



Degree Program Business administration

Course of Intellectual Property Rights

Runway to Reality: The Legal Threads of Fashion in the Metaverse

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Introduction

The fashion industry is revolutionizing as it expands into the metaverse. Fashion has evolved into a dynamic combination of design, technology, and digital commerce and is no longer limited to physical apparel. Virtual clothing, NFTs, and augmented reality (AR) accessories reshape how consumers engage with brands, offering new identity construction and social interaction modes. As this new world evolves, fashion's legal foundations, especially intellectual property (IP), are being tested in real time.

This thesis explores how traditional IP frameworks apply to fashion in the metaverse, highlighting both their potential and limitations. Existing laws were built for tangible goods and centralized platforms, not for decentralized marketplaces, AI-generated designs, or blockchain-based ownership systems, thus leading to the rise of potential challenges. Fashion brands now operate in a space where their designs can be replicated, remixed, or resold with minimal costs, often across legal jurisdictions that were never taken in consideration by original IP statutes.

The organization of the thesis tries to reflect this interdisciplinary methodology. Chapter 1 discusses the economic opportunity around virtual fashion, looking at the new revenue models the metaverse presents, from direct-to-avatar sales to virtual fashion experiences. It examines the drivers of consumer adoption, including personalization, exclusivity, and individuality, which together render fashion one of the most profitable areas in the metaverse. Chapter 2 is a detailed examination of the dispute between Hermès and Rothschild in the "MetaBirkin" NFTs, an exploration of the response of one of the world's top brands to unauthorized digital creation of handbags based on non-fungible tokens. The dispute is a key reference point for grasping legal and reputational risks that face brands when their property is digitally reproduced without permission.

Chapter 3 forms the legal heart of the thesis, comprising a detailed analysis of key areas of intellectual property law: trademark protection, digital fashion copyright issues, wearable technology and augmented reality fashion patent issues, and the dilemmas posed by consumer-generated content in virtual environments. Each section delineates the legal uncertainties experienced by stakeholders in the fashion industry, supported by applicable case law, policy initiatives, and scholarly commentary.

Finally, this study interrogates whether current IP regimes, particularly in the EU and the U.S., are ready to safeguard fashion in the metaverse, or if we are seeing the start of a necessary legal revolution. In blending legal examination with real-world case studies and reflective personal commentary, the thesis seeks to join the nascent discussion on fashion's virtual destiny and the part law can play in fostering innovation without compromising the protection of rights.

Chapter 1

The Fashion Industry's Integration into the Metaverse

1.1 What is the metaverse?

The concept of Metaverse even though is relatively recent has been around for decades. Science Fiction writer Neal Stephenson mentioned the term “Metaverse” in his 1992 novel Snow Crash.

The Metaverse, in the book, is a computer-generated parallel virtual world, entered using equipment like headsets and googles. It has at its center a protocol called “The Street,” a virtual highway that connects various virtual locations.

Individuals enter as tailored virtual bodies, avatars. The avatars map onto social stratification: the more advanced and sophisticated the avatar, the greater the user's status and the degree of access to reserved spaces. The narrative takes place in a cyberpunk-future in the United States, after a period of economic depression, in which the metaverse has become an asylum from a totalitarian world.

In this synthetic 3D environment, everything human is duplicated subject to new digital laws and regulations.¹

However, before Stephenson's Snow Crash, the concept already appeared in other science fictions. For instance, in William Gibson's Neuromancer (1984), the protagonist discovers a virtual reality called the “Matrix”.

¹ Neal Stephenson, Snow Crash: A Novel; Random House Publishing Group: New York, NY, USA, 2003

In addition, computer science professor and mathematician Vernor Vinge speculated about a global brain in his 1981 novella "True Names," which introduced the overall idea of accessing a virtual world via a portal.²

Metaverse consists of two separate words. The Greek prefix “meta” meaning “after” or “beyond” and the word “verse” that stands for “universe”. Through this definition we can identify a digital parallel world which allows users to work with its contents just like they experienced actual places. The contemporary definition of the metaverse describes: “A massively scaled and interoperable network of real-time rendered 3D virtual worlds that can be experienced synchronously and persistently by an effectively unlimited number of users with an individual sense of presence, and with continuity of data, such as identity, history, entitlements, objects, communications, and payments.” The metaverse operates through integrations of technologies such as virtual reality (VR), augmented reality (AR), artificial intelligence (AI), and blockchain, that allow experiences across various digital environments.

The metaverse blurs the line between physical and virtual worlds, allowing users to perform multiple activities such as: gaming, work, shopping, and education in a unified digital space.

The metaverse is not simply a technological shift, but a structural transformation that will reshape economies, industries, and even our social contract, yet, with such transformative potential comes a parallel need to carefully assess both its promises and its perils.³

² *Beyond Sci-Fi*. (2023). Vection-Technologies.com. <https://vection-technologies.com/blog/Beyond-Sci-Fi-A-Brief-History-of-the-Term-Metaverse/>

³ Ball M.(2022). The Metaverse: And how it will Revolutionize Everything.

1.2 Opportunities and Risks for Fashion Brands

The rapid expansion in the digital world, and particularly the emergence of the metaverse, is reshaping the economic models of fashion brands.

As business models evolve, luxury houses face opportunities and notable risks. Digitally native customers, especially Gen Z, are redirecting attention and purchasing power toward immersive, virtual experiences.

This pivot forces brands to rethink how they create value, capture revenues, and engage with clients.

Simultaneously, economic uncertainty, shifting consumers preferences, and the elevated costs of technological innovation raise questions on long-term profitability. The fashion industry must strike a delicate balance between investing in innovation and preserving brand exclusivity and heritage.

Luxury fashion brands are persistently exploring the metaverse as a domain for economic growth. This is the result of the metaverse increasing market trajectory and its appeal to digitally native consumers. Recent research estimates that the metaverse fashion market will reach USD \$6.61 billion by 2026, growing at an impressive 36% compound annual.⁴

As a matter of fact, the sector showed a 30.5% year-over-growth in 2022 alone demonstrating good momentum. Consumer demand underlines such growth: 30% of surveyed people are excited about engaging with apparel, fashion, and luxury brands in virtual worlds.

⁴ Haueiss, P. (2023, March 27). *Metaverse Fashion Report 2023* | Patricia Haueiss. Patricia Haueiss. <https://www.patriciahaueiss.com/post/metaverse-fashion-report-2023-unlocking-the-future-of-style#viewer-8ftkj>

On such a basis, luxury brands see huge potential to build new revenues, drive profitability, grow globally, streamline, and engage customers more meaningfully in the metaverse.⁵



Figure 7⁶

Firstly, entering the metaverse opens entirely new revenue streams for luxury fashion brands beyond the limitations of physical product sales. Brands can create and sell digital fashion items from virtual clothing and accessories for avatars to exchangeable Non-Fungible Tokens (NFTs), allowing for new products and services that were previously unimaginable. For example, a luxury house can design custom virtual apparel or avatar skins and directly sell it to consumers in-game or in virtual social worlds. They can also experiment with new revenue models like freemium content⁷ or microtransactions.

One model described in a metaverse fashion report offering a free virtual experience but charging a small fee (e.g. \$10) for premium avatar customizations, a service which “could generate a revenue stream over time without adding unit production costs”.⁸

⁵ *Ibid*

⁶ *Metaverse in Fashion Market by Platform and Geography - Forecast and Analysis 2022-2026*. (n.d.). Technavio. <https://www.technavio.com/report/metaverse-in-fashion-market-industry-analysis>

⁷ Offering basic content for free, and then charging users for extra, premium features or products

⁸ *Ibid*

This illustrates the way in which digital products can scale revenues with minimal marginal costs. In addition to one-time sales, NFT items open recurring revenues streams through resale royalties. Each time a digital fashion NFT is resold on a secondary market, the original owner (i.e. the brand or designer) gets a percentage of that. This would enable a luxury brand to continue earning money from a top-selling digital item as it is resold among collectors, a dynamic revenue stream without any equivalent in the physical fashion world.⁹ Industry analysts foresee these metaverse-generated revenues becoming meaningful for leading brands: in the coming years, early-mover luxury brands could be able to earn up to 5% of their total revenue from metaverse activities based on a McKinsey analysis.¹⁰ Furthermore, virtual fashion goods carry phenomenally high profit margins compared to physical commodities. Once a company has made the initial investment in producing a virtual dress or accessory, duplication for resale is practically cost-free since there are no raw input manufacturing or distributions costs for subsequent copies. As one industry technologist explains:” In the digital space, there’s obviously a high profit margin because digital products are infinitely scalable. You write one program, or you have one object, and obviously this can be duplicated whether it be a million times or one time.”¹¹ That is, one single digital luxury item can be marketed to millions of customers at little incremental cost, dramatically boosting gross margin per unit.

⁹ *Ibid*

¹⁰ Khan, H., & Seelig, I.-M. (2022, November 8). *Metaverse interview with expert Irene-Marie Seelig | McKinsey*. [Www.mckinsey.com. https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/fashion-forward-in-the-metaverse](https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/fashion-forward-in-the-metaverse)

¹¹ *Transforming Luxury Episode 5: Can Luxury Maintain Its Relevance in the Metaverse?* (n.d.). The Business of Fashion. <https://www.businessoffashion.com/podcasts/luxury/transforming-luxury-episode-5-can-luxury-maintain-its-relevance-in-the-metaverse/>

For luxury brand known to command premium pricing, this scalability boosts profitability. One couture dress that might cost thousands of dollars to produce in physical form can be produced virtually and sold at premium price with little unit cost after the first copy.

Moreover, there is no risk of unsold inventory or carrying cost since digital goods are on-demand. Brands also don't need to invest in retail overhead in the traditional sense because no logistics or physical store is needed to provide a virtual product. All this means that metaverse products can have profit margins far higher than even the most premium physical products.

By introducing virtual goods into their product offerings, luxury brands tap into revenue that is not only new but very lucrative, and this may increase the overall profit margin of the company. Additionally, the metaverse's borderless digital world gives luxury brands unmatched global reach. Virtual spaces are accessible worldwide, and brands can engage with consumers on other continents in real-time without investing in a local physical presence.

