

## Transcending the Physical Body: The Influence of E-Sports on Digital Fashion

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### Abstract

During the late 1970s, technological advancement allowed for the development of the virtual economy, where digital goods are sold for real money. This phenomenon originates in e-sports, as gamers purchase skins to aesthetically personalize their avatars. In 2019 several brands introduced digital collections with garments that only exist in cyberspace.

**Purpose:** The aim of the research paper is to investigate the effect that competitive gaming has on digital fashion as well as the opportunities and threats that come with the implementation of virtual garments in contemporary fashion practices. Highlighting the link between the two industries, it is questioned, *how can the technologies and dynamics of e-sports influence the development of digital fashion and do they allow (or not) transcending the physical body?*

The research objectives are the following:

1. To outline the integral components that make up the phenomenon of e-sports and digital fashion.
2. To analyze qualitatively and quantitatively the virtual fashion's impact on fashion practices and the environment from both digital fashion and e-sports' perspectives.
3. To evaluate consumer behavior theories and apply them to the market of virtual goods.
4. To establish the impact of e-sports on the fashion industry in terms of transitioning from the physical into the digital world.
5. To assess future opportunities and threats of the implementation of digital fashion technologies into contemporary society.

**Design:** In the methodology the paper adopts the philosophy of interpretive epistemology and uses qualitative and quantitative data collection methods to generate the results. Following the inductive approach, the research is seeking patterns and evaluates various pieces of evidence, exploring the context, origins and the human factor. The research design features three main primary data collection techniques: interviews, case studies and a survey.

**Findings:** We discovered that the large, digitally interconnected, and established community of e-sports fans could potentially be the most suitable target for integrating digital fashion. The findings of the quantitative survey showed that the customers who are not gamers are not ready to spend money on virtual clothes, while interviews with e-sports adepts revealed that gamers are native consumers of digital goods. Furthermore, the paper illustrates that to a certain extent digital fashion does transcend the physical body. However, people will still need to wear some sort of clothes, so this phenomenon rather adds a new dimension to the fashion industry. On one hand, the benefits of digital fashion include sustainability, limitless creativity, inclusivity, cost-effectiveness, the attraction of younger audiences, and the possibility for the customers to experiment with their fashion. On the other hand, however, the threats are the necessity for designers to adopt new skills, risk of addiction to cyberspace, lack of transparency, the loss of the exclusive image of luxury brands, and security concerns regarding users and their avatars.

**Limitations:** The study encountered several implications such as restricted time frame, limited sample size and possible interview bias. Moreover, at the moment of writing the paper, the amount of previous academic studies on digital fashion was very limited. Consequently, the research explored this potentially disruptive phenomenon through the lens of virtual reality and video games. Nevertheless, although partly limited, the firm conclusions drawn in the academic paper are based on an extensive number of sources. Further studies could explore different variables more in-depth, such as geographical area and the effect of gender.

**Value:** The research paper conceptualizes and explores a unique opportunity for the fashion industry, offering an innovative approach on integrating digital fashion in the contemporary fashion practices. Expanding on the theoretical framework, we illustrate that e-sports and their audience is the key to a seamless inclusion of the digital fashion. The study sheds light on how technology allows these two industries to transcend the physical body and provides a critical evaluation from both practical and philosophic points of view.

**Keywords:** digital fashion, virtual garment, e-sports, skins, avatars, virtual reality, cyberspace, transcendence, hyperreality.

**Article Classification:** Research Paper

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## 1. Introduction

The reality of contemporary society is highly driven by technology that laid the foundation for such disruptive phenomena as the virtual economy and hyperconnectivity. The world's socioeconomic scene is weaved out of a rapidly increasing number of online connections between people, devices, businesses, data, and processes. (Trapscott, 1995; Deloitte, n.d.) In the process of transition from the physical to the digital, scholars begun to question the effect of technology on reality and Jean Baudrillard was one of the first to explore this relationship. (Hosterman, 2013) In his philosophical treatise, *Simulacra and Simulation*, Baudrillard (1981:3) talks about simulacra as '(...) the generation by models of a real without origin or reality: a hyperreal.' Additionally, Baudrillard (1981) examines the idea that society has replaced reality and commodities with signs, *ergo* diminishing the value of their physical counterparts. Similarly, Guy Debord (1967:11), a French philosopher and a Marxist theorist, states that signs are 'the ultimate end-products' of the system of production. In his paper on *Hyperreality and Simulacrum*, a Professor of Humanities Wolny (2017) argues that hyperreality stimulates the loss of the referential value of a certain object, while Thiry-Cherques (2010) states that digital era is strongly constructed upon the simulation.

The pioneers in hyperreality and digital media may be considered video gamers because they completely accepted the virtual world and its nature of simulacra as the 'real'. (Coutler, 2007, Farman, 2010 cited in Hosterman 2013) Consequently, the cyberspace became a new milieu for social interactions and entertainment. (Grimmelmann, 2006; Lehdonvirta and Erkvist, 2011) The expansion of the video games' business launched the rise of competitive gaming, referred to as e-sports that became an international phenomenon. (Gough, 2019) Passing time in the virtual world, people acquired the desire of spending money there by purchasing virtual assets within the game. (Licensing International, 2018) In video games, reality and goods stopped being associated with the concept of tangibility (Hosterman, 2013), becoming an enormous shift in consumer mentality. Lehdonvirta (2012, cited in Rodríguez Martínez, n.d.), an Associate Professor at the Oxford Internet Institute, argues that the virtual economy is quite similar to the traditional one, as only the nature of commodities changes. As a result, the consumer behavior theories seen in the traditional economies can be applied equally to the virtual universe.

Similarly to sports, the fashion industry originated in the real world, however, it is currently transitioning into digital. The phenomenon described above is known as digital fashion, where the creation of garments surpassed the physical restrictions. Digital fashion implies that these clothes will never exist in the tangible world. (Hall, 2018) Instead, just like in video games, the customers buy a virtual good, essentially a code, which is a digital garment for their avatar and a new concept in retail. (McDowell, 2019) Intertwining the fashion system with the innovative processes born in e-sports, it is questioned, *how can the technologies and dynamics of e-sports influence the development of digital fashion and do they allow (or not) transcending the physical body?*

## 2. Literature Review

### 2.1 The Insights of E-Sports

Hamari and Sjöblom (2016:211) define e-sports as:

A form of sports where the primary aspect of the sport are facilitated by electronic systems; the input of players and teams as well as the output of the eSports system are mediated by human-computer interfaces.

With the market revenue worldwide of 1.1 billion USD, competitive gaming is a product of the digital economy. (Dal, 2010) E-sports experienced exponential growth, doubling its market value between 2012 and 2019 with the current worth of 150 billion USD (Statista, 2019). The origins of competitive gaming date to the beginning of computers 60 years ago. (Scholtz, 2019) However, e-sports in their current state are present for 20 years, with the World Cyber Games (WCG) festival established in 2000. (WGC, 2019) At their origins, e-sports targeted a specific niche of 'nerds' and did not gain popularity until the economic boost of 2014 and the investments from corporations like Google and Amazon. Due to the self-regulated nature of the industry, it managed to implement disruptive innovations. (Scholtz, 2019)

With a 34% growth industry-wide in 2019 (Singer and Chi, 2019), e-sports forecasting predicts 300 million frequent viewers from all over the world by 2022. (Gough, 2019) E-sports games are broadcasted for the fans on streaming platforms such as Twitch, making them powerful branding tools. (Singer and Chi, 2019). For example, on November 10<sup>th</sup>, 2019, the highest single peak of viewers was recorded on the channel of Riot Games for the game *League of Legends* with an astonishing number of over 637,000 people. (Twitchstats, 2019) Being industry-driven, the statistics show that e-sports attract an audience from 18 to 34 years old. (Bathurst, 2017 and Nielsen, 2017 cited in Scholz, 2019)

The young people support their favorite 'cyberathletes', a concept that emerged when the press attention started to shift from only games and their developers. The professionalization of the industry occurred with the launch of the notion of multiplayer experience, where the game was not only against the computer. (Taylor, 2012) Although the action occurs in the cyberspace, e-sports do not completely transcend the human body, as the players are required to exhibit a set of skills that are directly related to a tactile experience with a mouse and keyboard. Nowadays, to achieve a professional level it is required to practice 14 to 16 hours daily for 2 to 3 years. (Dal, 2010) Oftentimes cyberathletes become influencers, acquiring an important status in their community. (Canossa et al., 2019)

#### 2.1.1 Skins

Generally, e-sports take part of the Massive Multiplayer Online games (MMO), which are shared environments based in virtual reality that require having an Internet connection to play. (Castronova, 2002)

MMO games allow a player to create and modify his avatar that will then interact with the virtual community. This feature not only adds a social factor but also allows online self-expression. (Jung and Pawlowski, 2014) A way to do so is through 'skins', which are virtual goods purchased inside the game with real money. Skins in e-sports do not affect gameplay and serve solely as decorative items to customize an avatar or weapons. First introduced by Valve Corporation in 2012, within the video game *Counter Strike: Global Offensive*, these virtual items can be earned in-game or bought from an online platform. (Macey and Hamari, 2018) They turned into a way of monetization for game developers and one of the largest types of virtual goods for online consumption. (Koksal, 2019; Hamari et al., 2016)

## *2.2 Virtual Economy & its Communities*

The economy of the virtual world has become a multibillion-dollar industry. In the *Journal of Virtual Worlds Research*, Nazir and Man Lui (2016:online) define the term as 'the process of exchanging virtual items and services with virtual currency within a virtual world.' This economy has a strong financial impact on the real world and its credit market, as the virtual goods can be bought with real money and virtual currencies can be converted. (Nazir and Man Lui, 2016; Zabulis, 2019) Due to the fact that the value of a good *per se* is subjective and is formed in the human mind, whether it is tangible or not becomes insignificant. (Castronova, 2002) Instead, to assess the economic value, the real arbiter of significance is the willingness of people to dedicate effort and time to the virtual world. (Licensing International, 2018) Free from the limitations of the physical world, the avatars in the metaverse represent real people (Nazir and Man Lui, 2016) that are brought together via social interactions and common ties. (Driskell and Lyon, 2002; Lehdonvirta and Ernkvist, 2011)

### *2.2.1 The Marketplace of Virtual Goods*

The cyberspace economy already generates a high level of production per capita (Castronova, 2002) and it is estimated that by 2025 the global market of the virtual goods will reach USD 189.76 billion. (Arodit Market Research, 2019) One of the early examples of this phenomenon dates to 2003 and the online virtual world *Second Life* (Polie, 2019). In April 2007, about US\$10 million was spent on virtual goods within the game, transforming cyberspace into a real marketplace. (Sivan, 2009, cited in Kobia, 2011) The digital goods serve for communication, expression, and representation of the human's avatars. (Kim et al., 2009; Lieber, 2019) A more recent example is a popular videogame called *Fortnite*, where 250 million global users spend \$300 million per month on skins. (Lieber, 2019; Polie, 2019)

Lehdonvirta (2009), as well as Klézl et al. (2018), theorized that 3 main values that drive gamers to buy virtual goods: functional, hedonic, and social. (Figure 1)

110	V. Lehdonvirta	
<b>Table 2</b> Virtual item attributes acting as purchase drivers	Functional attributes	Performance Functionality
	Hedonic attributes	Visual appearance and sounds Background fiction Provenance Customisability Cultural references Branding
	Social attributes	Rarity

Figure 1: Virtual item attributes acting as purchase drivers. (Source: Lehdonvirta, 2009:110)

Just like an expensive fashion brand showcases the status of its wearer and grants belonging to high society, *idem* do skins in video games. (Lehdonvirta, 2009) The virtual world users wish to buy unique items, customize them and stand out in their community. (Lehdonvirta, 2005, cited in Nazir and Man Lui, 2016) As a result, retailers saw an opportunity in the customers' desire to spend money on virtual possessions in video games. (McDowell, 2019) For example, Nike introduced two exclusive skins of its sneakers for *Fortnite's* digital shop. (Lieber, 2019; Novy-Williams, 2019; Figure 2)



Figure 2: Nike Air Jordans are now available in *Fortnite*. (Source: ESI Esports Insider, 2019: online)

### 2.2.2 Everyone is a Gamer

According to McKinsey & Company (2015), a lot of consumer services will be gamified, personalized and interactive. Several industries are applying the concept of 'gamification', which is often referred to as the implementation of game elements in contexts unrelated to gaming. (Deterding et al., 2011; Merino de Paz, 2013) The goal of gamification is to change people's behavior and engage the user through motivational

psychology. (Hägglund, 2012) Scholars state that on a fundamental level everyone is a gamer because it satisfies the basic human needs. (Wharton University of Pennsylvania, 2011; McKinsey & Company, 2011)

In his paper, *A Theory of Human Motivation* (1943), Abraham Maslow theorized a hierarchy of needs. Illustrated in a pyramid, people are faced with five categories of needs that range from the basic ones on the bottom towards more elevated on top. The needs are physiological, safety, love/belonging, esteem, and self-actualization. (Figure 3) Apart from the basic survival necessities, gaming successfully satisfies the remaining needs. In games, people are safe from real-life problems and morals (Hägglund, 2012) and they socialize by belonging to a community of other gamers. (Ducheneaut et al. 2006) Furthermore, the need for esteem is fulfilled through achievements and ranks within the game such as an accomplishment of a level. Lastly, self-actualization is achieved through discovering, learning and progressing, which are essential components of any game. (Hägglund, 2012)

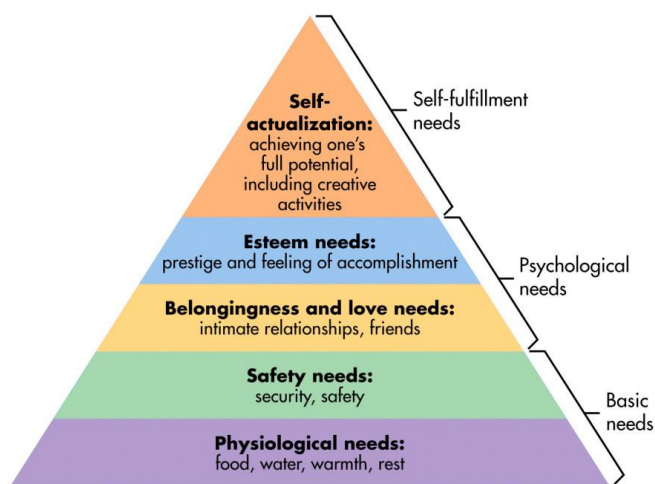


Figure 3: Maslow's Hierarchy of Needs. (Source: Simply Psychology, 2018: online)

### 2.3 Digital Fashion

In 2019 the upgraded mentality of postmodern consumers stimulated the innovation in the fashion industry – *digital fashion*. The term implies that the garment is never physically created but rather exists only in the digital world. (Hall, 2018) In the BA dissertation on fashion and technological innovation, I (2018:83) was among the pioneer researchers to hypothesize the birth of a concept of 'digital fashion', stating that it will '(...) maximize the use of elements of the digital world'. In a year, virtual fashion houses like Carlings: Digital Collection and The Fabricant have emerged, with the business model that follows the characteristics outlined in the paper.

According to *Business of Fashion*, 'A number of companies are looking to bring virtual fashion into the mainstream.' (Lieber, 2019:online) and predictions are stating that in 5 to 10 years it will become commonplace. (McDowell, 2019) Besides, technology permits fashion designers to push the boundaries of



their creative capacities that were originally restricted by the pattern cutting rules, laws of gravity, textile colors and textures. (Semic, 2019) However, fashion creators are required to attain a new set of skills in 3D modeling and digital fabrication to be able to translate fashion on virtual avatars. (Mcdowell, 2019; Genova and Moriwaki, 2016)

### 2.3.1 Avatar as an 'Extension of Self'

The word *Avatar* comes from Sanskrit and refers to the earthly manifestations of Vishnu, one of the gods in Hindu. This historical fact suggests that rather than being a new phenomenon, avatars root in the ancient culture. (Castronova, 2002) A study conducted at Stanford concluded that seeing virtual versions of themselves engaged in a positive activity stimulates people to do the same in the real world. Judith Donath, a MIT researcher argues that humans are prone to develop an emotional attachment to avatars. (McGonigal, 2011) This concept is synonymous with the theory of 'flow' (Csikzentmihalyi, 1992, cited in Cleghorn and Griffiths, 2015), which is the feeling of total absorption in activity in the virtual world. (Cleghorn and Griffiths, 2015) An American business academic Russel W. Belk (2013) states that the cyberspace opens new possibilities for self-expression, where avatars become the 'extension of self' and skins are a form of re-embodiment. Both Shin (2019) and Kelvin Kelly (cited in Polie, 2019), the founding editor of *Wired Magazine*, argue that in the nearest future everything will have a digital twin. Moreover, skins become a fundamental mean of portraying one's identity. (Cleghorn and Griffiths, 2015) A WGSN trend forecasting report adds that the meaning of a product will overcome solely physical criteria (Shin, 2019), which is an opportunity for the fashion industry and some brands tried to experiment with it. For example, in April 2019 a luxury fashion brand, Moschino, presented a virtual collection for the life simulation video game *Sims*. (Semic, 2019; Figure 4)



Figure 4: Moschino x Sims 4 Collection. (Source: Electronic Arts, 2019: online)

### 2.3.2 Environmental Impact & Conspicuous Consumption

Fashion industry experts argue that one of the main competitive advantages of digital fashion is the elimination of the environmental footprint and contribution to sustainable and ethical consumption.



(McDowell, 2019; Salice and Lunghi, 2014) In his philosophic work on hyperreality, the French philosopher Guy Debord (1931:7) critiques post-war capitalism, stating, 'In societies dominated by modern conditions of production, life is presented as an immense accumulation of spectacles.' Likewise, Umberto Eco (1973), the notorious scholar and semiotician, emphasizes that consumerism and the constant desire to buy are the downsides of capitalism. Thorstein Veblen (1899:33) critiques the display of one's economic power through overconsumption, defining this practice as 'conspicuous consumption'. In fact, in the context of overproduction and the domination of the fast fashion business model, a large percentage of fashion goods are discarded without being worn or after being worn once. (Chapman, 2005; Hall, 2018) As a result, companies like Carlings (2019) introduce innovative technologies will eventually reshape the industry in a more sustainable direction because gamers buy virtual vanity goods to fulfill their necessity towards conspicuous consumption. (Rodríguez Martínez, n.d.) Carlings (2019: online) officially declares that its digital collection is '(...) meant to spark the conversation about how we can reduce real production waste in the future.' To a certain extent, the transformation of the fashion industry would follow Darwin's (1895, cited in Scholz, 2019) theory on the battle for the survival of mankind because the innovation is targeted towards preserving the integrity of the planet's resources that are currently being abused.

### *2.3.3 Ethical & Legal Responsibility*

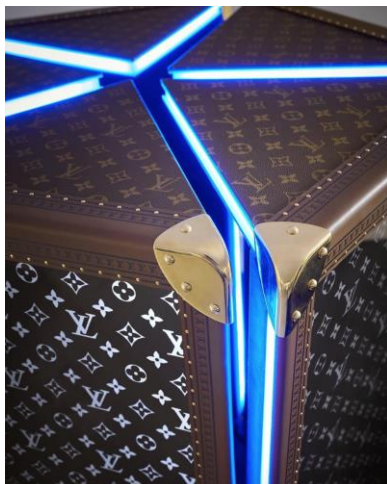
Like any innovation, digital fashion raises unexplored concerns for privacy, legal disclaimers, the operational shift within companies, and social behaviors. (WGSN, 2018; Gerova and Moriwaki, 2016) It is important to raise awareness about *captology*, also known as persuasive technology. A term derived by Fogg in 1996 describes the ability of computers to influence human behavior, becoming a persuasive social anchor. The phenomenon *per se* can be rather controversial, as the traditional forms of media like newspapers and TV did not have the power to instantly trigger a person to perform the desired behavior. (Fogg, 2003) Lastly, some may experience the 'uncanny valley' - a term coined in 1970 by the Japanese roboticist Masahiro Mori that refers to discomfort one may feel as a result of audio-visual simulacra. (Tiffany, 2019)

### *2.4 Case Study: Louis Vuitton x League of Legends*

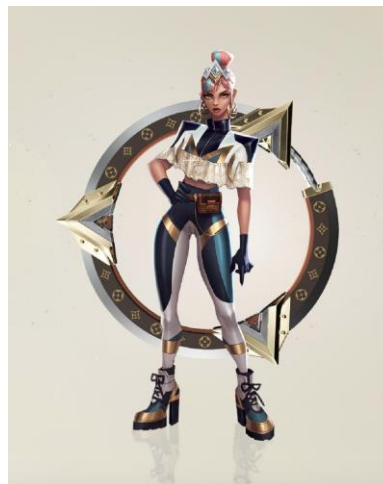
In November 2019, the first of its kind partnership took place between an e-sports game League of Legends, the most-played PC game in the world (Matthiesen, 2019), and a renowned luxury fashion brand Louis Vuitton. (Fortune Magazine, 2019) The Maison has a history of transporting the world's most esteemed trophies (Liao, 2019) and this time Louis Vuitton designed a trophy travel case for the Summoner's Cup, the most prestigious trophy in e-sports. (Figure 5-6) Alongside the case that took over 900 hours to make (Rouse, 2019), Nicolas Ghesquière designed prestige skins for the game as well as a physical capsule collection that quickly got sold out. (Louis Vuitton, 2019; Zhang, 2019; Figure 7)



*Figure 5: Louis Vuitton's Travel Case for the Summoner's Cup. (Source: Casta, 2019: online)*



*Figure 6: Close up of Louis Vuitton's Travel Case. (Source: Louis Vuitton, 2019: online)*



*Figure 7: Louis Vuitton x League of Legends Skin. (Source: Louis Vuitton, 2019: online)*

### **3. Methodology**

The methodology chapter is built according to the 'research onion', progressing from the outer layers inwards. (Saunders et al., 2009) Therefore, it explains and justifies the research philosophy and design, research approach, research strategies, as well as ethical issues, secondary and tertiary data sources. Furthermore, it will explore in detail the time horizons as well as techniques and procedures of the methods chosen with the scope to construct an optimal and most efficient research paradigm. (Bryman, 2012)

#### *3.1 Research Philosophy, Design and Approach*

In terms of the position for the paper, it was chosen to adopt interpretivism, advocating the importance of humans as social actors. The given research philosophy argues that it is through the understanding and analysis of the social constructions that the researcher can access to reality. (Saunders et al., 2009) Additionally, the data is not viewed as the absolute truth because the meaning is determined by the context and it is constructed through interpreting the social world. (Blumberg et al., 2014) To complement the position stated above, the concept of epistemology is applied. It will balance out the study of social phenomena by focusing on how knowledge is acquired through the exploration of the technological side of the argument. (Hallebone and Priest, 2008) As a result, the research philosophy adopted is one of interpretive epistemology. This philosophy provides the research study with two angles and allows to form a critical position.

