

# A Study on the Analysis of Metaverse Fashion Types and Consumption Behavior

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## ABSTRACT

The utilization and market presence of the metaverse in the fashion industry are growing rapidly, with a notable increase in both marketing AI-driven fashion design on metaverse platforms in recent years. This study aims to identify the types and characteristics of metaverse fashion by comparing and analyzing specific instances of metaverse applications in the fashion industry, following an examination of the metaverse's concept and technology, establishing the type and characteristics of metaverse fashion, and considering consumption behavior to furnish basic data for the utilization of the metaverse in the fashion industry. This study aims to establish the types and characteristics of metaverse fashion and examine consumption behavior characteristics, proposing strategies for brands to evolve in response to contemporary changes by leveraging the metaverse in the planning, design, and marketing of fashion brands. The study's content and method define the concept of the metaverse through literature and prior research, analyze specific instances of metaverse application in the fashion industry to establish the types and characteristics of metaverse fashion, and derive the consumption behavior characteristics associated with each type of metaverse fashion. As a result of the study, first, the metaverse can be defined as an extended convergence of real and virtual spaces, where value is created through users' social, economic, and cultural activities. The metaverse can be classified into four types: augmented reality, life logging, mirror world, and virtual world. Second, the types of metaverse fashion can be classified into experience service type, social media type, virtual platform type, avatar game type, and AI use type. Third, the case analysis reveals that the consumption behavior characteristics of metaverse fashion are user-centric, encompassing personalization, customization experience, communication across space and time, gender demarcation, sustainability through efficiency, the expansion of non-physical roles, gamification via avatars, and MZ generation's fun. This study evaluates the value and potential of metaverse fashion by analyzing metaverse applications within the fashion industry and consumption behavior characteristics. It is significant that it showcased relevant pioneering examples in the future fashion industry and the utilization of the metaverse. In the future, we anticipate that the fashion metaverse will persist in exploring and fostering innovative designs and collaborations that align with the contemporary trends.

Key words: customizing, metaverse, self-expression, technological convergence, virtual fashion

## I. Introduction

The next generation of the Internet, the metaverse, is growing day by day with computer hardware and software, mobile communication technology, expansion of virtual reality, augmented reality, and mixed reality. The metaverse platform not only serves as an SNS, but also uses it for management as a company's B2B business model, and for example, various brands such as Gucci, Louis Vuitton, Valentino, Nike, and Converse use it for promotion, marketing, and sales through grafting with the metaverse. Many creators are already active in the development of fashion design that is used on the metaverse platform, which is expected to be combined and used in all industries in the near future, and fashion design within the metaverse is now included in the field of fashion that includes fashion expertise, beyond just 3D graphic design and technology, requiring the development of more realistic metaverse fashion design items. The MZ generation, which is familiar with digital culture, is looking for an experience that differentiates it from the existing online in the metaverse. The fashion industry is targeting the MZ generation that uses the metaverse by conducting various attempts such as implementing virtual stores and launching clothes exclusively for avatars. The metaverse service provided by fashion companies not only provides new value, but also contributes socially and economically, such as alleviating environmental pollution problems and revitalizing the virtual economy (J. H. Park, 2021), and is being used as a means of communication and communication with consumers, opening a new paradigm in fashion brand

marketing (Kim & Kim, 2022). As the convergence of metaverse and fashion brands affects the fashion industry, research is being conducted to analyze related cases and explore directions for the future use of metaverse in the fashion industry. Case analysis of virtual world metaverse flagship stores as retail spaces of the fashion industry and a new means of communication with consumers (Kim & Choo, 2019), virtual world metaverse collaboration types are divided into 'Zepeto-fashion companies', 'Zepeto-entertainment companies', and 'Zepeto-Heterogeneous companies' (Yoo & Choi, 2022), digital marketing case analysis of luxury fashion brands using various types of metaverse (Lee & Um, 2021), research on the effect of purchasing according to the realism of virtual fitting (Kang & Park, 2020), research on virtual fitting service suggestions in shopping mall apps (Jeon & Kim, 2022), research on the characteristics and discrimination of virtual fashion brands as examples of the virtual fashion industry through convergence with metaverse (K. S. Park, 2021), research on business models (Choi & Pyun, 2021) and the impact of brand experience through avatars on brand attitudes, and many studies were limited to the initial concept of the metaverse or focused on one of the types of the metaverse. Meanwhile, according to a survey of 3,797 mobile phone users aged 14 and over in Korea conducted by Consumer Insights, 82 percent of the respondents knew the metaverse, but 63 percent said they had heard of it but did not know it well, and only 18 percent said they knew it and 10 percent of the platform users said they knew it (Oh, 2022). The market and use of the metaverse platform in the fashion sector are continu-

ing to grow, and it can be said that real fashion design and fashion design within the metaverse platform must grow together. Therefore, this study examines the concept and technology of the metaverse and establishes the types and characteristics of metaverse fashion by comparing and analyzing specific cases of the metaverse that appeared in the fashion industry. It examines how consumers consume metaverse fashion for each type derived through this. The purpose of this study is to suggest the direction of activity that can be applied to leap forward as a brand adapted to the changes of the times as a result of considerations on "how consumers participate in the planning and design of fashion brands according to the type and characteristics of metaverse fashion" and "how to utilize the consumption behavior of metaverse fashion in the marketing field." The contents and methods of the study are as follows. First, the concept of the metaverse is defined based on literature and previous studies, and the development process of the metaverse is examined. Second, the types and characteristics of metaverse fashion are established by analyzing specific cases in which the metaverse was used in the fashion industry. Third, it derives the characteristics of consumption behavior by type of metaverse fashion.

