

P / REFERENCES OF DESIGN

SPECULATIVE PERSPECTIVES OF FASHION GAMIFICATION.

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DOI: 10.63442/FWAT6330

KEYWORDS | FASHION GAMIFICATION, SPECULATIVE DESIGN, FASHION EDUCATION, NUDGE THEORY

ABSTRACT | The paper delves into the concept of fashion gamification, which blends elements of fashion and game design, explored as a speculative tool capable of constructing narratives and proposing alternative worlds. These imaginative scenarios present fresh perspectives for the evolving field of fashion in its digital transition, offering an alternative to the current unsustainable model due to its environmental and societal impacts. Such speculative approaches, which question possible futures and promote ethical, responsible design through new languages, are conditioning fashion education. This shift is geared towards training fashion designers capable of dealing with the complex languages of contemporaneity. The very idea of fashion design is undergoing a transformation, moving beyond the design of physical clothes, to express fashion imagery through different channels, both physical and digital. Through the analysis of a series of case studies, including a teaching experience conducted in 2023 at the Università degli Studi di Firenze, the paper will reflect on how speculative approaches to game design can enable fashion to address critical issues, discuss and propose alternative future scenarios, in which today's design decisions can shape tomorrow's realities.

1. Introduction

In her book *Adorned in Dreams*, Elizabeth Wilson (1985) pointed out the continuous ‘confusions between the real and the non-real’ that characterised postmodern fashion. Since then, fashion has evolved into a dynamic and fast-changing environment, fragmented into a myriad of contents spread across fashion communities on platforms and social networks (Franzo and Vaccari, 2021). The mediatisation of fashion (Rocamora, 2017; 2023) fits into the ecosystems proposed by Digital Culture (Gere, 2009; Miller, 2020) and refers to the transformative power of media (Cottle, 2006; Lunt & Livingstone, 2015) on the practices and experiences of fashion that are increasingly moulded by and for digital media in production, consumption, distribution, and dissemination. Defining ‘digital’ as a ‘culture’ – as is done with ‘cyberculture’ by Lévy (2001), ‘information culture’ by Manovich (2001), ‘Internet culture’ by Castells (2002), or ‘virtual culture in cybersociety’ by Jones (1998) – it suggests a shared set of norms, values, practices, and expectations among a group. Media and digital technologies introduce not just new tools, but new ways of acting and interacting, absorbing all aspects of human relationships and activities, becoming key in shaping social reality.

In the realm of contemporary fashion, digitisation is changing the ways in which companies engage with consumers and the nature of products that, while retaining the intrinsic identity values that characterise them, become immaterial, digital, and interactive. Hence, contemporary fashion increasingly finds itself exploring new channels in which to present its products, construct or reinforce imaginaries, and arouse the public’s desire for immaterial, experience-based design outcomes (Särmäkari, 2021). Gaming, in particular, has been an area of particular interest for the fashion system for some years now, due to its ability to materialise worlds and shape expanded realities (Mascio, 2012; Gill, 2020), as demonstrated by the exponential growth of the sector (Amed et al., 2023).

The paper fits into this scenario, exploring fashion gamification – understood as contamination between fashion and game design – not only as a new language adopted by global brands to open up to new generations of consumers but also as a speculative tool capable of constructing narratives and proposals of alternative worlds. These are alternative presents for an evolving discipline in the context of its digitisation, a response to the current model considered unsustainable due to its impacts on the environment and society (Fry, 2009). These speculative approaches, which question possible futures and stimulate ethical and responsible design through new languages, are also conditioning fashion education, which is increasingly aimed at training fashion designers capable of dealing with the complex languages of contemporaneity. The very idea of fashion design is being reconfigured, and it is understood that it can no longer be limited to the design of physical clothes, but leads to the expression of fashion imaginaries through different channels, both physical and digital (Bogost, 2008; Smitheram, 2015).

The paper will therefore analyse the emerging role of gaming in the fashion system: both as a process of constructing virtual worlds, which contribute to giving shape and reality to the imaginaries of global luxury brands and as the outcome of speculative approaches that incentivise a paradigm shift. These two perspectives will be defined through a review of existing literature and investigated through the analysis of some significant case studies, including the experience conducted in 2023 at the Università degli Studi di Firenze. Students were asked to design a game conceived as an expansion of the activity of a fashion brand or institution, with the aim of generating greater public awareness of the impacts of fashion and, through the playful experience, conveying a message and incentivising a paradigm shift. The methodologies of speculative design (Auger, 2013; Dunne & Raby, 2013; Malpass, 2013) were combined with those of nudge theory (Walcher & Zotz, 2016; Thaler & Sunstein, 2008), leading students to imagine and design figural systems in which players gain knowledge and improve their behaviour.

The aim of this paper is, therefore, to reflect on how speculative approaches to game design can enable fashion to address critical issues, and discuss and propose alternative future scenarios, in which today’s design decisions can shape tomorrow’s realities. In this way, game design in fashion takes shape not only as the creation of imaginative experiences but also as a powerful tool for reflection and change.

