet of paper

SENSITIZING DOCUMENT

Hoi!

Mijn naam is Suzanne. Ik studeer aan de TU in Delft en momenteel ben ik bezig met afstuderen op de winkelbeleving. Dit doe ik bij een reclamebureau dat ook de reclames maakt voor onder andere TOTO, McDonalds, Adidas, NS, T-Mobile en Albert Heijn. Onderdeel van mijn afstuderen is onderzoeken hoe verschillende doelgroepen denken over het kopen van kleding én hoe ze denken over de metaverse, om daar misschien wel kleding te gaan kopen in plaats van via een website.

Van jongs af aan ben ik bezig met kleding en mode, vroeger maakte ik zelf kleding en was ik op de hoogte van alle in's en out's binnen de mode-industrie. Eigen kleding maak ik niet meer, maar de interesse is er nog steeds. Vandaar dat ik voor mijn afstudeeronderzoek deze richting ben ingeslagen.

Hier alvast een foto van mij en ik zie je bij ons interview!

MIJN ERVARING

Kennismaken

Wat fijn dat je mij wil helpen met mijn onderzoek, dat is heel waardevol. Door dit boekje in te vullen leer ik je alvast een beetje beter kennen en kan ik mij goed voorbereiden op ons gesprek. Er bestaan geen goede of foute antwoorden, het om jouw ervaring!

Voor we kunnen beginnen heb ik jouw toestemming nodig om je te mogen interviewen. Dit doe ik door dit korte formuliertje in te vullen:

https://qfreeaccountssjc1.az1.qualtrics.com/jfe/form/SV_25YjaWeLOArbYKW

Door te klikken op onderstaande link kom je op een website waar je een avatar kan maken van jezelf door een selfie te maken.

Mijn eerste vraag aan jou is dan ook om dit te doen en om de avatar naast die van mij te plaatsen. Alsof we samen op de foto staan. Gezellig zeg ;)

De link naar de website:
www.readyplayer.me

klik 'Enter hub'

.. en volg de stappen.
Wanneer je avatar klaar is, ziet de webpagina er zo uit:
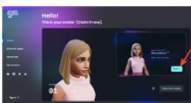
Klik op 'Share' om de afbeelding op te slaan.
Door te slepen kan je de afbeelding hier plaatsen (je moet de afbeelding daarna zelf even verkleinen en op de juiste plek zetten)

Plaats jouw avatar naast die van mij zodat we samen op de foto staan!

Mijn favourite kleding winkel is ...
< dubbel klik hier om te typen >

Omdat ...

Mijn minst favourite kleding winkel is ...

Omdat ...

Hoe en wanneer koop je kleding?

Denk terug aan de laatste keer dat je kleding ging kopen in een winkel. Weet je nog hoe dit ging?

Vul in de tijdlijn hieronder de verschillende aspecten in die je tegenkomt tijdens het winkelen voor kleding.

Ontdek, winkel en koop je kleding op dezelfde dag? Of zitten er een paar dagen tussen?

	Ontdekken van kleding	Kopen van kleding	Dragen van kleding
	dag 1	dag ..	dag ..
Hoe winkel je? (instagram, tiktok, websites, winkels)			
Wat zijn goede- en minder goede momenten tijdens het winkelen? Beschrijf je gevoelens of geef aan met emoticons			
Wat zijn de redenen voor de goede en minder goede momenten?			

Waarom koop ik kleding hier?

Geef hier aan wat je wel en niet belangrijk vindt tijdens het kopen van kleding. Voeg ook gerust zelf dingen toe. Geef ook aan waarom je het wel of niet belangrijk vindt.

Let op!
Je hoeft niet alle stickers te gebruiken, gebruik alleen de stickers die op jou het meest van toepassing zijn.

Dit is heel belangrijk voor mij tijdens het shoppen

Dit is niet belangrijk voor mij tijdens het shoppen

Sleep de post-its in de cirkels

je kan ook zelf post-its invullen (dubbelklik op post-it om te kunnen typen)

Metaverse

Weet jij wat de metaverse is?
Beschrijf en/of teken hier hoe jij denkt dat het eruit ziet.