## II. Background

### 1. The metavers

#### 1) Concepts and Types of the Metaverse

Metaverse is a combination of "meta," which means "exceeding" and "more than that," and "universe," which means "world," which means

"to transcend reality," and "a world in which reality and virtuality are mixed." In general, it is defined as a world where virtuality and reality interact and various social, economic, and cultural activities take place. It is also defined as an extended virtual world where virtual XRs such as VR and AR are used. The concept of the metaverse was first presented as a new dimension of environment where people can operate using avatars through Neal Stephenson's Science Fiction novel "Snow Crash," published in 1992 (Seo, 2008). Modern metaverse can be defined as a convergence world that expands through the mediation and combination of real and virtual spaces through realistic technology (S. K. Kim, 2020), and it is treated as a concept that is distinct from a comprehensive cyberspace reflecting the overall online in that value can be created through user's social, economic, and cultural activities (Dionisio et al., 2013). Ko et al. (2021) presented the concept of '5C' to define the unique characteristics of the metaverse. According to the concept of '5C', metaverse users can have their own worldview, engage in content creation activities, and economic activities through digital currency, and interact with users as an extended space in the real world. In other words, the metaverse can be explained as a three-dimensional virtual space that creates, economically, and interacts using avatars.

The metaverse covers a wide range of areas such as games, communities, NFTs, and non-fungible tokens, and the types can be divided into various categories according to their characteristics (Ko et al., 2021; Lee & Han, 2021; Yun et al., 2021; Wi, 2009). The ASF classified the metaverse by technology-user relationship

and space (virtual-reality) connection into four types: augmented reality, life logging, mirror world, and virtual reality. Augmented reality refers to a technology that provides extrinsic information in the physical world and shows three-dimensional virtual images superimposed on the real environment (K. S. Park, 2021). It is characterized by enabling real-time interaction because users can additionally experience virtual information while experiencing the real world (Lee, 2011). Re-logging refers to the overall activity of recording, storing, or sharing everyday experiences and information of people and objects according to the purpose (Y. J. Kim, 2021). The metaverse of re-logging provides an augmented sharing function that records the daily life of users and adds a virtual environment. The mirror world imitates the real world as it is reflected on a mirror and expresses the real world in the metaverse in a digital form (Y. J. Kim, 2021). With the development of information and communication functions and graphic representation technology, users can check information of the real environment expressed in 3D models and real photos without time and space constraints. The virtual world refers to the metaverse based on the activities of various individuals in a virtual space and consists of 3D graphics, information and communication technology, and avatars (Lee, 2021).

## 2) Metaverse Platform

According to a report by Market Research Future, the annual growth rate of the metaverse between 2021 and 2030 is predicted to be 41.7% (Yoon, 2022), and PWC, Statista, and Bloomberg are also predicting similar or higher numbers,

and the rapid growth of the metaverse is expected. In March 2022, the Korea Creative Content Agency announced the 'Five-Step Milestone of the Metaverse' through a report titled 'Status and Prospects of the Metaverse Industry in the U.S.' Currently, it is only the beginning of the first stage, which requires the establishment of infrastructure and the distribution of related devices. By gradually building an ecosystem and distributing a neural interface, the final five stages are that anyone can easily use the generalized metaverse anywhere in their daily lives through the establishment of a decentralized system (Korea Creative Content Agency, 2022). At this point, the most popular forms of the metaverse are the platforms that are most compatible with 'virtual reality'. In this virtual reality metaverse, users can engage in various activities such as cultural experience and communication as well as political and economic activities that are the same as reality. The difference from reality is that you don't just watch content in the metaverse, but experience the second world as if it were real while living as a character called 'Avatar' (Kim, 2022). An example of such a platform is Roblox, a representative metaverse platform in the United States, and representative examples in Korea are Zepeto and Ifland. Within this platform, users connect and communicate with users around the world simultaneously through avatars and engage in various activities. Users can decide the appearance of their avatar acting as their second child differently from reality. For those who value personality and identity, decorating their character, avatar, in the metaverse can have an important meaning. Virtual spaces such as games

and chat have existed since before when PC communication was possible, but the reason why the metaverse is attracting attention is that economic activities are possible, such as building buildings in the metaverse platform and selling fashion items, new jobs are created through the metaverse platform or tasks that receive corporate requests.

## 2. Metavers Experience and Behavioral Intention

### 1) Metaverse Experience Factors and Behavioral Intentions

Experience economy is not a structure that generates revenue by selling goods or services, but a structure that generates revenue by selling experiences (Jeong et al., 2016). The theory of experiential economy defines experience as providing user value in addition to goods and services, and experience is defined in a higher concept to enhance value from a marketing perspective (Pine & Gilmore, 1998). Since the emergence of the theory of experiential economy, esthetic experience, relational experience, escapist experience, entertainment experience, and educational experience are being used to explain the acceptance of goods and services by accessing various fields of experience such as tourism, exhibition, and education (Bae, 2022). Esthetic experience is about appreciating and accepting aesthetic elements while environmental conditions that users can immerse themselves in experiential activities are met (Yoon & Lee, 2017). Relational experience means high satisfaction in interacting with other users, so it is also considered in community activation strategies that share experiences and knowledge, and has the

effect of improving satisfaction by connecting with culture (Bae, 2022). Escapist experience is that experiences in other environments that deviate from their daily lives act as factors to improve user satisfaction (Pine & Gilmore, 1998). Entertainment experience is the most familiar and common form with the longest-developed form, which means the most interesting and appealing experience, and is an experience that is absorbed through senses such as watching performances and listening to music. (Pine & Gilmore, 1998). Educational experience is a physical training to improve knowledge and skills acquisition for intellectual education, and active participation should be involved (Yoon & Lee, 2017). As such, other previous studies also classify metaverse experience factors into aesthetic experience, deviant experience, relational experience, entertainment experience, and educational experience.