The study has both exploratory and explanatory nature, as there is a continuum between the two. (Quinton and Smallbone, 2006) On one hand, it is exploratory because there is very little previous research done on the phenomenon of digital fashion, given its recent emergence. Hence, a significant amount of preliminary

study should be done. (Sekaran and Bougie, 2013) We aim to assess the information from a new perspective and generate advanced insights. On the other hand, the research establishes a relationship between the two variables, e-sports and digital fashion, thus leaning towards being also an explanatory study. The research follows the inductive approach, also known as the ‘building theory’, seeking patterns and developing a theory as a result of data collection. (Quinton and Smallbone, 2006) The chosen strategy grants the possibility of exploring the context, origins, as well as the human factor of both e-sports and digital fashion. (Blumberg et al., 2014) We proceed to construct a theory based on the findings derived from the analysis of small samples of data and observations that avoid large generalizations. (Saunders et al., 2009)

### 3.2 Research Strategy

The strategy behind the research is to feature several qualitative and quantitative primary data collection techniques: interviews, case studies, and a survey. (Kaiser and Green, 2016; Blumberg et al., 2014; Figure 8) The study is designed following the mixed-method approach in a parallel manner to ensure 3 independent data sources: e-sports experts, a digital fashion designer, and potential customers. As a result, triangulation was adopted, allowing us to compare and contrast different perspectives and recognize the limitations of each method. (Saunders et al., 2009) There will be seen the predomination of non-standardized qualitative data with some elements of quantitative data collection. (Myers, 2008) The time horizon of the research is cross-sectional, assessing the phenomenon at a particular time.

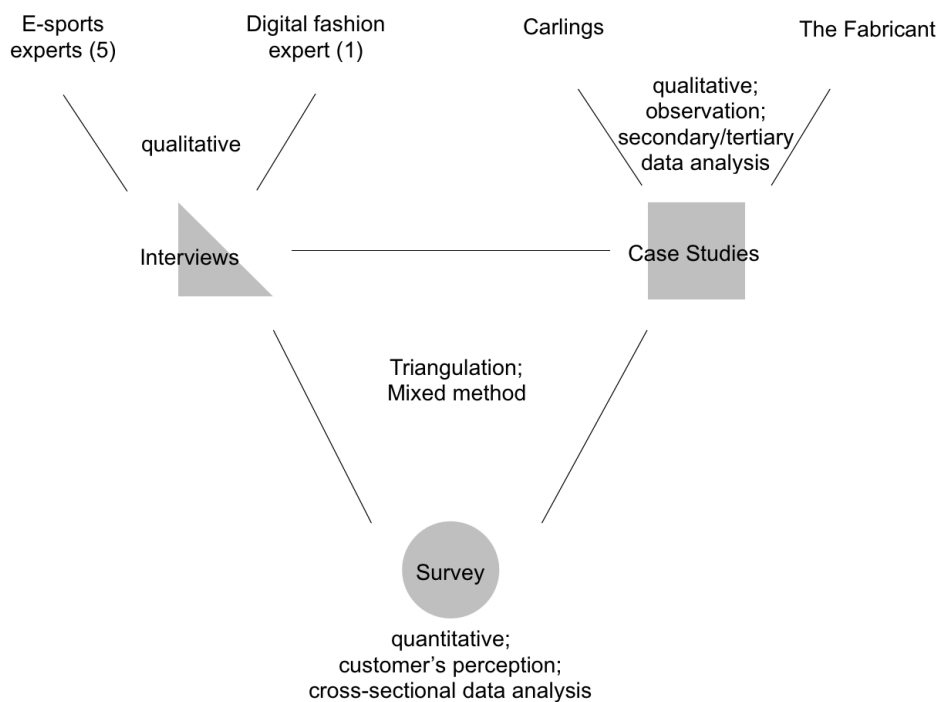


Figure 8: Research Strategy Design (Source: Mjasnikova, 2019)

#### 3.2.1 Interviews

The study features a total of 6 semi-structured and in-depth interviews with a set of open-ended and discovery-oriented questions around the themes of e-sports and digital fashion. The first questions asked were more of introductory nature, moving towards being more direct questions. (Blumberg et al., 2014)

The profile of the interviewees can be seen in Figure 9. Since the interviews had a non-standardized approach, new sub-topics of discussion emerged. The choice of conducting interviews across multiple fields was a strategic decision to obtain different perspectives and eliminate bias. While some interviews were conducted via email to avoid logistics problems and additional costs, others were done face-to-face because it allowed to make follow-up, specifying, and probing questions. (Blumberg et al., 2014)

<b>Interviewee</b>	<b>Position</b>	<b>Field</b>	<b>Type of Interview</b>
<b>Valerii Borovych</b>	CEO & Founder of 3 NRG; a partner in GAMEINSIDE- an agency that provides organizing and consulting services in the field of e-sport.	E-sports	Semi-structured, face-to-face @ 3 NRG Headquarters in Kyiv, Ukraine
<b>Alex Pasichnyk</b>	General Manager & Head of Projects Department in 3 NRG	E-sports	Semi-structured, face-to-face @ 3 NRG Headquarters in Kyiv, Ukraine
<b>Anton Tokarev</b>	An e-sports athlete known as 'WarLock'; Senior Community Manager in 'WePlay! Esports Newmedia Group'	E-sports	Semi-structured, face-to-face @ WePlay! Headquarters in Kyiv, Ukraine
<b>Yaroslav Shkiar</b>	e-sports athlete known as 'Smoke'	E-sports	Semi-structured, via email
<b>Max Bilonogov</b>	Executive Producer at 'WePlay! Esports Newmedia Group'	E-sports	In-depth interview @ WePlay! Headquarters in Kyiv, Ukraine @ WePlay! Headquarters in Kyiv, Ukraine
<b>Kerry Murphy</b>	The CEO and founder of 'The Fabricant'	Digital fashion	Semi-structured, via email

Figure 9: Overview of the Interviewees

### 3.2.2 Case Studies & Observation

To compensate for the literature gap that was identified on the topic of digital fashion, it was chosen to apply case studies as one of the methods of data collection. The studies explored 2 companies in the digital fashion industry: Carlings and The Fabricant. This is an empirical investigation that uses multiple sources of evidence. (Blumberg et al., 2014) Therefore, the studies analyzed the websites and press releases of the brands and integrated the method of observation to understand the process of purchasing the virtual goods first hand. Furthermore, company documents and social media pages were consulted to gain a full understanding of how digital garments are being communicated to the market. Several case studies that featured more than one evidence source improved the research quality and enabled critical comparison between the two companies, known as cross-case analysis. (Maylor and Blackmon, 2005)

### *3.2.3 Survey*

Finally, to obtain the quantitative data that portrays customer's perceptions and attitudes towards virtual goods and digital fashion, an online survey was created. The self-administrated questionnaire was made based on Google Form platform and shared via the social media of the researcher. (Appendix 7) This method of data collection provided sample accessibility, quick response time, and anonymity. (Blumberg et al., 2014) The survey enabled collecting a relatively large sample of data (156 participants) that was further analyzed in a cross-sectional way to establish a relationship between the variables. (Saunders et al., 2009; Appendix 8) The participants were asked a manageable amount of closed-ended questions with straightforward phrasing (Kaiser and Green, 2016), the answers to which were later processed in the Results and Discussion chapters. The questions were written in English, Russian and Chinese languages to obtain the maximum reach without being limited by only English-speaking parts of the world. All 10 questions were mandatory to answer before submitting the survey, ensuring maximum topic coverage. (Blumberg et al., 2014) The analysis of the data was based on the grounded theory, classifying information into findings and concepts. (Myers, 2008)

### *3.3 Ethical Issues*

The research paper complies with the academic ethical framework and ensures respect and the voluntary nature of participation required for the data collection. All the participants were informed about the nature of the study and given details about their decision to participate through the information sheet. Upon deciding to participate in the research, they agreed to the conditions for the disclosure of the information by signing the consent form. (Blumberg et al., 2014) All the information collected and the identities of the participants were stored securely and no data was misinterpreted or distorted. (Sekaran and Bougie, 2013)

### *3.4 Research Limitations*

It is important to state that the methodology encounters several limitations. Due to the newness of the topic, the previous academic studies only partially cover the subject. As a result, the study fills in the gap through primary research, however interview bias may affect the quality of the data collection. The sample size is another key factor because a non-sufficient number of units may not be used for making general statements. (Saunders et al., 2009) In terms of the interviews, only 1 out of 6 was conducted with a digital fashion expert. The researcher contacted the second digital fashion brand, Carlings; however, the interview request was officially declined. Lastly, the research had a constrained time frame.

## 4. Results

In the course of primary research, a large quantity of raw data was collected using a variety of methods described above. Thus, a series of patterns and common thought processes were observed, as well as a few contradictions. The following chapter classifies the qualitative data in themes and uses quantitative data to support or counter the argument. The major themes discussed are monetization, demographics of the industry, trendsetters, exclusivity & luxury, the process from production to the purchasing of the virtual garment, the findings of the case studies, and the approach to communication of digital fashion brands.

### 4.1 Monetization

The importance of monetization was a reoccurring topic of discussion during the interviews, as it lies among the main goals for businesses of any nature, as mentioned by Valerii Borovych, the CEO and founder of 3NRG – a company that creates and integrates marketing solutions in the e-sports industry. Mr. Borovych (2019) believes that gamers and fans of e-sports are currently monetized through their digital and in-game purchases. (Appendix 1) Furthermore, Anton Tokarev, an e-sports athlete and community manager in WePlay! Esports Newmedia Group (2019) revealed that around 85% of the prize pool for the international championship of *Dota 2* consisted of the money raised from the in-game cosmetic purchases, also known as ‘compendiums’. Another professional e-sports athlete and gaming enthusiast, Yaroslav Shkiar (2019), emphasized that the globalization of the movement and development of its technology occurred after the large sponsors’ investments. (Appendix 3) An alternative major source of monetization for the industry is the physical merchandise produced by game developers and professional teams (Borovych, 2019 in Appendix 1) that is particularly popular on the eve of the large tournaments. (Tokarev, 2019 in Appendix 2)

Paradoxically, while for e-sports digital goods represent the main source of monetization, the digital fashion company The Fabricant chose the ‘EFROP’ strategy, meaning a free file drop that aims to evoke the consumers’ interest in creating their virtual identity. (The Fabricant, 2019) The survey results revealed that 81% of people who never play video games would not spend money on a virtual garment. Interestingly, over half of the people who do consider themselves gamers and play between every day to once a month would pay real money for virtual fashion. (Figure 10)



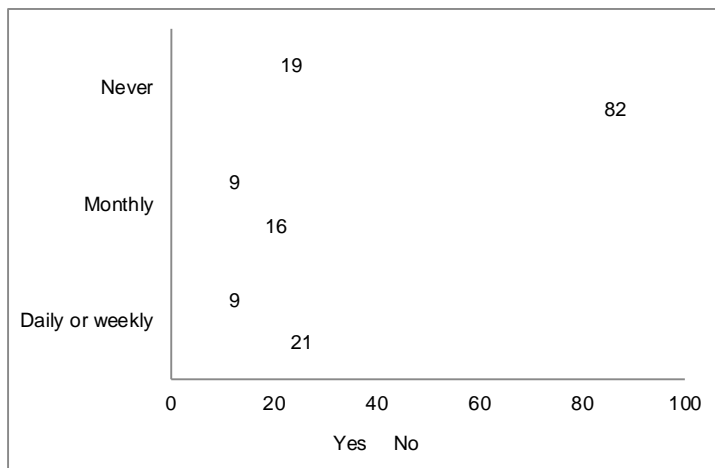


Figure 10: Willingness to pay real money for a virtual item (x-axes) vs. gaming frequency (y-axes)

#### 4.2 Demographics of the Industry

To understand the phenomenon, it is crucial to look at its demographics. Although the majority of the gaming audience is now between 12 and 16 years old, in 7 to 10 years this group will start to develop purchasing powers, so it is crucial for the brands to gain the trust of this community already today, believes Max Bilonogov (2019), the executive producer at WePlay! Esports Newmedia Group. (Appendix 4) The quantitative data collected from the online questionnaire confirms these statements, as the majority of the people who play video games daily or monthly belong to Generation Z or are Millennials. (Figure 11)

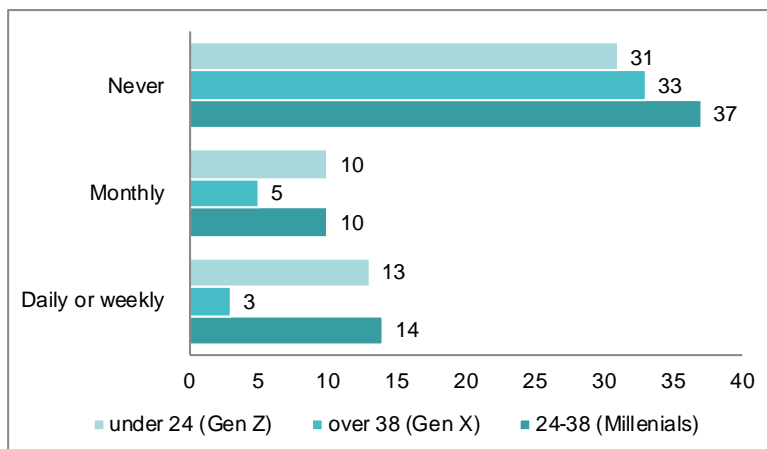


Figure 11: Age (x-axes) vs. gaming frequency (y-axes)

A key feature of these generations is their acquaintance with social media, as over half of them use these platforms to show their fashion looks and would want to have a digital twin in the virtual world. (Appendix 8.1) Similarly, Kerry Murphy (2019) told in his interview that 'GEN Z, early adopters, and trend-geeks' would be the first active consumers of a trend like digital fashion. (Appendix 5) While 58% of the surveyed were unfamiliar with the concept, those who were, were mainly represented by Millennials and Generation Z with 46% and 36% respectively. (Figure 12)

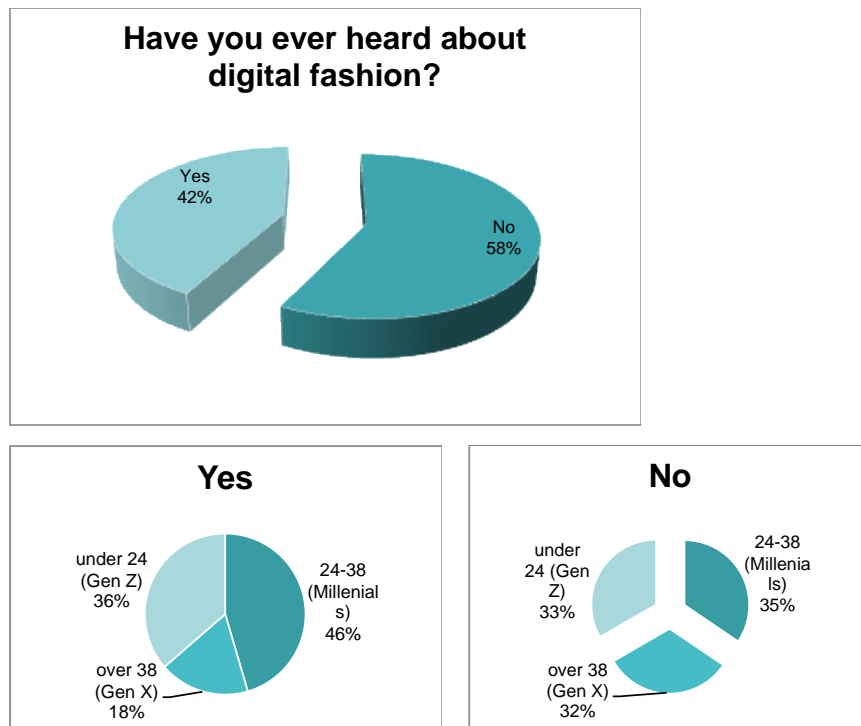


Figure 12: Acquaintance with the phenomenon of digital fashion.

#### 4.3 Trendsetters, Exclusivity & Luxury

We established that cyber athletes and gamers have become trendsetters in their community. Hence, Valerii Borovych (2019) theorized that influencers from the gaming industry have the potential to become brand ambassadors of digital fashion brands, as they ‘consume Internet products on a daily basis.’ (Appendix 1) The metaverse is no stranger to exclusivity and although skins do not give any advantage in the game, they are referred to as ‘IT fashion’, and are sold for large amounts of money. For example, a Middle Eastern player purchased a skin for his knife worth \$30 thousand (Tokarev, 2019 in Appendix 2), serving as a proof that ‘Digital codes translated into images have great value’ and gamers are willing to indulge into luxury purchases. (Borovych, 2019 in Appendix 1) We proceeded to illustrate that luxury customers hold a need to digitally showcase their purchases. For instance, the questionnaire answers unveiled that about half of the people who shop for luxury goods are likely to post their fashion on Instagram. (Figure 13)

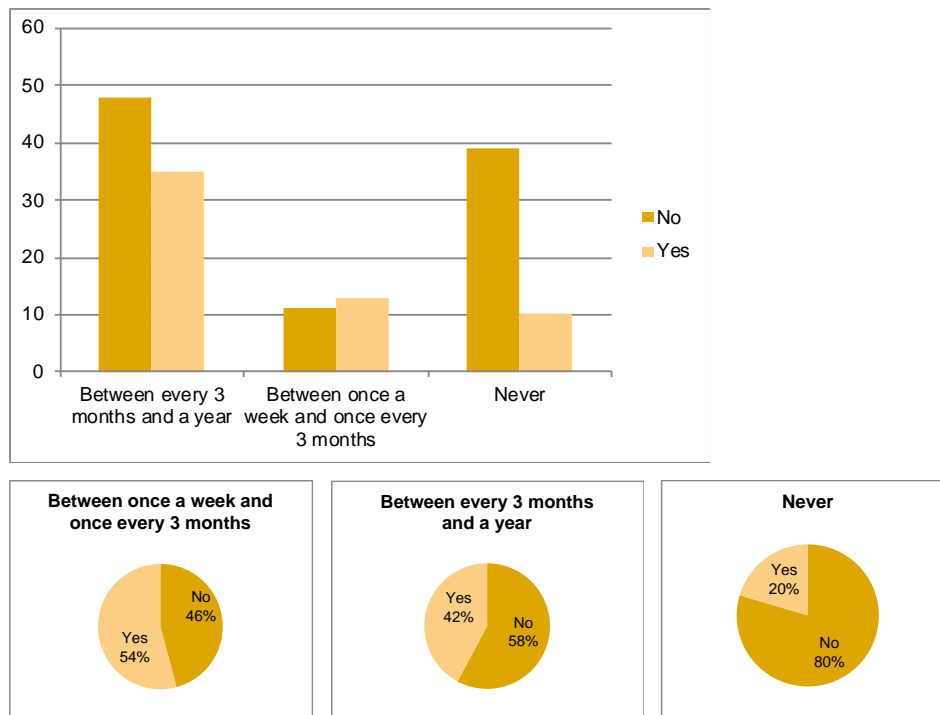


Figure 13: Willingness to showcase fashion on social media (y-axes) vs. luxury shopping frequency (x-axes)

#### 4.4 A Virtual Garment: from Production to Purchasing

The production of a virtual garment is done with as much craftsmanship as the traditional couture but using different tools, constructing the digital garment out of bits and bytes. (The Fabricant, 2019) Just like skins, the creation process involves modeling and texturing. The case studies of the 2 digital fashion brands highlighted their key similarities and differences. For example, Carlings provides the service of digital tailoring, meaning that the customers do not require having any skills in 3D modeling to be able to 'wear' the product. On the contrary, the free products of The Fabricant come with instructions on the installation of a rather complex 3D modeling program that needs to be manipulated by the client himself. (Appendix 6, Figure 14) It was chosen to summarize the findings of the two case studies in the table below (Figure 15), following the '7P Formula'. (Booms & Bitner, 1981)