2. Playing Fashion

The contemporary landscape is characterised by an increasing trend towards virtualisation and the gamification of various aspects of life, including communication, collaboration, learning, consumption, and entertainment. Advances in gaming technology have sparked interest in the use of digital games beyond traditional gaming contexts, exploring their utility in non-game environments (Alexiou & Schippers, 2018). Numerous studies have focused on the positive impact of gaming and the act of playing on developing critical cognitive, emotional, and social skills (Caponnetto et al., 2014; Granic et al., 2014; Qian & Clark, 2016). Furthermore, gaming has been explored as a means to stimulate specific behaviours, such as encouraging sustainable fashion consumption (Waydel-Bendyk, 2020). This approach is often referred to as gamification, which Huotari & Hamari (2017: 25) define as ‘a process of enhancing a service with affordances for gameful experiences in order to support users’ overall value creation’. In the realm of fashion, brands are leveraging gamification and game experiences to engage customers actively and personally, maintaining high levels of attention and proving economic advantages (Amed et al., 2023).

Gaming is a domain that is inherently rooted in digital interaction and immersive storytelling. It facilitates engagement in unique ways, offering immersive experiences through the development of innovative and customised customer journeys, fostering a creative and interactive narrative around a brand and its legacy. Through gaming, fashion finds a novel conduit to these audiences, offering experiences that are not only visually compelling but also culturally resonant and emotionally engaging. It also highlights the increasing importance of virtual environments in shaping consumer experiences and cultural trends. Much of this shift can be attributed to the habits of younger generations, who are increasingly investing resources, both in terms of time and money, into shaping their digital lives (Bain 2021).

This trend is prompting fashion brands to seize the opportunity to remain culturally relevant and experiment within digital ecosystems. From social media to the metaverse, fashion brands are teaming up with game developers to enhance their visibility among younger consumers. Furthermore, in the digital realm, avatars are perceived as reflections, extensions, or simulations of the player’s identity, as discussed by Jin (2012) and Mancini & Sibilla (2017). This concept aligns seamlessly with the notion of ‘possible selves’ (Markus & Nurius, 1986) as the imaginative projection of a person’s future identity or who they might become. This connection establishes a direct link to the social dimension of fashion. Avatars, akin to fashion products, enable users to explore different identities and styles, reflecting ‘the me I want you to see’ (Wood & Szymanski 2020). Consequently, avatars transcend their role as mere tools for personal expression and become mediums for social and cultural reflection, influencing perceptions and trends in the physical world. This highlights the increasing importance of digital fashion in shaping identity and belonging, marking a significant shift in how fashion is perceived and experienced in the digital age.

Recent collaborations between fashion brands and game developers have opened new avenues for designers in both fields to explore and define the roles of garments in digital environments (Gibson, 2021; Makryniotis, 2018). Such collaborations at the intersection of fashion and gaming can be broadly classified into three distinct categories, as identified by Alice Noris, Nadzeya Sabatini, and Lorenzo Cantoni (2023): ‘Gamification in Fashion’, ‘Fashion in Games’, and ‘Fashion Games’. While the latter refers to video games where fashion is the central theme, such as characters to be dressed up, and fashion-related work activities, the first two categories, ‘Gamification in Fashion’ and ‘Fashion in Games’, are where fashion brands have particularly focused their attention, leading to innovative experiments in recent years. In ‘Gamification in Fashion’, brands integrate gaming principles into non-gaming contexts, enhancing the consumer experience with elements commonly found in video games. This approach has seen fashion brands create interactive campaigns, virtual worlds, and digital experiences that go beyond traditional marketing, offering customers an engaging and immersive journey that aligns with the interactive nature of games. ‘Fashion in Games’ involves the integration of fashion into video games that are not primarily about fashion. This has led to innovative partnerships where fashion brands collaborate with game developers to incorporate their designs and products into game worlds.

The burgeoning interest of fashion brands in gamification is deeply rooted in gaming's ability to build and bridge brand images to younger generations and to effectively market both digital and physical collections (Kim et al. 2012, Lau & Ki 2021; Ryder 2022). Additionally, games serve as platforms for brand co-creation experiences, allowing consumers to engage directly with brands, thus adding a novel dimension to customer involvement (Nobre & Ferreira 2017), transforming the online retail experience by creating interactive and immersive environments (Insley & Nunan 2014) and becoming a powerful marketing tool to deliver captivating digital experiences and extend their reach (Milanesi et al. 2022).

However, for the objectives of this contribution, it is particularly noteworthy to expand the discussion on hybrid practices in fashion and game design. Exploring the role of gamification as a tool to foster systemic change within the realm of sustainable fashion is critical to further contextualising and addressing existing research gaps (Joy et al. 2022; Milanesi et al. 2022). This leads to the emphasis on systemic change, which can be effectively catalysed through speculative perspectives. Such perspectives challenge the existing status quo and open up possibilities for new paradigms: Both the fashion and gaming industries, in this context, do not just mirror the world as it currently is, but rather focus on envisioning the world as it could be.