This global accessibility expands the addressable market. In fact, by offering metaverse fashion, accessories, and experiences, brands have “reached a wider audience” thus facilitating the development of a booming global metaverse fashion ecosystem.¹²

The key driver of growth is the rising number of fashion brands entering the metaverse and investing in digital products. This creates a networks effect: more brands attract more consumers to virtual fashion, which attract even more brands. Consumer demand is, in fact global, most of Gen Z and young consumers are not just aware of virtual worlds but expect their favorite brands to be there. According to one survey, over 40% of Gen Z believe that companies should sell goods in the metaverse since it represents a convenient way of buying digital and even real-world goods.

¹² Haueiss, P. (2023, March 27). *Metaverse Fashion Report 2023* | Patricia Haueiss. Patricia Haueiss. <https://www.patriciahaueiss.com/post/metaverse-fashion-report-2023-unlocking-the-future-of-style#viewer-8ftkj>

With elevated demand across regions, a metaverse presence permits luxury brands to capitalize on worldwide demand instantly and generating sales 24/7.¹³

Aside from revenue, the metaverse holds tremendous operational efficiencies for fashion companies. As already stated, creating and delivering virtual goods can be far more resource efficient than traditional manufacturing and retail. Furthermore, virtual fashion allows a much quicker go-to-market timeline. Design cycles that usually take weeks or months in the real world (to prototype, make samples, and ship) can be done in days in the metaverse. Brands can quickly design or adjust a virtual garment based on input from the community and launch it live to consumers in seconds. Business can serve customers worldwide without the need to manage a supply chain.¹⁴

At the operational level, the metaverse also enables efficiencies in marketing, that can be seamlessly woven into the ecosystem (e.g. avatar clothing as self-advertising) without expensive ad buys. All these efficiencies, from production through distribution and marketing, can decrease costs and increase the total ROI (return on investment) of emerging fashion companies.

Perhaps one of the most valuable opportunities in the metaverse is the ability to foster deeper customer engagement and brand loyalty through immersive experiences. With VR showrooms, 3D catwalks, and virtual collectibles, brands engage Gen Z and millennials who want self-expression online. Immersive virtual experiences create emotional bonds and belongingness, converting customers into brand advocates. Metaverse solutions also facilitate omnichannel strategies by

¹³ *Ibid*

¹⁴ *Ibid*

connecting virtual rewards with real-world rewards, making the brand more relevant and building long-term customer value.¹⁵

However, the transition into virtual commerce also comes with inherent risks that must be carefully managed. Industry reports and analyses point to several broad categories of concern. These include threats to brands identity, technological uncertainties, and unclear return on investments.

Apart from this risk there also significant legal and intellectual property challenges that will be analyzed in the following chapter.

One major risk for fashion brands entering the metaverse is uncertainty around return on investment (ROI). Launching virtual collections, digital stores, or NFTs requires high upfront costs, yet business outcomes remain unknown since the market is at an early stage and has not yet had proven success. Even more optimistic projections acknowledge that no one can yet predict how value will be distributed across the metaverse ecosystem, raising concerns that some ventures might never recoup their costs if consumer uptake or monetization models fall short. This ROI uncertainty forces fashion companies to weigh the potential rewards of innovation against the very real possibility of underwhelming financial returns.¹⁶

Fashion brands entering the metaverse also face platform dependency risks. At the moment, the metaverse is dominated by different platforms (for example, specific virtual worlds, gaming environments, or social VR spaces) that serve as gatekeepers to consumers. As a result, brands must choose carefully where to launch their digital assets since if a chosen platform declines, changes its rules or raises its fees, brands risk losing their virtual property and customer base. A

¹⁵ Technavio. (n.d.). *Metaverse in Fashion Market to Record a 30.5% Y-O-Y Growth Rate in 2022, Growing Number of Fashion Brands Entering the Metaverse Platform to Boost Growth* - Technavio. [Www.prnewswire.com. https://www.prnewswire.com/news-releases/metaverse-in-fashion-market-to-record-a-30-5-y-o-y-growth-rate-in-2022--growing-number-of-fashion-brands-entering-the-metaverse-platform-to-boost-growth---technavio-301595475.html](https://www.prnewswire.com/news-releases/metaverse-in-fashion-market-to-record-a-30-5-y-o-y-growth-rate-in-2022--growing-number-of-fashion-brands-entering-the-metaverse-platform-to-boost-growth---technavio-301595475.html)

¹⁶ Ball M.(2022). The Metaverse: And how it will Revolutionize Everything.

major issue is the lack of interoperability, digital items like clothing or avatars often can't transfer between platforms rapping both brands and consumers in isolated ecosystems.¹⁷

This fragmentation renders a brand's investment in content for one platform unlikely to be reusable elsewhere, contributing to development cost and the risk of lock-in. Industry observers are urging brands to mitigate this risk by pushing for more open metaverse standards.

For example, Forbes says that luxury brands stand to have a "win-win" if they take the initiative to define the metaverse ecosystem instead of leaving it to big tech to define it.

This signifies getting involved sooner in creating cross-platform standards or even building their own platforms so that brands can avoid becoming hostage to a few large players.

Ball (2022) also warns against the threat of monopolistic platform control: if the metaverse's infrastructure is controlled by a small number of tech giants, fashion brands could face limited autonomy and unfavorable economic terms.

The metaverse 's underlying technologies are still maturing, leading to technological instability that can carry economic risk for fashion brands. Development in this space requires advanced technology like blockchain, NFTs, VR/AR, and game engines, which in most instances aren't standardized.

This leaves brands vulnerable to greater spending from duplicating content on different platforms and merging complex systems. These types of projects also lack robustness with possible fallout of technical issues in events that harm reputation and waste investment. Rapid innovation adds to the risk, as prior investments are quickly outdated. Trial-and-error approaches and a lack of in-house competencies make metaverse projects costly and risky.

¹⁷ Haueiss, P. (2023, March 27). *Metaverse Fashion Report 2023* | Patricia Haueiss. Patricia Haueiss. <https://www.patriciahaueiss.com/post/metaverse-fashion-report-2023-unlocking-the-future-of-style#viewer-8ftkj>

Another similar issue is the strict entry barrier for users on account of technical knowledge current metaverse experiences tend to require consumers to use digital wallets, cryptocurrencies, or VR hardware, something that necessitates some level of technical skill that most consumers do not possess. This factor discourages adoption and reduces the short-term payback for a brand's metaverse investment. Beyond this, most fashion companies lack in-house expertise in these new technologies; there is a talent deficiency, since experience in the execution of metaverse projects is scarce. As a result, brands may have to spend heavily on new hires or depend on technology partners at expense and with risks.¹⁸

Entering the metaverse presents brand dilution and identity risks for fashion brands, especially luxury brands. Transferring a well-designed real-world image into virtual spaces often cartoonish or game-like may be alien to a brand's esthetic, possibly diluting its rarity. Over-saturating the market, e.g., providing high-fashion items liberally as cheap digital wearables, can devalue the brand's perceived worth. Inappropriately chosen partnerships or confused virtual depictions can alienate customers and damage brand identity. To prevent this, brands need to manage their logos, designs, and stories carefully in the metaverse so that they align physical and digital expressions of the brand. Brand consistency is key: experts argue that each fashion house needs to “*strategically align its artistic identity*” between the real and virtual worlds.¹⁹

Lastly, Fashion brands entering the metaverse are subject to significant data security and privacy risks. Metaverse platforms can collect extensive personal data, including biometric and behavioral data, raising concerns about user privacy and exploitation. Compromise or exploitation of this kind of data can lead to reputational damage, legal consequences, and customer trust loss. In addition,

¹⁸ *Ibid*

¹⁹ Hedberg, H. (2024, January 17). *How Digital Fashion and the Metaverse Change the Clothes We Will Wear*. [Www.inuru.com. https://www.inuru.com/post/how-digital-fashion-and-the-metaverse-change-the-clothes-we-will-wear](https://www.inuru.com/post/how-digital-fashion-and-the-metaverse-change-the-clothes-we-will-wear)

virtual worlds and NFT platforms are prone to hacking and fraud, thereby leaving brands vulnerable to counterfeited products or digital assets that have been stolen. Safe transactions and strong data protection need to be ensured, especially considering legislations like GDPR (General Data Protection Regulation) are applicable to virtual worlds as well. Brands are therefore obliged to invest in privacy and cybersecurity initiatives to protect the users and their own brand image.²⁰

1.3 Case Studies of Digital Pioneers: Gucci, Balenciaga, and Louis Vuitton

Over the past few years, leading luxury players have entered the metaverse with bold gestures, not only as a branding exercise but also as a way to create new business models, connect with new consumer groups, and remain culturally ahead in a digital age. Among these, Gucci, Balenciaga, and Louis Vuitton have stood out for their pioneering and experimental engagement with immersive virtual worlds, fashion driven by avatars, and blockchain-enabled digital assets. Their individual metaverse strategies embody both the economic promise and pitfalls that define fashion's move into virtual commerce.

Gucci entered the metaverse through the launch of its "Gucci Garden" on Roblox in May 2021, a two-week-long experiential event designed to celebrate the centennial of the brand. Visitors within the virtual space could experience theme rooms which demonstrated how Gucci's brand style had developed according to their archival campaigns. Users could purchase special digital items, such as the virtual Dionysus Bag, that sold on Roblox's secondary market for over \$4,000 more than its real-world counterpart.²¹

²⁰ Haueiss, P. (2023, March 27). *Metaverse Fashion Report 2023 | Patricia Haueiss*. Patricia Haueiss. <https://www.patriciahaueiss.com/post/metaverse-fashion-report-2023-unlocking-the-future-of-style#viewer-8ftkj>

²¹ Rodriguez, C. (2023, July 25). *How Gucci Created an Immersive Experience in Roblox*. Metaverse Maven Musings. <https://medium.com/metaverse-maven-musings/how-gucci-created-an-immersive-experience-in-roblox-9f0d07b94505>



Figure 8²²

The Gucci Garden showcased Direct-to-Avatar (D2A) as a sales channel, enabling the brand to sell digital-only products that entailed no physical production and distribution costs, and thus generated high profit margins. The use of Roblox platforms by Gucci enabled the company to attract Gen Z consumers within their native environment, which expanded brand reach and developed enduring customer loyalty.²³ However, the initiative also exposed the brand to platform dependency risks. Gucci did not control the Roblox ecosystem, and the long-term visibility of its branded assets remained at the discretion of the host platform.