Meta-watte? Geen flauw idee? Of komt het heel vaag bekend voor?
Beschrijf en/of teken hier wat jij denk je dat het zou kunnen zijn.

ps. als je niet zeker weet wat het is, **zoek het niet op**!! Ik ben namelijk juist
heel benieuwd hoe jij denkt hoe het eruit ziet :)

deze toolbar zie je links van je scherm

icoontjes
pen om te tekenen
smileys
teks
post-its
rechte lijnen en pijlen
meer opties (voor als je in de crea bui bent)

Ga helemaal los!!

Dit was het!

Heel erg bedankt :)
En ik zie je snel bij het interview.

The sensitising documents completed by the participants can be found
at this miro board:
https://miro.com/app/board/uXjVO8P6_9w=/?
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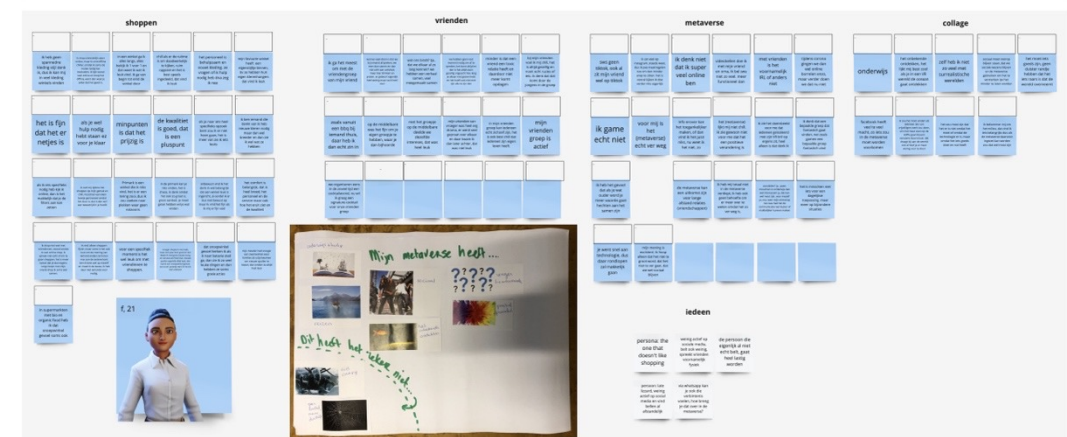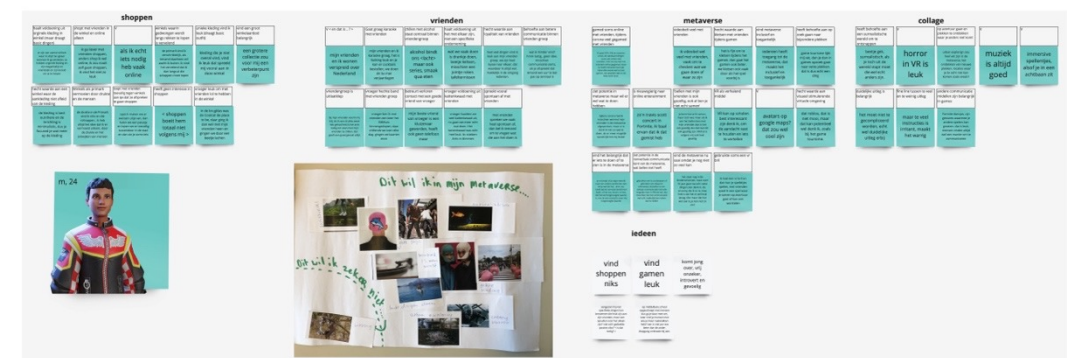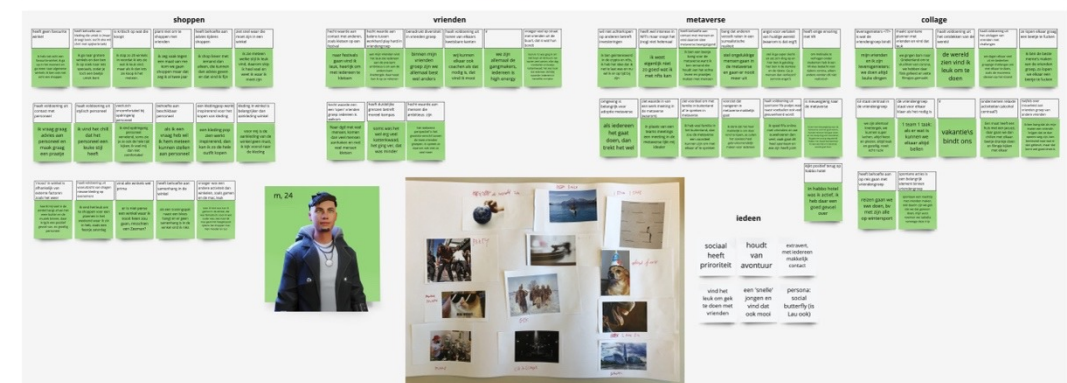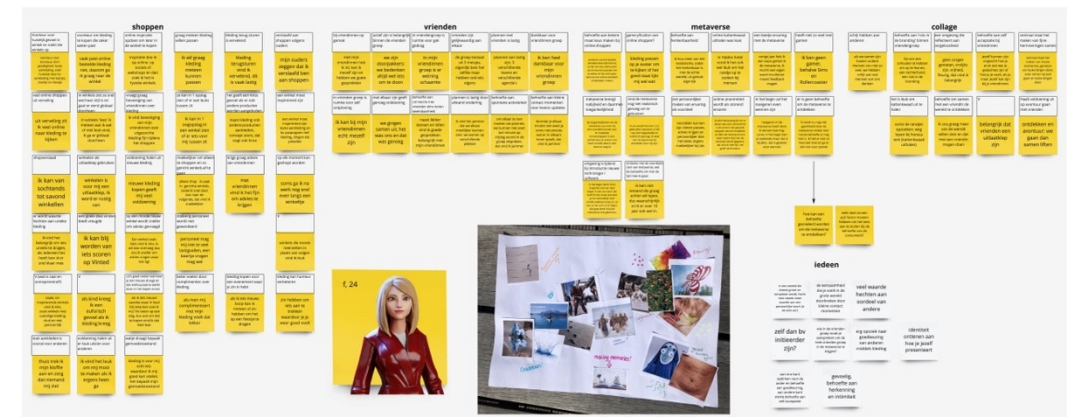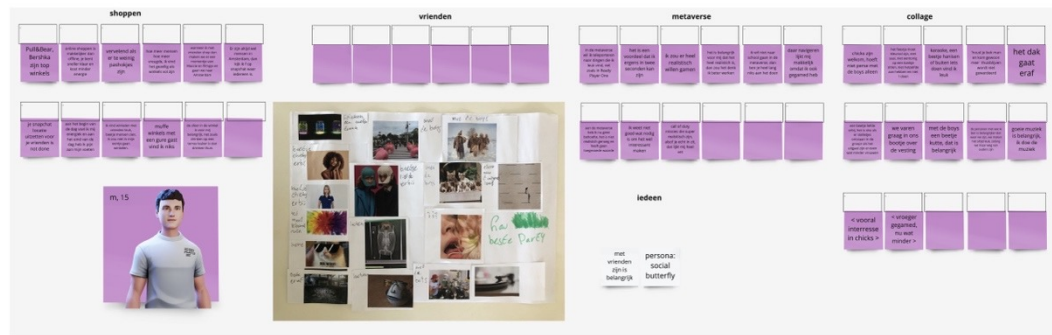