The issue of sustainability in fashion is complex and multi-dimensional, necessitating a comprehensive systemic change to adequately address its array of challenges. The present state of the fashion industry requires a profound reassessment of its foundational practices and structures (Fletcher, 2010). In this regard, speculative perspectives can be instrumental in envisioning alternative futures and challenging established norms, thereby paving the way for transformative changes.

3. Game as a Speculative Approach

The previous section analysed how gamification is a process adopted in recent years by many fashion brands in order to expand and diversify their narrative modes, strengthen their imagery and involve new customers, especially the younger generations. Now fashion gamification will be analysed as an expression of speculative design. The contribution, in fact, argues that the playful approach can represent a way of imagining alternative and desirable futures, and possible changes in visions and practices, with the aim of redirecting the present, which is considered unsustainable.

The definition of experimental and speculative design encompasses a wide range of practices that lie at the crossroads of design, activism, visual culture, and sociology, and that utilise inventions, fantasies, and uchronic stories beyond the promotional aims and objectives of industrial production. As James Auger (2013, p. 11), a researcher at the Royal College of Art, points out, speculative design is an area that is intertwined with critical design, discursive design, design probes, and design fictions, developing projects away from the commercial approach, promoting research through models and prototypes, using fiction to present alternative products, systems or worlds. As he points out, alternative presents are design proposals that utilise contemporary technology but apply different ideologies or configurations.

Speculative practices thus live in close relation to the future, a time that takes on different characteristics in relation to the present. Starting from a critical theory approach to design, Anthony Dunne and Fiona Raby considered design as a tool for creating ideas, stimulating 'social dreaming' and speculating on possible futures. In their manifesto, they contrasted design 'in the service of industry' with design 'in the service of society'; design that has 'fictional functions' with design that has 'functional fictions'; design that 'changes the world to suit us' with design that 'changes us to suit the world' (Dunne & Raby, 2009). Shifting design from the logic of profit to the space of reflection, they developed a theorisation of the future – or, rather, futures – from the theories of futurologist Stuart Candy. Three typologies are identified: the probable future, in which most designers operate and which only an extreme event can prevent from occurring; the plausible future, which could actually happen; and the possible future, which derives from critical reflection on the present and the imagination of alternative scenarios (Dunne & Raby, 2013, pp. 3-4).

These approaches provide challenging exploratory devices, ‘as they allow the exercise of design to be removed from contextual and production constraints’ (Quinz, 2020). However, as for practice, the resulting design outputs turn out to be often artifact-totems (intentionally) distant from industrial reality, and, for this reason, they may activate potentially revolutionary conversations and provocations, while not triggering a concrete transition to alternative futures stemming from everyday life. If it is true that ‘we are creating the world to be understood, not merely understanding the created world’ (Holt, 2016), design for transition seems to inhabit two complementary times: on the one hand, a progressive present, in which design acts; on the other, a near-future towards which design directs its action.

Picking up on the reflections of Jonathan Lukens and Carl DiSalvo of the Georgia Institute of Technology, therefore, a speculative approach makes it possible to verify the current limits of design and go beyond them (Lukens & DiSalvo, 2011, p. 26). Underlying this perspective is the idea that it is no longer possible to wait for the user-consumer to change, but that it is necessary to propose a new vision, a different design from what exists, and to rethink creative and production dynamics. A central role is attributed here to the designer, who once again plays an active role in redirecting design practices with the aim of building a sustainable future. As Cameron Tonkinwise (2015) points out, what designers make becomes the future we inhabit. This is the ‘futuring’ approach described by Australian design theorist Tony Fry (2009; 2010). In this way, designers are tasked with contributing to the identification of possible political alternatives to the current productive, social, and cultural scenario, which Fry has openly criticised as inevitably defuturing. Design is thus the catalyst for change, due to its influence and relevance to the economy, industry, technology, ecology, culture, community, and territory. In order to be in dialogue with contemporaneity, it has the task of considering and promoting the concept of ‘sustain-ability’, which includes the actions and skills needed to sustain life, cultures, ideas, imaginaries, the environment and people. Underlying futuring are practices of redirection, capable of shifting paradigms, materialising ideologies, shaping interactions between people, and delineating new scenarios (Vaccari & Vanni, 2021). The disciplinary contamination of design with future studies is not recent, but it seems to emerge in times of crisis.