### 2) Metaverse Presence and Technology Acceptance Model

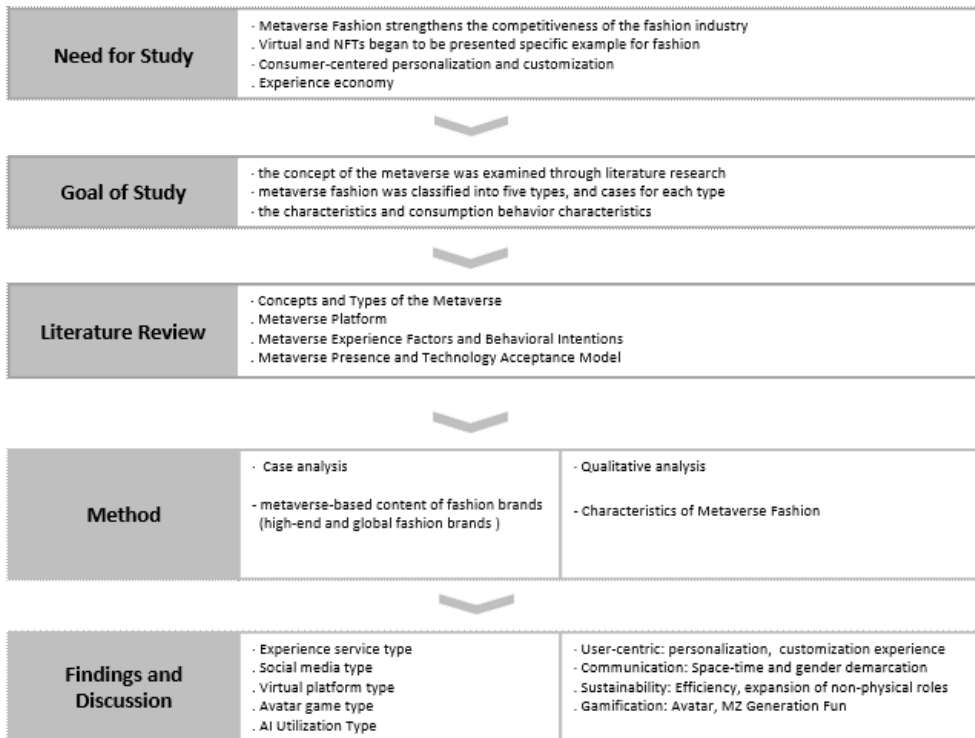
Existence is a cognitive concept that metaverse users feel actually exists in the field, and virtual presence is that users' integrated experiences in virtual spaces are perceived almost similar to experiences in reality (Kye, 2007). Existence is being studied in various fields because it affects users' attitudes and behavioral intentions due to users' perceptual states and psychological reactions (Bae, 2022). The Technology Acceptance Model (TAM) is a theory that explains the acceptance process of users according to new technological innovation (Davis, 1989). The Technology Acceptance Model has conducted studies such as media acceptance intention, terrestrial

DMB acceptance intention, and mobile service acceptance intention. In these research results, usefulness and ease affect interactive TV advertisement acceptance intention (Shim, 2009), and mobile location-based advertisement acceptance intention (Youm & Kim, 2015). Usefulness and ease affect users' attitudes toward mobile advertisements and indirectly affect users' product purchase intentions (Lee, 2017).

### III. Methods

This study combined theoretical consideration and case analysis of visual data through literature data and previous studies. The method of the study is as follows <Fig. 1>.

The temporal range of this study was set from 2019 to 2025, when virtual technologies such as the metaverse and NFTs began to be presented as specific examples for fashion. Since the cases of metaverse-based fashion are not yet widespread, the scope of fashion brands for case collection was mainly set as high-end fashion brands and global fashion brands that are being attempted through large capital. The collection was conducted from April 2025 to August 2025 through Naver and Google search engines, YouTube, virtual content-related platforms, apps of each brand, Instagram, etc., The analysis targets were collected from Google(www.google.com), online fashion information magazine (www.vogue.com), YouTube(www.yuotube.com), and



<Fig. 1> Research Procedure

each digital platform website.

## VI. Results and Discussion

### 1. Metaverse Fashion Types

The metaverse can be defined as an expanded convergence world through the mediation and combination of real and virtual spaces through realistic technology, and value can be created through users' social, economic, and cultural activities. Based on the characteristic analysis of the metaverse and the case analysis of metaverse fashion, the types of fashion metaverse can be divided into experience service type, social media type, virtual platform type, avatar game type, and AI use type as follows.


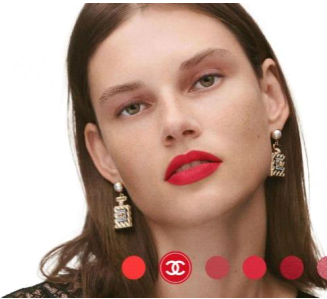
#### 1) Experience service type

With the widespread use of smartphones and the use of applications with face filters in everyday life, augmented reality is becoming more familiar to consumers and is being used as a marketing strategy to improve users' immersion and experience brands and products (Hur & Lee, 2021). In the fashion sector, augmented reality (AR) is also providing virtual wearing services, providing new experiences and entertainment to consumers.


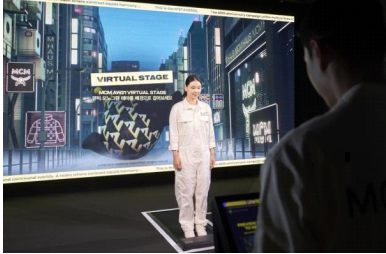
#### 2) Social media type

The number of hashtags for clothes worn today, OOTD (Outfit Of The Day), and MOTD (Makeup Of The Day) is increasing on social

<Table 1> Experience Service Type

Brand	Project	Experience and consumption behavior
<p>FILA 2022</p>	 <p>&lt;Fig. 2&gt; Fila AR Shoes Filter (Lee, 2022)</p>	<p>users can experience popular items using a camera filter with augmented reality technology</p>
<p>CHANEL 2021</p>	 <p>&lt;Fig. 3&gt; Chanel Lip Scanner (Chanel, n.d.)</p>	<p>users to imagine and create future beauty looks with color inspiration from their daily lives, social media, magazines, or clothing.</p>

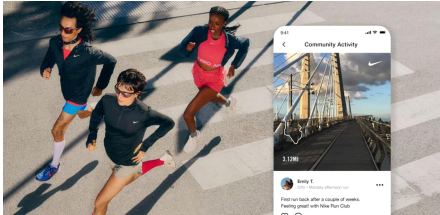
<Table 1> (Continued)