Gucci released "Gucci Town" in May 2022, a dynamic virtual world on Roblox. In partnership with The Gang Stockholm, Gucci Town featured some interactive zones, such as mini-games, art exhibits, and an e-commerce platform selling digital fashion apparel and accessories for avatars. The platform also included collaboration with celebrity figures like Jack Grealish and Miley Cyrus,

²² *La Maison ha scelto la piattaforma Roblox per una speciale esperienza virtuale interattiva del Gucci Garden.* (2025). Gucci.com. https://www.gucci.com/it/it/stories/article/gucci-gaming-roblox?srltid=AfmBOopEk_F4ZkLfetKQaQdYL6Yg9jEbE0tNmave3rJuKA1dD9csF9M-

²³ Vogue Business. (2019, October 11). *Vogue Business – Fashion's Global Perspective*. Vogue Business. <https://www.voguebusiness.com/>

introducing their avatars in the game to engage with players through themed events and challenges.²⁴



Figure 9²⁵

Gucci's engagement within the metaverse was underpinned by a broader organizational transformation. As detailed in the London Business School case study, the brand's early experimentation led to the creation of a cross-functional unit internally known as "Dream Big." Originally launched as a gaming squad, this team evolved into a multidisciplinary business unit with full profit and loss (P&L) responsibility, reflecting Gucci's shift from ad hoc digital experiments to a more structured, long-term innovation strategy. The team worked in close collaboration with the creative department led by Alessandro Michele to merge digital expressions and brand identity. This internal harmony allowed Gucci not only to enter the metaverse as a

²⁴ *Welcome to Gucci Town, the House's newest digital gathering place on Roblox.* (2025). Gucci.com. https://www.gucci.com/th/en_gb/stories/article/gucci-town-on-roblox

²⁵ *Ti diamo il benvenuto a Gucci Town, la nuova piazza digitale della Maison su Roblox.* (2025). Gucci.com. <https://www.gucci.com/ch/it/stories/article/gucci-town-on-roblox?srltid=AfmBOorb7JqLKpp8LykDu2HFLT-AVXFVioMVELcHrU4BYCvnQ4gJUp-u>

marketing ground and develop luxury offerings through co-creative experiences that offered experiential qualities and digital scaling.

Furthermore, between 2019 and 2021, Gucci partnered with platforms such as *Tennis Clash*, *The Sims*, *Pokémon Go*, *Animal Crossing*, *Zepeto*, engaging directly with creators and communities to craft original, immersive experiences.²⁶

Additionally, metaverse innovation remains fundamental to Balenciaga's business model through its established digital innovation strategy. In 2021, the fashion brand created a dedicated business unit to explore opportunities in the virtual universe, committing to active engagement in the long term and beyond marketing experiments. One of Balenciaga's most iconic milestones was its collaboration with Epic Games' Fortnite, the game's first-ever partnership with a luxury fashion house.

In September 2021, Balenciaga released the "Balenciaga Fit Set" in Fortnite, featuring virtual character skins for Doggo, Ramirez, Knight, and Banshee. The skins were created from detailed 3D scans of Balenciaga's real-life clothing, allowing authenticity and high-quality virtual representation. The collaboration extended outside the sphere of aesthetics; items like the Speed 3.0 sneaker were reconfigured as functional in-game devices, such as pickaxes, and the Hourglass bag was redesigned as a glider, incorporating gameplay utility while augmenting brand recognition.²⁷

In reality, as Balenciaga's creative director Demna Gvasalia states: "Our partnership with Epic didn't start with Fortnite. It started with our own first video game, *Afterworld*, which we made with Unreal Engine to introduce our Fall 2021 collection. And then we kept getting inspired by

²⁶ Turconi, S., & Lobina, U. (2023). *Gucci in the metaverse* [Case study]. London Business School.

²⁷ Sanghvi, Y. (2022, October 4). *How Balenciaga Does Marketing in the Metaverse*. Medium. <https://yomivins.medium.com/how-balenciaga-does-marketing-in-the-metaverse-7ae069e1fd72>

the creativity of Unreal and Fortnite communities. It completely made sense, to me, that we work together even further by creating these actual Balenciaga looks for Fortnite and a new line of physical Fortnite clothing for our stores.”²⁸



Figure 10²⁹

The partnership yielded the "Strange Times" Creative Hub, a virtual Balenciaga store in Fortnite's Creative Mode. The space allowed players to learn about Balenciaga's virtual offerings and participate in community activities. Notably, player-generated content was showcased on billboards within the game, creating an interactive "living lookbook" that celebrated player imagination and facilitated a sense of belonging.³⁰

Balenciaga's strategy was also brought to life in the real world by a limited-edition line of products, including hoodies and T-shirts, being available in limited stores and online. The purchase of the

²⁸ Games, E. (2021, September 20). *Balenciaga Brings High Fashion to Fortnite*. Epicgames.com; Epic Games. <https://www.epicgames.com/site/en-US/news/balenciaga-brings-high-fashion-to-fortnite>

²⁹ *High Digital Fashion Drops into Fortnite with Balenciaga*. (n.d.). Epic Games' Fortnite. <https://www.fortnite.com/news/high-digital-fashion-drops-into-fortnite-with-balenciaga?lang=en-US>

³⁰ Peters, J. (2021, September 20). *Epic's high-fashion collaboration with Balenciaga in Fortnite includes a hoodie for a walking dog*. The Verge. <https://www.theverge.com/2021/9/20/22679754/fortnite-balenciaga-collaboration-epic-games-unreal-engine>

products granted users access to corresponding digital wearables in Fortnite notably, the clothing is significantly more expensive in real stores than digital, including the hoodies that are around \$750 in real stores.



Figure 11³¹

The collaboration experienced great participation, with Balenciaga recording a 49% increase in search volumes following the campaign, which garnered extensive media coverage and positive comments across various platforms. The campaign's success is an indication of the potential for such collaborations in raising brand awareness and relevance among digitally native consumers³²

The final case study is Louis Vuitton, a maison that exemplifies a thoughtful fusion of heritage and innovation, driving digital luxury from the front. The house's activities include immersive gaming experiences, curated NFT drops, and the establishment of a token-gated community, showcasing an expansive approach to connecting virtually.

³¹ Maguire, L. (2021, September 20). *Balenciaga launches on Fortnite: What it means for luxury*. Vogue Business. <https://www.voguebusiness.com/technology/balenciaga-launches-on-fortnite-what-it-means-for-luxury>

³² Sanghvi, Y. (2022, October 4). *How Balenciaga Does Marketing in the Metaverse*. Medium. <https://yomivins.medium.com/how-balenciaga-does-marketing-in-the-metaverse-7ae069e1fd72>

In August 2021, commemorating its founder's 200th birthday, Louis Vuitton launched Louis: The Game, an adventure mobile game featuring the brand's mascot, Vivienne (Figure12). Players navigate six virtual worlds, collecting 30 NFTs, ten of which were designed by renowned digital artist Beeple. In addition to educating players about the brand's history, the game applies blockchain technology to offer unique digital collectibles, marking Louis Vuitton's entry into NFT space.³³



Figure 12³⁴

In 2023 Louis Vuitton released the "VIA Treasure Trunks" in 2023, a collection of limited, non-transferable NFTs that retail for €39,000 each. These tokens grant their holders access to upcoming limited-edition products and experiences, both virtual and real-world. By doing so Louis Vuitton creates an exclusive collector community atmosphere which aligns perfectly with its brand essence as a luxury fashion house.³⁵

³³ Smith, O. (2023, June 24). *Louis Vuitton: The Luxury Fashion Giant Innovating NFTs*. NFT Evening. <https://nftevening.com/louis-vuitton-the-luxury-fashion-giant-innovating-nfts/>

³⁴ *Ibid*

³⁵ Nast, C. (2023, June 6). *Louis Vuitton to Sell \$39,000 NFTs*. Vogue. <https://www.vogue.com/article/louis-vuitton-to-sell-dollar41000-nfts>

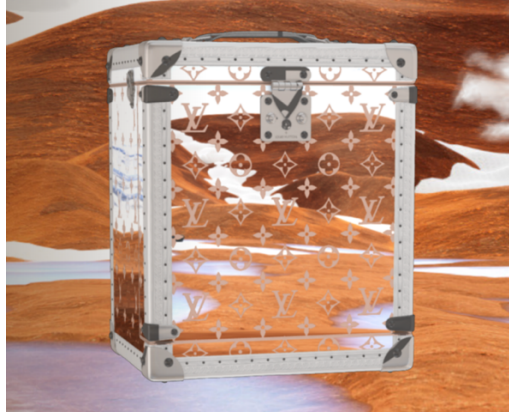


Figure 13³⁶

Furthermore, under the creative direction of Pharrell Williams, Louis Vuitton launched a €7,900 varsity jacket to NFT holders only. The "phygital" product combines physical craftsmanship and digital ownership, reflecting the brand's commitment to blending physical goods with virtual assets.³⁷

Together, these three brands demonstrate the innovative methods luxury companies use to connect within the metaverse during their strategic development process. Each brand uses diverse approaches to tap into digital consumer bases along with virtual sales and merging their innovative vision with preservation of their heritage.

1.4 Virtual Fashion Week and Phygital Retailing

Between March 24 and 27, 2022, the first Metaverse Fashion Week (MVFW) took place on Decentraland, an open, decentralized virtual reality platform. During the event, avatars of over 50 fashion brands walked the virtual catwalk to showcase their Fall/Winter 2022–2023 collections.

³⁶ Vuitton, L. (n.d.). *Louis Vuitton unveils the VIA Treasure Trunk* | LOUIS VUITTON. Eu.louisvuitton.com. <https://eu.louisvuitton.com/eng-e1/stories/louis-vuitton-via>

³⁷ McDowell, M. (2024, April 22). *Louis Vuitton NFTs are back with a €7,900 phygital varsity jacket*. Vogue Business. <https://www.voguebusiness.com/story/technology/louis-vuitton-nfts-are-back-with-a-euro7900-phygital-varsity-jacket>

Attendees who had turned up to view as avatars themselves not only had the opportunity to view these interesting shows but also place purchases of clothing, accessories, and NFTs in both physical and digital forms using cryptocurrencies.