While speculative approaches have been theorised in the field of design for some years, there is still limited research on speculative fashion, to which fashion gamification can be traced according to the reading proposed by this contribution. Speculative fashion, in fact, refers to a fashion that does not yet exist, hypothetical, but which could give real indications as to what fashion could be or could become (Vaccari & Franzo, 2022). It also shares a certain sense of urgency and social and political engagement. On the one hand, it allows one to think about and imagine the future; on the other, it represents a critique of present and current practices. This is the ‘What If?’ perspective, theorised by Caroline Evans and Alessandra Vaccari (2020) in their reflection on uchronic time in fashion, understood as alternative history, which allows for the construction of fantastic scenarios from facts and characters that really existed, and as invented time, but with real repercussions that can be revisionist or experimental. Uchrony involves imagined and fictional times and, as such, allows for the development of innovative thoughts and narratives. It encompasses a variety of phenomena, including not only utopian legacies, when a fashion brand reinvents its history, and trendforecasting, when predictions of the future are commercially motivated, but also fashion gamification, made possible by digital fashion image-making.

The framework proposed by this contribution introduces an additional element that helps to understand and interpret the phenomenon of fashion gamification: the nudge theory, characterised by methodologies geared towards modifying people's behaviour through play and curiosity (Cai, 2019). As will be analysed in the following chapter, some examples of fashion gamification use the vector of play to improve user-consumer behaviour and bring about a better reality. In their bestselling book *Nudge: Improving Decisions about Health, Wealth and Happiness* (2008), economist Richard Thaler and legal scholar Cass Sunstein argue that simple ‘nudge’ techniques can help us break bad habits and make a range of choices in our own best interests (see also Sunstein, 2015; Thaler, 2015; Thaler and Sunstein, 2003a, 2003b, 2006). Thaler and Sunstein argue, however, that behavioural techniques have the potential to positively transform a wider range of societal problems, from racism, to suicide, to climate change (see also Halpern, 2015). These kinds of indirect prompts are much more effective in getting people to modify their habitual behaviour than more heavy-handed approaches.

4. Case Study Analysis

Some case studies will now be analysed to illustrate the two main trajectories characterising the relationship between fashion and game design. Together, these cases illustrate the diverse strategies fashion brands are employing to navigate the evolving landscape of digital engagement, showcasing the potential of gaming as a medium for innovative brand storytelling, audience expansion, and speculative design in fashion.

4.1 Louis Vuitton and League of Legends

In a pioneering instance of cross-industry collaboration, the year 2019 witnessed a landmark partnership between the luxury brand Louis Vuitton and Riot Games, the developer behind the esports phenomenon *League of Legends*. This collaboration signified a groundbreaking convergence between the world of high fashion and the realm of competitive esports, reflecting an innovative melding of distinct industry spheres. The collaboration encompassed multiple facets, beginning with the creation of a trophy case for the *League of Legends* World Championship. The finals of this esports event were held on November 10, 2020, in Paris, providing a global stage for this unique partnership, marking a significant cultural and commercial intersection, blending the traditional artisanship of a high-end fashion brand with the dynamic world of competitive gaming. The collaboration between Louis Vuitton and Riot Games reached a notable milestone with the unveiling of the *Louis Vuitton x League of Legends* capsule collection, designed by Nicolas Ghesquière in partnership with Riot Games. This collection, focused on womenswear and genderless garments, stands as a tribute to Qiyana, a female protagonist in *League of Legends*. Ghesquière had previously designed Prestige skins for Qiyana, featuring the signature aesthetics of Louis Vuitton, blending the world of high fashion with digital gaming culture.

This capsule collection represents a significant fusion of luxury fashion and virtual gaming iconography, demonstrating how a fashion house can effectively translate its design ethos into the realm of esports. By focusing on a female character from the game, the collection not only celebrates the influence of digital characters in contemporary culture but also showcases the potential of esports and gaming platforms as powerful channels for fashion expression and storytelling. The partnership between Ghesquière, Louis Vuitton, and Riot Games exemplifies a forward-thinking approach to design, where the boundaries between the virtual and the physical, the digital and the couture, are seamlessly blended.