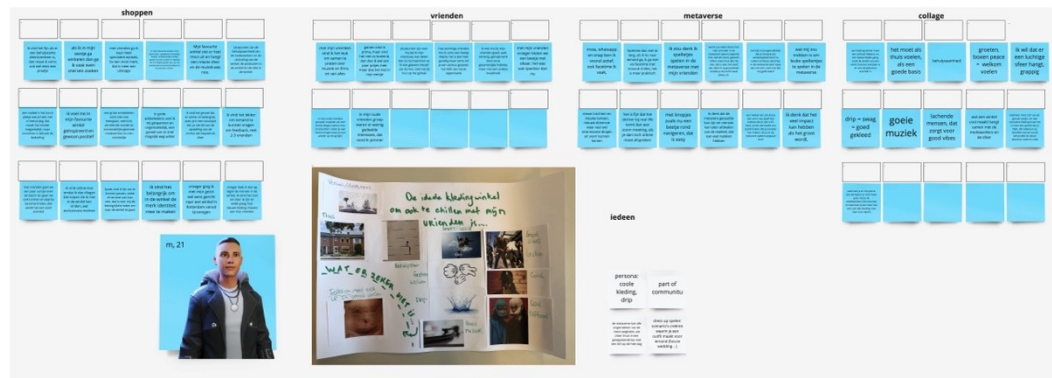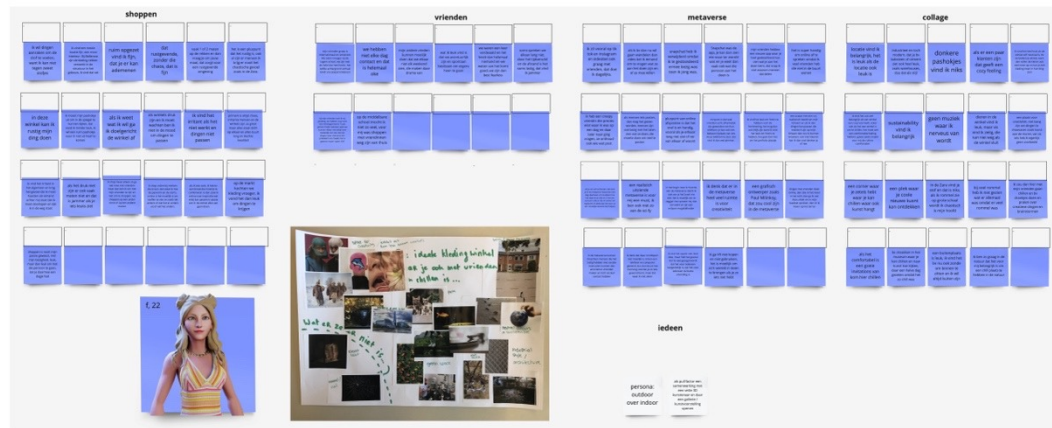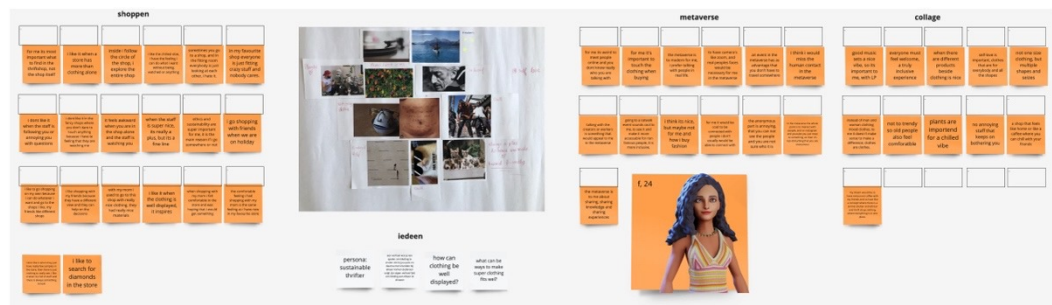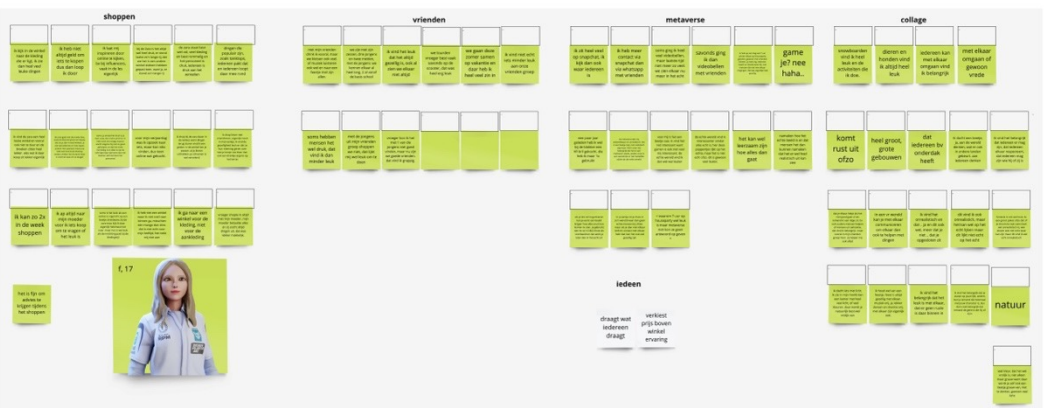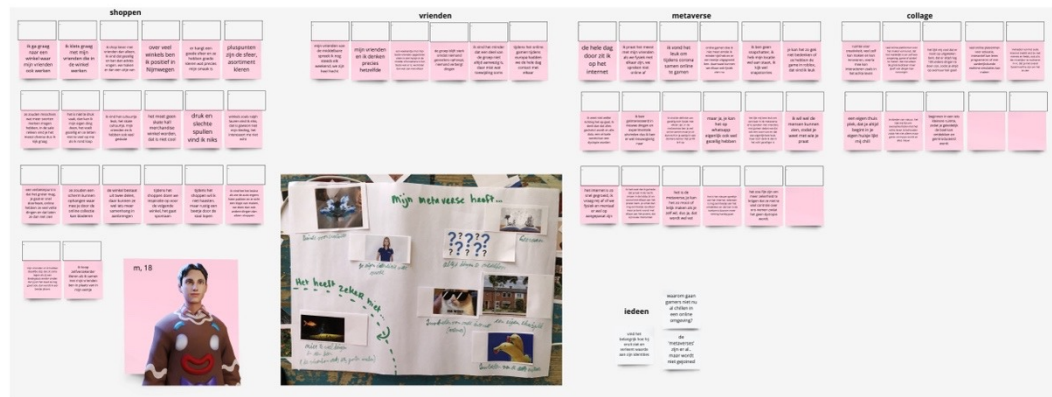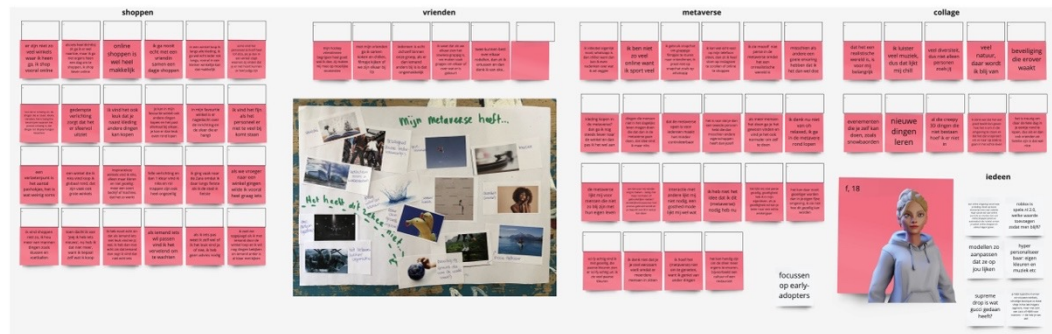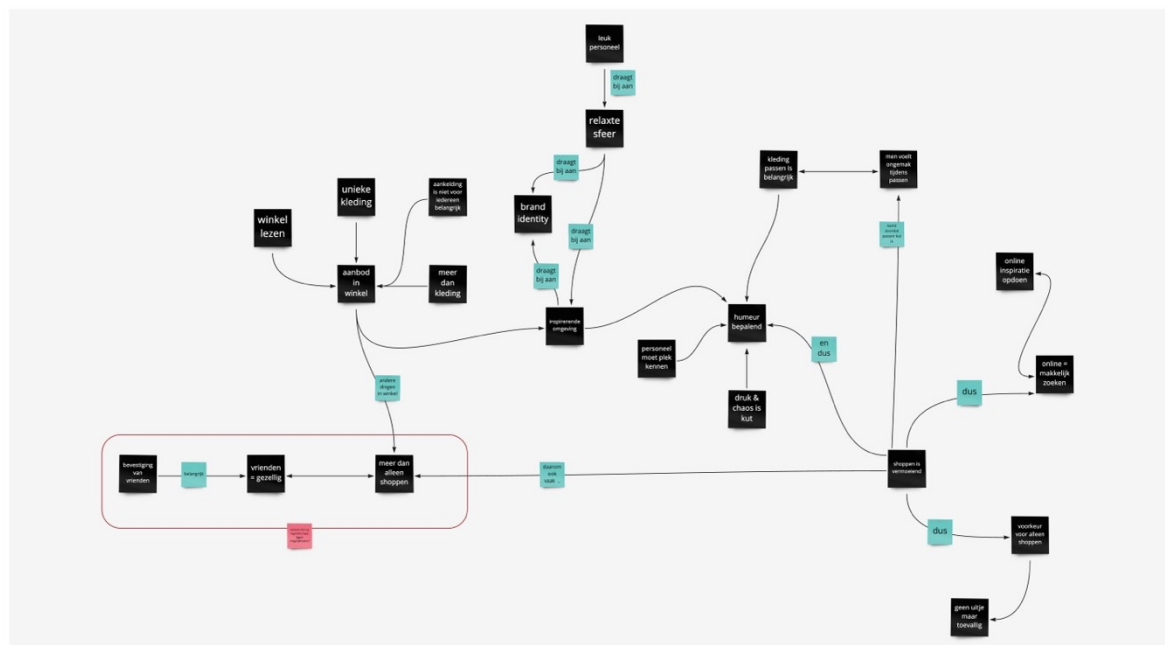
Domain: Shopping experience