Brand	Project	Experience and consumption behavior
<p>DIOR 2021</p>	 <p>&lt;Fig. 4&gt; Dior Digital Makeup Collection (Zepeto Dior, n.d.)</p>	<p>collaboration with Zepeto, expensive Dior products can be experienced on Zepeto for easy access and a high purchase conversion rate.</p>
<p>MCM 2021</p>	 <p>&lt;Fig. 5&gt; MCM M XR Zone (Choi, 2021)</p>	<p>customers can choose the sound theme they want and have their own MCM metaverse experience video virtual fitting and virtual styling.</p>


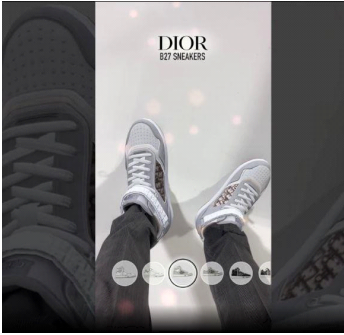
media. These hashtags provide content that corresponds to specific keywords, allowing users to share their opinions and emotions with users with similar interests by sharing their daily information (Kim & Choo, 2019). Daily information of consumers is being shared in the virtual space through riplogging, and companies are col-

lecting data to provide personalized product recommendation services. Fashion companies quickly grasped users' reactions by operating a digital wall or platform so that consumers who received services could share them on social media. Through the life-logging case of the fashion industry, it can be seen that its utilization is being

<Table 2> Social Media Type

Brand	Project	Experience and consumption behavior
<p>NIKE 2025</p>	 <p>&lt;Fig. 6&gt; Nike RunClub (Nike, n.d.-b)</p>	<p>a service to share the exercise capabilities of app users with others to motivate users' exercise activities, provide guides, and help users enjoy exercise.</p>

<Table 2> (Continued)

Brand	Project	Experience and consumption behavior
<p>GUCCI 2019</p>	 <p>&lt;Fig. 7&gt; Gucci AR Try-on (Huh, 2019)</p>	<p>users try on sneakers through an AR alliance in collaboration with social media platform Snapchat. communicate the realistic wearing experience of Gucci sneakers.</p>
<p>DIOR 2021</p>	 <p>&lt;Fig. 8&gt; Dior AR Experience (S. H. Kim, 2021)</p>	<p>users can try on six pairs of shoes from Dior's new item B27 through an AR, communicate how they wore the latest shoes, and buy them at Dior.com</p>

emphasized in that it increases efficiency in terms of using a virtual environment and improves the curation function for users (Lee, 2016).

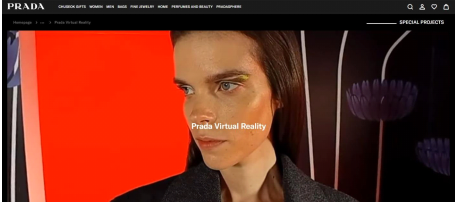
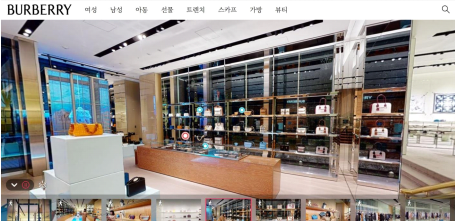
### 3) Virtual platform type

The mirror world is a replicated world of virtual reality, but its characteristics stand out in that it provides a wealth of reality information

<Table 3> Virtual Platform Type

Brand	Project	Experience and consumption behavior
<p>DOLCE &amp; GABBANA 2020</p>	 <p>&lt;Fig. 9&gt; D&amp;G Virtual Boutique (Kang, 2020)</p>	<p>shop comfortably at home implemented the same structure and interior of the store and provided a vivid shopping experience as if guided by experts.</p>

<Table 3> (Continued)

Brand	Project	Experience and consumption behavior
<p>PRADA 2020</p>	 <p>&lt;Fig. 10&gt; Prada Virtual Retail Store (Prada, n.d.)</p>	<p>customers could be guided highly immersed. limited editions using virtual platforms, purchasing system features have led to high returns.</p>
<p>BURBERRY 2022</p>	 <p>&lt;Fig. 11&gt; Ginza flagship store's Burberry Interactive Virtual Store (Burberry, n.d.)</p>	<p>a limited edition bag on the Burberry Virtual Platform in collaboration with Roblox.</p>


(Song & Chung, 2021). Although it has become difficult for consumers to visit offline stores due to the outbreak of COVID-19, various companies have begun to provide unique store experience opportunities by utilizing online. Fashion companies are using the virtual platform to provide unique store experience opportunities along with abundant reality information at the same level as offline. In addition to the limited edition using

the virtual platform, the purchasing system function led to high profits.


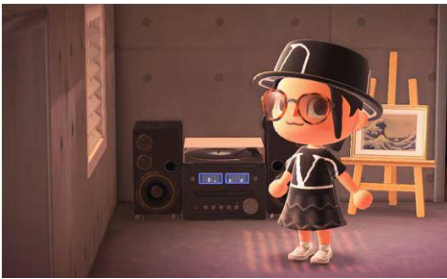
4) Avatar game type

Since the evaluation of avatars, a major component of the virtual world, is not limited to virtual spaces but acts as a criterion for judging me in real life, the improvement of user sat-

<Table 4> Avatar Game Type

Brand	Project	Experience and consumption behavior
<p>BURBERRY 2022</p>	 <p>&lt;Fig. 12&gt; Freedom to go Beyond (Minecraft, n.d.)</p>	<p>pixelated blocks that allow users to create virtual worlds on their own, with up to 140 million monthly active users on 20 platforms.</p>

<Table 4> (Continued)

Brand	Project	Experience and consumption behavior
<p>NIKE 2022</p>	 <p>&lt;Fig. 13&gt; Nikeland (Nike, n.d.-a)</p>	<p>users can decorate their avatars with Nike products and rent new products from digital showrooms.</p>
<p>VALENTINO 2020</p>	 <p>&lt;Fig. 14&gt; Valentino Virtual Collection (E. Y. Kim, 2020)</p>	<p>collaborated with Animal Crossing and player-artist Kara Chung. costumes can be worn through avatars in the gaming space.</p>

isfaction through metaverse avatars is emphasized (Park, 2006). Fashion brands are actively utilizing consumers' perceptions of avatars as part of themselves to implement marketing strategies. Accessories can be purchased for less than the actual price and experience various spaces. In this way, the fashion metaverse evolves one step further than virtual reality by utilizing avatars, allowing them to engage in social and cultural activities like real reality rather than simply enjoying games or virtual reality.