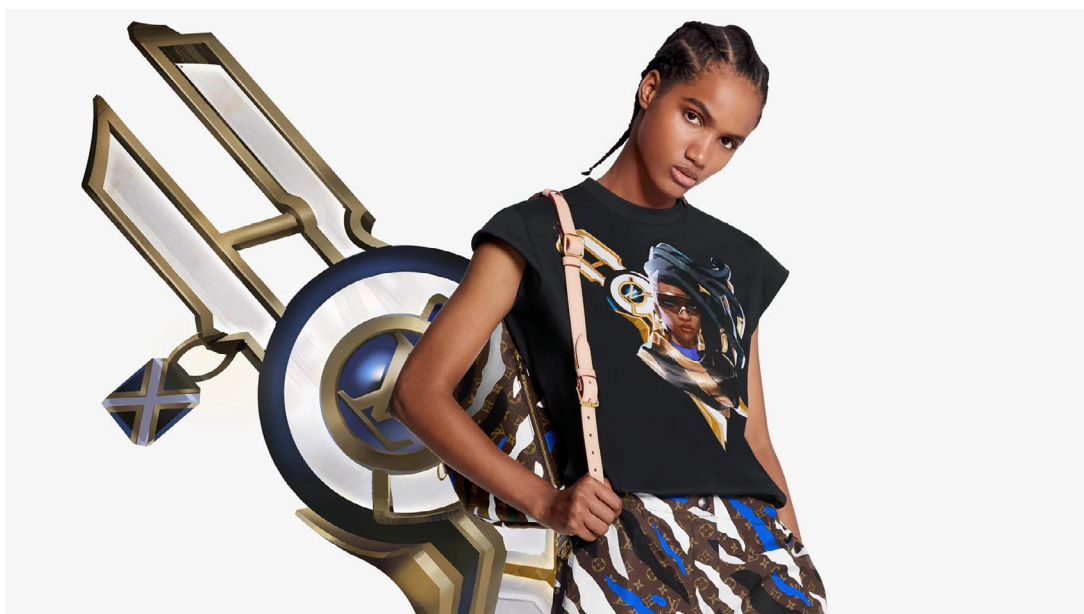


Figure 1. Louis Vuitton x League of Legends collection, 2019.

4.2 Balenciaga Afterworld

The Balenciaga *Afterworld* project represents a significant venture at the intersection of high fashion and digital gaming. In this initiative, Balenciaga extended its creative expression into the realm of digital gaming. *Afterworld* is an ambitious and immersive gaming experience that transcends the traditional bounds of fashion presentation. Set in a speculative future, *Afterworld* not only showcases Balenciaga's collection but also invites players into a narrative-driven journey through meticulously designed virtual environments. The game is set in the year 2031, offering a dystopian yet captivating vision of the future. Players navigate through various levels, each one of them specifically designed to reflect the thematic elements of Balenciaga's collection and the broader narrative of the game.

The integration of fashion into this gaming experience is seamless and intrinsic, with the game serving as a platform for showcasing Balenciaga's designs. The virtual avatars within the game are adorned with pieces from the collection, allowing players to interact with and experience the fashion in a dynamic, three-dimensional space. This approach to fashion presentation is groundbreaking, blending storytelling, gaming, and fashion design into a cohesive and immersive digital experience. *Afterworld* is not just a game; it's a visionary exploration of the possibilities of fashion in a digital context. It represents a paradigm shift in how fashion can be presented and experienced, moving beyond conventional runways and lookbooks to interactive and narrative-rich digital platforms. This project exemplifies how luxury fashion brands can leverage digital technology to create novel and engaging experiences that resonate with contemporary audiences, particularly those familiar with and immersed in digital gaming cultures.

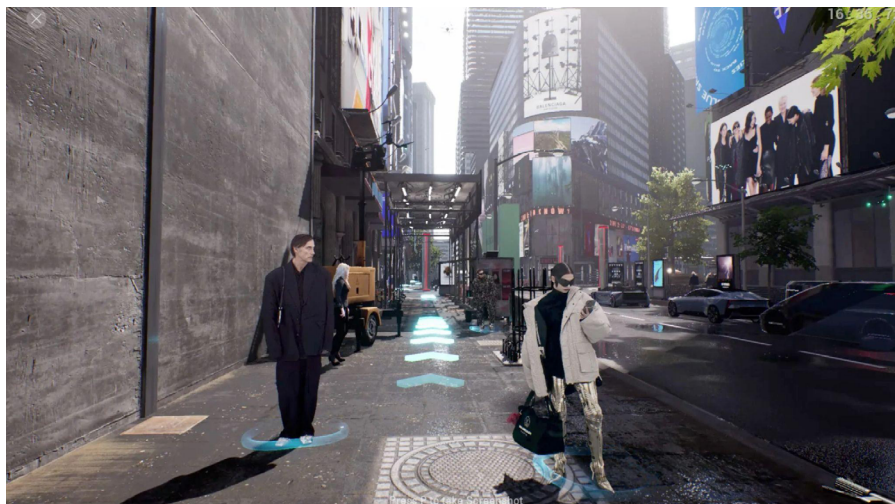


Figure 2. Balenciaga Afterworld, 2021.

4.3 Max Mara Coat Adventures

This is a game within the Roblox platform, in which it is possible to witness the integration of immersive experiences and educational content in the realm of fashion gaming. This game, launched in 2023, proposes a virtual world, characterised by an imaginative landscape where traditional elements of fabric and textile manufacturing are reimagined: meadows transform into expanses of fabric and trees as colossal spools. Here, players navigate a rollercoaster carrying iconic 101801 coats, illustrating a creative interplay between fashion elements and gaming dynamics. *Max Mara Coats Adventure* is segmented into three primary zones: *Pattern Lab*, a virtual tailoring workshop; *Color Parkour*, a navigational challenge focused on collecting colour spheres that align with the brand's colour palette; and *WunderKammer*, a fantastical labyrinth co-created with the artistic collective Atelier dell'Errore from Reggio Emilia. In this section, participants can engage in the creative assembly of mythical creatures, known as 'daimons', which accompany the avatars of the players, adding a layer of personalisation to the user experience.