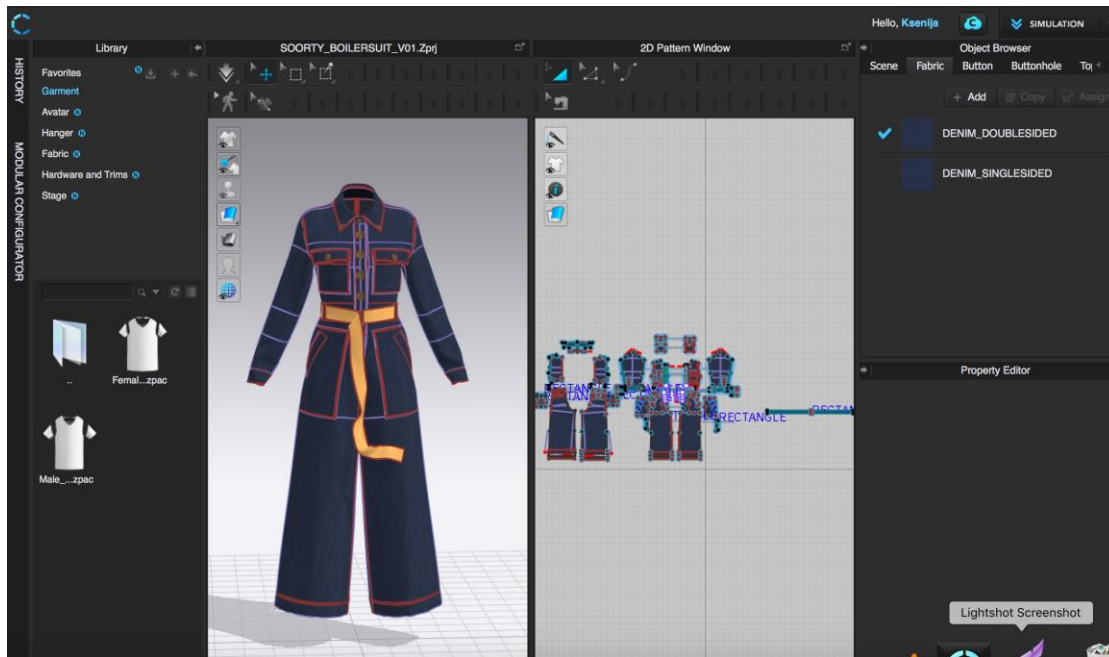


Figure 14: The view of the Soorty jumpsuit in CLO3D program. (Source: Mjasnikova, 2019)

	<b>Carlings</b>	<b>The Fabricant</b>
<b>Product</b>	Both physical (launched in 1979) and digital goods (2019)	Only digital goods (since 2019)
<b>Prices</b>	€10-30 per piece	Free of charge
<b>Promotion</b>	<p>Social media: 'zero environmental impact', 'all profits go to @wateraid), #adDRESSTHEFUTURE (Appendix 9.1)</p> <p>Print &amp; online media (e.g. ID, Vice, Vogue, etc.)</p> <p>Trend forecasting reports</p>	<p>Social media: short videos in movement, inclusivity, clothes of your dreams (Appendix 9.2)</p> <p>Print &amp; online media Collaborations (e.g. with I.T. (Hong Kong luxury fashion retailer), Soorty (sustainable denim brand), Fashion Innovation Agency (FIA) in London College of Fashion, UAL)</p>
<b>Place</b>	Online, over 200 stores in Norway, Sweden, and Finland (Wright and Handley, 2019)	Online only, headquarters in Amsterdam
<b>Packaging</b>	The digital photo is applied to the photo of the customer; physical packaging	Zip file that arrives via email (Appendix 6 Figure 9-10)
<b>Positioning</b>	Zero waste production; following the trend of digitalization; for the benefit of a non-profit organization, Water Aid	<p>'We are creative technologists pioneering new channels for human connection and self-expression through digital-only fashion.'</p> <p>Creators of the first digital couture. Inclusive and limitless</p>
<b>People</b>	Virtual & real influencers, celebrities, early adopters	Early adopters, virtual & real influencer, virtual clothes designers (e.g. @parth_clo3d)

Figure 15: Case Study of Carlings & The Fabricant According to 7Ps

#### 4.5 The Approach to Communication

Digital garments are not native for the non-gaming audience, so the success of the promotion of this product is highly dependent on the communication. (Borovych, 2019 in Appendix 1) The findings of the case studies highlighted the differences in the approach between the 2 brands. While both use Instagram as the main promotional platform, Carlings launched a campaign featuring several real and digital influencers

under the #adDRESSTHEFUTURE. (Appendix 9) The Fabricant, however, preferred focusing on strong corporate communication and a series of 3D modeling videos since the CEO started his career in film and visual effects. (The Fabricant, n.d.) The experts from e-sports comment that one of the crucial goals of communication should be highlighting the fact that digital clothing provides aesthetical and emotional pleasure to the buyer, just like the traditional fashion does. (Bilonogov, 2019 in Appendix 4) Lastly, one of the most frequently reoccurring themes within both communication strategies was digitalization. (Appendix 9) The effective spread of the digitalized fashion product is seeking to involve its native audience, as it was already done in other industries. (Arribas and Alfaro, 2016) For instance, the air forces of Denmark involve gamers, as by playing video games they have already acquired the skills necessary for the digitalized industry. (Borovyh, 2019 in Appendix 1)

## 5. Discussion

The Discussion chapter is focused on intertwining the results from the primary research with literature sources and theories. This section examines the advantages and disadvantages of digital fashion as well as its relationship with the e-sports industry. Hence, the topics discussed are as followed: consumption & sustainability; the marketing-based approach to the implementation of digital fashion into gaming; the future opportunities for the fashion industry; the relationship between gaming, traditional and digital fashion; potential threats of the virtual world and digital fashion.

### 5.1 Consumption & Sustainability

When discussing the competitive advantages of digital fashion, a lot of emphasis is put on it being a sustainable alternative to the current business models in fashion. (McDowell, 2019) It was found that close to 1 in 10 shoppers acknowledges buying clothes with the only reason of posting photos in them on social media and returning them afterward. (Barclaycard, 2018) Similarly, the survey revealed that people who do use social media to show their fashion looks are more likely to buy an item of clothing just to take a photo in it and never use the garment anymore (34% and 26% respectively). (Figure 16)

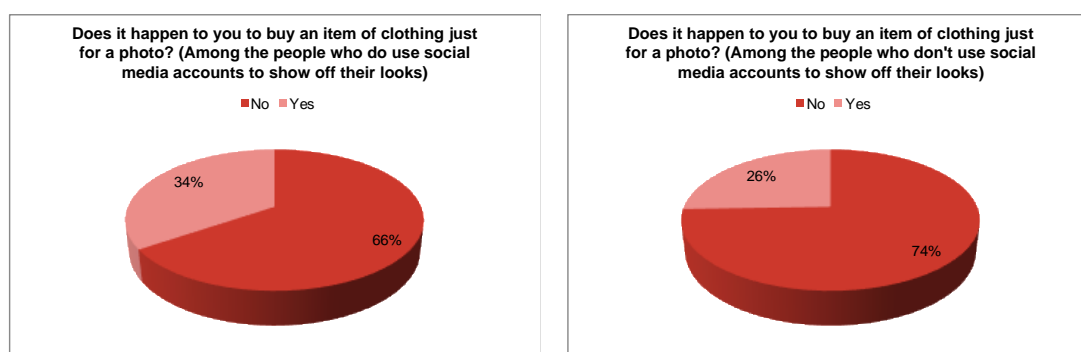


Figure 16: The relationship between overconsumption and the use of social media to showcase fashion looks

Some garments become discarded before being worn. (Chapman, 2005) This depreciation of goods has been happening since the industrial production of the 1950ies, and it has been increasing ever since. (The

True Cost, 2015; Fletcher and Hawken, 2011) To a certain extent, the emergence of digital fashion occurred as a result of a need for metamorphosis in the structures of the society. The process is described by Aldrich et al. (1984, cited in Scholz, 2019) and it contains 3 stages: variation, selection, and retention. Thus, selection happens when the most adequate business model survives, leading to the eventual disappearance of other organizations. Naturally, 'Wearing clothes is inevitable' (Carlings, 2019:online), however, the industry may strive to minimize the negative effect on the environment.

## *5.2 Marketing-Based Approach*

According to Kotler and Keller (2016), the underlying principle of marketing lies in determining and addressing human and social needs that constantly evolve in the environment fueled by the Internet and technology. To build successful marketing strategies the 'STP' formula is used, known as market segmentation, targeting, and positioning. First, it is essential to identify the group of people who has different needs and desires. Once the market segment is selected, it is required to establish and communicate the appropriate benefits that will attract the chosen target. (Kotler and Keller, 2016; Lancaster and Massingham, 2011) Valerii Borovych (2019) states, 'Gamers are one of the main potential consumers of such a product as digital clothing because for them it is native.' The members of this community have a habit of regularly purchasing various virtual goods. The e-sports industry expert also points out that there are currently very few brands on the market that are specifically targeting the large audience of e-sports. (Appendix 1) The segmentation is considered effective when there can be seen a shared pattern of demand within the customer group (Lancaster and Massingham, 2011) and the e-sports audience represents just that. As a result, the industry of digital fashion could take advantage of the entire e-sports audience, which is made out of teams, players, streamers, and sponsors. (Shkiar, 2019 in Appendix 3)

## *5.3 A Look into the Future: Synthetic Fashion Show*

In the interview, Max Bilonogov (2019) theorized ways in which digital fashion could be enforced inside the virtual world of video games based on his experience in the industry and some already existing cases. (Appendix 4) He begun to brainstorm by bringing up the success of a digital concert of Marshmello, an American DJ, that took place in a famous third-person shooter game *Fortnite*. (Gerken, 2019) With over 125 million players watching Marshmello's avatar perform, Mr. Bilonogov noted that people keep spending more time in the virtual world. According to him, a collaboration with a brand from the fashion industry would have been a huge success. His predictions turned out to be true, as several weeks later Riot opened the World Championship of *League of Legends* with a holographic concert. The performance featured an in-game musical band, wearing the skins of Louis Vuitton, singing alongside real artists. (Webster, 2019) As the conversation proceeded, Mr. Bilonogov (2019) discussed a possibility of a 'synthetic fashion show'. The event would imply real models walking the runway alongside the holographic avatars of the in-game



characters, wearing the same pieces from the collection. Just like the concert, a fashion show could be both live and streamed in the virtual world, for example on Twitch. (Appendix 4)

### 5.3.2 Fashion and Gaming Synergy

As illustrated above, the union of fashion and gaming creates a fascinating synergy. Since gamification taps into motivational psychology (Merino de Paz, 2013), fashion houses create branded games. For instance, one of the latest fashion games, *B Bounce*, was developed by Burberry. The game enables players to achieve their goals through digital engagement (Burke, 2014) and win custom GIFs or even a puffer jacket from the new collection. The vice president of the digital marketing of the brand emphasized that the developers focused on making the game simple, for it to be easily understandable for a wide non-gaming audience. (Alexander, 2019)

A more advanced gaming example that experiments with the digital clothing trend is *Drest*, a fashion styling gaming application launched in 2020. The startup recruited 100 fashion brands where, like in e-sports, players will be able to create and customize their avatars. *Drest* users may buy in-game currency to purchase designer skins or their real clothing alternatives by being redirected to retailers' websites. (McDowell, 2019)

### 5.4 The Relationship Between Physical, Gaming, and Digital Fashion

The research material enabled to systemize the relationship between the three main variables in the Venn diagram below. This useful educational tool, first introduced by an English logician John Venn in the 1800s, (Kenton, 2019) provides a pictorial representation of similarities and differences between physical fashion, gaming fashion, and digital fashion. (Figure 17) Physical fashion implies traditional clothes and accessories; gaming fashion refers to new gear and fashion on video games; digital fashion, as established above, are garments made out of codes that exist only as a filter with The Fabricant being an example of a purely digital fashion brand.

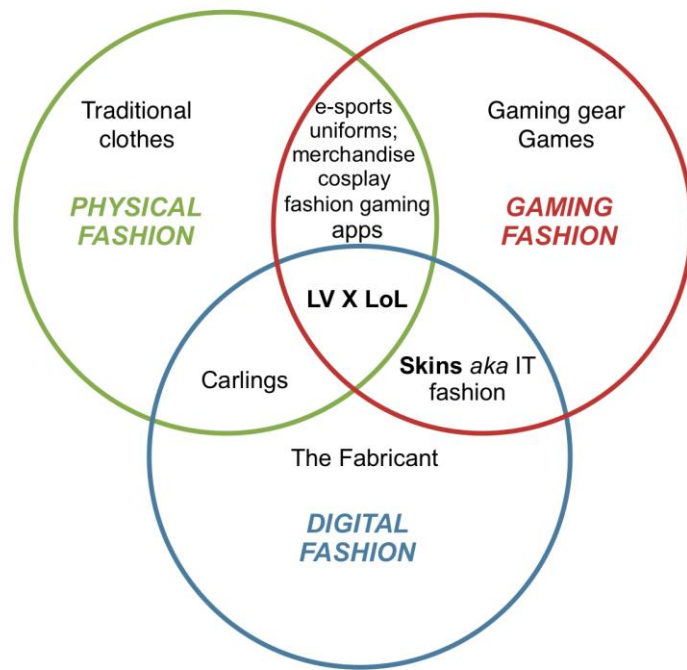


Figure 17: Venn Diagram Illustrating the Logical Relation Between Physical, Gaming and Digital Fashion (Source: Mjasnikova, 2019)

The merge between physical and gaming fashions gave rise to e-sports uniforms, often done in collaborations with world-known sportswear brands like Nike. (Nike, 2019; Reames, 2019). The area where the 2 sets overlap also includes players' and teams' merchandise, and cosplay, where people create costumes and dress up to look like their favorite characters. (Tokarev, 2019 in Appendix 2) In addition, this category includes fashion gaming apps like *Drest* that motivate the users to shop using digitalization and gamification. (McDowell, 2019) Consequently, in the union between gaming and digital fashion there are skins, also referred to as IT fashion within the game. Furthermore, a Scandinavian retailer Carlings chose to merge the physical and digital fashion by introducing a digital collection to go alongside its material goods. (Carlings, 2019) The CEO of the brand, Ronny Mikalsen (2019), publicly states that the concept behind the digital collection was largely inspired by video games like *Fortnite* and the notion of dressing your avatar. (Cited in Wright and Handley, 2019) Lastly, there is an area where all three circles overlap – the business opportunity that Louis Vuitton was the first to see by collaborating with the *League of Legends* game. (Matthiesen, 2019; Louis Vuitton, 2019) This central area, taken up by the recent collaboration, partly belongs to the physical fashion, as the capsule collection will be available in real stores, gaming fashion because skins will be available within the game, and, evidently, digital fashion.

### 5.5 Potential Threats: Violence, Addiction & Security

One of the most common surmises about the virtual world and video games is the real-world violence that is supposedly provoked by computer games. (Markey et al., 2015) The experimental studies and researches in the field of psychology and human behaviors deduced that both in long and short-term there is no

evidence to assume a correlation between the two. (Kühn et al., 2018) On the contrary, the results of the studies suggest that there is a decrease in violent crime as a result of violent video games. (Markey et al., 2015) The adepts in the video gaming industry confirm the results of the study, stating that gaming is a chance for a person to release negative emotions. (Borovych, 2019 in Appendix 1) Moreover, it has been proved that video games have many positive applications, offering social, educational, emotional and social benefits. (Granic et al., 2014 cited in Hafeez et al., 2015)

Nevertheless, Mr. Borovych and Mr. Pasichnyk recognize that the virtual world may be just as addictive as substance use, especially for the younger generation. The neural connections in the brains of younger people are formed under the influence of technology from birth. Hence, there is a need for parental supervision and a responsible approach to avoid psychologic dependency. (Pasichnyk, 2019 in Appendix 1) The warning indicators of negative psychological signs include withdrawal feeling, loss of interest towards other activities uncontrolled behavior, panic, stress or anxiety. (Hafeez et al., 2015)

To ensure that the virtual world remains a friendly and secure setting for thriving businesses and online communities, it is important to protect the interest of its members. (Lee, 2009) Since computer-generated platforms accumulate huge amounts of data about people, they must ensure informational, physical and associational privacy. (O'Brolcháin et al., 2014) On one hand, the virtual world favors autonomy, as it allows for the most authentic self-expression. However, on the other hand, cyberspace could potentially have a risk of social conformity as well as distorted information. (O'Brolcháin et al., 2014) Furthermore, avatars may become subjects to identity theft, which calls for the implementation of secure mechanisms of authentication. (Lee, 2009) The immersive virtual worlds may also be designed in a manipulative way, subtly making certain ideas more appealing than others. (O'Brolcháin et al., 2014) The e-sports experts stress that virtual world is a powerful tool for the government to conduct information policy and just like traditional media it could be abused. (Borovych, 2019 in Appendix 1)

#### *5.5.1 Transparency and Exclusivity*

From the business perspective, there needs to be payment and transaction transparency. Hence, it is necessary to eliminate the chances of fraudulent financial activities or virtual crimes. (Lee, 2009) One of the solutions for these problems was discussed with Mr. Murphy, who talked about his collaboration with Lukso. The Berlin-based blockchain startup is currently working with The Fabricant on unique identification numbers that will protect the pieces of digital couture. (Murphy, 2019 in Appendix 5; Zha, 2019)

The last concern of the luxury fashion world in terms of digital fashion is the concept of exclusivity. Since the average price of in-game skins is around \$10-20, luxury *Maisons* fear for their exclusive image. (Liao, 2019) It was one of the reasons why The Fabricant did not risk integrating digital fashion into gaming but

instead chose to 'develop a new industry (...) mimicking the beauty of the traditional fashion industry.' (Murphy, 2019 in Appendix 5)

### *5.6 Transcendence: A Philosophical Approach*

To a certain extent the virtual world, entirely created by the power of human imagination, draws a parallel to the real world and its Creator. The cyberspace puts a human on a pedestal, suggesting that he is the 'higher being', as the avatar does not know who controls him. Games can be viewed as simplified simulations of real life, where it is necessary to perform every-day tasks that vary depending on the nature of the game. Evidently, fashion is often a vital component of these tasks. (Borovych, 2019 in Appendix 1) Jean Baudrillard (1996) emphasizes that virtual reality eliminates all the imperfections and problems that real life holds to what he refers to as 'the perfect crime'.

At the current stage of technological evolution, the in-game scenarios are relatively simplified, however, the computer-generated universe is unlimited. In his book, *The Limits of Thought*, the philosopher Graham Priest (1995:233) states, 'In exploring the limit, one perforce finds oneself on the other side.' He supports his claim by quoting the Enlightenment philosopher, G. W. F. Hegel, '(...) the very fact that something is determined as a limitation implies that the limitation is already transcended.' (Hegel, 1812:134 cited in Priest, 1995). *Ergo*, the imaginary world appears powerful from both social and economic points of view and is arguably limitless. Yet, there is a paradox that makes cyberspace fragile: the moment the power goes off, it disappears. (Shkiar, 2019 in Appendix 3) Perhaps someone could just as easily turn off our world?

## **6. Conclusion**

The technological innovations hold a lot of opportunities for the operation of the fashion industry as well as social systems. (Kotler and Keller, 2016)

### *6.1 E-sports' Community: An Unexplored Target*

We argued that the rising phenomenon of digital fashion could be implemented through the existing e-sports community because these people are used to consuming digital products. (Borovych, 2019 in Appendix 1) The present findings indicate that the pioneers in digital fashion were inspired by skins, first introduced in video games. These aesthetical elements were created for the avatars and purchased within computer games with real money. (Wright and Handley, 2019) The community of gamers is already a large, well-established, structured, digitally connected, and purchase-oriented target with a common demand pattern. (Lancaster and Massingham, 2011). Therefore, it is possible there is a potential success in building an effective marketing strategy to promote digital fashion through this unexplored community. (Pasichnyk, 2019 in Appendix 1)

## 6.2 The Impact of E-sports on Fashion

The paper established multiple ways in which e-sports influence contemporary fashion practices, such as merchandise, e-sports' teams' uniforms, cosplay, fashion gaming apps, and in-game skins themselves. (Figure 17) Moreover, we consulted various behavior theories that suggested the fact of almost everyone being a gamer by nature (Wharton University of Pennsylvania, 2011; McKinsey&Company, 2011), as the stimulations involved in this activity satisfy 4 out of 5 layers of the human needs. (Maslow, 1943) The process of gamification has been taking different industries by storm because it is based on motivational psychology. (Deterding et al., 2011; Merino de Paz, 2013; Häggglund, 2012) While fashion has been experimenting with this concept, it could go much deeper to be able to interact with the customers on the level of neural connections.

## 6.3 Opportunities and Threats

Like any phenomenon, the implementation of digital fashion has its opportunities and threats and we shed light on both sides of the coin, summarizing them in Figure 18. Not only do digital collections significantly reduce the environmental impact, but they are also genderless and available in any size. Other competitive advantages include the increased opportunity for creativity, as well as being cost-effective and a safe way to allow people to conduct fashion experiments that they would not dare to in real life. (Murphy, 2019 in Appendix 5; Semic, 2019; McDowell, 2019) However, the application of digital fashion does come with potential threats. Hence, some of them comprise a possible addiction to hyperreality, the lack of transaction transparency, weak security of the identity of the user and his avatar, new skills required for the designer, and the loss of the exclusive image of luxury *Maisons*. (O'Brolcháin et al., 2014; Lee, 2009; Liao, 2019)

<b>Opportunities</b>	<b>Threats</b>
Sustainable (Carlings, 2019; The Fabricant; Semic, 2019; Appendix 5)	Designers require new skills in 3D modeling (McDowell, 2019; Genova and Moriwaki, 2016)
Limitless creativity (The Fabricant, 2019; Zha, 2019)	Cannot fully replace traditional fashion (Calings, 2019)
For the e-sport audience, digital fashion is a native product (Appendix 1)	Possible addiction to the virtual world (Appendix 1; Hafeez et al., 2015)
Genderless (Carlings, 2019)	The lack of payment transparency (O'Brolcháin et al., 2014; Lee, 2009)
Available in any size (Carlings, 2019)	Privacy violation and identity theft (Lee, 2009)
Safe space for experimenting with fashion (Appendix 5)	Not everyone is yet ready to spend real money on virtual goods (Appendix 9)
Cost-effective (Appendix 5)	The potential loss of exclusivity for luxury brands (Liao, 2019)
A chance for the luxury brands to capture the attention of the younger audience to avoid being outdated in the future (Appendix 4)	

Figure 18: Overview of the opportunities and threats

The answer to whether or not digital fashion could transcend the physical body is rather ambiguous and philosophical. On one hand, it does because virtual garments are meant for avatars in cyberspace. (Kim et al., 2009; Lieber, 2019) However, on the other hand, wearing some sort of clothing is inescapable. The core concept behind digital fashion is not to replace the real world with the virtual but rather to intertwine the two together, adding a new dimension and capturing the contemporary zeitgeist.