### 5) AI Utilization Type

The field of fashion design platforms is already actively converging AI, creating identity design results. AI inspires designers by analyzing

trend predictions and design consumer demand. It creates a space on a metaverse platform that is effective in imprinting new markets and brands, collaborates with games, or opens Fashion Week to use it for promotion, marketing, and sales. In the fashion industry, we are focusing on building online shops using the metaverse. This refers to the efforts to establish a metaverse online distribution platform as one of the future distribution channels to revitalize online shopping as well as offline stores in the fashion industry. Users also purchase a variety of items to decorate their avatars, which is why the fashion industry is interested in the metaverse. In this way, a strategy is included to speed up market share by increasing the awareness of its

<Table 5> AI Utilization Type

Brand	Project	Experience and consumption behavior
<p>AI fashion week 2023</p>	 <p>&lt;Fig. 15&gt; AI fashion week (AI Fashion Week, n.d.)</p>	<p>used the Generative AI program Midjourney. The collection they created will actually be produced, and the platform can then be used to help participating designers launch brands and organize fashion weeks</p>
<p>PRADA 2024</p>	 <p>&lt;Fig. 16&gt; Prada perfumes by AI (Place Simulation, n.d)</p>	<p>AI technology was used to create visuals for the campaign using five most popular perfumes,</p>
<p>ETRO 2024</p>	 <p>&lt;Fig. 17&gt; Etro by AI (Place Simulation, n.d)</p>	<p>the future distribution channels to revitalize online shopping as well as offline stores in the fashion industry. Users also purchase a variety of items to decorate their avatars,</p>

brand and increasing the purchase consideration rate.

## 2. Characteristics of Metaverse Fashion Consumption Behavior

### 1) **User-centric: personalization, customization experience**

It is a personalized experience of customization. Customized consumer experience means providing personalized services to customers, including customization and virtual fitting. Away from a uniform background and environment, consumers can use an AI-based recommendation system for their desired style. The keywords that appeared most often in the review of virtual reality-based fashion cases are 'virtual', 'VR', 'digital', 'experience', and 'user'. The virtual reality experience emphasizes user-centered values, and in fashion, it is unfolding in the direction of reinforcing personalized experiences and customization. Personalized experiences include 'personalization', 'taste', and 'immersiveness'. In virtual fashion presentations, active participation and individual perspectives become important, not a passive digital format. In particular, in the case of existing fashion shows, there were areas that were open to a small number of people or difficult to observe, but the introduction of virtual reality enabled anyone to experience personal experience. Although there is a limit to not being able to directly experience the actual touch, the strength of being able to personally experience vivid details and desired angles that could be easily passed through virtual reality is emerging. Virtual fashion platforms and virtual fashion design are also expanding personalized experiences through immersion and interaction

with VR technology that enables practical communication with the virtual world. As virtual reality is introduced due to the difficulty of visiting due to COVID-19, the virtual store is reinforcing various immersion and interactive experience elements so that you can experience products and feel different experiences. Customization experiences include 'customization', 'virtual fitting', and 'ownership'. In the case of virtual lookbooks during fashion presentations, the dynamic and interactive experience is reinforced by being able to escape from the existing fixed environment and run according to the location and background desired by the user. The increase in virtual applications through AR technology on the metaverse fashion platform is expanding the customization experience by enabling virtual fitting. This is becoming a way to solve the problem of size limitations that appeared in existing fragmentary digital orders while enabling users to select products tailored to them. Virtual clothing is attracting attention in that it provides customized images that only they can own through photos or videos of themselves as NFTs beyond virtual fitting. Virtual AI design highlights special experiences tailored to individuals by suggesting designs to suit their tastes.

### 2) **Communication: Space-time and gender demarcation**

In the e-commerce field, hyper-personalization is underway as a product recommendation service tailored to consumer personal information. The Canadian e-commerce shopping app 'Shop' has a structure in which you go to a detailed page when a chatbot selects a product recommended, and the AI function serves as a shop-

ping helper for consumers. Virtual reality cases seem to value improving user communication. In this way, the metaverse can produce the same effect as Off-Line in a virtual space with convenience and rich interaction experience. In addition, it aims for decentralized communication from platform monopoly through interaction without restrictions on operating time with a realistic community that seems to meet directly as a structure for the benefit of users. Fashion based on virtual reality technology aims for decentralized communication beyond the boundaries of time and space and the traditional role of gender. Communication beyond the boundaries of time and space includes 'connection', 'no boundary', and 'communication'. In the case of fashion presentations, in the past, it was limited to specific time and space. However, as the introduction of virtual reality technology that crosses the boundaries of virtual and reality has moved to the virtual world, anyone can participate without restrictions on time and space, expanding the scope of fashion communication. Virtual applications and virtual clothing are communicating with a wide range of users through sharing through various social media. In the metaverse, a virtual space, various experiences that may not be possible are possible without restrictions, so movement, exploration, and immediate connection with various users through fashion are becoming important. Communications that deviate from the boundaries of the traditional role of gender include 'gender fluid', 'neutral', and 'multiple'. Fashion based on virtual reality technology is making a difference in the fixed value of gender roles, such as the recent trend of gender fluid in fashion collections. In

virtual fashion presentations, they proceed without defining gender distinction or experience a virtual world with neutral objects. Virtual applications can be worn and selected freely without being conscious of the eyes of others and without gender restrictions. In the review of virtual clothing, it can change every day to express various selves in the digital world, and in virtual reality, various values coexist with free expressions and choices such as gender fluid, neutral, and multiple.