Figure 14³⁸

Beyond the runway, MVFW offered users a range of interactive activities: users could greet designers, attend special VIP events and panel discussions with leading names in the fashion industry, watch the premiere of fashion movies, and engage in virtual after-parties and concerts by world-traveling DJs like Bob Sinclar.³⁹

The week's lineup combined iconic physical fashion brands and digital-first creators in an unprecedented partnership. The brands went from Dolce & Gabbana, Tommy Hilfiger, Philipp Plein, Hugo Boss, Alexander McQueen, Etro, Hogan, Estée Lauder, forever 21, Dundas, to

³⁸ Baidoo, A. (2022, March 31). *Reality Bytes at Metaverse Fashion Week*. The Impression. <https://theimpression.com/reality-bytes-at-metaverse-fashion-week/>

³⁹ *Metaverse Fashion Week is here!* (n.d.). Decentraland.org. <https://decentraland.org/blog/announcements/metaverse-fashion-week-is-here>

Giuseppe Zanotti. Dolce & Gabbana especially stole the spotlight as it presented around 20 full digital outfits designed for metaverse avatars in a virtual pop-up store in Decentraland's Luxury Fashion District.

The event was widely covered in the media, reported by leading fashion magazines, and widely discussed on all social media platforms. It was a landmark in an ongoing trend, with numerous fashion houses already releasing NFT collections and virtual stores, leveraging emerging technologies to reshape fashion retail.

Even though the metaverse fashion week may appear like a recent innovation, however, the foundation was laid nearly a decade ago, as social media began to democratize fashion shows and runways. It wasn't until the COVID-19 pandemic, however, that the industry moved more completely towards "phygital" fashion shows a hybrid of physical and digital experiences to continue to reach people globally.

The term phygital⁴⁰ combines "physical" and "digital" to describe a hybrid retailing approach. In fashion, this means allowing consumers to experience collections in the physical space while interacting with them in virtual immersive environments simultaneously. For example, a consumer can try on a look in a physical store while also seeing how it looks on their avatar in a metaverse platform or purchase a digital version of a product alongside its physical counterpart.

Phygital fashion also supports the attainment of sustainability goals since it removes the need for physical prototypes or event logistics at scale, with digital fashion serving as a less impactful alternative. It delivers an experiential and emotionally engaging shopping experience, whereby

⁴⁰Definition of phygital | New Word Suggestion | Collins Dictionary. (n.d.). [Www.collinsdictionary.com. https://www.collinsdictionary.com/submission/22322/phygital](https://www.collinsdictionary.com/submission/22322/phygital)

consumers can try out style in both realities, creating deeper brand loyalty and enabling storytelling possibilities.⁴¹

As the line between real and virtual continues to blur, fashion remains a powerful medium of self-expression both on Earth and in the metaverse.

1.5 Consumer Behavior in Digital Spaces

The rise of the metaverse marks a significant shift in how consumers engage with digital spaces. People are not limited to traditional e-commerce or social media anymore; now, in the metaverse, they can dive into immersive, real-time, and shared environments that enhance both their shopping experiences and their sense of identity. This new virtual landscape is critically changing consumer behavior, merging psychological, technological, and social aspects into a vibrant digital experience.

The following section will analyze how consumer behavior is evolving in virtual environments, drawing conclusions based on two academic contributions: Kaur et al. (2023) and Handi et al. (2023).

Kaur et al. (2023) provide a focused exploration of how traditional models of consumer behavior are evolving to accommodate the immersive nature of the metaverse. They propose an expansion of the Engel-Kollat-Blackwell (EKB) model, a popular model in consumer behavior theory, to include the functioning of virtual worlds. In its traditional usage, the EKB model specifies five

⁴¹ *Phygital Fashion: Enhancing Consumer Experience | Infosys Equinox.* (2025). Infosysequinox.com. <https://www.infosysequinox.com/resource/insights/trending-fashion-apparel.html>

basic steps in the decision process: need recognition, information search, evaluation of alternatives, purchase, and post-purchase evaluation.

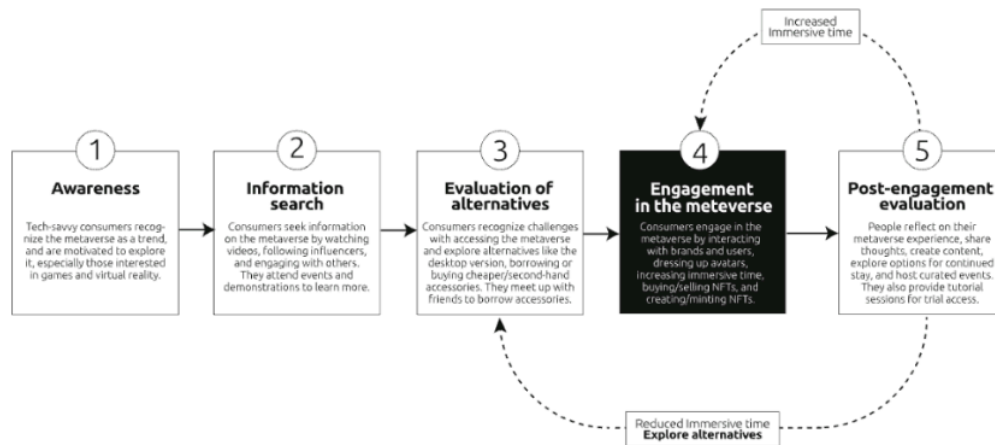


Figure 15⁴²

In the metaverse setting, however, Kaur et al. suggest substituting "purchase" with "engagement", a more inclusive term that better describes the dynamic and often non-monetary ways in which consumers interact with digital products, experiences, and brands in virtual worlds. For example, engagement might involve observing a virtual fashion show, decorating an avatar with branded accessories, or fulfilling brand-sponsored challenges or quests. This change also reflects how the value in the metaverse is derived not only from ownership but from participation and interaction.

⁴² Kaur, J., Mogaji, E., Manisha Paliwal, Jha, S., Agarwal, S., & Stephen Alaba Mogaji. (2023). Consumer behavior in the metaverse. *Journal of Consumer Behaviour*, 23(4). <https://doi.org/10.1002/cb.2298>

In order to explain what drives this engagement, the authors take cues from the Optimum Stimulation Level (OSL) theory and Exploratory Buying Behavior Tendency (EBBT). These theories of psychology indicate that consumers are driven by a desire to maintain a state of arousal that is optimal seeking novelty, complexity, and surprise to avoid boredom. Individuals with high OSL and EBBT are thus likely to adopt new technologies like the metaverse. Additionally, Kaur et al. found out that Gen Z consumers not only knew more about immersive environments such as Decentraland, Roblox, and VRChat, but also were more willing to experiment with their digital identities and brand experiences within those spaces. Their behavior reflects a shift away from transactional purchase toward exploratory and experiential consumption, in which co-creation, identity signaling, and personalization is central to the consumer experience.

Furthermore, identity within the metaverse is not static is performative, configurable, and inseparable from technology. Digital environments enable users to project idealized, aspirational, or entirely different selves through avatars, visual and behavioral stand-ins within virtual worlds. This freedom to construct and experiment with identity is particularly appealing to younger consumers, who use avatars to present mood, values, and taste preferences. These representations range from hyper-realistic depictions of one's physical body to highly fantastical creatures, enabling users to both reaffirm and escape real-world identities.

The study further highlights the symbolic significance of avatar customization. What a user wears, how their avatar is behaving, and what branded items they're flaunting in the metaverse are all cues to identity just as in the physical world, luxury apparel announces status and taste. So, the acquisition of a limited-edition digital outfit or ownership of a rare NFT accessory, for example, can be an indicator of individuality, group affiliation, or social standing within a virtual group. The

metaverse is thus a stage for impression management, as consumers construct their virtual selves to express narratives and values.

Also, the social dynamics of these worlds reinforce identity performance. Avatars do not stand alone; they inhabit communal, interactive space. Kaur et al. emphasize how peer influence, digital tribes, and social validation mechanisms such as likes, claps, or ratings are core to shaping consumer behavior. This echoes the offline world, where consumer choices are driven by social comparison and approval, but is intensified in the metaverse through immediate feedback and observability of others' virtual possessions. The research illustrates that community belonging and virtual group identity more often shape purchase decisions than function or utility.

Finally, the authors note that online identity construction in the metaverse is not all fun and games it can be psychologically influential. Becoming engaged in one's avatar can influence self-esteem, confidence, and even offline behavior, a process supported by earlier studies of the proteus effect, in which the behavior of individuals becomes aligned with the characteristics of their avatars. These dynamic positions the metaverse as a robust site for identity experimentation and reconfirmation, especially for users who are struggling with gender, body, or cultural representation issues.

In addition to identity, consumer interaction in the metaverse is influenced by the way users engage with brands and virtual assets within immersive spaces. Conventional definitions of product ownership are evolving. In offline retail, ownership means having something that is tangible. In the metaverse, ownership is associated with digital assets such as skins, wearables, and NFTs, which not only provide aesthetic or functional value but also social capital within online communities.

This kind of ownership is strongly symbolic and connected to the emerging "experience economy."

The consumer does not always purchase an item for its function, but to be privy, gain status, or affiliation. Kaur et al. propose that exclusivity and scarcity are strong forces behind perceived value in virtual environments, reinforcing the idea that value in the metaverse is experiential and social rather than material.

From the brand perspective, the metaverse provides an opportunity to shift from transactional vendors to experience curators. Brands can engage with users not just through static commercials, but experiential experiences, such as gamified quests, virtual fashion events, or co-creation platforms. These forms of engagement allow for greater emotional investment and facilitate co-creation of value by consumers with the brand a shift from passive consumption of Web 2.0.⁴³ For instance, a buyer can design a custom sneaker with Nike's avatar design team, own it as an NFT in the digital world, and then receive a physical equivalent via phygital delivery.

Significantly, this immersive involvement model is exceedingly community-based. The users are more likely to trust and engage with a brand if it is socially and culturally embedded for example, if a brand is affiliated with an established virtual influencer or is endorsed within a specific sub-community (e.g., digital skaters or VR fashionistas). To this end, metaverse brand engagement is fundamentally social, based on shared experience, status signaling, and real-time feedback loops.⁴⁴

Building on the consumer-centered lens, Hadi et al expands the analysis by defining the metaverse with 5 main features: digitally mediated, spatial, immersive, shared, and real-time. These features

⁴³ the second stage of development of the internet, characterized especially by the change from static web pages to dynamic or user-generated content and the growth of social media.