### 6.3 Further Research

It is worth noting that the study encountered some limitations mentioned in the Methodology chapter. Future researches are required to validate the conclusions stated in this paper and expand on them. Therefore, it is advised to analyze the role of digital fashion in the contemporary society as a whole and examine the presented findings in a longitudinal study with larger sample size. Overall, the possibility of exploring different angles of observation such as IT, economics, psychology, sociology, and philosophy warrants further investigations, exposing the rewarding potentials of these still untouched areas of research.

## 7. References

Alexander, E. (2019) *Burberry launches its first fashion game and it's very addictive*. Harper's Bazaar. [Online] [Accessed on 29<sup>th</sup> November 2019] <https://www.harpersbazaar.com/uk/fashion/fashion-news/a29532461/burberry-launches-its-first-fashion-game/>

Anegyll (2019) *@anegyll wearing Carlings digital collection*. Instagram. [Online Image] [Accessed on 26<sup>th</sup> November 2019] [https://www.instagram.com/p/BqKHi1\\_guDk/](https://www.instagram.com/p/BqKHi1_guDk/)

Arribas, V. and Alfaro, J. A. (2016) 'Digital transformation of a small fashion house: a PLM implementation.' In GFC. *Proceedings of the Global Fashion Conference, 20<sup>th</sup>-21<sup>st</sup> October*. Stockholm, Sweden. [Online] [Accessed on 12<sup>th</sup> September 2020] [http://gfc-conference.eu/wp-content/uploads/2017/01/ARRIBAS\\_AND\\_ALFARO\\_Digital\\_transformation\\_of\\_a\\_small\\_fashion\\_house-A\\_PLM\\_implementation.pdf](http://gfc-conference.eu/wp-content/uploads/2017/01/ARRIBAS_AND_ALFARO_Digital_transformation_of_a_small_fashion_house-A_PLM_implementation.pdf)

Arodit Market Research (2019) *Rising Popularity Of Social Networks Gaming To Drive The Virtual Goods Market At A CAGR Of 22.3%*. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://www.adroitmarketresearch.com/press-release/virtual-goods-market>

Barclaycard (2018) *Snap and send back*. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://www.home.barclaycard/media-centre/press-releases/snap-and-send-back.html>

Baudrillard, J. (1981) *Simulacra and Simulation*. Translated by S. F. Glaser, 1994. Michigan: The University of Michigan Press.

Baudrillard, J. (1996) *A Perfect Crime*. Translated by C. Turner, 1996. London: Verso.

Belk, R. W. (2013) 'Extended Self in a Digital World.' *Journal of Consumer Research, Inc.*, 40(3), pp. 477-500.



Blumberg, B. F., Cooper, D. R. and Schindler, P. S. (2014) *Business Research Methods*. 4<sup>th</sup> ed. Berkshire: McGraw-Hill Education.

Booms, B. H. and Bitner, M. J. (1981) *Marketing Strategies and Organizational Structures for Service Firms*. Chicago: American Marketing Association.

Bryman, A. (2012) *Social Research Methods*. 4<sup>th</sup> ed. Oxford: Oxford University Press.

Burke, B. (2014) *Gamify. How Gamification Motivates People To Do Extraordinary Things*. 1<sup>st</sup> ed. New York: Bibliomotion.

Canossa, A., Azadvar, A., Harteveld, C., Drachen, A., and Deterding, S. (2019) 'Influencers in Multiplayer Online Shooters: Evidence of Social Contagion in Playtime and Social Play.' *In CHI Conference on Human Factors in Computing Systems Proceedings (CHI 2019)*. Glasgow, Scotland, May 4<sup>th</sup> – 9<sup>th</sup>. New York: Association for Computing Machinery (ACM) [Online] [Accessed on 14<sup>th</sup> November 2019] <https://doi.org/10.1145/3290605.3300489>

Carlings (2019) *Questions & Answers*. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://digitalcollection.carlings.com/faq>

Casta, P. (2019) *Louis Vuitton's Travel Case for the Summoner's Cup*. Hyperbeast. [Online Image] [Accessed on 15<sup>th</sup> November 2019] <https://hypebeast.com/2019/11/louis-vuitton-league-of-legends-trophy-case-interview>

Castronova, E. (2002) *On Virtual Economy*. CESifo Working Paper No. 752. [Online] [Accessed on 14<sup>th</sup> November 2019] [https://www.researchgate.net/publication/4811957\\_On\\_Virtual\\_Economies](https://www.researchgate.net/publication/4811957_On_Virtual_Economies)

Chapman, J. (2005) *Emotionally Durable Design. Objects, Experiences & Empathy*. 2<sup>nd</sup> ed. London: Earthscan.

Cleghorn, J. and Griffiths, M. D. (2015) 'Why do gamers buy 'virtual assets'? An insight in to the psychology behind purchase behaviour.' *Digital Education Review*, 27, June, pp. 86-104. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://files.eric.ed.gov/fulltext/EJ1065003.pdf>

Dal, Y. J. (2010) *Korea's Online Gaming Empire*. 1<sup>st</sup> ed. Cambridge: The MIT Press.

Debord, G. (1967). *The Society of the Spectacle*. New York: Zone Books.

Deloitte. (n.d.) *What is digital economy? Unicorns, transformation and the internet of things*. [Online] [Accessed on 26<sup>th</sup> July 2019] <https://www2.deloitte.com/mt/en/pages/technology/articles/mt-what-is-digital-economy.html>

Deterding, S., Dixon, D., Khaled, R., and Nacke, L. (2011) 'From Game Design Elements to Gamefulness: Defining "Gamification".' *MindTrek. Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments*, 9<sup>th</sup>-15<sup>th</sup> November. [Online] [Accessed on 12<sup>th</sup> November 2019] [https://www.researchgate.net/publication/230854710\\_From\\_Game\\_Design\\_Elements\\_to\\_Gamefulness\\_Defining\\_Gamification](https://www.researchgate.net/publication/230854710_From_Game_Design_Elements_to_Gamefulness_Defining_Gamification)

Driskell, R. B. and Lyon, L. (2002) 'Are Virtual Communities True Communities? Examining the Environments and Elwmwnts of Community'. *City & Community*, 1(4) pp. 373-390. [Online] [Accessed on 7<sup>th</sup> July 2019] [http://humanmount.com/wp-content/uploads/teachpress/course\\_1/virtual-comunities.pdf](http://humanmount.com/wp-content/uploads/teachpress/course_1/virtual-comunities.pdf)

Ducheneaut, N., Yee, N., Nickell, E., Moore, R. (2006). “‘Alone Together?’ Exploring the Social Dynamics of Massively Multiplayer Online Games.’ In CHI 2006. *Proceedings of the Conference on Human Factors in Computing Systems*. Montréal, Quebec, Canada, April 22<sup>nd</sup>-27<sup>th</sup>. New York: Association for Computing Machinery (ACM), pp. 407-416. [Online] [Accessed on 12<sup>th</sup> November 2019] [http://www.nickyee.com/pubs/Ducheneaut,%20Yee,%20Nickell,%20Moore%20-%20Alone%20Together%20\(2006\).pdf](http://www.nickyee.com/pubs/Ducheneaut,%20Yee,%20Nickell,%20Moore%20-%20Alone%20Together%20(2006).pdf)

Eco, U. (1973) *Travels in Hyperreality: Essays*. Translated by W. Weaver. San Diego, New York, London: A Helen and Kurt Wolff Book, Harcourt Brace Jovanovich.

Electronic Arts (2019) *Moschino x Sims 4 Collection*. [Online Image] [Accessed on 29<sup>th</sup> November 2019] <https://www.ea.com/it-it/games/the-sims/the-sims-4/news/moschino-collection>

ESI Esports Insider (2019) *Nike Air Jordans are now available in Fortnite*. [Online Image] [Accessed on 29<sup>th</sup> November 2019] <https://esportsinsider.com/2019/05/epic-games-launches-fortnite-and-nike-air-jordans-crossover/>

Fletcher, K. and Hawken, P. (2011). *Fashion & Sustainability Design for Change*. 1<sup>st</sup> ed. London: Laurence King Publishing Ltd.

Fogg, B. J. (2003) *Persuasive Technology: Using Computers to Change What We Think and Do*. 1<sup>st</sup> ed. San Francisco: Morgan Kaufmann Publishers.

Fortune Magazine (2019) *Louis Vuitton Partners With League of Legends for World Championship*. [Online video] [Accessed on 12<sup>th</sup> November 2019] <https://www.youtube.com/watch?v=3T7DhI-RzFI>

Genova, A. and Moriwaki K. (2016) 1<sup>st</sup> ed. *Fashion and Technology. A Guide to Materials and Applications*. New York: Bloomsbury Publishing.

Gerken, T. (2019) *Fortnite: ‘Millions attend’ virtual Marshmello concert*. BBC. [Online] [Accessed on 29<sup>th</sup> November 2019] <https://www.bbc.com/news/blogs-trending-47116429>

Gough, C. (2019) *eSports audience size worldwide from 2012 to 2022, by type of viewers (in millions)*. Statista. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://www.statista.com/statistics/490480/global-esports-audience-size-viewer-type/>

Gough, C. (2019) *eSports Market – Statistics & Facts*. Statista. [Online] [Accessed on 7<sup>th</sup> July 2019] <https://www.statista.com/topics/3121/esports-market/>

Grimmelmann, J. (2006) ‘Virtual Borders: The Interdependence of Real and Virtual Worlds’. *First Monday*. 11(2) [Online] [Accessed on 26<sup>th</sup> July 2019] <https://firstmonday.org/ojs/index.php/fm/article/view/1312/1232>

Hafeez, M., Dawood Idrees, D., and Kim, J. Y. (2015) ‘Game Addiction: A Brief Review.’ *International journal of Science Engineering and Research (IJSER)* 5(10) pp. 99-104.

Häggglund, P. (2012) *Taking gamification to the next level. A detailed overview of the past, the present and a possible future of gamification*. B.S.c. Umeå University.

Hall, J. (2018) *What is digital clothing?* I-D. [Online] [Accessed on 4<sup>th</sup> July 2019] [https://i-d.vice.com/en\\_uk/article/wj3jy9/what-is-digital-clothing](https://i-d.vice.com/en_uk/article/wj3jy9/what-is-digital-clothing)

- Hallebone, E. and Priest, J. (2009) *Business and Management Research: Paradigms and Practices*. 1<sup>st</sup>. ed. New York: Palgrave Macmillan.
- Hamari, J. and Sjöblom, M. (2016) 'What is eSports and why do people watch it?' *Internet Research*, 27(2) pp. 211-232.
- Higherthanfashion (2019) *@higherthanfashion wearing Carlings digital collection*. Instagram. [Online Image] [Accessed on 26<sup>th</sup> November 2019] <https://www.instagram.com/p/BqxGoy1gGPI/>
- Hosterman, A. R. (2013) *Living in the Age of the Unreal: Exploring Baudrillard's Theory of Hyperreality in the Graphic Narrative*. Ph.D. Texas Tech University.
- Jekkuberglund (2019) *@jekkuberglund wearing Carlings digital collection*. Instagram. [Online Image] [Accessed on 26<sup>th</sup> November 2019] <https://www.instagram.com/p/BqKe1amhe0z/>
- Jirkavinse (2019) *@jirkavinse wearing Carlings digital collection*. Instagram. [Online Image] [Accessed on 26<sup>th</sup> November 2019] <https://www.instagram.com/p/BqKerMULatI/>
- Johwska (2019) *@johwska modeling the first digital haute couture piece from The Fabricant*. Instagram. [Online Image] [Accessed on 26<sup>th</sup> November 2019] <https://www.instagram.com/p/BxOKG6oFhmT/>
- Jung, Y. and Pawlowski, S. D. (2014) 'Understanding consumption in social virtual worlds: A sensemaking perspective on the consumption of virtual goods' *Journal of Business Research*. 67(10), pp. 2231-2238. [Online] [Accessed on 13<sup>th</sup> November 2019] <https://doi.org/10.1016/j.jbusres.2014.01.002>
- Kaiser, S. B. and Green, D. N. (2016) 'Mixing Qualitative and Quantitative Methods in Fashion Studies.' In Jenss, H. (ed.) *Fashion Studies: Research Methods, Sites and Practices*. London: Bloomsbury, pp. 160-180.
- Kenton, W. (2019) *Venn Diagrams*. Investopedia. [Online] [Accessed on 27<sup>th</sup> November 2019] <https://www.investopedia.com/terms/v/venn-diagram.asp>
- Kim, H., Koh, J. and Lee H. L. (2009) 'Investigating the Intention of Purchasing Digital Items in Virtual Communities.' *PACIS 2009*. [Online] [Accessed on 7<sup>th</sup> July 2019] <http://aisel.aisnet.org/pacis2009/18>
- Klézl, V., Rebrošová, K., and Vyhlídalová, M. (2018) 'What Drives Gamers To Buy Virtual Goods? A Comparative Study Of European Gamers'. In: ICEI. *Proceedings of the 4th International Conference on European Integraion 2018*. VŠB - Technical University of Ostrava, 2018, Staníčková, M, L. Meleck., E. Kovářová and K. Dvoroková (eds.) pp. 729-738.
- Kobia, C. M. (2011) *Examining teen girls' fashion behavior in the virtual and the real world: an exploratory study*. M.A. Louisiana State University.
- Koksal, I. (2019) *Video Gaming Industry & Its Revenue Shift*. Forbes. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://www.forbes.com/sites/ilkerkoksal/2019/11/08/video-gaming-industry--its-revenue-shift/#79eeca7663e5>
- Kotler, P. and Keller K. L. (2012) *Marketing Management*. 15<sup>th</sup> ed., Harlow: Pearson.
- Kühn, S., Tycho Kugler, D., Schmalen, K., Weichenberger, M., Witt, C., and Gallinat, J. (2018) 'Does playing violent video games caouse aggression? A longitudinal intervention study.' *Molecular Psychiatry*. 24. [Online] [Accessed on 28th November 2019] <https://www.nature.com/articles/s41380-018-0031-7>

Lancaster, G. and Massingham, L. (2011) *Essentials of Marketing Management*. 2<sup>nd</sup> ed. New York: Routledge.

League of Legends (2019) *Louis Vuitton Joins Worlds 2019*. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://nexus.leagueoflegends.com/en-us/2019/09/louis-vuitton-joins-worlds-2019/>

Lee, C. Y. (2009) 'Understanding Security Threats in Virtual Worlds' In Americas Conference on Information Systems (AMCIS). *Proceedings of the Fifteenth Americas Conference on Information Systems*. Paper 466. San Francisco, California, 6<sup>th</sup> – 9<sup>th</sup> August. [Online] [Accessed on 28<sup>th</sup> November 2019] <http://aisel.aisnet.org/amcis2009/466>

Lehdonvirta, V. (2009) 'Virtual item sales as a revenue model: identifying attributes that drive purchase decisions.' *Electronic Commerce Research*. 9, pp. 97-113. [Online] [Accessed on 12<sup>th</sup> November 2019] DOI 10.1007/s10660-009-9028-2

Lehdonvirta, V. And Erkvist, M. (2011) *Converting the Virtual Economy into Development Potential: Knowledge Map of the Virtual Economy*. Washington: World Bank/infoDev.

Liao, S. (2019) *Luxury brands are working with video games. Louis Vuitton is the latest to get in the act*. CNN Business. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://edition.cnn.com/2019/09/23/tech/luxury-brands-video-games/index.html>

Licensing International (2018) *How Brands are Making Real Money Selling Virtual Goods*. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://licensinginternational.org/news/how-brands-are-making-real-money-selling-virtual-goods/>

Lieber, C. (2019) *Would You Buy a Virtual Pair of Nikes?* Business of Fashion. [Online] [Accessed on 9<sup>th</sup> July 2019] <https://www.businessoffashion.com/articles/fashion-tech/virtual-fashion-digital-products?>

Louis Vuitton (2019) *Louis Vuitton Announces League Of Legends Partnership*. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://eu.louisvuitton.com/eng-e1/articles/louis-vuitton-announces-league-of-legends-partnership>

Louis Vuitton (2019) *Presenting Qiyana, League Of Legends Champion*. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://eu.louisvuitton.com/eng-e1/articles/qiyana-league-of-legends-louis-vuitton>

Louis Vuitton (2019) *Close up of Louis Vuitton's Travel Case*. Instagram. [Online Image] [Accessed on 15<sup>th</sup> November 2019] <https://www.instagram.com/p/B4mb6trDw4N/>

Louis Vuitton (2019) *Louis Vuitton x League of Legends Skin*. Instagram. [Online Image] [Accessed on 15<sup>th</sup> November 2019] <https://www.instagram.com/p/B4pf6aOjxPc/>

Macey, J. and Hamari, J. (2018) 'eSports, skins and loot boxes: Participants, practices and problematic behaviour associated with emergent forms of gambling.' *New Media & Society*. [Online] 'First online' published 1st January 2019. [Accessed on 12th November 2019] DOI: 10.1177/1461444818786216

Markey, P. M., Markey, C. N., and French, J. E. (2015) 'Violent Video Games and Real-World Violence: Rhetoric Versus Data'. *Psychology of Popular Media Culture*. 4(4) pp. 277-295.

Maslow, A. H. (1943) 'A Theory of Human Motivation'. *Psychological Review*, 50(4), 430-437.

Matthiesen, T. (2019) *[Worlds 2019] Pre-Finals press conference: Riot Games executives talk True Damage and Louis Vuitton x LoL*. Inven Global. [Online] [Accessed on 12<sup>th</sup> November 2019]

<https://www.invenglobal.com/articles/9571/worlds-2019-pre-finals-press-conference-riot-games-executives-talk-true-damage-and-louis-vuitton-x-lol>

Maylor, H. and Blackmon, K. (2005) *Researching Business and Management*. 2<sup>nd</sup> ed. Basingstoke: Palgrave Macmillan.

McDowell, M. (2019) *Designers explore the future of digital clothing*. Vogue Business. [Online] [Accessed on 4<sup>th</sup> July 2019] <https://www.voguebusiness.com/technology/digital-fashion-virtual-clothing-3d-design>  
McDowell, M. (2019) *With Drest, digital clothing is one step closer to mainstream*. Vogue Business. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://www.voguebusiness.com/technology/lucy-yeomans-drest-luxury-brands-digital-fashion-louis-vuitton-gucci>

McGonigal, J. (2011) *Reality Is Broken. Why Games Make Us Better and How They Can Change the World*. 1<sup>st</sup> ed. New York: The Penguin Press.

McKinsey&Company (2011) *Gaming Expands Its Presence in the Digital Universe. Insights from McKinsey's Global iConsumer Research*. [Online] [Accessed on 12<sup>th</sup> November 2019] [https://www.mckinsey.com/~media/mckinsey/dotcom/client\\_service/High%20Tech/PDFs/Gamings\\_Expanded\\_Presence\\_in\\_the\\_Digital\\_Universe.ashx](https://www.mckinsey.com/~media/mckinsey/dotcom/client_service/High%20Tech/PDFs/Gamings_Expanded_Presence_in_the_Digital_Universe.ashx)

McKinsey&Company (2015) *Video games grow up*. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://www.mckinsey.com/about-us/new-at-mckinsey-blog/video-games-grow-up>

Merino de Paz, B. (2013) *Gamification. A tool to improve Sustainability Efforts*. M.Sc. University of Manchester.

Mjasnikova, K. (2018) *Louis Vuitton: All'Air Du Temps*. B.A. Istituto Marangoni Milano.

Mjasnikova, K. (2019) *The Fabricant order confirmation*. Own.

Mjasnikova, K. (2019) *The Fabricant digital downloads*. Own.

Mjasnikova, K. (2019) *Digital files from The Fabricant*. Own.

Mjasnikova, K. (2019) *The view of the Soorty jumpsuit in CLO3D program*. Own.

Mjasnikova, K. (2019) *The Soorty jumpsuit*. Own.

Mjasnikova, K. (2019) *Research Strategy Design*. Own

Mjasnikova, K. (2019) *Acquaintance with the phenomenon of digital fashion*. Excel. Own.

Mjasnikova, K. (2019) *Venn Diagram Illustrating the Logical Relation Between Physical, Gaming and Digital Fashion*. Own.

Myers, M. D. (2008) *Qualitative Research in Business & Management*. 1<sup>st</sup> ed. London: SAGE Publications.

Nazir, M. and Man Lui, C. S. (2016) 'A Brief History of Virtual Economy'. *Journal of Virtual Worlds*. 9(1), pp.1-23.

Nike (2019) *Nike Unveils Team Kits for League of Legends Pro League*. [Online] [Accessed on 27<sup>th</sup> November 2019] <https://news.nike.com/news/nike-league-of-legends-pro-league-team-kits-2019-20-official-images>

Novy-Williams, E. (2019) *Nike's Latest Sneakers Are Only Available in Fortnite*. Bloomberg. [Online] [Accessed on 29<sup>th</sup> November 2019] <https://www.bloomberg.com/news/articles/2019-05-22/nike-s-latest-sneakers-are-only-available-on-fortnite-game>

O'Brolcháin, F., Jacquemard, T., Monaghan, D., O'Connor, N., Novizky, P., and Gordijn, B. (2014) 'The Convergence of Virtual Reality and Social Networks: Threats to Privacy and Autonomy.' *Science and Engineering Ethics*, 22(1) pp. 1-29. [Online] [Accessed on 28th November 2019] DOI: 10.1007/s11948-014-9621-1

Parth\_clo3d (2019) *@parth\_clo3d virtual designer in The Fabricant garments*. Instagram. [Online Image] [Accessed on 26<sup>th</sup> November 2019] <https://www.instagram.com/p/B5VRmavDj43/>

Perl.www (2019) *@perl.www wearing Carlings digital collection*. Instagram. [Online Image] [Accessed on 26<sup>th</sup> November 2019] [https://www.instagram.com/p/BqM\\_PGZB-yg/](https://www.instagram.com/p/BqM_PGZB-yg/)

Polie, M. (2019) Gen Z: Living in the Third Platform. WGSN. [Online] [Accessed on 9<sup>th</sup> July 2019] [https://www.wgsn.com/content/board\\_viewer/#/83522/page/6](https://www.wgsn.com/content/board_viewer/#/83522/page/6)

Priest, G. (1995) *Beyond the Limits of Thought*. Oxford: Clarendon Press.