Overview of all insights based on consumer interviews, podcasts, expert interviews, trend reports and literature.

	demografisch	ecologisch	sociaal-cultureel	technologisch	economisch	politiek,juridisch	
TRENDS	1		20	24	12		57
DEVELOPMENTS	3	1	8	9	5	1	28
STATES	1		17	3		3	24
PRINCIPLES		1	20	2	1		24
	4	2	65	38	18	4	131

TRENDS

PRINCIPLES

STATES
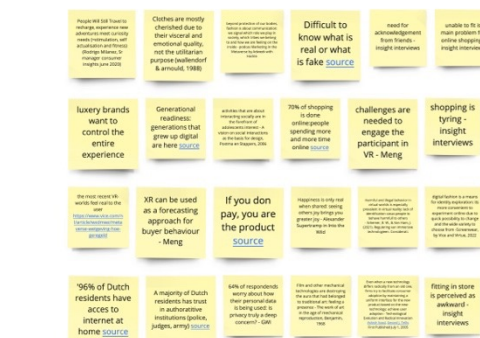
DEVELOPMENTS

CLUSTERING SESSION

Domain: Shopping experience

Factors are clustered based on common quality or emergent quality

KEY DRIVERS

Domain: Shopping experience

Clusters

2030

Top sticky notes: not to crazy · ability to lose yourself digitally · A frightening world · cautious approach towards metaverse

Left side (Insecure):

The brand Overpriced created hoodies with scannable codes to directly show off your NFT. source

Purchasing a NFT of the #OGFamily, customers obtain special benefits such as access to exclusive products and events. source

Insecure

A world where fashion is a means to communicate your tribe

Dolce & Gabbana NFT boxes (2022)

Hoodie with scanable NFT by Overpriced (2021)

Based on current niche of NFT-community

A world where fashion becomes restrained

Yeezy x Gap 2022 collection with critiqued trash bags

Prada for Lunar New Year (2022)

Based on current niche of wokeism

Right side:

Kanye West, founder of Yeezy, accused of being insensitive towards the homeless people for presenting clothing in look-a-like trash bags. source

Prada for Lunar New Year with a charity collection to raise money for tigers. Luxury brands tapping in the Asian market are taking a more cautious approach in order to avoid missteps in luxury's biggest growth market. source

attitude towards metaverse

society looking for a new groove

new rules of interaction

Stickers left: always online / hyperconnected activity · the next generations taking over the internet · ability to connect with non-humans and things · adopting a more and more digital lifestyle · moving from grandparents to teens · hyper connectivity culture · Kids taking over the internet · belonging through fashion · fake vs real

less forgiveness for mistakes · client is king · everything easy peasy · Envying and show off · client satisfaction take-over

A digital couture start-up The fabricant created the first ever digital blockchain dress that was sold for $9,500, showing the fashion industry there is money to be made with digital fashion outside of gaming. source

The collaboration between Louis Vuitton and League of Legends is the first-ever collaboration between a global eSport and a luxury fashion house. The in-game skins where later produced in a physical capsule collection. source

dare to take the leap

Louis Vuitton available as skin in LoL (2019)