### **3) Sustainability: Efficiency, expansion of non-physical roles**

The fact that consumers of metaverse fashion are paying attention to the environment, which is the most important issue in the modern era, is an important key to aiming for the value of sustainability. This is because AI-based marketing and design have both positive aspects of expanding the efficient area in terms of profit generation, developing eco-friendly materials, and reducing unnecessary consumption. AI, big data, and algorithms can help develop new material designs and minimize the use of energy and resources in the production process. By analyzing material characteristics and environmental impacts, it can help replace chemicals in the manufacturing process or develop recyclable materials. Therefore, AI design can promote efficient aspects that are reduced than actual production by predicting and virtualizing designs. It is worth noting that metaverse fashion is aiming for the value of sustainability regarding important environmental issues in modern times. This is because, although VR-based marketing ultimately leads to more consumption, positive

aspects are expanding together as fashion's efficiency and non-physical role expand. The expansion of efficiency includes 'speed', 'real-time', and 'simplification'. Virtual clothing and AI design are mainly virtual and digital-only designs, which shortens the time and cost of previous physical attempts. In the review of cases that combine AI and VR, new design ideas can be quickly generated, verified, and tested in a few hours, and high-definition composite images can be created, found what works, and quickly innovated. Fashion based on virtual reality technology values time and cost efficiency through real-time accessibility, linkage and simplification of order processes, and a fast progression of design, which results in sustainability. The expansion of non-physical roles includes 'non-physical', 'digital only', and 'prediction'. Virtual fashion can be owned, recycled, and changed for a long time due to its non-physical characteristics. In particular, digital-only VR fashion is being evaluated as an alternative to fast fashion while providing meaningful value to the reality of purchasing and throwing away countless clothes for social media. According to a review on virtual clothing, digital collections are the product of a culture that relies heavily on social media and have production value in the context of sustainability without negative environmental effects by guaranteeing users' 3D photos, not actual ones. In particular, interest in non-physically existing digital limited edition virtual clothing is increasing due to its unique value. Virtual AI design can reduce environmental consumption caused by actual production by predicting and virtualizing designs.

#### **4) Gamification: Avatar, MZ Generation Fun**

In the case of virtual reality-based fashion, a number of keywords related to 'game' and 'fun' have been discovered, indicating that virtual fashion is developing with value for gamification. Gamification is to induce behavior by applying a game format, and it is to add game elements such as challenge, play, achievement, and reward to make users interested and actively experience it. In particular, virtual reality-based fashion focuses on the fun of avatars and the MZ generation. Virtual reality-based fashion through avatars focuses on fun, and collaboration with games is increasing, and it actively utilizes game elements and pursues fun, especially through experiences through avatars. In some cases, fun is emphasized while conducting virtual fashion shows and exhibitions themselves in a game format. Virtual fashion presentations are not a one-sided passive method, but seek fun that can be participated, explored, and achieved like games, which is mainly executed through avatars. While the avatars for fashion presentations were mainly those of models or designers, the metaverse among virtual fashion platforms is drawing attention in that it enhances the fun while experiencing the world of virtual fashion more realistically through virtual avatars that project its appearance. They wear real fashion products through virtual avatars and seek fun to communicate with other virtual objects. Communication with the young MZ generation, who are familiar with digital media, is rapidly expanding in virtual reality-based fashion. As a result, it is focusing on the fun tailored to the MZ generation, and it is focusing on combining various game elements to create a positive experience for the

MZ generation, which is a potential customer in the future. The interest of the MZ generation is increasing in the metaverse, a virtual space among fashion platforms, as it allows luxury brand virtual reality products to be purchased, worn, and owned at an affordable price. In addition, the element of the game that combines AR in virtual applications and virtual interactions is bringing an effect that induces the interest of the MZ generation. The limitation is that such elements of fun are mainly focused on visual stimulation. It seems necessary to try virtual reality technology for more diverse senses such as hearing and touch. The metaverse is used in various ways in the fashion industry. In particular, as communication, experience, and experience with consumers have become essential conditions for fashion brands, the metaverse has raised the value of interaction.

## V. Conclusion

Fashion in the metaverse shows different characteristics and consumption behaviors from fashion in the real world. In a virtual environment, new fashion trends with restrictions and opportunities different from reality appear, and several examples and consumption behaviors were examined for each major type.

Users can purchase and wear digital clothes to avatars on a virtual clothing platform, and the desire to consume digital items is increasing by consuming them only in a virtual environment without buying actual clothes, and the desire to own avatars or virtual items is working similarly to real consumption. Digital fashion as an NFT is in vogue, and its ownership also functions as

a social symbol or status. It combines metaverse and game fashion through various character skins and applies real-life fashion trends to virtual environments in collaboration with luxury brands. The consumption behavior characteristics of competition and differentiation appear, and players consume unique fashion items to differentiate themselves from other players, and they also represent social consumption. On metaverse platforms, fashion brands often enter the virtual world and release digital clothes or accessories. This is a way to establish a brand's virtual presence and form a new consumer base. Owning a fashion item of a specific brand in the metaverse as a consumption behavior representing brand loyalty and belonging works similarly to brand loyalty in reality. Digital runways using AI are a new way to experience fashion within the metaverse. Users participate in virtual fashion shows and show the behavior of purchasing fashion items accordingly. This interactive consumption behavior increases interactive consumption by clicking on items or selecting and purchasing items in real time, as well as simply viewing fashion shows in a virtual environment.