A relevant aspect of this gaming environment is its educational dimension. *Max Mara Coats Adventure* offers not only an engaging gaming experience but also educational insights, ranging from historical and cultural information about the textile industry to collaborative challenges that promote collective achievement within the game. This case study is a significant example of how fashion brands can expand their outreach into digital gaming platforms, effectively merging brand promotion with educational and community-building objectives. The game serves as an innovative model for how fashion can be recontextualised within digital environments, providing insights into the potential future trajectories of fashion branding and consumer engagement.

4.4 SUNNEI Canvas

SUNNEI Canvas, an initiative by the Italian fashion brand SUNNEI, combines traditional elements of design with cutting-edge digital technology. Launched in July 2020, the *SUNNEI Canvas* collection introduced a gender-neutral clothing line, presented through Computer-Generated Imagery (CGI) models. This approach was particularly resonant at a time when the world was adapting to life during the pandemic, with many people confined to their homes. On SUNNEI's digital platform, top retailers were given the opportunity to personalise their orders, allowing them to modify the design, shapes, and even the materials of each creation. This initiative marked a significant step towards reducing environmental impact, as it eliminated the need for physical samples. Moreover, it enhanced the direct relationship with buyers, allowing them a greater degree of involvement in the design process. This approach not only reflected Sunnei's commitment to sustainability but also its dedication to fostering stronger connections with its retail partners.

In further advancement of this concept, the *SUNNEI Canvas* collection went into the digital realm with the Fall/Winter 2021 presentation. SUNNEI elevated the digital aspects of its work by showcasing the collection within a video game environment. This platform featured 3D characters performing in a paradoxical, never-ending game, offering an avant-garde and limitless approach to fashion presentations. In this virtual setting, ten avatars were available for customisation with different outfits from the FW21 collection. Each avatar could transition through various looks, symbolising the continuous cycle of fashion trends.



Figure 3. SUNNEI Canvas, 2020.

4.5 Metamorphic Fashion Design

Metamorphic Fashion Design, conceived in 2020, is an educational project undertaken at the Università degli Studi di Firenze in collaboration with Fondazione Sistema Toscana – Manifatture Digitali Cinema. This initiative, born in the midst of the global pandemic, seeks to address the pressing issues of our time by

merging the worlds of fashion and gaming, particularly by using gaming as a tool to explore central themes in contemporary fashion. At the heart of *Metamorphic Fashion Design* is the exploration of protection as a concept, drawing inspiration from the natural world. The project delves into phenomena such as mutation, mimicry, symbiosis, and collaboration, mirroring these natural processes in a digital ‘forest’ setting. This environment serves as a backdrop for an array of unique characters, including grasshoppers, peacocks, bees, and aliens, which transcend traditional storytelling through metaphysical narratives and conceptual elements. The characters in this project are adorned in garments designed and adapted to the game context by students from the Università degli Studi di Firenze. The designs, which emphasise low environmental impact, no-gender principles, and multi-layered fashion, bring the narrative to life. They form a virtual collection that not only highlights sustainability and adaptability in fashion but also demonstrates the potential of digital technology in fashion design.

Metamorphic Fashion Design exemplifies the intersection of digital technology, environmental awareness, and cutting-edge fashion design within an educational framework. The project aims to redefine how fashion is presented and perceived, integrating contemporary themes and challenging conventional fashion paradigms. It showcases how digital platforms, used as an educational tool, can reorient the way fashion is taught, communicated, and experienced, making it a valuable case study for contemporary fashion education. This approach reflects the evolving needs of the fashion industry and the importance of integrating innovative methods like gaming into fashion education to address central themes in the contemporary fashion landscape.