⁴⁴ Kaur, J., Mogaji, E., Manisha Paliwal, Jha, S., Agarwal, S., & Stephen Alaba Mogaji. (2023). Consumer behavior in the metaverse. *Journal of Consumer Behaviour*, 23(4). <https://doi.org/10.1002/cb.2298>

offer the foundation for new consumer experiences that blur physical and virtual boundaries and necessitate reevaluation of existing consumer behavior theories.

Identity formation in the metaverse, is interconnected with the proteus effect: the process by which changes to the virtual self can affect real-world behavior and attitudes. While the potential for designing idealized avatars can be a booster for self-esteem, especially among marginalized users, it can also lead to perfection fatigue and distorted self-concepts in vulnerable users, for example, adolescents.

The common aspect of the Metaverse brings new degrees of social influence. Hadi et al. discuss how social presence (sense of being with others), may better reflect in-person dynamics than previous online spaces.

The immersive characteristics magnify impression management, so individuals become more aware of how they appear to other individuals and engage in conspicuous virtual consumption of branded items like named wearables or NFT accessories. Word-of-mouth (WOM) becomes more experiential and direct with users trading brand experiences in real time within virtual spaces. This could lead to richer, more potent peer influence.

Notably, social influence is not exclusive to humans. Hadi et al. cite the growing use of social AI bots and virtual influencers blurring the human-machine boundary. When presented in avatar form, these agents can establish trust and mimic human behavior, offering a new source of complexity for social dynamics and choice.

Ownership patterns also differ from the physical world. NFTs, reduce people's "psychological distance" they typically feel for digital commodities by ensuring singularity and authenticity. This narrows physical and virtual commodities but also invites new symbolic and conspicuous consumption behaviors. Furthermore, the fungibility of coins, platform-based currencies (like

MANA in Decentraland), and mental accounting behavior drive purchasing decisions. Consumers can spend coins more freely than fiat currencies, mirroring behaviors observed in credit card or mobile payment contexts. Interestingly, Hadi et al. discover a present cognitive overload due to the sheer and unconventional number of virtual goods, which could result in paralysis in decision-making between options. Furthermore, transparency into ownership provenance (i.e., who had an NFT owned before it) can enhance or weaken purchase intent based on social norms and privacy issues.

Hadi et al. (2023) observe that the metaverse shifts the way marketers must interact with consumers. Traditional advertising models based on passive media consumption no longer apply in completely immersive virtual environments. Brands, rather, must shift to experiential marketing, creating virtual worlds that one can visit, engage with, and even co-create. Examples include virtual fashion shows, branded games, digital pop-up stores, and interactive product launches. These experiences allow consumers not only to glance but to actively engage with brand stories, developing stronger emotional connections and longer "immersive time." In this regard, the concept of co-presence is a marketing asset: consumers believe that they are experiencing real moments with brands and friends, creating greater trust and brand loyalty.

In addition, rich data environments within the metaverse enable real-time feedback and highly individualized marketing. But that introduces a fundamental tradeoff: increased personalization is bought at the expense of more invasive data collection complicating concerns regarding surveillance, autonomy, and ethical limits.

The immersion of the metaverse also makes it a troubling privacy issue. Unlike traditional digital environments, which track largely clicks and scrolls, metaverse environments can capture eye movement, hand movements, vocal patterns, body language, and location. Hadi et al. argue that

this level of biometric and behavioral granularity calls out for hyper-targeted advertising but also manipulation and exploitation.

The authors caution against the dangers of surveillance capitalism in the metaverse. As consumers become increasingly engaged with such spaces, and as often through social avatars, they may be less aware of how much data is being collected and what it is being used for. Transparency, consent, and new frameworks for digital rights and data ownership are now necessary.⁴⁵

1.6 Non-Fungible Token (NFT)

Persistently associated with exclusivity and premium craftsmanship the fashion world is now entering a new era of digital revolution. In recent years, with the appearance of the metaverse concerns and questions about authenticity, ownership and intellectual property protection have emerged in virtual spaces.

One of the most relevant tools in this new word are NFTs, which are essential to understand before delving into the legal details.

NFT (non – fungible token), “a non-interchangeable digital asset such as a photograph, song, or video whose ownership has been authenticated and stored on a database called a blockchain and which can be collected, sold, and traded on various online platforms.”⁴⁶ They are non-reproducible, unique, indivisible, and irreplaceable.

NFTs are created through software code in the form of a smart contract, which defines the conditions of the associated digital or physical asset and the rights attached to the

⁴⁵ Hadi, R., Melumad, S., & Park, E. S. (2023). The Metaverse: A new digital frontier for consumer behavior. *Journal of Consumer Psychology*, 34(1). <https://doi.org/10.1002/jcpy.1356>

⁴⁶ Cuban, M. (2023, November 19). *Non-fungible token | NFT, Definition, Marketplaces, & Facts | Britannica*. [Www.britannica.com. https://www.britannica.com/topic/non-fungible-token-data](https://www.britannica.com/topic/non-fungible-token-data)

NFT. The smart contract decides how the NFT functions, including conditions like granting the original creator a percentage of any future resale.

The value of an NFT is derived from the fact that it is non - fungible, i.e., it is not identical and cannot be exchanged for another similar token, hence it is scarce by nature. This contrasts with fungible assets like cryptocurrencies or government-issued fiat money where each unit is of the same value and can be freely exchanged with another unit of the same type.⁴⁷

Despite their increased visibility, NFTs do not have a distinct and consolidated legal regime. They are classified and regulated differently across jurisdictions, most based on whether they are treated as digital assets, intellectual property, or financial instruments. Within the European Union, NFTs are not yet regulated by the MiCAR Regulation (2023), which covers crypto assets.⁴⁸

Their classification is, nonetheless, evolving, particularly in intellectual property (IP) law and consumer protection. The European Union Intellectual Property Office (EUIPO) has located NFTs in the Nice Classification (Class 9) when they authenticate digital products, whereas physical products authenticated by NFTs are classified under their respective classes (e.g., Class 18 for handbags).⁴⁹ This distinction is crucial for trademark enforcement in virtual spaces.

Conversely, the United States utilizes current trademark, copyright, and securities laws to NFT-

⁴⁷ *NFTs and Intellectual Property Rights*. (n.d.). <https://www.nortonrosefulbright.com/De-Wissen/Publications/1a1abb9f/Nfts-And-Intellectual-Property-Rights>. <https://www.nortonrosefulbright.com/de/wissen/publications/1a1abb9f/nfts-and-intellectual-property-rights>

⁴⁸ ESMA. (2024). *Markets in Crypto-Assets Regulation (MiCA)*. [www.esma.europa.eu. https://www.esma.europa.eu/esmas-activities/digital-finance-and-innovation/markets-crypto-assets-regulation-mica](https://www.esma.europa.eu/esmas-activities/digital-finance-and-innovation/markets-crypto-assets-regulation-mica)

⁴⁹ *EUIPO Guidelines*. (2024). [Europa.eu. https://guidelines.euipo.europa.eu/2214311/2215372/trade-mark-guidelines/4-4-3-non-fungible-tokens--nfts-](https://guidelines.euipo.europa.eu/2214311/2215372/trade-mark-guidelines/4-4-3-non-fungible-tokens--nfts-)

related matters, leading to case-by-case legal interpretations. One of the primary issues is whether the ownership of an NFT is equivalent to the ownership of the underlying asset. Usually, purchasing an NFT grant one rights, but not ownership of the digital or physical good it is linked to, unless otherwise stated in the smart contract, this principle aligns with traditional copyright law, where purchasing a physical artwork does not mean acquiring the right to reproduce or distribute it. This has significant implications for trademark and copyright enforcement, as we will see in the following chapter.

Chapter 2

The MetaBirkin Case – A Turning Point in Fashion and IP Law

2.1 Hermès: A Legacy of Luxury and Trademark Protection

The story of Hermès starts in Paris, in 1837, in the harness workshop opened in the French capital by Thierry Hermès, on Rue Basse-du-Rempart. The brand was initially known for being specialized in high-end saddlery workshop. The family especially drawn by art acquired and became enamored of the painting “*Le Duc Attelé, Groom à L’Attente*”⁵⁰ by Alfred de Dreux. The painting directly inspired the Hermès logo, reflecting the brand’s equestrian heritage and commitment to exceptional leather craftsmanship.⁵¹

⁵⁰ “Hitched Carriage, Waiting Groom.”

⁵¹ *Hermès Logo: An Iconic Symbol of Luxury Fashion*. (2024, November 4). Madison Avenue Couture. <https://madisonavenuecouture.com/blogs/news/hermes-logo-an-iconic-symbol-of-luxury-fashion?srltid=AfmBOoppJZGX8ju3HdYWNZV4gtpmR9A7mQn-0zSItQ6f5arIHjh2ZzgW>

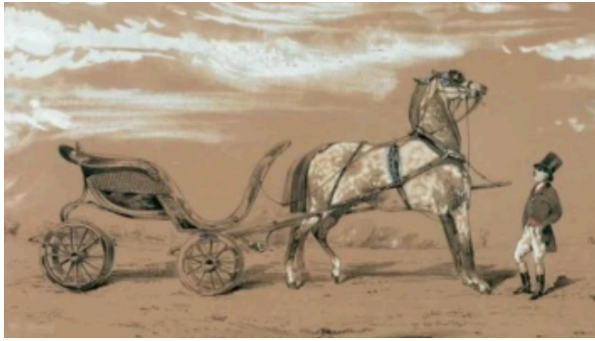


Figure 1⁵²

In the 1920s, Hermès expanded its expertise from equestrian accessories to leather goods and, later, to luxury accessories such as watches and jewelry. Perhaps the most emblematic product of the brand was a bag originally designed as a horseback rider's saddle case.

In 1930, under Robert Dumas's innovative leadership, the bag was re-styled into a woman's handbag. But its popularity abroad is attributable to Grace Kelly, Princess of Monaco, who was photographed wearing it in 1956 to shield her daughter Caroline from paparazzi.

Photographs taken on behalf of Life magazine catapulted the bag into international prominence, and accordingly it came to be called the Kelly Hermès.

Another milestone was achieved when Robert Dumas' son, Jean-Louis Dumas, after an encounter with singer and actress Jane Birkin on a Paris to London flight created the Birkin bag, the perfect fusion of evening glamour and daily use.

Both these iconic bags are often called “sisters”, the sole significant difference between them being the design—the Kelly bag features one handle and a structured closure, while the Birkin is kept in place by two handles.