This study derives the value and possibility of metaverse fashion through metaverse use case analysis and consumption behavior characteristics in the fashion industry. First, the metaverse-based fashion industry collaborates between multiple subjects without restrictions on time, space, scale, and system, and has transcendent value to customers, companies, or users and creators alike. Through digital fashion, the world stays in one space and communicates with various selves and personalities every day, away from stereotypes, the eyes of others, and even nationalities. Com-

panies and designers will be able to develop the realm of metaverse fashion by attempting unrealistic and transcendent designs without the risk of inventory. Second, metaverse platform users directly participate in the brand's content and selectively accept information. Brand experiences that can be easily accessed anywhere and services focused on individuals secure potential customers and increase brand loyalty of existing customers. Companies must achieve popularity through scarcity and trend identification through each customer's personal experience. Third, consumers are not consumers of products, but move forward together in the same position as a company. This interaction takes place not only between individuals and companies, but also between companies and companies, and between individuals and individuals. The recipients, senders, and platforms that form the metaverse all interact in multiple directions as subjects.

In this study, while metaverse technology is developing at a rapid pace, companies are still in the process of various collaborations and attempts, so there are limitations in generalization in metaverse fashion consumer behavior analysis as it is judged that the number of cases is insufficient or missing. As the metaverse fashion market materializes, follow-up studies of quantitative analysis of consumer behavior for each type are needed. However, it is significant that this study presented appropriate pioneering examples in the future fashion industry and how to use the metaverse. Through this study, it is expected that fashion companies and metaverse companies will achieve creative design innovation and collaboration that fit the trend of the times.

## References

- AI Fashion Week. (n.d.). AI Fashion Week. Retrieved August 5, 2025, from <https://fashionweek.ai/aifw-2-top-20/>
- Bae, E. J.(2022). *The effect of virtual world metaverse experience factors on behavioral intention through presence and satisfaction: Focused on the generation Z metaverse users*. [Unpublished master's thesis]. Sungkyunkwan University.
- Burberry. (n.d.). Burberry Ginza Virtual Store. Retrieved August 5, 2025, from <https://qa.burberry.com/burberry-ginza-virtual-pop-up/>
- Chanel. (n.d.). CHANEL TRY ON . Retrieved August 5, 2025, from <https://www.chanel.com/kr/makeup/>
- Choi, E. S. & Pyun, J. M. (2021). Effect of brand experience on brand attitude within meta-bus through avatars - Focused on Gucci Villa in ZEPETO. *Journal Korea Society of Visual Design Forum*, 26(4), 83-94. <http://doi.org/10.21326/ksdt.2021.26.4.007>
- Choi, M. H. (2021, October 21). *MCM Experience Virtual Reality 'Metabus'*. Businesskorea, <https://www.businesskorea.co.kr/news/articleView.html?idxno=79148>
- Davis, F. D. (1989). Perceived usefulness, Ease of use, and the user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Dionisio, J. D. N. Burns, W. G. & Gilbert, R. (2013). 3D virtual worlds and the metaverse: Curre future possibilities. *ACM Computing Surveys*, 45(3), 1-38. <https://doi.org/10.1145/2480741.2480751>
- Huh, Y. H. (2019, July 1). *Gucci Unveils Augmented Reality (AR) Wearing Virtual Sneakers Through App*. Fashionn. [https://www.fashionn.com/board/read\\_new.php?table=1006&number=29260](https://www.fashionn.com/board/read_new.php?table=1006&number=29260)
- Hur, H. J. & Lee, H. K. (2021). Augmented reality (AR) fashion shopping service acceptance based on consumers' technology readiness. *The Korean Fashion and Textile Research Journal*, 23(3), 347-357. <https://doi.org/10.5805/SFTI.2021.23.3.347>
- Jeon, H. J. & Kim, G. D. (2022). Suggestion of metaverse based online fashion shopping mall application service - Focused on the virtual fitting service. *Journal of Digital Contents Society*, 23(4), 589-601. <https://doi.org/10.9728/dcs.2022.23.4.589>
- Jeong, C. Y., Kim I. S. and Kim, Y. T.(2016). Investigating crucial experiential fFactors of experience economy in maximizing vividness of cruise tourism and its impact on loyalty. *Tourism and Leisure Research*, 28(1), 173-191.
- Kang, C. W. (2020, November 26). *Dolce & Gabbana transcends boundaries with virtual boutiques*. Fashionseoul, <https://fashionseoul.com/191373>
- Kang, E. M. & Park, E. J. (2020). A study on the in-