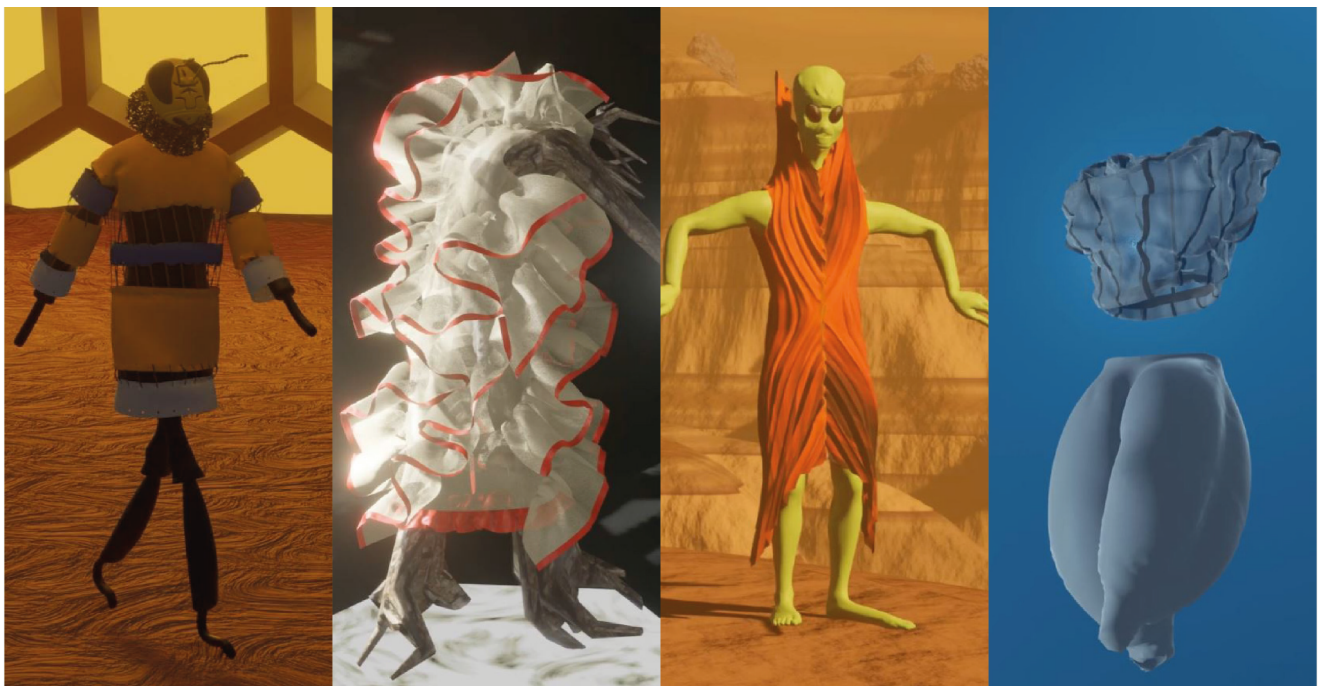


Figure 4. Metamorphic Fashion Design, 2020.

4.6 Game Design Course

Concluded in January 2024, the Game Design course within the MA Degree Course in Fashion System Design at the Università degli Studi di Firenze was conceived as an educational journey, merging the worlds of digital gaming and fashion. In this course, students were challenged to design games as extensions of fashion brands or institutions, aiming to increase public awareness about the fashion industry’s impacts. The course’s approach combined playful experiences with educational content to convey meaningful messages and encourage behavioural changes, as well as a shift in perceptions of fashion among brands, institutions, or consumers. Throughout the course, students explored a speculative design approach to game design, allowing them to envision and create future scenarios, challenging the existing norms and practices of the fashion industry. In addition, the course incorporated nudge theory principles, to subtly

guide player behaviour within the game environments. This integration of nudge theory encouraged the development of games that not only inform but also influence player behaviour towards more responsible and sustainable fashion practices. The culmination of the course saw the creation of ‘figural systems’ – interactive and immersive game environments where knowledge acquisition and behaviour improvement were key objectives. These systems were designed to be both informative and engaging, offering players a platform to learn about the fashion industry's impact while enjoying a compelling gaming experience. The students' final projects demonstrated a deep understanding of how game design could be utilised as a powerful tool for communication and change within the fashion industry. Moreover, the course highlights the potential of integrating game design with fashion studies. It showcased how digital platforms could be effectively used to address critical issues in the fashion industry, offering a novel way to educate and engage both students and audiences about sustainability and responsible consumption.

4.7 Discussion

The collaboration between Louis Vuitton and *League of Legends* exemplifies the experimental efforts made by fashion brands to engage new audience types, such as esports players, showcasing how luxury fashion brands are reaching out to the gaming community. Meanwhile, *Max Mara Coat Adventures* represents a case of creating digital worlds that intersect brand communication with edutainment, reflecting an innovative approach to brand storytelling through in-game immersive digital experiences. Balenciaga's *Afterworld* project offers a profound insight into the interpretation of fashion gamification as an act of speculative design. This case highlights how fashion brands can use digital platforms not only for marketing but also for envisioning and presenting speculative futures. *SUNNEI Canvas* exemplifies a pioneering approach to fashion presentation and consumer engagement. By integrating digital technology and interactive gaming elements, SUNNEI has not only expanded the boundaries of fashion marketing but also illustrated the potential for digital platforms to revolutionise the way fashion is consumed and experienced.

Adding to this discussion of case studies, *Metamorphic Fashion Design* explores the use of gaming in fashion education as a tool to address key themes in contemporary fashion, such as environmental sustainability and adaptability. This project offers a fresh perspective on fashion communication and demonstrates the power of digital storytelling in fashion education. Furthermore, the Game Design Course underscores this educational approach, where students design games that extend the activities of fashion brands or institutions, aiming to increase awareness and encourage behavioural changes in the context of fashion's impact through speculative approaches.