⁵² *Ibid.*

Over time Hermès became a status symbol, signifying prestige, success and a connection to a legacy of luxury. Hermès' corporate culture is built upon an unwavering dedication to precision, craftsmanship, and impeccable quality in its luxury handmade goods.

Each Birkin and Kelly bag is meticulously handcrafted by expert artisans in France, requiring 17 to 20 hours of meticulous craftsmanship using premium leather to produce a Birkin bag, and any product that does not meet Hermès' high standards is destroyed to uphold the brand's legacy of perfection.

“The desirability of a Hermès Birkin handbag - - a symbol of rarefied wealth - - is such that not even a global pandemic can dull demand for it.”⁵³

In the second quarter of 2021, Hermès' leather and saddlery division, including the Birkin wallets, recorded its sales surge, rising over two-fold from last year and increasing by 24% compared to pre-pandemic levels in June 2019.⁵⁴ Due to its labor-intensive production and high demand, the price ranges from thousands of dollars to over one hundred thousand dollars and the Birkin bag has a waiting list which is notoriously long, adding to its mystique and exclusivity. Because of his status and uniqueness, the firm has acquired extensive trademark protections, including the word mark HERMÈS, registered in the U.S. Trademark and Patent Office (USPTO), the European Union Intellectual Property Office (EUIPO), and other global trademark offices, for a variety of goods and services.

Hermès sells its products worldwide, with a presence in 45 countries, and retail boutiques and an official website ([Hermes.com](https://www.hermes.com)). In the United States, it has a single distribution chain, with

⁵³HERMES INTERNATIONAL and HERMES OF PARIS, INC. v. “MASON ROTHSCHILD” a/k/a SONNY ESTIVAL, 1:22-cv-00384 - CourtListener.com. (2024). CourtListener. <https://www.courtlistener.com/docket/62602398/hermes-international-v-rothschild/?page=1> .pg.10

⁵⁴ *Ibid*

flagship stores in New York and other large major cities.⁵⁵ The Birkin handbag is legally protected under the Birkin trademark which is registered on the Principal Register of the U.S. Trademark and Patent Office. The trademark is incontestable, meaning it has been legally upheld and cannot be challenged in the U.S. for validity.⁵⁶



Figure 2⁵⁷

Furthermore, Hermès holds trade dress protection on the design of the Birkin handbag, covering its distinctive shape, structure, flap, saddle stitching, and closure system. Trade dress protection ensures that no other company can create a bag that mimics the Birkin's overall design.⁵⁸

⁵⁵ *Ibid.*, pg:7

⁵⁶ *Ibid.*, pg 8

⁵⁷ *Ibid.* pg.8

⁵⁸ *Ibid.* pg.9

United States of America
United States Patent and Trademark Office



Reg. No. 3,936,105
Registered Mar. 29, 2011
Int. Cl.: 18
TRADEMARK
PRINCIPAL REGISTER

HERMÈS INTERNATIONAL (FRANCE SOCIÉTÉ EN COMMANDITE PAR ACTIONS)
24 RUE DU FAUBOURG SAINT HONORE
F-75008 PARIS, FRANCE

FOR: HANDBAG, IN CLASS 18 (U.S. CLS. 1, 2, 3, 22 AND 41).
FIRST USE 0-0-1986; IN COMMERCE 0-0-1986.
OWNER OF U.S. REG. NOS. 1,806,107 AND 2,447,392.

THE MARK CONSISTS OF THE CONFIGURATION OF A HANDBAG, HAVING RECTANGULAR SIDES, A RECTANGULAR BOTTOM, AND A DROPPED TRIANGULAR PROFILE. THE TOP OF THE BAG CONSISTS OF A RECTANGULAR FLAP HAVING THREE PROTRUDING LOOPS, BETWEEN WHICH ARE TWO KEYHOLE-SHAPED OPENINGS THAT SURROUND THE BASE OF THE HANDLE. OVER THE FLAP IS A HORIZONTAL RECTANGULAR STRAP HAVING AN OPENING TO RECEIVE A PADLOCK EYE. A LOCK IN THE SHAPE OF A PADLOCK FORMS THE CLASP FOR THE BAG. AT THE CENTER OF THE STRAP, THE BROKEN LINES IN THE DRAWING REPRESENT THE LOCATION OF THE HANDLES, AND ARE NOT PART OF THE MARK.

SEC. 2(f)
SER. NO. 76/700,120, FILED 10-29-2009.
LEIF MARTIN, EXAMINING ATTORNEY



David J. Kappes
Director of the United States Patent and Trademark Office

Figure 3⁵⁹

Despite Hermès' strong efforts to safeguard its brand through trademark registrations, trade dress protections, and legal enforcement, these measures have not always been sufficient to prevent unauthorized use in the evolving digital landscape. This raises a fundamental question:

Can traditional intellectual property laws effectively protect luxury brands in the age of NFTs and the metaverse?

2.2 The Meta Birkin Dispute: Background and Context

One of the most widely discussed and reported legal dispute regarding the world of NFTs involves Hermès vs. Mason Rothschild over MetaBirkin NFTs, setting a precedent for the enforcement and scope of trademark rights within the metaverse. The final ruling could change the NFT world as we know it.

⁵⁹ *Ibid. Exhibit D*

In May 2021, Sonny Estival, also known as Mason Rothschild, sold digital art for \$23,500 in the form of NFTs “the Baby Birkin” a 40-week-old fetus inside a see-through Birkin bag.



Figure 4⁶⁰

Driven by the success, on December 2, 2021, at Art Basel in Miami, Florida, Digital designer Mason Rothschild started advertising the MetaBirkins NFTs under the MetaBirkins trademark and using Hermès Federally Registered trademarks without the brand permission and in violation of Hermes trademark rights. The designer produced 100 replicas of the renowned Hermès Birkin Bag as Non-Fungible Tokens, or NFTs, to increase awareness of the need to expedite fashion's "fur-free" initiatives and embrace ethical alternative textiles. The MetaBirkin NFTs, created on the Ethereum blockchain were launched initially with a mint price of 0.1 *Ether (Eth)*⁶¹ which was around \$450 per NFT. Still, their resale value went sky-high. Certain MetaBirkins have resold for above \$40,000, with the total sales volume of the collection amounting to almost \$1.1 million. The MetaBirkin, were extremely similar to the original bag created by Hermès, The Birkin. The only aspect that was able to distinguish them was the material used by Mason Rothchild. In fact, the

⁶⁰ *Ibid.* pg.14

⁶¹ a cryptocurrency used in Ethereum's global virtual machine

artist designed a collection of bags with fur and prints of renowned artworks such as: The Mona Lisa and Van Gogh's Starry Night.

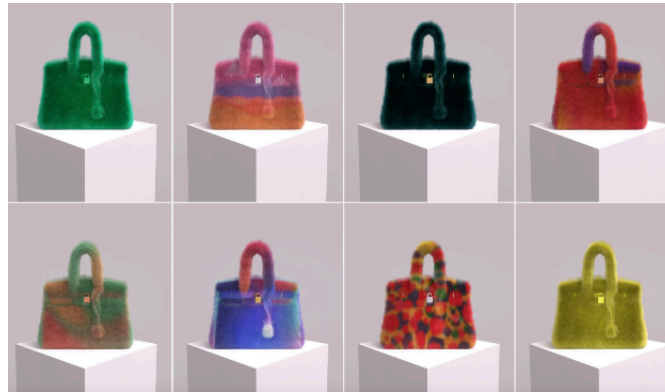


Figure 5⁶²

The collection was advertised and sold on multiple platforms: The MetaBirkins website, NFT marketplaces (OpenSea,Rarible,LooksRate, and Zora) and social media (Twitter, Instagram and Discord) all under the MetaBirkins brand.

As early as December 1, 2021, The MetaBirkins Website advertised the MetaBirkins NFTs to invoke the Hermes word mark “MetaBirkins are a tribute to Hermes’ most famous handbag, the Birkin, one of the most exclusive, well-made luxury accessories.”⁶³

After receiving a legal notice, Rothchild added a disclaimer on the MetaBirkins Website stating “We are not affiliated, associated, authorized, endorsed by, or in any way officially connected with HERMES, or any of its subsidiaries or its affiliates. The official HERMES website can be found

⁶² *Ibid.* pg.15

⁶³ *HERMES INTERNATIONAL and HERMES OF PARIS, INC. v. “MASON ROTHSCHILD” a/k/a SONNY ESTIVAL*, 1:22-cv-00384 - CourtListener.com. (2024). CourtListener. <https://www.courtlistener.com/docket/62602398/hermes-international-v-rothschild/?page=1> *HERMES INTERNATIONAL and HERMES OF PARIS, INC. v. “MASON ROTHSCHILD” a/k/a SONNY ESTIVAL*, 1:22-cv-00384 - CourtListener.com. (2024). CourtListener.<https://www.courtlistener.com/docket/62602398/hermes-international-v-rothschild/?page=1>,p.19

at <https://www.hermes.com/>.”⁶⁴ However, the disclaimer continued to excessively feature the Hermès name and was absent on sales platforms like Raible and social media.

Especially the Instagram account @metabirkins was used as a major platform to promote and advertise the collection.

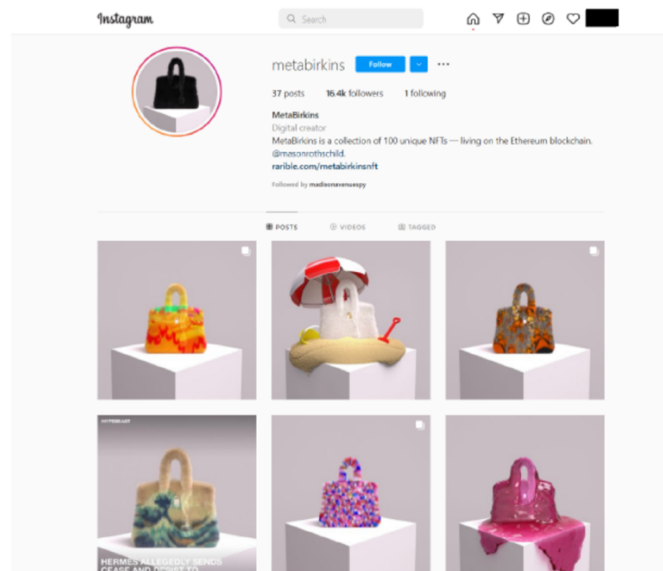


Figure 6⁶⁵

It included direct links to NFT marketplaces where the NFTs were available for purchases, and extensively used hashtags like #MetaBirkins, #NotYourMothersBirkin. Witch further reinforced the association with Hermes and its iconic Birkin bag.