Quinton, S. and Smallbone, T. (2006) *Postgraduate Research In Business. A Critical Guide*. 1<sup>st</sup> ed. London: SAGE Publications Ltd.

Reames, M. (2019) *Puma Joins Nike and Adidas in the Esports Apparel Sponsorship Chase*. Adweek. [Online] [Accessed on 27th November 2019] <https://www.adweek.com/brand-marketing/puma-joins-nike-and-adidas-in-the-esports-apparel-sponsorship-chase/>

Rodríguez Martínez, B. (n.d.) *Purchasing behavior on aesthetic items in online video games with real currency. The case of Counter Strike: Global Offensive*. M.A. Uppsala Universitet.

Rouse, I. (2019) *Louis Vuitton's 'League of Legends' Trophy Case Took Over 900 Hours to Make*. Hyperbeast. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://hypebeast.com/2019/11/louis-vuitton-league-of-legends-trophy-case-interview>

Salice, S. M. and Lunghi, C. (2014) 'Digital fashion: seduction or innovation?' In GFC. *Proceedings of the Global Fashion Conference*, 19<sup>th</sup>-21<sup>st</sup> November. Ghent, Belgium. [Online] [Accessed on 12<sup>th</sup> September 2020] [http://gfc-conference.eu/files\\_download/GFC2014/MAZZUCOTELLI&LUNGHI\\_Digital%20fashion\\_seduction\\_or\\_innovation.pdf](http://gfc-conference.eu/files_download/GFC2014/MAZZUCOTELLI&LUNGHI_Digital%20fashion_seduction_or_innovation.pdf)

Saunders, M., Lewis, P., Thornhill, A. (2009) *Research Methods for Business Students*. 5<sup>th</sup> ed. Essex: Pearson Education.

Scholz, T. M. (2019) *eSports is Business. Management in the World of Competitive Gaming*. 1<sup>st</sup> ed. Cham: Palgrave Macmillan.

Sekaran, U. and Bougie, R. (2013) *Research Methods for Business. A Skill-Building Approach*. 6<sup>th</sup> ed. Chichester: Wiley.

Semic, S. (2019) *Virtual Fashion: The Digitally Generated Clothes Appearing On Your IG Influencer Feeds*. Elle. [Online] [Accessed on 4<sup>th</sup> July 2019] <https://www.elle.com/uk/fashion/a28166986/digital-fashion-dressing-virtually/>



Shin, J. (2019) *Digital Fashion: A Post-Product World*. WGSN. [Online] [Accessed on 9<sup>th</sup> July 2019] [https://www.wgsn.com/content/board\\_viewer/#/83958/page/6](https://www.wgsn.com/content/board_viewer/#/83958/page/6)

Simply Psychology (2018) *Maslow's Hierarchy of Needs*. [Online Image] [Accessed on 15<sup>th</sup> November 2019] <https://www.simplypsychology.org/maslow.html>

Singer, D. and Chi, J. (2019) *The key to esports marketing: Don't get 'ganked'*. McKinsey&Company. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/the-keys-to-esports-marketing-dont-get-ganked>

Statista (2019) *Video game market value worldwide from 2012 to 2021 (in billion U.S. dollars)*. [Online] [Accessed on 4<sup>th</sup> July 2019] <https://www.statista.com/statistics/292056/video-game-market-value-worldwide/>

Taylor, T. L. (2012) *Raising the Stakes. E-sports and the Professionalization of Computer Gaming*. 1<sup>st</sup> ed. Cambridge: The MIT Press.

*The True Cost*. (2015) [DVD] Directed by A. Morgan. United States: Untold Creative.

The Fabricant (2019) *Digital Fashion House*. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://www.thefabricant.com/>

The Fabricant. (2019) *SOORTY\_x\_THE\_FABRICANT\_READ\_ME*. [PDF]

The Fabricant (2019) *Digital Denim Jumpsuit Purchase*. [Online Image] [Accessed on 14<sup>th</sup> November 2019] <https://www.thefabricant.com/products>

The Fabricant (n.d.) *TheFabricant\_BIO*. Press Release. [Online] [Accessed on 26<sup>th</sup> November 2019] <https://www.dropbox.com/sh/2l6ta2vkujgof6y/AAAlfB3zldpwd4KDIJJzlhta?dl=0>

The\_fab\_ri\_c\_ant (2019) *The Fabricant's collaboration with iD and Vice, dressing up the influencer @orlandocyborgashley in digital clothing*. Instagram. [Online Image] [Accessed on 26<sup>th</sup> November 2019] <https://www.instagram.com/p/BzNqJvuFAA1/>

The\_fab\_ri\_c\_ant (2019) *The Fabricant's collaboration with iD and Vice, dressing up the influencer @enamasiam in digital clothing*. Instagram. [Online Image] [Accessed on 26<sup>th</sup> November 2019] <https://www.instagram.com/p/BzNp5W4lQ0h/>

Thiry-Cherques, H. R. (2010) 'Baudrillard: Work and Hyperreality'. *RAE Eletrônica*, 9(1) [Online] [Accessed on 26<sup>th</sup> July 2019] <http://www.redalyc.org/articulo.oa?id=205115349010>

Tiffany, K. (2019) *Lil Miquela and the virtual influencer hype, explained*. Vox Media. [Online] [Accessed on 9<sup>th</sup> July 2019] <https://www.vox.com/the-goods/2019/6/3/18647626/instagram-virtual-influencers-lil-miquela-ai-startups>

Trapscott, D. (1995) *The Digital Economy. Promise and Peril in the Age of Networked Intelligence*. 1<sup>st</sup> ed. New York: McGraw-Hill.

Twitchstats (2019) *Twitch Channel Highest Viewers 2019*. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://twitchstats.net/highest-viewer-count>

Veblen, T. (1899, reprinted 2009). *The Theory of the Leisure Class*. 1<sup>st</sup> ed. New York: Modern Library.

WCG (2019) *Global Esports Festival For a Better World*. [Online] [Accessed on 7<sup>th</sup> July 2019]

<https://www.wcg.com/about/about-wcg?lang=en>

Webster, A. (2019) *Louis Vuitton is designing new skins for League of Legends*. The Verge. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://www.theverge.com/2019/9/23/20875541/louis-vuitton-league-of-legends-skins-summoners-cup-case>

Webster, A. (2019) *Riot opened the League of Legends World Championships with a holographic hip-hop concert*. The Verge. [Online] [Accessed on 12<sup>th</sup> November 2019]

<https://www.theverge.com/2019/11/10/20955184/league-of-legends-worlds-2019-opening-ceremony-true-damage-holograms>

Wharton University of Pennsylvania. (2011) *Rewards, Motivation, Competition: How Businesses Can Benefit from the Rise of Gamification*. [Online] [Accessed on 12<sup>th</sup> November 2019]

<https://knowledge.wharton.upenn.edu/article/rewards-motivation-competition-how-businesses-can-benefit-from-the-rise-of-gamification-2/>

Wright, J and Handley, L. (2019) *Digital 'clothes' could be the next big Instagram hit*. CNBC. [Online]

[Accessed on 27<sup>th</sup> November 2019] <https://www.cnbc.com/2019/08/02/instagram-trends-influencers-are-now-buying-digital-clothes-to-wear.html>

Wolny, R. W. (2017) 'Hyperreality and Simulacrum: Jean Baudrillard and European Postmodernism'. *European Journal of Interdisciplinary Studies*, 3(3) pp. 75-59.

Ytl (2019) *@ytl wearing Carlings digital collection*. Instagram. [Online Image] [Accessed on 26<sup>th</sup> November 2019] <https://www.instagram.com/p/BqQBn9vHKek/>

Zabulis, V. (2019) *Monetizing the Already Whopping \$50B In-Game Assets market*. Hold Finance. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://hodlfinance.io/monetizing-the-already-whopping-50b-in-game-assets-market/>

Zha, W. (2019) *Digital fashion: 'The world doesn't need more physical clothing'*. Fashion United. [Online]

[Accessed on 12<sup>th</sup> November 2019] <https://fashionunited.uk/news/fashion/digital-fashion-the-world-doesn-t-need-more-physical-clothing/2019061943770>

Zhang, C. (2019) *'League of Legends' Preps 2019 Worlds Opening Ceremony With Virtual Hip-Hop Group*.

Hyperbeast. [Online] [Accessed on 12<sup>th</sup> November 2019] <https://hypebeast.com/2019/10/league-of-legends-worlds-opening-ceremony-true-damage-gaming-information>

## 8. Appendices

### Appendix 1

*Semi-structured interview with **Valerii Borovych** (CEO & Founder of 3 NRG; a partner in GameInside – an agency that provides organizing and consulting services in the field of e-sport.) and **Alex Pasichnyk** (General Manager & Head of Projects Department in 3 NRG)*

*The interview was conducted on the 21st of October 2019 @ 3 NRG Headquarters in Kyiv, Ukraine.*

*Ksenija: How did e-sports gain momentum?*

Valerii: Gaming has existed since the mid-70s; it first appeared in America.

I have an interesting theory. What is the reason for the avalanche? The snow accumulates until it reaches the critical mass and triggers the avalanche. The same can be applied in our case. A large number of gamers began to appear in the world, this community began to grow. The guys liked to play so much that they decided to play in teams and the Internet helped them in this. This is a sport that has grown out of the cellars of computer clubs. Everything was built on enthusiasm. Then the brands that made computers started to get involved. After the critical mass accumulated, they left the basements and these first enthusiasts became the engine that drove this industry. Over the past 15 years, it has evolved from a basement industry into a huge growing empire.

This can be compared to extreme sports. At first, they appeared as a subculture, and then they became big industries, appealing to large businesses. For example, the brand Vans, dedicated to skaters, used to be a small brand that was produced for a small customer target. In our case, the Internet, gamification, digitalization, and 'gadgetization' served to give a push to the industry. It was impossible to expand e-sports until a certain environment was formed and this environment had to be fueled by specific technological solutions.

*K: How do you see the development of e-sports in the future?*

V: Everything will depend on the development of technology. Perhaps VR will be integrated into e-sports. At the moment, the player only needs a keyboard, a mouse and a computer, but perhaps in the future, the player may be fully involved. It seems to me that the first technology that will enter the industry is the one that will give a new image to the viewers during the tournaments. At the moment, we are using an LED screens (2D image), but in the future, the image will probably be in the format of a hologram or somehow multidimensional. In the same way, online, we could watch concerts that take place on the other side of the world.

I also think that e-sports will develop not only in terms of technology but also in terms of mass. We are aging and our children are growing up. These are potential gamers from birth. It seems to me that now there are practically no children who are not playing something starting from the age of 3 or 5. I experimented and asked what the children were talking about in school. For example, let's look at the 5<sup>th</sup> graders. If earlier children wanted to become astronauts, policemen, football players, now children wish to become e-sports athletes.

*K: Do you think the virtual world of video games carries potential threats?*

V: All speculations about the fact that gaming contributes to the development of aggression are not true. On the contrary, the latest research suggests that computer games are useful. Katerina Shulman, a Russian political scientist and publicist, has discussed this question from a scientific point of view. She says that gaming today is one of the opportunities for a person to exhale. The fact that you can get addicted to this is true. Here is the question of parental control emerges and how often the child plays. While the child is growing and is under the protectorate of parents, it is their responsibility. When a child grows up, it becomes his responsibility as an adult. Some people are addicted to alcohol, unemployment, etc. I do not see any danger to society and children in the process of gamification. I believe that through gamification you can conduct the necessary information policy, you can teach skills from childhood that you can't learn at the university.

For example, in Denmark, today there is a whole program where the air forces involve guys who have good skills in the computer games that have to do with simulators, for instance, a helicopter simulator. Weapons today are changing and becoming more like drones. Therefore, if a guy has been playing on the simulators since the age of 9, he has

acquired skills at the level of neural connections and it's easier for him to control the drone because he has already done this for all his life.

Each coin has two sides. Where attention goes, there is energy, and where there is energy, there is life. I look at the positive side of gaming and would promote more positive. In general, everything is very subjective. If looking at a piece of art, an authoritative person said, 'This is nonsense', then the crowd will repeat it. And if some other authoritative person said: 'No, this is a great artist. It is a masterpiece,' then the opinion of the masses would change again.

*K: Do you think that e-sports can be compared to physical sports? And if so, what are the similarities?*

Alex: Their similarity is a competitive part. An e-sports athlete has a very fast reaction because a decision has to be made in a split second. When I watch *Counter-Strike* tournaments there are times when I don't understand why the viewers suddenly begin to cheer and scream. This happens simply because I don't play it, I don't have the experience, and I have not gained those neural connections. Then my son explains to me what happened in that second that I missed. It is not so simple and for this, certain skills are needed.

As in traditional sports, skills and talent are necessary. Otherwise, it is impossible to achieve results even after a lot of training. Plus, it's teamwork. There is a team captain and all the players have their specific roles. Players look at the map, they line up. I would say that this is a real sport, just the competitive part does not happen between the physical capabilities of the muscles, but between the brains and how much more your brain is agile than the brain of your opponent. Here it is all about willpower, endurance – these are all attributes inherent in sports. Instead of kicking the ball, players are sitting in front of the computers. It happens that the game lasts 3 hours and it is not easy to sit in such tension for 3 hours. Besides, teams have the same organizational principles as real sports teams.

*K: When we play in the virtual world we associate ourselves with our avatar. Do you think a future is possible where each person will have his/her digital twin?*

V: Definitely. The very creation of a digital fashion trend indicates that if people buy things for their avatar, then we already have a presence in the virtual world. For example, I have an Instagram account and I want to look different. But there are no such clothes to make me stand out. I want these clothes to shimmer, take on weird forms, etc. So, I go to a digital store, buy a virtual skin and dress myself. It seems to me that in the next 5 years it will be a billion-dollar business and a huge industry. Indeed, the most difficult and most important thing is to find a new product that will be needed for a large number of people.

*K: Do you think that there is a connection between e-sports and digital fashion?*

V: E-sports is a competitive and integral part of gaming. This can be compared to professional football and the boys who play football in the backyard. Gamers and cyber athletes are trendsetters in their community.

If we are talking about digital clothing, in my understanding, this phenomenon has its roots in gaming. Let's look at the games themselves. For example, let's take one discipline, *Counter-strike: Global Offensive*. This is one of the main disciplines played and there are many competitions on the basis of it. There are so-called skins in the *Counter-Strike*, meaning how your character looks like. Skins may be stickers on the weapons, how the character itself looks like, etc. These skins today are tangible assets because they are sold. They can also be exchanged, bargained. The cost of these lots can reach up to tens of thousands of dollars.

If we talk about business in the field of trading skins, then there are entire platforms that work like pawnshops. On these platforms, you can sell your skins, which will then be resold further with a commission. One of the large companies for trading skins is located in Kyiv, Ukraine. In 2018, there were 28 million transactions on their platform. If we assume that there was at least 1 dollar per transaction, it becomes clear that this is a huge amount of money that is earned on virtual digital codes. There are also rare skins, of which there are only 5 in the world and they cost about 20-30 thousand dollars. Digital codes translated into images have great value. Currently, betting platforms even accept skins as bets.

We can say that gaming served as a foundation for the formation of digital clothing. After dressing up virtual characters, a real person, for example, I, can buy clothes on a digital platform and can dress myself up on different

social platforms.

*K: In your opinion, would gamers be interested in digital fashion?*

V: I believe that e-sports fans and gamers will be the first consumers of such a product. And their influencers will be the first brand ambassadors to advertise this product. Gamers are people who consume Internet products on a daily basis. For my son, buying a skin for his character is completely normal and nothing out of the ordinary. Therefore, if these people see that their idol advertises some digital clothing that allows you to stand out online, they will definitely buy it.

Now a lot of brands have been breaking into e-sports for advertising, because a critical mass, in terms of the audience size, has been formed. Brands realized that through this industry they can reach the audience that cannot be reached through traditional communication channels. Television, radio, outdoor advertising will not work because these people prefer digital and they consume the digital content that interests them.

E-sports is a new communication channel with a huge new audience because e-sports is their hobby. Just like beer is advertised through football, in the same way, Coca-Cola or Red Bull are advertised through e-sports. As the audience grows, brands understand that by using traditional advertising channels, this category of people remains unattainable, and they really need to attract it.

Everything nowadays has an online format, and offline events are held for the spectacle, where people gather for the finale. However, the main viewer is online. Like in football, 100 thousand people go to the stadium, however, everyone else is watching the game on TV. In our case, let's say that 15 thousand people will come to the arena, and everyone else is watching via Twitch.tv online. The only difference is that this product has different broadcasting and communication channels. Since these people are digital, a product like digital fashion can cause a lot of interest in their community because they already have a habit of buying skins. Based on the habitual neural connections, a new product is introduced!

Gamers are one of the main potential consumers of such a product as digital clothing because for them it is native! And while for other potential buyers this is not natural, for a gamer it is native and completely understandable. Digital fashion is the work of artists and programmers. This product makes it possible to get rid of the physical objects of sales. It is only necessary to create a platform where people could use this product. They would definitely buy it to dress and look different in their community. And then it would be possible to collaborate with a major luxury brand. Here we could draw a parallel with Supreme. They made a brand for extreme sports, that is, for a very narrow audience, and then later collaborated with Louis Vuitton, creating a collection that had a lot of expensive price tags. This idea has powerful potential.

By the way, at the moment there are very few brands that are designed specifically for the audience of e-sports.

*K: Why do e-sports have so many global sponsors?*

V: Well, giants like Google and Amazon simply could not stay away. For example, in 2014, Amazon bought the Twitch platform, which today is the main digital platform for e-sports. Next year, in 2020, Google will soon launch a gaming platform called *Stadia*. The principle of its work is that consoles are no longer needed and you can play whatever you want from any device.

It all comes down to a simple thing, where everyone is fighting to monetize the products. Gamers and e-sports fans are now monetized due to an increasing amount of digital assets like skins and weapons. Additionally, teams and games produce their merchandise.

*K: Do you think that the further implementation and complication of gadgets will lead to the fact that in the future a human can become a gadget of the virtual world he invented?*

V: This is a matter of global sanity and what information comes through the media channels, what the people who rule the world are saying. There are news reports where video games are accused of provoking violence. However, for example, under the influence of alcohol, a huge number of crimes occur every day. For some reason, no one on TV talks about what potential is formed due to gaming and how it can be used.

In general, everything comes from childhood and one's education. Many parents act paradoxically. For the child to

not bother them, they give him an iPad, and then they complain about how addictive technology is. Of course, such neural connections are formed more easily in children's brains. They no longer want a book, but an iPad. With children you need to teach and develop them: read, collect cubes, play with Lego...

No one knows what kind of psychological trauma provokes aggressive behavior, because you cannot completely see inside the human brain. Usually, gaming was just a hobby. People love to simplify things and put up labels. Making a connection between gaming and violence is not logical at all. If a footballer kicks someone to death, no one will say that he did so because he was playing football. It would be nonsense, so why blame gaming? A computer game does not trigger a decision to kill someone, as this type of behavior can only be prompted by emotional trauma when a person was hurt a lot, which usually comes down to human emotions and interactions.

From the philosophical point of view, I would like to add that there are many assumptions about how our world is virtual and that we may live in a certain matrix. Computer games act as a very good parallel and even are evidence that we are higher beings who have settled in these physical bodies. If you take a typical gamer who plays some kind of character, then this gamer is a higher being who has uploaded himself into a certain character who lives in a virtual world. This character in this virtual world does not know that someone else controls him. But what is interesting is that the characters in computer games have no questions like 'Who am I?', 'Where do I come from?', 'Where are we going?', 'Does God exist?', 'How does he look like?' Instead, he is concentrated on the current tasks. So, I'm going, I discovered something, found something, picked it up, I am walking on, I need to advance through this level and eventually reach the end of the game. Our life is somewhat similar to this, only in a much more complex technological design. We have the same virtual reality, but we have more tricks like different religions that distract us and occupy our attention and energy, distracting from everyday life and from fulfilling everyday tasks. But in fact, contemplating and questioning whether there are higher powers will never have answers. A computer game allows you to simplify and allow yourself to feel like a higher being, a kind of soul that revived this body and your tasks here in the game are quite simple. Excessive concentration on religion, in a way, distracts us from real life, shifting the responsibility for our lives to some higher powers. Therefore, a computer game is a good comparison to life. Communicating with gamers and people who built a business in e-sports, I noticed that for them, part of a computer game has been transferred into real life. A simplified view often helps in life, because we already are something higher that lives in a human body. If the body is born and comes to life, and then dies, then some higher substance is clearly infused into it. And one of the positive aspects of gaming is that you don't have to think about what will happen after earthly life, because there are everyday tasks.

**Title of Project:** Transcending the Physical Body: the Influence of E-Sport on Digital Fashion

**Name of Researcher:** Ksenija Mjasnikova

**Participant Identification Code for this project:**

**Please**

**initial box**

1. I confirm that I have read and understood the information sheet dated 21.10. 2019 for the above project and have had the opportunity to ask questions about the interview procedure.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason to the named researcher.
3. I understand that my responses will be sound recorded and used for analysis for this research project.
4. ☒ give/do not give permission for my interview recording to be archived as part of this research project, making it available to future researchers.
5. I understand that my responses will remain anonymous.
6. I agree to take part in the above research project.
7. I understand that at my request a transcript of my interview can be made available to me.