These case studies collectively illustrate the evolving landscape of fashion in the digital era, underscoring the significant potential of gaming and digital platforms as influential tools for creative brand storytelling, broadening audience reach, and emphasising the importance of speculative approaches in fostering a shift towards sustainability in fashion. The array of strategies adopted by these fashion brands, along with the educational experiences conducted at the Università degli Studi di Firenze, marks a shift into a new form of Digital Game, where responsibility and social consciousness are proportional to the complexity of the virtual reality created.

This evolution represents a shift in the fashion industry's approach to engagement, moving beyond mere entertainment to embed deeper social and environmental messages within the gaming experience. The case studies demonstrate how fashion brands are effectively using digital platforms not just for marketing, but also for conveying contemporary relevant messages about sustainability and responsible consumption. The educational experiences at the Università degli Studi di Firenze, in particular, highlight how academic institutions can play a pivotal role in shaping the future of fashion by integrating gaming and digital technologies into their curricula.

5. Conclusions

In conclusion, this article aimed to capture the essence of how the fashion industry, through its engagement with digital and gaming platforms, is adopting speculative approaches to tackle complex, multifaceted challenges. As highlighted by Dunne and Raby (2013), this approach ‘thrives on imagination and aims to open up new perspectives’, creating spaces for discussion and debate about alternative ways of being. This is particularly evident in the ways fashion has embraced gamification and speculative design, moving beyond traditional paradigms to foster engagement, community building, and the strengthening of brand narratives.

The potential of gamification to motivate individuals to share knowledge, become part of a community, and reinforce the imagery of a product or brand has been increasingly recognised (Kwon et al., 2015; Swacha, 2015; Silic and Back, 2017). This recognition aligns with Bergonse’s (2017) definition of a videogame as a mode of interaction within a meaningful fictional context, sustained by emotional attachment. This engagement transcends the mere consumption of fashion, involving players in a narrative that intertwines the virtual with the real. Hence, understanding fashion’s attempts to engage with newer, younger audiences, such as gaming communities, requires exploring the mechanisms of fiction, blending the imaginary with reality, and creating narrative planes where fantasy, suggestion, and adventure intersect with real-life experiences.

The digital world, in its production of dematerialised identities, feeds on and contributes to new values and practices (Rocamora, 2023). The close link that is consolidated between physical and digital reality can be more easily grasped if we move away from understanding ‘virtual’ as a term exclusively referred to cyberspace (and thus as something illusory that differs radically from physical reality) to embrace the term in its original meaning, i.e. as something ‘real without being actual, ideal without being abstract’ (Proust as cited in Rob Shields, 2005) in other words as a ‘plane of immanence’, as a site of generative potentiality that is delineated through actualisations in daily life (Deleuze, 2005).

Thus, the cases studied here – from Louis Vuitton’s collaboration with *League of Legends* to *Max Mara’s Coat Adventures*, Balenciaga’s *Afterworld*, *SUNNEI Canvas*, *Metamorphic Fashion Design*, and the Game Design Course at the Università degli Studi di Firenze – demonstrate a shift in fashion towards a more immersive, interactive, and imaginative realm. These initiatives highlight how fashion capacity in crafting narratives, and experiences, and engaging with contemporary societal issues, particularly sustainability. The integration of digital tools in higher education, as explored by Bain (2021), Bertola & Colombi (2021), Särämäkari (2021), Tepe & Koohnavard (2023), and Varra (2021), presents opportunities for creating alternative fashion-related experiences in digital and hybrid spaces. This approach prepares future digital fashion designers to break from traditional norms and develop practices and values unique to digital environments (Logaldo, 2016; Särämäkari & Vänskä, 2022; Thiel, 2017).

Ultimately, by embracing gaming and digital technologies, the fashion industry is not only expanding its reach and reshaping its narrative techniques but is also significantly contributing to broader cultural and social discourses. This transformative phase in the industry signifies fashion’s evolution into a medium for storytelling, community engagement, and addressing global challenges, redefining its role in contemporary society.

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Acknowledgements: The authors shared the approach of the text and jointly wrote the paragraphs 1 and 5. The paragraphs 3, 4.1, 4.2, 4.3 were written by Paolo Franzo. The paragraphs 2, 4.4, 4.5, 4.6, 4.7 were written by Margherita Tufarelli.

P/REFERENCES OF DESIGN

This contribution was presented at Cumulus Budapest 2024: P/References of Design conference, hosted by the Moholy-Nagy University of Art and Design Budapest, Hungary between May 15-17, 2024.

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ISBN Volume 1: 978-952-7549-02-5 (PDF)

ISBN Volume 2: 978-952-7549-03-2 (PDF)

DOI Volume 1: <https://doi.org/10.63442/IZUP8898>

DOI Volume 2: <https://doi.org/10.63442/TADX4016>

Conference Organisers

Moholy-Nagy University of Art and Design Budapest (MOME)

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