⁶⁴HERMES INTERNATIONAL and HERMES OF PARIS, INC. v. “MASON ROTHSCHILD” a/k/a SONNY ESTIVAL, 1:22-cv-00384 - CourtListener.com. (2024). CourtListener. <https://www.courtlistener.com/docket/62602398/hermes-international-v-rothschild/?page=1>, p.19

⁶⁵ Ibid. pg.28

Furthermore, Mason Rothchild explicitly acknowledges the BIRKIN Handbag's prestigious Status, in multiple occasions.

1. In Yahoo Finance Interview (December 6,2021) Rothschild stated:

“There's nothing more iconic than the Hermès Birkin bag.”⁶⁶

2. On the MetaBirkins Open Sea listing, the description acknowledged:

“Hermès' most famous handbag” and “one of the most, exclusive, well-made luxury accessories. Its mysterious waitlist, intimidating price tags, and extreme scarcity have made it a highly covetable ‘holy grail’ handbag that doubles as an investment or store of value.”⁶⁷

3. Lastly, Rothchild admitted that he created the Meta Birkin as an:

“Experiment to see if [he] could create the same kind of illusion that [the BIRKIN handbag] has in real life as a digital commodity.”⁶⁸

2.3Hermes complaint

On January 14, 2022, the plaintiff Hermès international and Hermès of Paris, INC, in the United States District Court for the Southern District of New York filed a complaint against the defendant Mason Rothchild.

⁶⁶HERMES INTERNATIONAL and HERMES OF PARIS, INC. v. “MASON ROTHCHILD” a/k/a SONNY ESTIVAL, 1:22-cv-00384 - CourtListener.com. (2024). CourtListener. <https://www.courtlistener.com/docket/62602398/hermes-international-v-rothschild/?page=1> ,p.32

⁶⁷ Ibid

⁶⁸ Ibid

The Plaintiff present in their complaint three main claims against Mason Rothchild, arguing that his unauthorized use of the Birkin Trademark in his MetaBirkins NFTs violates federal and state laws.

1. First cause of action: Trademark Infringement 15 U.S.C. § 1114

“Trademark infringement is the unauthorized use of a trademark or service mark on or in connection with goods and/or services in a manner that is likely to cause confusion, deception, or mistake about the source of the goods and/or services.”⁶⁹

The Plaintiff stated that the defendant used the Birkin Trademark without permission, causing consumer confusion and misleading the public in believing that MetaBirkins were affiliated with or approved by Hermes.

2. Second cause of action: Federal trademark dilution act 15 U.S.C. § 1125(c):

“In the United States, the Federal Trademark Dilution Act (FTDA), 15 U.S.C. § 1125(c) creates a federal cause of action to protect famous marks from unauthorized use; to prevent others from trading upon the goodwill and established renown of such marks; and to prevent dilution of the distinctive quality of such marks. The FTDA is intended to prevent both actual dilution and likely dilution.”⁷⁰

⁶⁹ United States Patent and Trademark Office. (2009). *About Trademark Infringement*. Uspto.gov. <https://www.uspto.gov/page/about-trademark-infringement>

⁷⁰ *Dilution (Trademark)*. (n.d.). LII / Legal Information Institute. [https://www.law.cornell.edu/wex/dilution_\(trademark\)](https://www.law.cornell.edu/wex/dilution_(trademark))

Dilution of trademark differs from traditional trademark infringement in that it does not require evidence of consumer confusion. Instead, it relates to the way an unauthorized use of a famous mark weakens its distinctiveness and reputation.

Hermès argues that it is the exclusive owner of BIRKIN trademark, which it has used over decades, and which is instantly recognizable worldwide as a sign of luxury and high-quality craftsmanship.

Due to its historical legacy and association with Hermès, Birkin name has acquired secondary meaning in the sense that consumers instinctively identify Birkin mark with Hermès and its luxury leather handbags. The MetaBirkin NFTs' release, however, jeopardizes this brand identity by creating an unauthorized digital item that replicates the Birkin reputation and name.

Rothschild's sale and promotion of NFTs labeled as MetaBirkin according to Hermès, inaccurately suggests an association, sponsorship, or endorsement by the luxury brand. Even if the consumers know that MetaBirkin NFTs are not technically produced by Hermès, their association with the Birkin brand could still dilute the exclusivity of the brand. Additionally, Hermès emphasizes that it never licensed or approved its trademark for NFT-related activities, which also lends support to the argument that Rothschild's actions are unauthorized.

Moreover, to allege dilution of brand distinctiveness, Hermès also argues that MetaBirkin NFTs have inflicted harm on the goodwill of Hermès and that such harm is irreparable and continuous. The company alleges that Rothschild intentionally and knowingly used the prestige of

the Birkin brand to benefit financially from unauthorized NFTs, knowing that the association with Hermès would add commercial value.

3. Third Cause of action: Cybersquatting under the anti-cybersquatting consumer protection act (“ACPA”) 15 U.S.C. § 1125(d).

“The term cybersquatting refers to the unauthorized registration and use of internet domain names that are identical or similar to trademarks, service marks, company names, or personal names. Cybersquatting registrants obtain and use the domain name with the bad faith and intent to profit from goodwill of the actual trademark’s owner.”⁷¹

As Cooper (2023) notes, cybersquatting in the NFT space is often a form of digital brand piracy, where domain names are chosen to profit from consumer confusion. In the MetaBirkin case, Rothschild’s registration of metabirkins.com a domain nearly identical to Hermès' mark fits this model, particularly given the commercial nature of the site and the lack of disclaimer on many sales platforms.⁷²

The ACPA⁷³ “establishes civil liability for ‘cyberpiracy’ where a plaintiff proves that (1) the defendant registered, trafficked in, or used a domain name; (2) the domain name is identical or confusingly similar to a protected mark owned by the plaintiff; and (3) the defendant acted ‘with bad faith intent to profit from that mark.’”⁷⁴

⁷¹ *What is the Definition of Cybersquatting?* | Winston & Strawn Legal Glossary. (n.d.). Winston & Strawn - What Is the Definition of Cybersquatting? | Winston & Strawn Legal Glossary. <https://www.winston.com/en/legal-glossary/cybersquatting>

⁷² Cooper, J. M. (2023). *Intellectual property piracy in the time of the metaverse*. *IDEA: The Law Review of the Franklin Pierce Center for Intellectual Property*, 63(3), 479–517.

⁷³ The primary example of anticybersquatting legislation is the anticybersquatting consumer protection act.

⁷⁴ *15.31 Anti-Cybersquatting (15 U.S.C. § 1125(d))* | *Model Jury Instructions*. (2024). [Uscourts.gov. https://www.ce9.uscourts.gov/jury-instructions/node/699](https://www.ce9.uscourts.gov/jury-instructions/node/699)

Hermès alleges that Rothschild's domain name is confusingly similar to the BIRKIN trademark and leads to confusion among consumers about the source, sponsorship, or endorsement of MetaBirkin NFTs.

The complaint accuses Rothschild of knowingly registering and utilizing the domain to profit from the Birkin brand's goodwill, promoting and selling infringing NFTs. Furthermore, Hermès asserts that this was done in bad faith, with the primary goal of profiting from the reputation and distinctiveness of the BIRKIN mark.

All the Hermes claims arise under the Trademark Act of 1946, (also called the Lanham Act, 15 U.S.C. § 1051 et seq.). Which is the primary source of protection in the United States to safeguard trademark owners from unauthorized use of symbols, names, logos, or any combination thereof that could cause consumer confusion or weaken the distinctiveness of a brand.

The act establishes two trademark registers in United States Patent and Trademark Office (USPTO).

The Principal Register provides you with complete trademark protection with exclusive rights to the owner, which can last forever provided you meet the USPTO'S maintenance requirements. The Supplemental Register provides temporary protection for five years, where trademarks lacking inherent distinctiveness can develop a reputation.

If the mark acquires secondary meaning during this period, it may become registrable on the Principal Register for full protection.⁷⁵

2.4 Mason Rothschild's Defense and the Roger Test

The defendant files a motion to dismiss Hermès lawsuit, and based his defense mainly on the first amendment, stating the concept of “fair use” a principle that allows the use of copyrighted or

⁷⁵ *Trademarks*. (n.d.). Wwww.uspto.gov. <https://www.uspto.gov/trademarks>

trademarked images and symbols without the owner's consent in cases of artistic or expressive work.⁷⁶ He compared his case to the famous artworks of Andy Warhol, namely the series of Campbell's soup cans, arguing that just like Warhol depicted branded cans in a transformative and artistic way, his own NFTs MetaBirkins were not real Birkin bags but rather an artistic reinterpretation of them.