A world where fashion is no more limited to physical means

Digital dress by The Fabricant, 2019

Based on current niche of online virtual worlds

A world where fashion merges with entertainment

BALENCIAGA

NIKELAND

Balenciaga presents Fall 2021 collection with videogame Afterworld (2021)
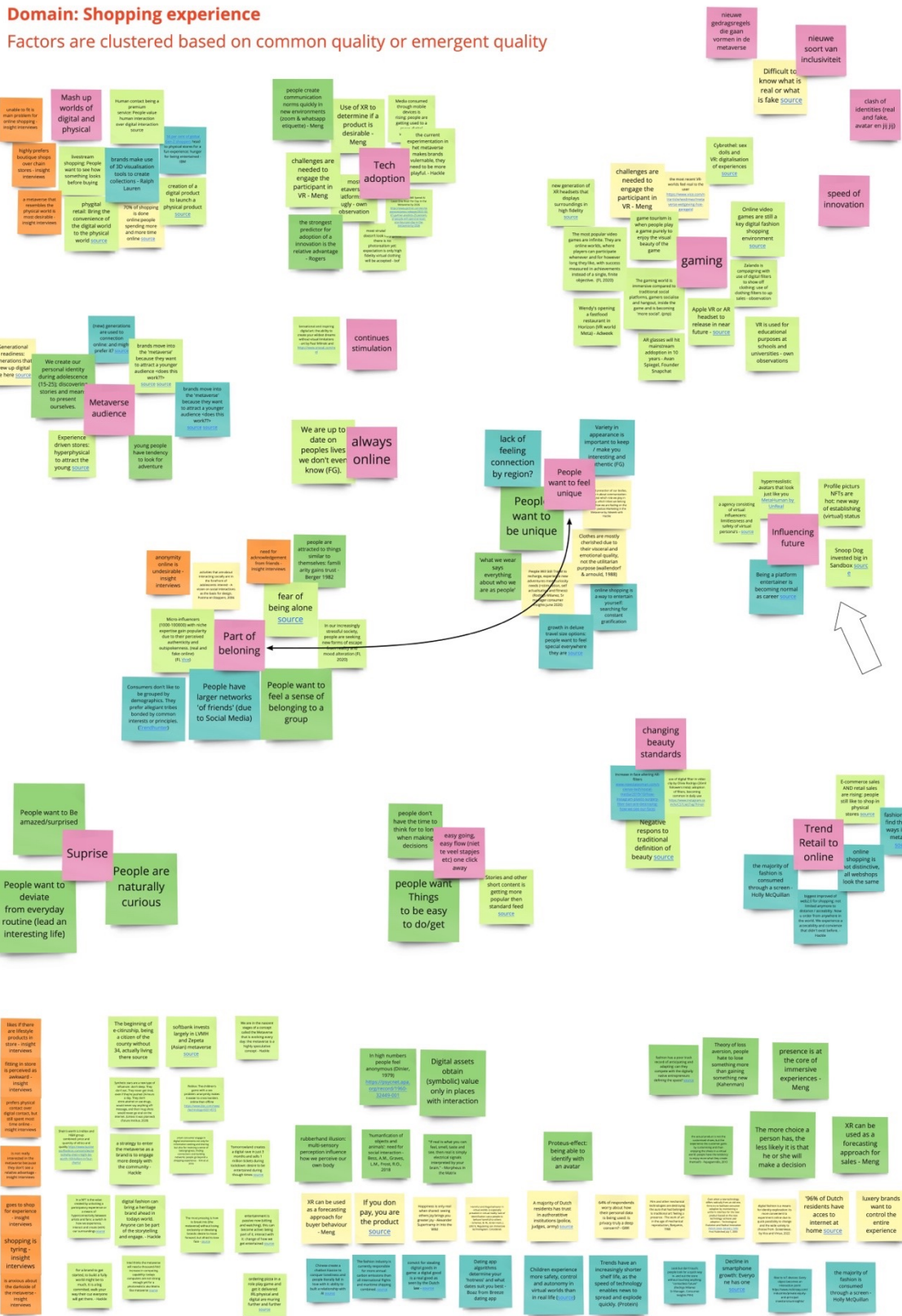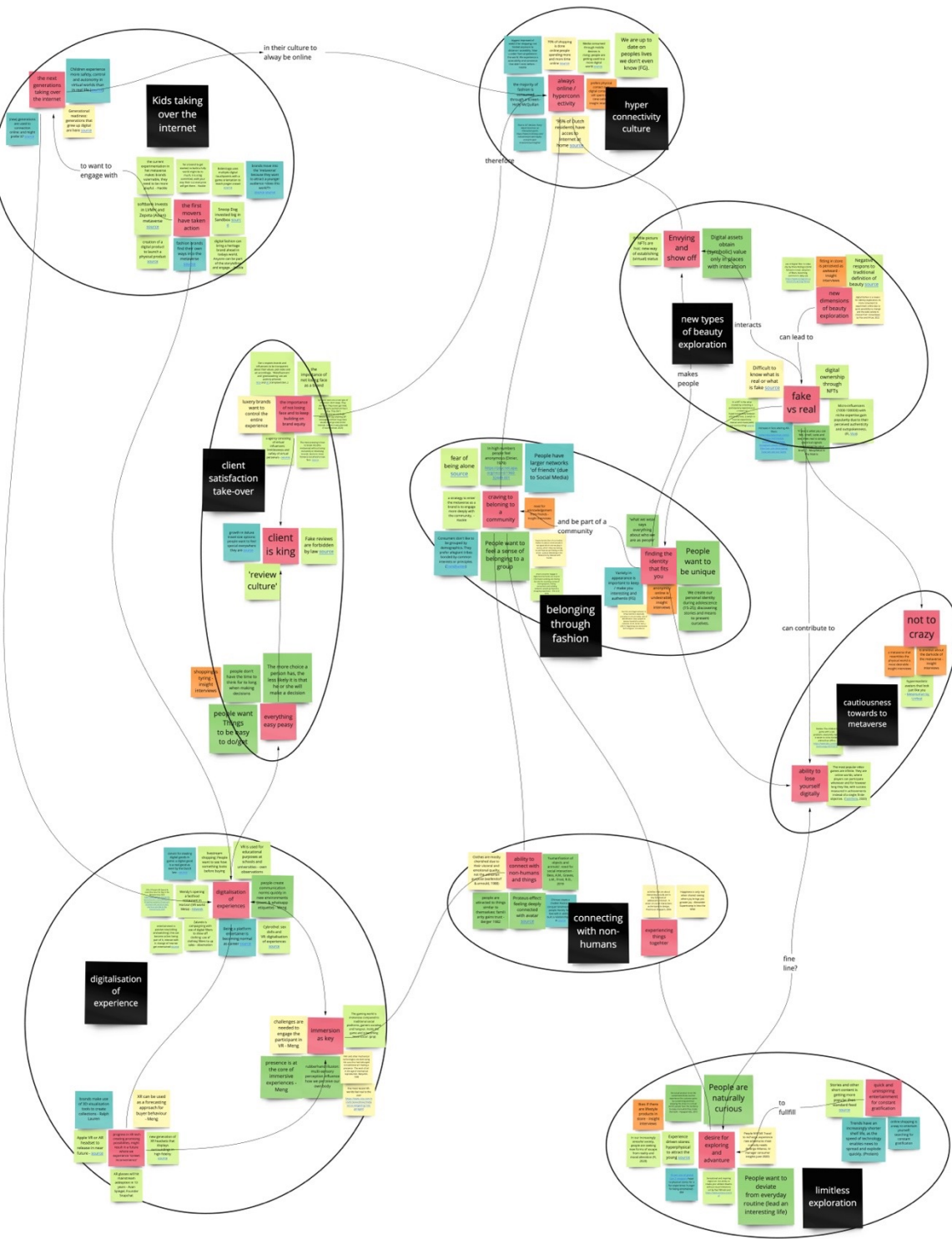
Nike created Nikeland on Roblox (2021)

Based on current niche of fashion-branded entertainment

Balenciaga launched multi-media campaign including their own videogame Afterworld where the new collection was presented. source

Nike opened a playground in the popular virtual world Roblox where mostly kids explore and interact with the brand. source

being the front runner · **craving safety**

curious to explore

Bottom stickers: digitalisation of experience · connecting with non-humans · new types of beauty exploration · limitless exploration · new dimensions of beauty exploration · desire for exploring and adventure · the first movers have taken action · finding the identity that fits you

Second diagram (brands):

A frightening world

attitude towards metaverse

The frontrunner that doesn't really know how to handle society · *insecure & craving safety*

Esso · Een spel van Nederlandse Loterij · T-Mobile · intertrust · ah · KRASLOTEN · AB InBev · kanskwartier

McDonald's · Staatsloterij

new rules of interaction · society looking for a new groove · less forgiveness for mistakes

The front runner that takes the leap · *Daring to take the leap, but craving safety and therefor not the frontrunner (yet)*

adidas · TOTO · PHILIPS · NS

being the front runners · craving safety

curious to explore