☒  
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☒

VALERII BOROVYCH  
Name of Participant

21.10.2019  
Date

[Signature]  
Signature

Ksenija Mjasnikova  
Researcher

21. 10. 2019  
Date

[Signature]  
Signature

*To be signed and dated in presence of the participant*

*Once this has been signed, you will receive a copy of your signed and dated consent form and information sheet by post.*

Figure 1: The Consent Form of Valerii Borovych

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**Name of Researcher:** Ksenija Mjasnikova

**Participant Identification Code for this project:**

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6. I agree to take part in the above research project. ☒
7. I understand that at my request a transcript of my interview can be made available to me. ☒

Pasichnyk Alex  
Name of Participant

21.10.19  
Date

[Signature]  
Signature

Ksenija Mjasnikova  
Researcher

21. 10. 2019  
Date

[Signature]  
Signature

To be signed and dated in presence of the participant

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Figure 2: The Consent Form of Alex Pasichnyk



## Appendix 2

*Semi-structured interview with **Anton Tokarev** (an e-sports athlete known as WarLock; Senior Community Manager in WePlay! Esports Newmedia Group) @ WePlay! Headquarters in Kyiv, Ukraine.*

*The interview was conducted on the 24th of October 2019.*

*Ksenija: Please, tell me a little about WePlay!.*

Anton: *WePlay!* is an 'esportainment' company that combines e-sports and entertainment in the field of e-sports. We work in different directions – organization of e-sport tournaments, hosting events, media streaming, broadcasting, and developing software products for e-sports tournaments. The creators of our company, Yuri Lazebnikov and Oleg Krot, like all of us, come from e-sports because it was their passion from childhood. We are now opening an arena in America and a new office in San Francisco. Our company quickly attracted foreign investors. In the studio where we broadcast we work with the best professionals from the TV industry.

*K: What does 'streaming' mean in e-sports?*

A: This is very similar to sports broadcasting. Commentators and analysts are sitting here, usually, they are all former cyber athletes, and analyze the game. Each stream has its particular ambiance, which corresponds or relates somehow to the game. Each time a whole story is created and large-scale production and post-production are involved.

*K: And then where do these streams go?*

A: At the moment, there are 3 main platforms: Twitch.tv, YouTube & Facebook. Twitch is developing a lot after Amazon bought it.

*K: How many people watch such broadcasts?*

A: The peak of one broadcast reaches 100 thousand viewers. And in a week, it can go up to one and a half million unique views. Naturally, there are advertisements and sponsors.

*K: And how is advertising sold?*

A: There are many different formats: pre-roll, integration in the studio setup, postproduction, what our analysts (talents) say during the broadcast. I will share with you that we will have an international tournament of the *DPC (Dota Pro Circuit)* coming up in Bukovel from January 9 to 12. In *Dota*, this can be equated to the World Basketball Championship and our studio will be the one broadcasting from the tournament. In August of this year, we also worked at the largest e-sports tournament called The International *Dota 2* Championship. It was held in Shanghai and the prize pool was more than \$30 million. We did a late-night show for a Russian-speaking audience and the audience reached up to 500 thousand live followers.

*K: As I look at it from the fashion world, I see the world of e-sports as a huge potential customer target. It includes players, viewers, commentators, and organizers. And I have a question, what sort of connection to these people have with the fashion world?*

A: There is a certain direction that has integrated seamlessly into e-sports and this is cosplay. People create costumes to look like their favorite characters.

Then there is also IT fashion. In the game itself, there are a number of artists who create images of the visual change of the characters and gamers then pay real money to buy those fashion elements that do not affect the game features in any way. These fashion items set you apart and differentiate you from the crowd. Somewhere around 85% of *Dota's* prize pool of \$36 million, comes from the sales of the fashionable items within the game.

Three months before the biggest end of the season, a compendium is released. This is an interactive feature that you buy for \$5, and for completing tasks in it you can get more fashion accessories for your character. Due to this

compendium, the monetization takes place because the basic prize fund is only 1 million 600 thousand. However, IT fashion makes it grow to \$30 million. Now you understand how much people care about the IT fashion.

*K: How does the process of creating IT fashion happen?*

A: First artists draw the skins. Then the Valve Corporation approves them and integrates them within the game. Obviously, not all of them get approved. Finally, the artists receive some percentage from the sales. As a result, the players receive fashionable elements for their characters and weapons, which carry exclusively aesthetic functions. This process involves people who model and texture skins. The in-game fashion industry is very active and it is constantly changing. Sometimes Valve Corporation is even accused of abusing skins. Occasionally people say that instead of improving the game itself, they only add visual changes to the characters.

Speaking of fashion and e-sports, merchandise comes to mind. In Shanghai, they even made the so-called *Secret Shop* for the championship (because the same name was in the game). There was a lot of interesting merchandise there and people queued up from 3 a.m., while the store opened at 10 a.m. For example, our company has contracts with companies such as Navy, Virtus Pro, and War Gaming for the production of plush toys, pillows, and other merchandise. Moreover, before the uniforms of cyber athletes were completely plain and boring. Now, various brands, for example, Adidas and Nike, joined in. These are, of course, sports brands but some companies have already gone ahead and began to make casual clothes for gamers. Players also launch their merchandise. When we started as gamers, we didn't even have money for the return trip home when we went to tournaments. Now we grew up and acquired purchasing power, and our children are now also fond of e-sports.

*K: Would you say that gamers as a customer target are not very interested in fashion trends?*

A: In general, they are not but among them, there are already many opinion leaders, influencers, and they often show their fans on social networks what they are wearing. Especially female streamers like to do that.

*K: The purpose of fashion, both in the real world and in the virtual world, is to differentiate a person. I aim to look into the future to identify the new target groups for the fashion industry and understand why they are interesting and how to attract them. What should fashion brands use to reach the target audience of gamers?*

A: As soon as the first brand enters this market and begins to produce skins under the brand's name, all other brands will follow. There is a lot of room to experiment with e-sports. For instance, there are items like gaming glasses, mice, keyboards, and they are also subject to fashion trends. There are a lot of directions where you can implement fashion in gaming.

*K: If we are talking about platforms that sell skins. How do they work?*

A: There are platforms where you can change skins that you no longer like for the one that you like, and in total it costs like all those that you want to change. It is very important to add that in e-sports, skins have an exclusively visual component. This is just a picture that does not give advantages in the game.

I will tell you an interesting example, one Middle Eastern gamer bought a knife worth \$30 thousand and this knife would make him stand out in the game. The more expensive the skin, the more unique it becomes.

In purely entertainment type of gaming it's different because you can really buy something that will be functional and look different.



Manchester  
Metropolitan  
University

Consent Form

21. 10. 2019

Ksenija Mjasnikova

Fashion Promotion, Communication & Media

Fashion Business

Istituto Marangoni Paris

Manchester Metropolitan University

Tel: +39 346 516 30 10

**Title of Project:** Transcending the Physical Body: the Influence of E-Sport on Digital Fashion

**Name of Researcher:** Ksenija Mjasnikova

**Participant Identification Code for this project:**

Please

**initial box**

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4. I ~~give~~/do not give permission for my interview recording to be archived as part of this research project, making it available to future researchers. ☒
5. I understand that my responses will remain anonymous. ☒
6. I agree to take part in the above research project. ☒
7. I understand that at my request a transcript of my interview can be made available to me. ☒

Anton Tokarev  
Name of Participant

24.10.2019  
Date

[Signature]  
Signature

Ksenija Mjasnikova  
Researcher

24.10. 2019  
Date

[Signature]  
Signature

To be signed and dated in presence of the participant

Once this has been signed, you will receive a copy of your signed and dated consent form and information sheet by post.

Figure 3: The Consent Form of Anton Tokarev

### Appendix 3

Semi-structured interview with **Yaroslav Shkiar** (e-sports athlete known as *Smoke*).

The interview was conducted on the 24th of October 2019 via email.

*Ksenija: Please, tell me how and why you started doing e-sports.*

Yaroslav: It all started with my hobby in 9<sup>th</sup> grade, it was in 1997. At the time we played *Duke 3D* on the modem against each other and even organized little competitions. As time passed by, new computers came out and so did new games. With new games, the number of participants began to increase and everyone wanted to show that they play cool. I was no exception and wanted to prove that I play better than everyone in my yard, school, then in the computer club and finally, in the city tournament. We had our teams; at the time they were called 'clans'. In the city and the entire country, games were played all the time, where the clans fought to be in the top. These people just played for fun, there was no money involved. The emergence of new technologies, the Internet, computer clubs, all of it was at the base of this movement. We would come to the computer club at night to play our favorite games or compete against each other, since not everyone could afford to have a computer with a local network at home. Besides, people who wanted to play oftentimes lived far from each other.

After I did not pass the entry exams at university, I went to work in a computer club. There we began to develop this movement and I was one of the people who organized the computer games competitions in Kyiv. Moreover, I actively participated in those tournaments, achieving victories and high scores. We would collect the prize fund from contributions and then divide it between the first three places. I did not earn much money there, but it was enough for pocket expenses.

*K: E-sports is not just fun. What is its main goal and mission, and how do you see the development of e-sports in the future?*

Y: E-sports is not entertainment now and the name itself implies that it is a sport. While computer games are entertainment, it is the approach to the game determines what the player wants. While some choose to play for fun, others look beyond and they want to play the game responsibly, work to improve, and earn money from it. The player's goal is to win the tournament and be at the top, as this will allow him to immediately have sponsors and contracts. The guys are now engaged in e-sports academies and afterward, they sign contracts in various leagues. Everything is the same as in traditional sports, such as football. It's just that here you need to have and develop intellectual and not physical skills. You need to predict the actions of your opponent, what move he will make, and all this in a split second. Essentially, the game is just a tool to find out who is cooler.

The mission and goal, as in any sport, is the popularization of the competitive movement in a particular game (or platform). After all, fans of the game who are following the professional teams are ordinary people, those who like to play this game. These are the people who make up the audience. The more interesting competitive modes there are in the game, the more fans the game has.

We started in this niche movement with sole enthusiasm and in 20 years everything has turned into a strong industry with an annual turnover of \$1 billion. The growth dynamics of this industry are crazy. Consequently, more companies and services will appear around this industry to complement it by introducing new trends and features.

The entire arenas specifically dedicated to e-sports are already appearing. In the future, I see that everyone who wants to play their favorite game not only for fun but to earn money will be able to do so. Everything is striving for this. Transnational teams will appear. Even though they already exist, their turnovers will be much larger.

There are already many idols and influencers in e-sports. For example, Andrey Shevchenko (the famous Ukrainian football player) and Alexander Kostylev (known as *Simple*) have the same number of followers on Instagram (600k +), only Alexander is 22 years old and Shevchenko is 37 years old. The future career and income of these 2 athletes will depend on the audience and popularity of their respective sports.

*K: How long does it take to reach a professional level in e-sports?*

Y: Like in any sport, if you want to be the best, you have to train above the norm and dedicate a lot of time. Nowadays you can go to a special school or an e-sports academy, where they will tell you how to become better and avoid a lot of mistakes. People in those special institutions share their experiences to help a person become a player in a shorter amount of time. After all, we gained our knowledge through trial and error, and now the learning process takes less time. However, new complex problems always emerge because the industry is constantly changing.

*K: In your opinion, what allowed e-sports to gain popularity so quickly?*

Y: In America, it took 30 years and about 20 years in Europe for e-sports to grow to the current level. Now gamers are transmitting their passion to their children, and so everything grows in dynamics. The more people are captured by the game, the more fans start to appear. It also depends on the game, as game developers greatly influence the industry and all its trends.

Also, the arrival of sponsors influenced the globalization of the movement. When money entered the industry, it sparkled even more beautifully and developed to the point where it is now. I will not be surprised if eventually, e-sports will overtake all the top sports competitions. The world is changing and the mindset of the younger generation is formed through video games, social networks, innovations, and technology.

*K: Do you think that e-sports can be compared to traditional sports? And if so, what are the similarities?*

Y: They are only similar in moral exhaustion. E-sports are intellectual games like chess, poker. Here you need to keep yourself in good shape to endure long marathons because sometimes games go on all day. Cyber athletes play for 2 hours, 4 hours, then they play again for 2 hours and that's all endurance. That's why the teams have coaches, physical trainers, nutritionists, psychologists, and personal assistants. All this is required for the player to be in optimal shape and do his job in the best way possible. For a long time, everything had to be done by yourself, well, imagine how much time you had left to play and to play well.

*K: Do you think that e-sports as an industry can affect other areas, and if so, which ones?*

Y: Yes, it is already doing so. It influences the developers of computer games, the IT manufacturers, the Marketplace. Already in many games, there are trading platforms where players buy skins of various kinds for their characters and improve their heroes by spending real money on them. Now, since the industry has a billion dollars, this e-sports market of goods and services is being formed.

*K: Today, traditional sport and e-sports coexist. Could traditional fashion and digital fashion coexist? And how do you imagine this coexistence?*

Y: Yes, it already exists. Only you need to understand that digital fashion is now in the skins that players can buy for their characters in the virtual world. This is already happening and it is very active. If we are talking about digital fashion applicable to the user, then all this direction is just emerging.

*K: In your opinion, what could an emerging digital fashion industry use from e-sports?*

Y: It can use a lot of things such as the entire target audience, through teams, players, and sponsorship packages. It has a lot of potential to instantly spread out in the community.

I even think that soon the leading fashion brands will be introducing their products into video games, using them as advertising platforms. This way the gamer will have a desire to go and buy in real life the same items that his character is 'wearing' in the game. The gaming world can act as a great shopping window; there are a lot of possibilities how to integrate the fashion world within e-sports in a way to benefit both parties.

Later on, I got a degree; I am a specialist in Marketing and Advertising. Therefore, I am convinced that there are a lot of tools for the interaction between the two.

*K: Do you think the virtual world of video games carries potential threats?*

Y: Definitely not more than our politicians on TV, who are trying to impose their vision and make people do what they want us to do. In this world, there also are authoritative personalities who control global trends, such as large teams, tournament operators and game manufacturers.

*K: Do you think a future where each person will have his/her digital twin is possible?*

Y: Here it all depends on the user because in the game there is already an opportunity to create a character that you will control. It may be similar to you or it may even be of the opposite sex. This character will have to be dressed, eat, if the game requires it, so it is very similar to the digital twin. People are already spending money on virtual characters and this trend will only become more popular.

*K: E-sports do not use traditional advertising. What marketing strategies and channels are used to promote it?*

Y: Actually, more or less all the advertising communication channels are already involved. It is just that this or that channel is used more to promote some event. Now the main channels used are digital. Social networks, Internet video sites, Internet resources, the games themselves, IT manufacturers that are already collaborating with e-sports teams... A lot of things are happening.

*K: Why do e-sports have so many global sponsors?*

Y: Well, what do sponsors need? They need a big audience. And if the dynamics of the audience is growing at the exponential rate, the longer you wait, then the threshold for entering this industry will become more expensive. Therefore, top managers of the companies that manufacture products that are directly or indirectly related to this industry, understand the potential of the industry and sponsor teams and tournaments.

*K: Do you think that the further implementation and complication of gadgets will lead to the fact that in the future a person can become a gadget of the virtual world that he invented?*

Y: Everything is possible, as it is portrayed in the film with Bruce Willis, called *Surrogates*. Nowadays the technologies of VR are developing a lot.

But there is one interesting thought. If you turn off the electricity, all of this will disappear, so a very interesting concept appears here. I think that in the near future we will find out how in which direction everything will go. I give it a deadline of 50 years.

**Title of Project:** Transcending the Physical Body: the Influence of E-Sport on Digital Fashion

**Name of Researcher:** Ksenija Mjasnikova

**Participant Identification Code for this project:** \_\_\_\_\_ **Please**

**initial box**

1. I confirm that I have read and understood the information sheet dated 21.10. 2019 for the above project and have had the opportunity to ask questions about the interview procedure. ☒
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason to the named researcher. ☒
3. I understand that my responses will be sound recorded and used for analysis for this research project. ☒
4. I ~~give~~ do not give permission for my interview recording to be archived as part of this research project, making it available to future researchers. ☒
5. I understand that my responses will remain anonymous. ☒
6. I agree to take part in the above research project. ☒
7. I understand that at my request a transcript of my interview can be made available to me. ☒

YAROSLAV, Smoke "Shkiar 24.10.2019 [Signature]  
Name of Participant Date Signature

Ksenija Mjasnikova 24.10.2019 [Signature]  
Researcher Date Signature

*To be signed and dated in presence of the participant*

*Once this has been signed, you will receive a copy of your signed and dated consent form and information sheet by post.*

Figure 4: The Consent Form of Yaroslav Shkiar

#### Appendix 4

Informal conversation with **Max Bilonogov** (Executive Producer at WePlay! Esports Newmedia Group) @ WePlay! Headquarters in Kyiv, Ukraine.

The conversation was conducted on the 24th of October 2019.

*Ksenija: Over time, global luxury brands will understand that the world of e-sports is a huge community that can be a potential target customer. However, no one has yet considered new ways of communication, which would allow connecting the audience from the virtual world to the real world. And I am not just talking about traditional advertising or sponsorship, but rather a real look into the future. In 20 years, the luxury fashion items might be worn by the e-sports fans of today.*

Max: At the moment, almost all games have skins. They are different customizable things that are put on your character, allowing it to look unique. Most likely, in the future, fashion houses may begin to cooperate with developers, offering them to stream fashion shows directly in the game itself and present clothes for both video game characters and real people. An interesting example that comes to mind is the game called *Fortnite* and the presentation of the new Marshmello's album (American DJ, whose album was released on February 2<sup>nd</sup>, 2019). *Fortnite* developers created an avatar of Marshmello's suit and integrated him inside the game. People then gathered in the game, where the artist presented his new music album. Everything goes towards people spending more and more time in the virtual world, as shown in the film of Stephen Spielberg, *Ready Player One*. However, at the moment there are no such fashion integrations into the game world.

*K: But brands just won't enter this market. After all, this community is very closed and they are alien to the traditional values of luxury brands. This world of traditions and heritage must somehow find ways to interact with the virtual world because in 20 years people will probably spend most of their lives online. In addition to the competitive element of the game, people still need emotional, because fashion is primarily triggering emotions.*

M: Exactly! People already spend a huge amount of real money on skins, which are purely aesthetic and do not affect the game. It seems to me that the main accent of communication should be put on the aesthetic and emotional pleasure of controlling and dressing the character in the game.

*K: Of course, game developers are already producing fashionable elements for the characters in the game but I'm interested in dragging the real fashion brands into the virtual world. After all, people in this world are the same customers. The only difference is that they are setting and following new trends that the traditional fashion industry does not want to hear yet. Brands continue to see new trends in the form of tangible technologies, such as the use of drones during shows, but they do not see that this is a whole virtual world that is ready to be explored.*

M: Then we need to integrate fashion not in the game, but from the game.

*K: I would say both ways.*

M: I agree! Then, the first thing that comes to mind is a synthetic fashion show. For example, the models are walking the runway in the real world. However, behind them, there are video game characters that are dressed in the same clothing. These characters are not visible to the people who are watching the show live. Instead, only those that are watching the stream see them. In this way, we will be mixing the 2 worlds and it will really work. This experiment can also be realized with the help of augmented reality.

*K: As you said, my investigation is based on the idea that there are real and virtual worlds. Since real money is spent in the virtual world, it means that the virtual world becomes real for the ones who produce the goods. It means that those who produce the goods in the virtual world must find a tool that will allow them to do the same in the real world and vice versa. There are already different video games' characters that are interesting; they stimulate people to purchase. Therefore, brands could use this phenomenon. Not just advertising their brand in the game, but rather complementing these characters, discovering them, experimenting, collaborating with them. The search for new markets and*



*technologies to engage with them would launch the production process. There is a world. A huge invented digital world where fashion is already an integral component. However, this world is completely ignored by the traditional fashion industry.*

M: I think it would be possible to offer collaboration between a luxury fashion brand and a game within e-sports. This would guarantee sales profit. The brand shall ask what is required of them. Suppose you need 10 designers. The brand pays 10 designers who develop a collection of skins for a specific game. These skins immediately become popular inside the game, because they enter the game under the label of their brand. And then these clothes can be put up for sale in the real world. Another idea is to create a fashion collection inspired by famous cosplay costumes. This approach will immediately make the brand gain trust within the gaming community. Media channels will immediately write about this that the brand could even broadcast the fashion show on the platforms that are dedicated to e-sports and gaming, such as Twitch.tv and Reddit. Creating a collection based on the trends of e-sports and gaming will break the wall between the two worlds. Of course, at the moment, a large part of the gaming audience is 12-16 years old. However, in 7-10 years this audience will start acquiring purchasing power and if a brand manages to gain the trust of these people today, then in the future even the largest fashion brands will not be able to compete with that brand.

At the moment, the market capitalization of e-sports is not too high. It is about \$1-2 billion, which is the price of a hotel in Manhattan. But the industry is growing faster than television at the time and there definitely lies a huge potential for the fashion world. Lastly, I think it is important to emphasize to the traditional fashion brands that if they do not pay enough attention to the developing trends in the digital world on time, this growing community will start creating their brands and it will be impossible to compete with them in the long-term.

**Title of Project:** Transcending the Physical Body: the Influence of E-Sport on Digital Fashion

**Name of Researcher:** Ksenija Mjasnikova

**Participant Identification Code for this project:**

**Please**

**initial box**

1. I confirm that I have read and understood the information sheet dated 21.10. 2019 for the above project and have had the opportunity to ask questions about the interview procedure.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason to the named researcher.
3. I understand that my responses will be sound recorded and used for analysis for this research project.
4. I give/do not give permission for my interview recording to be archived as part of this research project, making it available to future researchers.
5. I understand that my responses will remain anonymous.
6. I agree to take part in the above research project.
7. I understand that at my request a transcript of my interview can be made available to me.

☒

☒

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☒

☒

☒

☒

Max Bilonogov  
Name of Participant

24.10.2019  
Date

[Signature]  
Signature

Ksenija Mjasnikova  
Researcher

24.10.2019  
Date

[Signature]  
Signature

*To be signed and dated in presence of the participant*

*Once this has been signed, you will receive a copy of your signed and dated consent form and information sheet by post.*

Figure 5: The Consent Form of Max Bilonogov

## Appendix 5

*Semi-structured interview via email with **Kerry Murphy**, the founder of The Fabricant – one of the first entirely digital fashion brands.*

*The interview was conducted on the 5<sup>th</sup> of November 2019.*

*Ksenija: How do you see the coexistence of traditional fashion and digital fashion?*

Kerry: Digitization will be a tool to make traditional fashion practices more sustainable, effective and lower the costs of development while increasing creativity. Architecture, automotive, aeronautical and other design industries have already achieved these. Digitization will be the future of fashion and new business models are starting to emerge. Lukso.io is a perfect example of technical innovation in the blockchain space showcasing how digital twins can improve communication, origin and transparency of our garments.