- fluence variables of purchasing intentions of apparel products using virtual fitting. *Journal of the Korean Society of Design Culture*, 26(1), 1-13. <https://doi.org/10.18208/ksdc.2020.26.1.1>
- Kim, E. Y. (2020, May 17). "Try on Animal Crossing." *E-sports and luxury goods that are on the rise in Corona are also interested*. Chosunbiz. [https://biz.chosun.com/site/data/html\\_dir/2020/05/17/2020051700040.html](https://biz.chosun.com/site/data/html_dir/2020/05/17/2020051700040.html)
- Kim, K. Y. (2022). *Analysis of virtual fashion style preferences and purchasing behavior of metaverse platform 'Zepeto' users*. [Unpublished master's thesis]. Sejong University.
- Kim, S. H. (2021, April 21). *What is the best promotion ever for DIOR?*. Daily Trend. <https://www.dailytrend.co.kr/dior-%EC%82%AC%EC%83%81-%EC%B5%9C%EA%B3%A0%EC%9D%98-%ED%94%84%EB%A1%9C%EB%AA%A8%EC%85%98%EC%9D%80/>
- Kim, S. K. (2020). *Metaverse: Digital Earth, World of Floating Things*. PlanB Design.
- Kim, W. B. & Choo, H. J. (2019). The effects of sns fashion influencer authenticity on follower behavior intention -Focused on the mediation eEffect of fanship-. *Journal of the Korean Society of Clothing and Textiles*, 43(5), 17-32. <https://doi.org/10.5850/JKSC.2019.43.1.17>
- Kim, Y. J. (2021). A study on the convergence of types in game and non-game metaverse contents. *The Korean Journal of animation*, 17(3), 80-99. <https://doi.org/10.51467/ASKO.2021.09.17.3.80>
- Kim, Y. M. & Kim, J. Y. (2022). Luxury Fashion Brands Case Analysis of Using Metaverse. *Journal of Fashion Business*, 26(3), 50-71. <https://doi.org/10.12940/JFB.2022.26.3.50>
- Ko, S. Y., Chung, H. K. & Kim, J. I. (2021). A study on the typology and advancement of cultural leisure-based metaverse. *KIPS Transactions on Software and Data Engineering*, 10(8), 331-338. <https://doi.org/10.3745/KTSDE.2021.10.8.331>
- Korea Creative Content Agency. (2022, Mar 24). *Metaverse Industry Status and Forecast in the U.S*. Data365. [https://data365.co.kr/?page=1&mid=data&document\\_srl=16600](https://data365.co.kr/?page=1&mid=data&document_srl=16600)
- Kye, B. K.(2007). *Investigation on the relationships among media characteristics, presence, flow, and learning effects in augmented reality based learning*. [Unpublished doctoral dissertation]. Ewha Women University.
- Lee, E. S. & Um, G. J. (2021). A case study using metaverse according to marketing changes in fashion luxury brands. *Design Research*, 6(4), 375-386. <https://doi.org/10.46248/kidrs.2021.4.375>
- Lee, G. (2011). The present and future of augmented reality technology. *TTA journal*, 133(-), 88-93.
- Lee, H. E. & Han, J. Y. (2021). A study on classification and characteristics of metaverse platforms according to experience types - Focus on representative cases of realistic and hyper-realistic metaverse -. *Journal of the Korea Institute of the Spatial Design*, 16(8), 427-435. <http://dx.doi.org/10.35216/kisd.2021.16.8.461>
- Lee, J. E. (2022, April 22). *Fila, Snow app to introduce the Shoes Virtual Dressing Filter*. The financial news. <https://www.fnnews.com/news/202204220825443578>
- Lee, J. K.(2017). The effects of advertising perceptions and technology acceptance model on the phased influences of podcast advertising : with a focus on the search and purchase intention for products in podcast ads. *Journal of Outdoor Advertising Research*, 14(1), 19-34.
- Lee, K. S. (2016). *Effects of Hashtag Types in the Image-Based SNS on the Effectiveness of Advertising* [Unpublished master's thesis]. Hongik University.
- Lee, S. H. (2021). The advent of the metaverse era and the future of cultural tourism. *Korea Tourism Policy*, (84), 68-71.
- Minecraft. (n.d.). Minecraft \* Burberry. Retrieved August 5, 2025, from <https://www.minecraft.net/en-us/article/minecraft-x-burberry>
- Nike. (n.d.-a). NIKELAND. Retrieved August 5, 2025, from <https://www.nike.com/kr/kids/nikeland-roblox>
- Nike. (n.d.-b). Nike Run Club. Retrieved August 5, 2025, from <https://www.nike.com/kr/nrc-app>
- Oh, K. J. (2022, 08, 18). "Metabus Platform Users, Only 1 In 10 People" <https://www.yna.co.kr/view/AKR20220818061200017>
- Park, E. G. (2006). The effects of adolescents' internet-item using motivation on cyber-item consumption behavior and satisfaction. *Korean Journal of Counseling and Psychotherapy*, 7(1), 75-92.
- Park, J. H. (2021). The direction and implications of the next generation content industry in the coming metaverse era. *KIET Industrial Economic Review*, (272), 21-30.
- Park, K. S. (2021). A case study of virtual fashion industry of fashion brands through convergence with metaverse. *The Korean Society of Science & Art*, 39(4), 161-178. <http://doi.org/10.17548/ksaf.2021.09.30.161>
- Pine, B. J. & Gilmore, J. H. (1998). Welcome to the experience eEconomy. *Harvard Business Review*, 76(4), 97-105.
- Place Simulation. (n.d.). [A fashion brand using AI] [https://blog.naver.com/place\\_simulation/223384159812](https://blog.naver.com/place_simulation/223384159812)
- Prada. (n.d.). Prada Virtual Reality. Retrieved August 5, 2025, from <https://www.prada.com/kr/en/pradasphere/special-projects/2020/prada-vr.html>

- Seo, S. E. (2008). A study on R&D trends and projects of metaverse. *Journal of The Korean Society for Computer Game*, 12(-), 15-23.
- Shim, S. W. (2009). The study on interactive TV's advertising acceptance: Flow, interactivity, and TAM2 model. *Advertising Research*, 83(-), 63-97.
- Song, S. W. & Chung, D. H. (2021). Explication and rational conceptualization of metaverse. *Information Policy*, 28(3), 3-22. <https://doi.org/10.22693/NIAIP.2021.28.3.003>
- Wi, J. H. (2009). The study on korean model of virtual world through second life users'analysis. *Preview*, 6(1), 113-130.
- Yoo, Y. J. & Choi, J. H. (2022). A study on the collaboration of liberty. *Journal of Basic Design & Art*, 23(2), 359-376. <https://doi.org/10.47294/KSBDA.23.2.25>
- Yoon, H. M. (2022, Mar 31). "The first phase of the metaverse is still important, and the next three years are important". Inven. <https://m.inven.co.kr/webzine/wznews.php?idx=270157&site=vr>
- Yoon, S. M. & Lee, C. K.(2017). Response of visitor for local festival toward satisfaction, trust, and support, based on the perspective of experiential marketing. *Seoul Studies*, 18(4), 53-67.
- Youm, D. S. & Kim, H. D.(2015). Effects of use motivation, perceived attributes and audience innovation for mobile LBA on intentions for continuous use. *Journal of Korea Society of Visual Design Forum*, 47(-), 53-63.
- Yun, H. J., Lee, J., & Yun, H. Y. (2021). A preliminary study on concept and types of metaverse : Focusing on the possible world theory. *Humanities Contents*, (62), 57-81. <https://doi.org/10.18658/humancon.2021.09.57>
- Zepeto Dior. (n.d.). DIOR BEAUTY. Retrieved August 5, 2025, from [https://x.com/zepeto\\_kr/status/1415198951293296641](https://x.com/zepeto_kr/status/1415198951293296641)