*Ksenija: Who do you think will be the first active consumers of digital fashion?*

Kerry: GEN Z, early adopters, and trend-geeks

*Ksenija: Have you considered the field of e-sports as a possible target audience for your product?*

Kerry: We have consciously chosen not to focus on gaming, but to develop a new industry around digital fashion, mimicking the beauty of the traditional fashion industry.

*Ksenija: Where and how do you see people wearing their digital clothes?*

Kerry: At first on Instagram, social channels and probably games. At some point all e-commerce shops will have virtual try-ons for our digital body twins. We believe that in the future we will all wear digital clothing. We are not focused on building the technology for it, but focused on creating well-crafted beautiful digital clothing that cannot exist in real life.

*Ksenija: Please, outline the main competitive advantages of the digital fashion over traditional fashion.*

Kerry: More sustainable, increased creativity, cost effective, safe space to try-on clothing we would not dare to do in our physical lives.

**Consent Form**

2

**Title of Project:** Transcending the Physical Body: the Influence of E-Sport on Digital Fashion

**Name of Researcher:** Ksenija Mjasnikova

**Participant Identification Code for this project:**

**Please**

**initial box**

1. I confirm that I have read and understood the information sheet dated 5.11. 2019 for the above project and have had the opportunity to ask questions about the interview procedure. ☒
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason to the named researcher. ☒
3. I understand that my responses will be sound recorded and used for analysis for this research project. ☒
4. I give/do not give permission for my interview recording to be archived as part of this research project, making it available to future researchers. ☒
5. I understand that my responses will remain anonymous. ☒
6. I agree to take part in the above research project. ☒
7. I understand that at my request a transcript of my interview can be made available to me. ☒

\_\_\_\_\_  
Kerry Murphy  
Name of Participant

\_\_\_\_\_  
5.11.19  
Date

\_\_\_\_\_  
*Kerry Murphy*  
Signature

\_\_\_\_\_  
Ksenija Mjasnikova  
Researcher

\_\_\_\_\_  
22. 10. 2019  
Date

\_\_\_\_\_  
*Ksenija Mjasnikova*  
Signature

*To be signed and dated in presence of the participant*

*Once this has been signed, you will receive a copy of your signed and dated consent form and information sheet by post.*

2

Figure 6: The Consent Form of Kerry Murphy

## Appendix 6

Observation of the purchasing process of a digital clothing item via The Fabricant online store. The purchase was made on October 30<sup>th</sup>, 2019.

The product was 'purchased' on the official website of The Fabricant for free. It was explained that the brand wants to familiarize designers with 3D fashion, which is why the product is free of charge. Please, note that it was impossible to conduct the same observation with Carlings because the entire digital collection was out of stock.

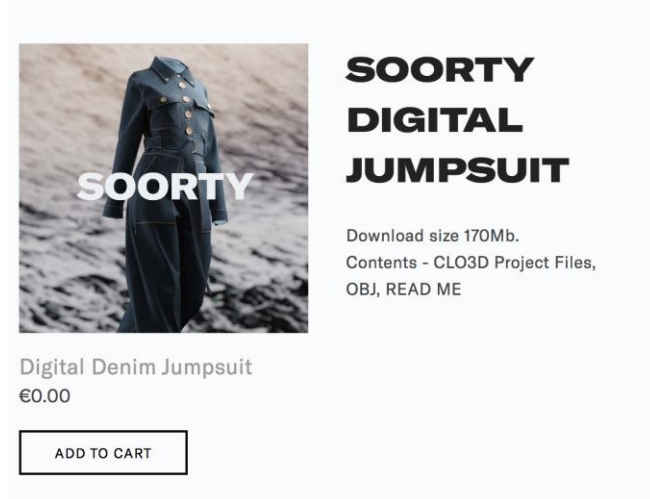


Figure 7: Digital Denim Jumpsuit Purchase (Source: The Fabricant, 2019: online)

The website did not offer the service of 'digital tailoring', so it is the user who would have to fit the item on himself/herself.

### Order Confirmed: #02192

Thank you for your order at The Fabricant. Unique links to your digital goods will be emailed to you. Your order confirmation is below.

Order Number: #02192 (placed on October 30, 2019 at 1:05 PM GMT+1)

#### BILLED TO:

Ksenija Mjasnikova  
5 Bis Passage Doisy  
Paris, 75017  
France  
[ksantifox@gmail.com](mailto:ksantifox@gmail.com)

#### Order Summary

ITEM	QTY	UNIT PRICE	SUBTOTAL
Digital Denim Jumpsuit	1	€0.00	€0.00
Item Subtotal			€0.00
Tax			€0.00
TOTAL			€0.00

<https://www.thefabricant.com>

Figure 8: The Fabricant order confirmation. (Source: Mjasnikova, 2019)

## Your Digital Downloads

Order Number: **#02192** (placed on October 30, 2019 at 1:05 PM GMT+1)

Thank you for your order at **The Fabricant**. Your purchase includes digital downloads. Click **the** links below to get **the** files. Note that they will expire within 24 hours of your first access.

### DIGITAL DOWNLOADS

[SOORTY\\_x\\_THE\\_FABRICANT.zip](#)

<https://www.thefabricant.com>

**The Fabricant** • NL231344934B01 • Weteringschans 109, Amsterdam, NH, 1017, Netherlands

Figure 9: The Fabricant digital downloads. (Source: Mjasnikova, 2019)

The product arrived in a zip file with several folders. The folders included the instructions on how to install CLO3D – a program created for 3D design, as well as photos of the digital version of the garment to be manipulated inside the program. In the case of this experiment, the garment purchased was a ‘Soorty jumpsuit’. The digital downloads also comprised a PDF document that included the following chapters: motivation, what’s needed, intro, concept, Soorty jumpsuit, usage & license. (The Fabricant, 2019)

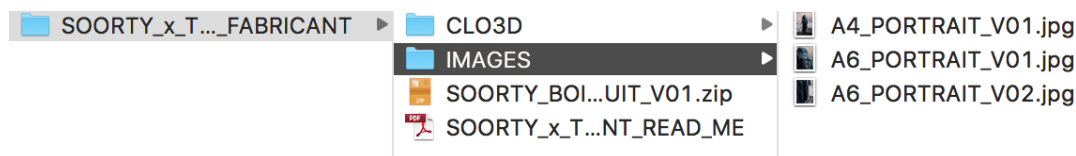


Figure 10: Digital files from The Fabricant. (Source: Mjasnikova, 2019)



Figure 11: The Soorty jumpsuit. (Source: Mjasnikova, 2019)

Digital Fashion online survey results.  
Total number of participants: 156.

# Digital Fashion Survey

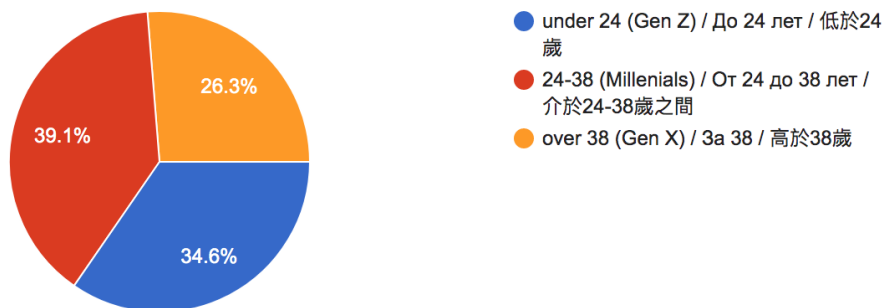
You are invited to take part in a research study. Before you decide to participate, you need to understand why the research is being done and what it would involve for you. Please, take the time to read the following information carefully.

Your participation in this study is voluntary. The procedure involves filling the online survey that will take you approximately a few minutes. Your responses will be confidential and no identifying information will be collected. The aim of this survey is to collect data that will support the arguments in my Master dissertation titled "Transcending the Physical Body: the Influence of E-sport on Digital Fashion." The survey questions will regard fashion, digital fashion, social media, video games, and sustainability. The information will remain confidential and the data will be stored in a password protected electronic format. All the information collected will have strictly educational purposes and may be shared with Istituto Marangoni and Manchester Metropolitan University representatives.

If you have any questions about the research study, please contact Ksenija Mjasnikova at [ksenija.mjasnikova@gmail.com](mailto:ksenija.mjasnikova@gmail.com)

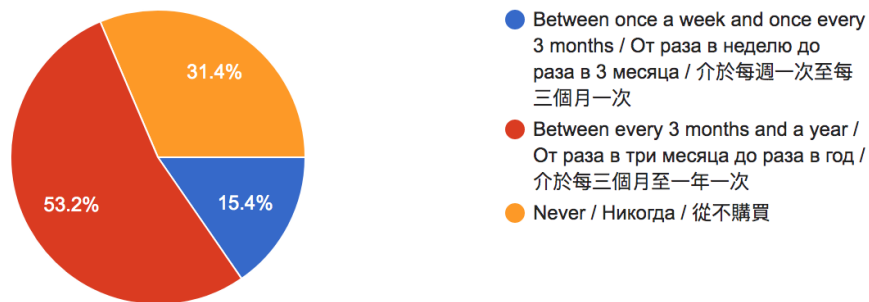
## 1. What is your age? / Сколько Вам лет? / 請問你的年齡?

156 responses



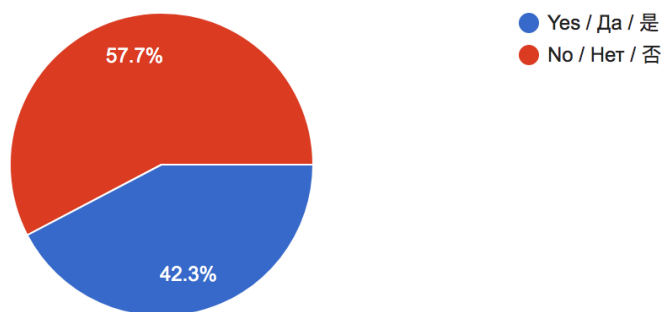
2. How often do you buy luxury goods? / Как часто вы покупаете товары класса люкс? / 請問你多久購買一次奢侈商品?

156 responses



3. Have you ever heard about digital fashion? / Вы когда-нибудь слышали о цифровой моде? / 請問你是否曾經聽說過數位時尚?

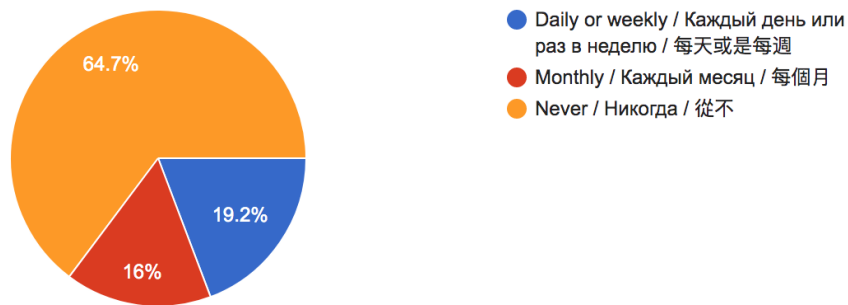
156 responses





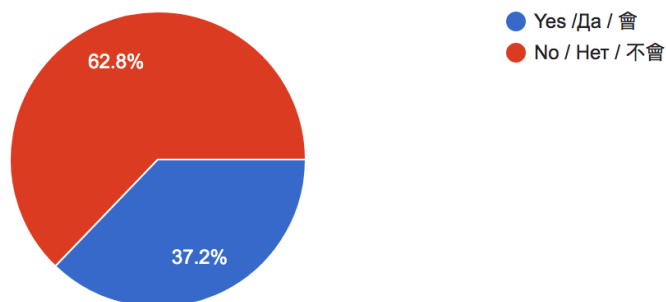
4. How often do you play video games? / Как часто Вы играете в компьютерные игры? / 請問你多久玩一次電子遊戲?

156 responses



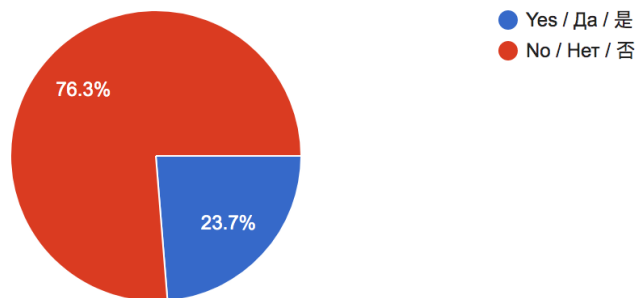
5. Do you use your social media accounts to show your fashion looks? / Используете ли Вы социальные сети для того чтобы показывать свои модные образы? / 請問你會使用你的社群媒體帳號分享時尚穿搭嗎?

156 responses



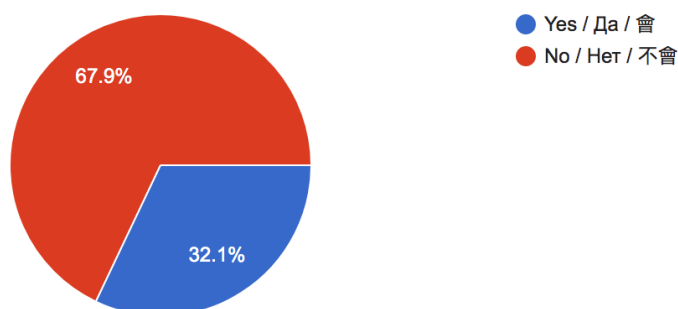
6. Would you pay money for a digital clothing item? This means that you will never be able to wear it in real life, as it only exists as a filter in the digital space. / Вы бы заплатили реальные деньги за цифровую модную вещь? Это означает, что Вы не сможете надеть её в реальной жизни, так как она существует лишь как фильтр в виртуальном пространстве. / 請問你是否有意願購買數位服飾？它是一種只存在在數位空間裡的濾鏡，這也意味著在現實生活中你並不會實際穿到

156 responses



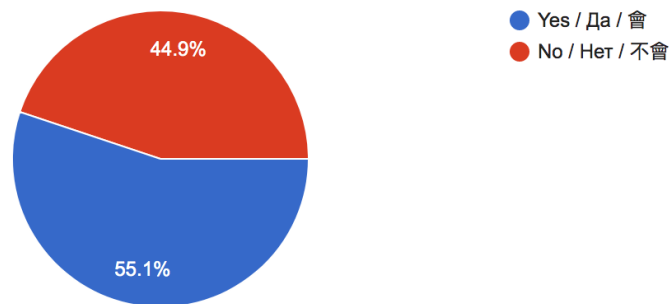
7. Would you want to have your digital twin in the virtual world? / Вы бы хотели иметь цифрового двойника в виртуальном мире? / 請問你會想要在虛擬世界中擁有一個數位孿生嗎？

156 responses



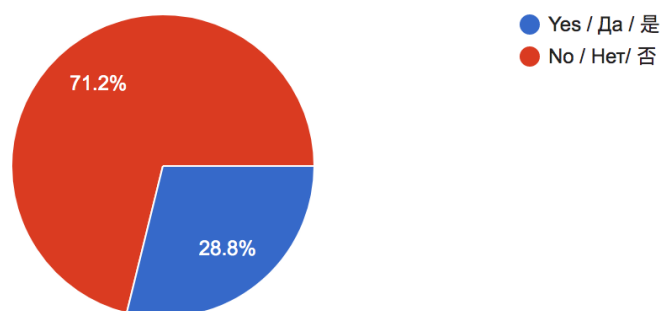
8. Would digital fashion attract you if you knew that it can realise any of your fashion fantasies? / Заинтересовала бы Вас цифровая мода если бы Вы знали, что она может реализовать любую Вашу модную фантазию? / 如果數位時尚可以滿足任何你對時尚的幻想，例如特殊材質或是不可能真實出現在現實中的設計，請問你會因此而被吸引嗎？

156 responses



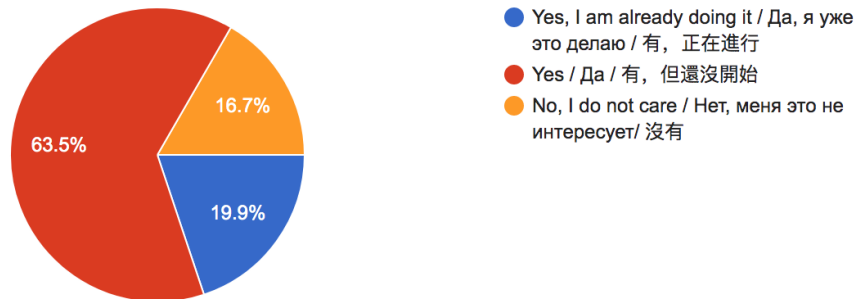
9. Does it happen to you to buy an item of clothing just for a photo and never wear it anymore? / Было-ли такое, что Вы купили вещь лишь для фотосессии и больше никогда её не надели? / 請問你是否有過只因為被服飾的照片吸引而購買，卻從未穿過的經驗？

156 responses



10. Would you like to contribute to making the fashion industry more sustainable? / Хотели бы Вы внести свой вклад в то, чтобы сделать модную индустрию более экологичной? / 請問你是否有意願投入環保時尚的行動呢?

156 responses



## Appendix 8

Cross-section analysis of the Digital online survey results presented in the Appendix 7.

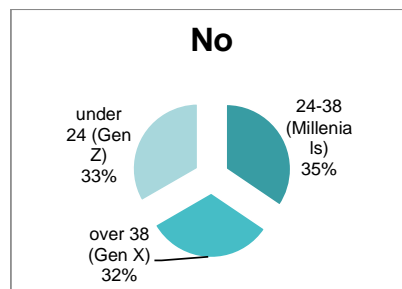
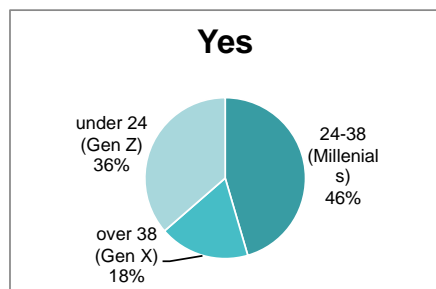
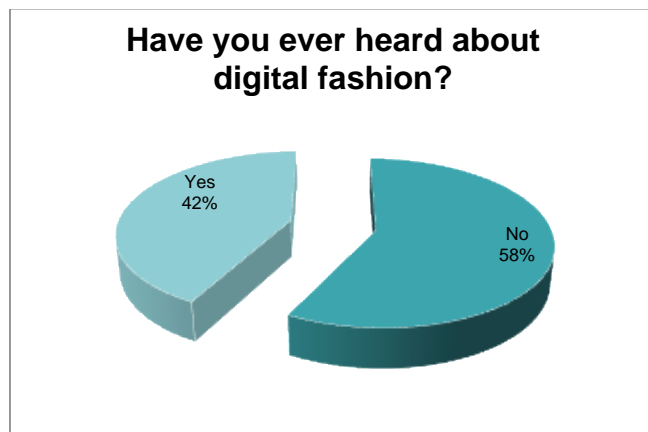
The cross-sectional analysis is color coordinated and was performed in regards to a few main variables:

1. Age
2. Gamers vs. not gamers
3. Luxury vs. not luxury customers
4. Social media X waste of clothes
5. Age X Gamers/non-gamers X Would you buy a digital clothing item?

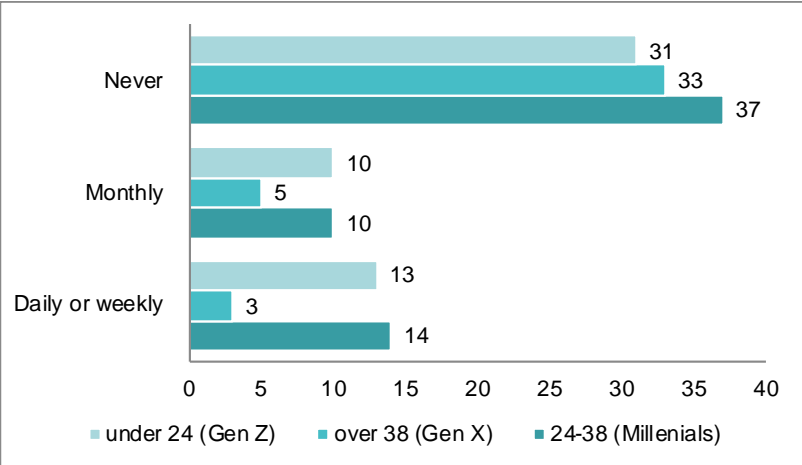
1. Age

How often do you buy luxury goods?				
How old are you?				
	Between every 3 months and a year	Between once a week and once every 3 months	Never	Grand Total
24-38 (Millennials)	29	9	23	61
over 38 (Gen X)	24	3	14	41
under 24 (Gen Z)	30	12	12	54
<b>Grand Total</b>	<b>83</b>	<b>24</b>	<b>49</b>	<b>156</b>

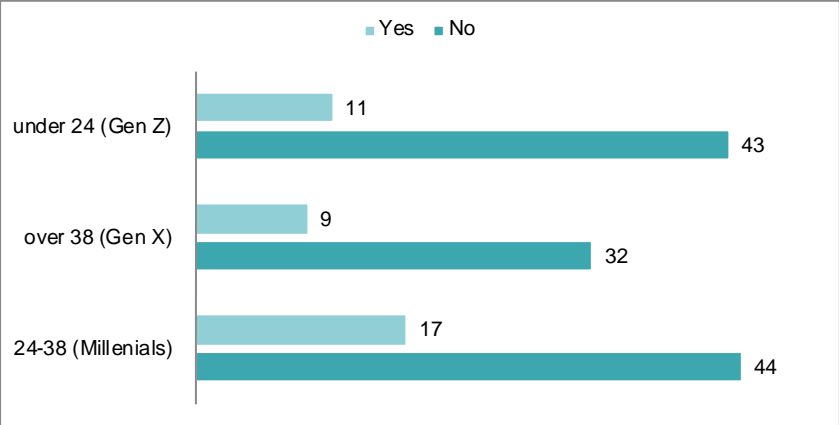
Count of 3. Have you ever heard about digital fashion?			
How old are you?			
	No	Yes	Grand Total
24-38 (Millennials)	31	30	61
over 38 (Gen X)	29	12	41
under 24 (Gen Z)	30	24	54
<b>Grand Total</b>	<b>90</b>	<b>66</b>	<b>156</b>



How often do you play video games?				
How old are you?				
	Daily or weekly	Monthly	Never	Grand Total
24-38 (Millennials)	14	10	37	61
over 38 (Gen X)	3	5	33	41
under 24 (Gen Z)	13	10	31	54
<b>Grand Total</b>	<b>30</b>	<b>25</b>	<b>101</b>	<b>156</b>



Would you pay money for a digital clothing item? This means that you will never be able to wear it in real life, as it only exists as a filter in the digital space.			
How old are you?			
	No	Yes	Grand Total
24-38 (Millennials)	44	17	61
over 38 (Gen X)	32	9	41
under 24 (Gen Z)	43	11	54
Grand Total	119	37	156



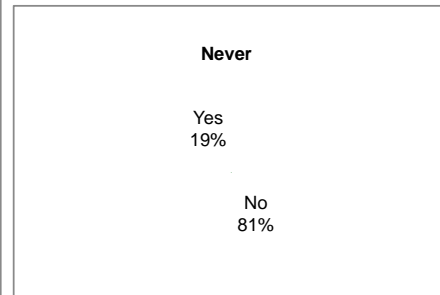
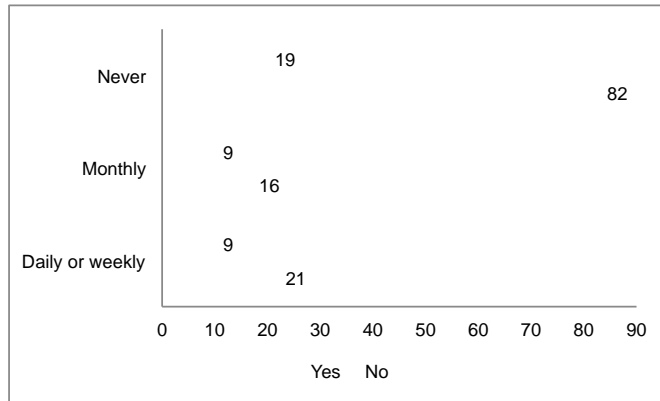
Would you want to have your digital twin in the virtual world?			
How old are you?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Grand Total
24-38 (Millenials)	42	19	61
over 38 (Gen X)	29	12	41
under 24 (Gen Z)	35	19	54
<b>Grand Total</b>	<b>106</b>	<b>50</b>	<b>156</b>

Does it happen to you to buy an item of clothing just for a photo and never wear it anymore?			
How old are you?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Grand Total
24-38 (Millenials)	48	13	61
over 38 (Gen X)	24	17	41
under 24 (Gen Z)	39	15	54
<b>Grand Total</b>	<b>111</b>	<b>45</b>	<b>156</b>

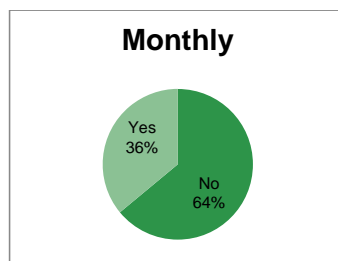
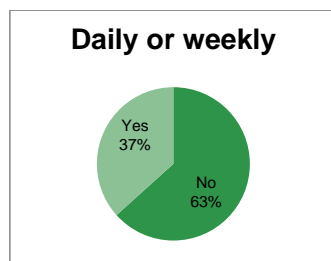
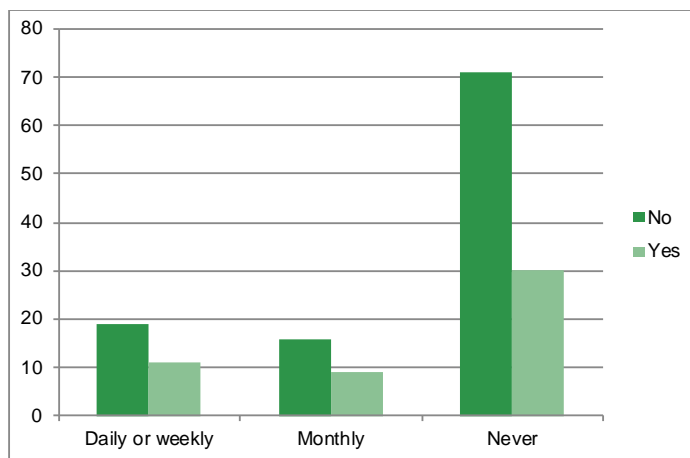
Do you use your social media accounts to show your fashion looks?			
How old are you?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Grand Total
24-38 (Millenials)	39	22	61
over 38 (Gen X)	33	8	41
under 24 (Gen Z)	26	28	54
<b>Grand Total</b>	<b>98</b>	<b>58</b>	<b>156</b>

## 2. Gamers vs. non-gamers

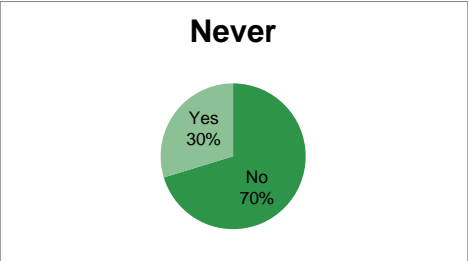
Would you pay money for a digital clothing item? This means that you will never be able to wear it in real life, as it only exists as a filter in the digital world			
How often do you play video games?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Grand Total
Daily or weekly	21	9	30
Monthly	16	9	25
Never	82	19	101
<b>Grand Total</b>	<b>119</b>	<b>37</b>	<b>156</b>



Would you want to have your digital twin in the virtual world?			
How often do you play video games?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Grand Total
Daily or weekly	19	11	30
Monthly	16	9	25
Never	71	30	101
<b>Grand Total</b>	<b>106</b>	<b>50</b>	<b>156</b>



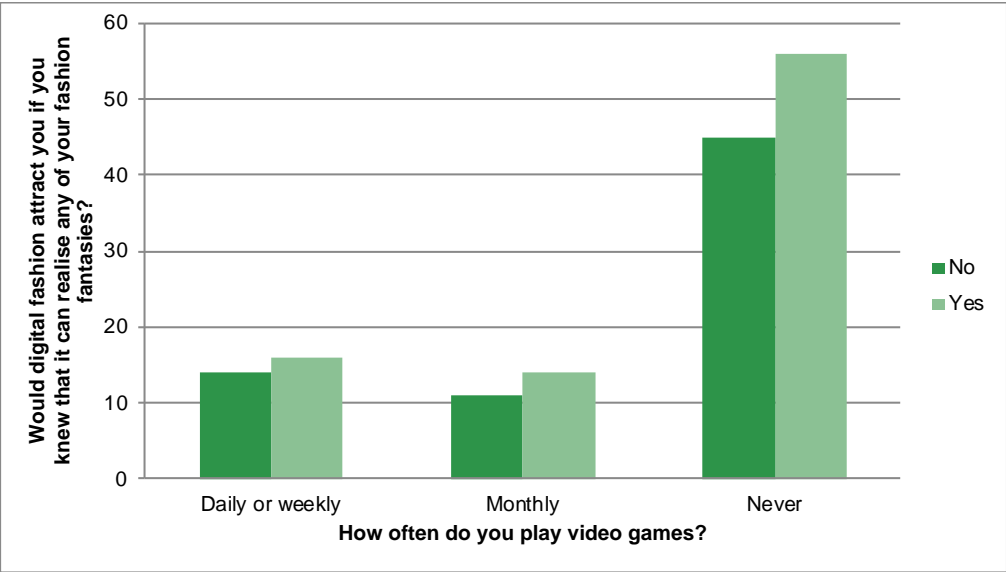




Have you ever heard about digital fashion?			
How often do you play video games?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Grand total
Daily or weekly	21	9	30
Monthly	12	13	25
Never	57	44	101
<b>Grand total</b>	<b>90</b>	<b>66</b>	<b>156</b>

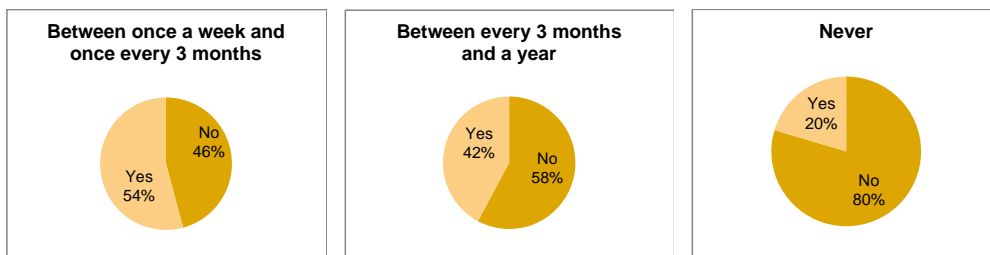
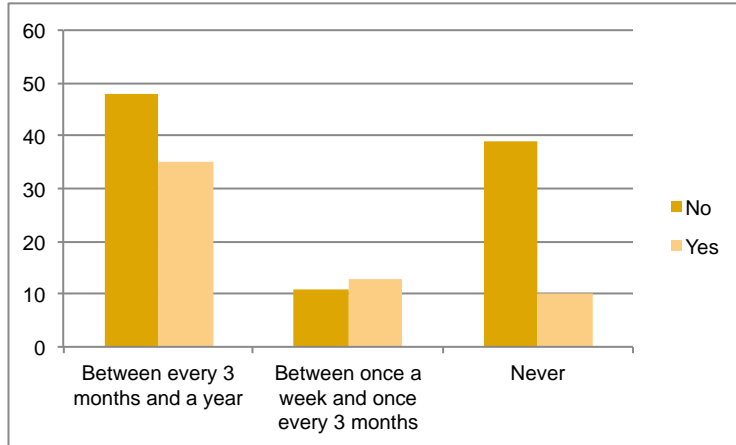
How often do you buy luxury goods?					
How often do you play video games?	<div>Between every 3 months and a year</div>	<div>Between once a week and once every 3 months</div>	Never	Grand Total	
Daily or weekly	17	6	7	30	
Monthly	13	6	6	25	
Never	53	12	36	101	
Grand Total	83	24	49	156	

Would digital fashion attract you if you knew that it can realise any of your fashion fantasies?			
How often do you play video games?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Grand total
Daily or weekly	14	16	30
Monthly	11	14	25
Never	45	56	101
<b>Grand total</b>	<b>70</b>	<b>86</b>	<b>156</b>

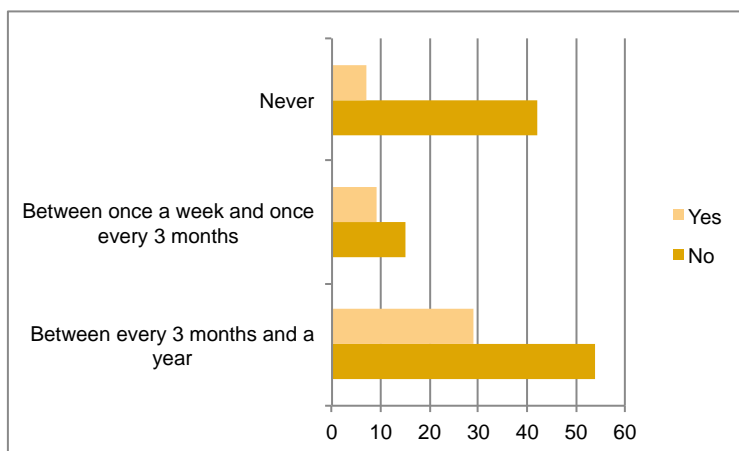


### 3. Luxury vs. not luxury customers

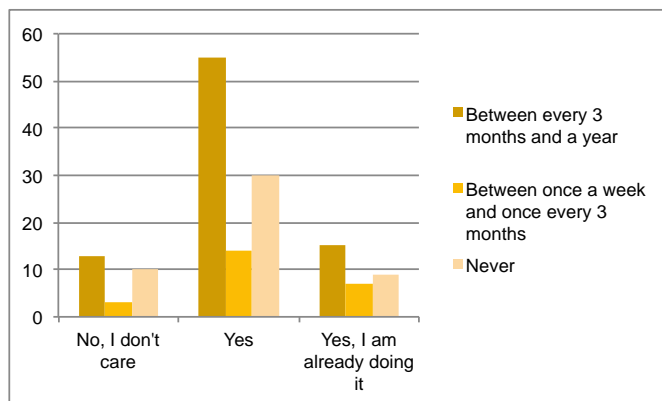
Do you use your social media accounts to show your fashion looks?			
How often do you buy luxury goods?			
	No	Yes	Grand total
Between every 3 months and a year	48	35	83
Between once a week and once every 3 months	11	13	24
Never	39	10	49
<b>Grand total</b>	<b>98</b>	<b>58</b>	<b>156</b>



Does it happen to you to buy an item of clothing just for a photo and never wear it anymore?			
How often do you buy luxury goods?			
	No	Yes	Grand total
Between every 3 months and a year	54	29	83
Between once a week and once every 3 months	15	9	24
Never	42	7	49
<b>Grand total</b>	<b>111</b>	<b>45</b>	<b>156</b>

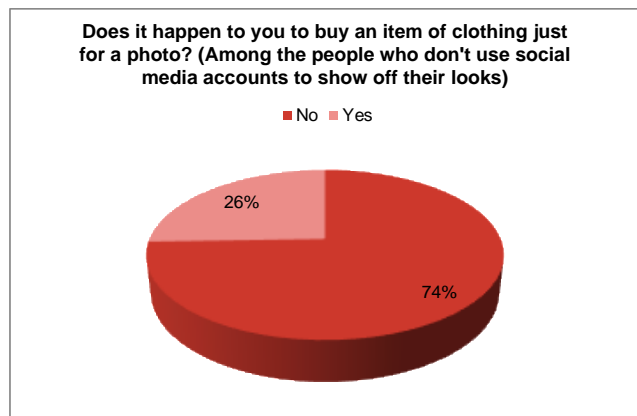
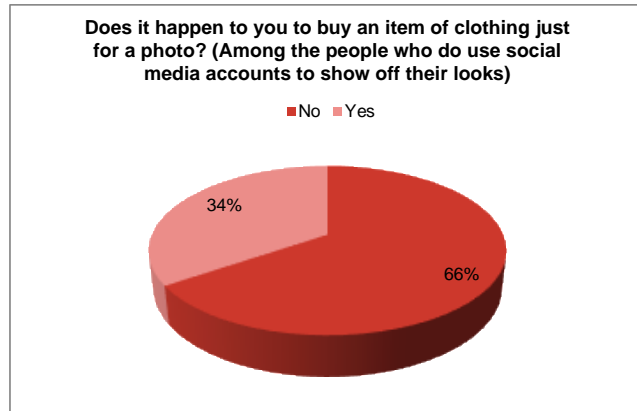


Would you like to contribute to making the fashion industry more sustainable?				
		No, I don't care		Yes, I am already doing it
How often do you buy luxury goods?		Yes	Grand total	
Between every 3 months and a year		13	55	15
Between once a week and once every 3 months		3	14	7
Never		10	30	9
<b>Grand total</b>		<b>26</b>	<b>99</b>	<b>31</b>
				<b>156</b>



#### 4. Social media X waste of clothes

Does it happen to you to buy an item of clothing just for a photo and never wear it anymore?			
Do you use your social media accounts to show your fashion looks?			
No	Yes	Grand total	
No	73	25	98
Yes	38	20	58
Grand total	111	45	156



#### 5. Age x Gamers/non-gamers x Would you buy a digital clothing item?

Would you pay money for a digital clothing item?	What is your age?			
How often do you play video games?	24-38 (Millennials)	over 38 (Gen X)	under 24 (Gen Z)	Grand total
▼ Daily or weekly	14	3	13	30
No	8	3	10	21
Yes	6		3	9
▼ Monthly	10	5	10	25
No	5	3	8	16
Yes	5	2	2	9
▼ Never	37	33	31	101
No	31	26	25	82
Yes	6	7	6	19
Grand total	61	41	54	156

The willingness of gamers (millennials and Gen Z) to buy digital fashion

Would you pay money for a digital clothing item?	What is your age?	
How often do you play video games?	24-38 (Millennials)	under 24 (Gen Z)
▼ Daily or weekly	14	13
No	8	10
Yes	6	3
▼ Monthly	10	10
No	5	8
Yes	5	2

## Appendix 9

### Observations of the Instagram activities of Carlings and The Fabricant.

#### 1. Carlings



Figure 12: @anegyll wearing Carlings digital collection.

(Source: Anegyll, 2019: online)

Number of Instagram followers: 9K; based in Norway.



Figure 13: @higherthanfashion wearing Carlings digital collection.

(Source: Higherthanfashion, 2019: online)

Daria Simonova: Russian fashion blogger & luxury vintage seller, 55K followers.



Figure 14: @jekkuberglund wearing Carlings digital collection.

(Source: Jekkuberglund, 2019: online)

Content creator, Finland, number of followers: 14K.



Figure 15: @jirkavinse wearing Carlings digital collection.

(Source: Jirkavinse, 2019: online)

Jirka Vinse Jonatan Väättäinen: graphic designer, illustrator & art director; based in Finland.

Paid partnership with the brand; number of followers: 214K.





Figure 16: @perl.www wearing Carlings digital collection.  
(Source: Perl.www, 2019: online)  
Digital influencer with 11K followers.



Figure 17: @ytl wearing Carlings digital collection. (Source: Ytl, 2019)  
Regular person, number of followers: 1K.

## 2. The Fabricant

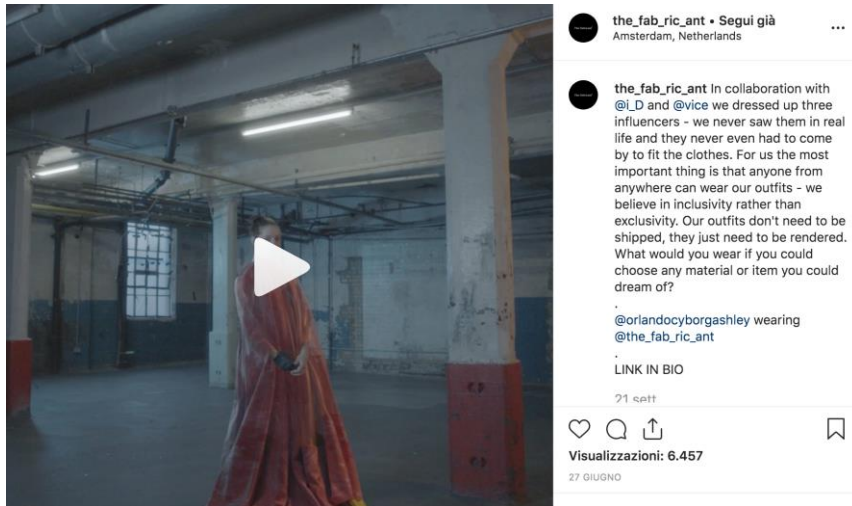


Figure 18: The Fabricant's collaboration with *iD* and *Vice*, dressing up the influencer @orlandocyborgashley in digital clothing.

(Source: the\_fab\_ric\_ant, 2019: online)

Ashley Young is an American model living in London. Number of followers: 13K.

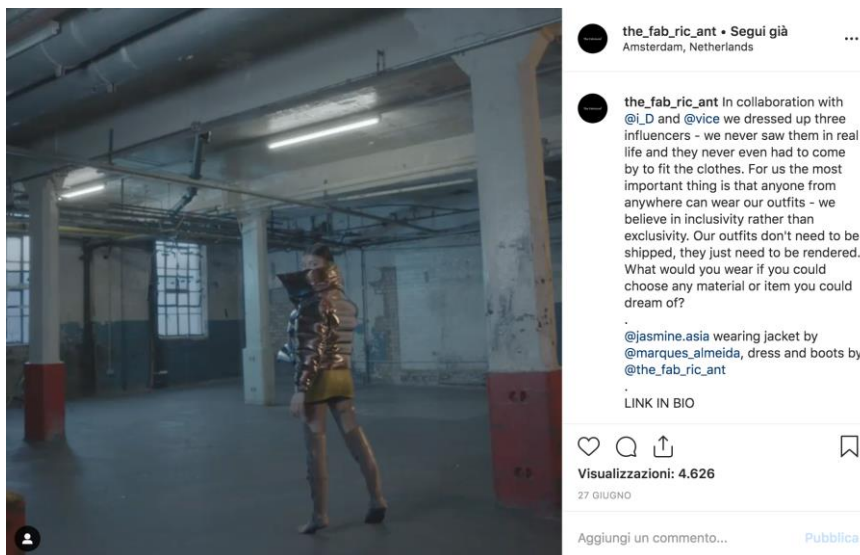


Figure 19: The Fabricant's collaboration with *iD* and *Vice*, dressing up the influencer @enamasiasia in digital clothing.

(Source: the\_fab\_ric\_ant, 2019: online)

Enam Asiana is a plus size model and influencer with 30K followers.





Figure 20: @parth\_clo3d virtual designer in The Fabricant garments. (Source: parth\_clo3d, 2019: online)  
Number of followers: 53



Figure 21: @johwska modeling the first digital haute couture piece from The Fabricant. (Source: Johwska, 2019: online)  
*Iridescent* was the first haute couture digital fashion garment sold at an auction on the Ethereum blockchain for \$9,500.  
Johanna Jaskowska modeled the dress. She is an artist with 826K followers on Instagram.