Rothchild held that he sold not a copy of Hermes products but the “expression” of the Birkin, i.e., his artistic interpretation of it, digitally rendered and sold as NFTs.⁷⁷

In addition to the first amendment, Rothchild defense relied heavily on the Rogers test, a judicial test developed by the Second Circuit in *Rogers v. Grimaldi* (1989), which is designed to balance trademark protection with freedom of artistic expression. The court held:

“[T]he Act should be construed to apply to expressive works only where the public interest in avoiding consumer confusion outweighs the public interest in free expression. That balance will normally not support application of the Act unless the use of the mark has no artistic relevance to the underlying work whatsoever, or, if it has some artistic relevance, unless it explicitly misleads as to the source or the content of the work.”⁷⁸

However, as Khan (2023) notes, U.S. courts apply the Rogers test inconsistently. While the Second Circuit requires a likelihood of confusion analysis, the Ninth Circuit often dismisses it. This fragmentation has led to unpredictability for both trademark owners and creators. The *MetaBirkin* trial took place in the Second Circuit, which still considers confusion in its application, but had it

⁷⁶ *Fair Use*. (n.d.). The Free Speech Center. <https://firstamendment.mtsu.edu/article/fair-use/>

⁷⁷ Dawson, N. (2024, February 5). *Hermès International v Mason Rothschild. What does this landmark NFT case mean for artists?* The Courtauldian. <https://www.courtauldian.com/single-post/herm%C3%A8s-international-v-mason-rothschild-what-does-this-landmark-nft-case-mean-for-artists>

⁷⁸ *Rogers v. Grimaldi*, 875 F.2d 994 (2d Cir. 1989).

been tried elsewhere, the result might have differed—further reinforcing the need for a standardized approach.⁷⁹

The test applies when trademarks are used in expressive works and consists of two prongs.⁸⁰

1. Artistic Relevance: The use of the trademark must have at least some relevance to the artistic expression of the work.⁸¹
2. Explicitly misleading: The use must not explicitly mislead consumers as to the source or origin of the work.⁸²

The defendant stated that the works reflected his personal artistic vision, not a commercial copy of Hermes products. Additionally, he stated that his use of the Birkin name was not explicitly misleading. He and his legal team emphasized that the NFTs were explicitly marketed as digital works of art, not physical handbags, and that he never suggested any connection with Hermès. He placed disclaimers that created the non-affiliation and observed that potential buyers of such virtual art—including those familiar with Hermès—would not reasonably believe that the brand was affiliated. His case questioned whether customers who typically must wait years and spend tens of thousands of dollars on an actual Birkin bag would end up being confused by buying a virtual, fur-trimmed NFT over the internet.⁸³ Under EU trademark law, artistic expression may be considered a “due cause” for unauthorized trademark use—but only if it aligns with honest practices in industrial and commercial matters. As Tzoulia (2023) explains, when a

⁷⁹ Khan, A. (2023). *The ultimate metaverse match: An analysis of First Amendment protections and unauthorized trademark use in non-fungible tokens*. *SMU Law Review*, 76(4), 975–998.

⁸⁰ *Supreme Court Sharply Limits Applicability of Rogers v. Grimaldi Test for Trademark Infringement* | Insights | Skadden, Arps, Slate, Meagher & Flom LLP. (n.d.). [www.skadden.com. https://www.skadden.com/insights/publications/2023/06/supreme-court-sharply-limits-applicability](https://www.skadden.com/insights/publications/2023/06/supreme-court-sharply-limits-applicability)

⁸¹ *Ibid*

⁸² *Ibid*

⁸³ *HERMES INTERNATIONAL and HERMES OF PARIS, INC. v. “MASON ROTHSCHILD” a/k/a SONNY ESTIVAL*, 1:22-cv-00384 - *CourtListener.com*. (2024). *CourtListener*. <https://www.courtlistener.com/docket/62602398/hermes-international-v-rothschild/?page=1>

non-proprietary mark is used in the course of trade, especially to label a product for sale, it risks being classified as free riding. In the MetaBirkin case, the name was used not just as a commentary but as a product identifier on marketplaces. Thus, even if Rothschild's project had been protected as art, its commercial deployment might not meet the threshold of fair use under EU standards. Furthermore, Tzoulia (2023) notes that even if an NFT is considered an original artistic work under copyright law, this does not authorize its unrestricted commercial use when it infringes a trademark. In such cases, the NFT may remain “original” and protectable, but its commercial exploitation would still require the consent of the trademark holder. This distinction is crucial: originality secures protection against copying but does not override trademark infringement rules if the use harms or leverages the reputation of a well-known brand.⁸⁴

2.5 Court Proceedings and Final Ruling

The legal battle ended on February 8, 2023, when a New York Federal jury ruled Rothchild liable for dilution, trademark infringement and cybersquatting for his MetaBirkin NFTs. Rothchild was also required to pay damages worth \$133,000. The damages consisted of 110,000 of estimated profits from Rothchild’s NFT sales and 23,000 for cybersquatting for registering the matabirkins.com domain.⁸⁵ In fact, as we already stated the MetaBirkins were listed at prices “comparable to real-world Birkin handbags,” with some NFTs priced between \$8,500 and over \$300,000 (Arredondo, 2024). This reinforced the court’s finding that the project was not parody

⁸⁴ Tzoulia, E. (2023). *The US “Metabirkins” case in the light of EU IP and consumer protection law*. *International Journal of Law in Changing World*, 2(Special Issue), 118–140.

⁸⁵ Johnson, H. (2024, May 7). *Case Review: Hermès International v. Rothschild*. Center for Art Law. <https://itsartlaw.org/2024/05/07/case-review-hermes-v-rothschild/>

or commentary but a luxury-themed commercial product that mimicked Hermès' market positioning.⁸⁶

The ruling came following earlier decisions by Judge Jed Rakoff, who on May 5, 2022, had denied the defendant motion to dismiss the case on grounds that the NFTs were shielded artistic expression under the first amendment. On September 30, 2022, the judge also decided that the issues posed by Rothchild lawyers were not deserving of an immediate review on appeal. The court ruled that there was indeed consumer confusion regarding a possible association between Hermès and the MetaBirkin project, supporting the fashion house primary argument.

As Murray (2023) notes, the metaverse is an omniverse economy where physical goods and digital items are traded in the same marketplaces. Consumers may more readily assume affiliation or endorsement when the branding and appearance of digital goods so closely mimic real-world products, particularly when NFTs are sold on platforms that resemble e-commerce sites.⁸⁷

Judge Rakoff also rejected the application of the Rogers test, ruling that Rothschild's use of the Birkin mark was not sufficiently transformative to be protected as expressive speech. Furthermore, the court held that Rothschild had presented himself as a marketing strategist, which further indicated that his project was commercially driven, and not purely artistic in nature.⁸⁸

⁸⁶ Arredondo, D. D. (2024). *Collectibles tax and the art of buying, renting, and selling virtual land NFTs*. *Arizona Law Review*, 66(2), 505–526.

⁸⁷ Murray, M. D. (2022–2023). *Trademarks, NFTs, and the law of the metaverse*. *Arizona Law Journal of Emerging Technologies*, 6(3), i–16. <https://azlawjet.com>

⁸⁸ *HERMÈS INTERNATIONAL HERMÈS OF PARIS INC v. MASON ROTHSCHILD SONNY ESTIVAL* (2024) | FindLaw. (2024). Findlaw. <https://caselaw.findlaw.com/court/us-dis-crt-sd-new-yor/115935892.html>

From a European perspective, the Birkin trademark would likely be classified as a “reputation mark,” which benefits from extended protection under Article 10(2)(c) of Directive (EU) 2015/2436 and Article 9(2)(c) of Regulation (EU) 2017/1001. Under these provisions, Hermès could prohibit the use of any similar sign even for goods or services unrelated to handbags if that use took unfair advantage of the mark’s distinctive character or reputation or harmed its prestige. In this light, Rothschild’s use of the term “MetaBirkin” could have constituted an infringement under EU law, regardless of disclaimers or the absence of consumer confusion.⁸⁹

Additionally, Khan (2023) argues that the traditional Rogers test is no longer fit for the digital world, particularly in NFT disputes. She advocates for a “reconstructed Roger’s test” that involves a more fact-intensive inquiry into the true purpose of the work specifically, whether it’s meant to convey a message or simply capitalize on brand value. The *MetaBirkin* case, she suggests, demonstrates how the current test can be manipulated to mask commercial motives as artistic expression. Including motive analysis and marketing intent would make the Rogers test more effective in distinguishing genuine expression from disguised infringement.⁹⁰

⁸⁹ Tzoulia, E. (2023). *The US “Metabirkins” case in the light of EU IP and consumer protection law*. *International Journal of Law in Changing World*, 2(Special Issue), 118–140.

⁹⁰ Khan, A. (2023). *The ultimate metaverse match: An analysis of First Amendment protections and unauthorized trademark use in non-fungible tokens*. *SMU Law Review*, 76(4), 975–998.

2.6 Lessons Learned for Fashion Brands in the Metaverse and what remain unanswered in IP law

As Murray (2023) says, the greatest threat to Hermès was that MetaBirkins, both named ("Meta-") and in shape (NFT), were designed specifically as metaverse creations. Hermès, yet still not staking territory in this novel virtual fashion business, would lose strategic ground. Murray warns that if Hermès did nothing at all, the market might be flooded with "quasi-Birkins, and near-Birkins, and Birkin-lookalikes," and ultimately obscure the distinctiveness of the brand. Even more significantly, Rothschild's early presence in the metaverse potentially would have allowed him to establish ownership over the virtual Birkin territory. In such a situation, Hermès would have been seen as the infringer trespassing on Rothschild's "metaverse brand." The lawsuit, then, was not just one of confusion or infringement but of safeguarding Hermès' right to act in the virtual space in the future without obstruction.⁹¹

The MetaBirkin case marked a turning point for fashion brands working on the digital frontier, that is, regarding intellectual property rights in virtual worlds. Following the dispute, Hermès decided to file a trademark application on August 26, 2022, with the United States Patent and Trademark Office (USPTO). This filing contained downloadable software, virtual goods, and NFTs, reflecting the brand's tactical shift towards securing assets in digital and blockchain context. Such action highlights the growing awareness

⁹¹ Murray, M. D. (2022–2023). *Trademarks, NFTs, and the law of the metaverse*. *Arizona Law Journal of Emerging Technologies*, 6(3), i–16. <https://azlawjet.com>

among luxury houses regarding securing against unauthorized digital reproductions of their trademarks.⁹²

This moment also prompted broader industry reflection. Former LVMH Chief Digital Officer Ian Rogers, now an executive at crypto company Ledger, indicated that Hermes strong reaction to Rothchild's NFTs may have revealed a deeper industry concern. "Maybe this hit close to home", Rogers opined, noting that if luxury brands have long excelled at explaining why consumers spend \$18,000 on a handbag, they are able to explain why someone would pay \$ 3000 for an NFT. His perspective points to the evolving shift: as consumer value moves from physical to digital, luxury brands must adapt their strategies and legal tools accordingly.⁹³

Despite the legal victory for Hermès, the case leaves us with multiple intellectual property issues that remain unanswered, mainly how traditional frameworks apply in decentralized and immersive environments like the metaverse.

It remains unclear how courts will recognize how to distinguish between artistic expression and commercial exploitation, or how far trademark protection should extend to intangible digital property such as NFTs. Moreover, the case raises questions about the scope and enforcement of IP rights within a space in which user engagement, interoperability, and co-creation become increasingly central. These issues not only raise legal uncertainty but further affect how fashion brands choose to invest and construct digital strategies in the future.

There is still a need to revisit the central question: Can traditional intellectual property laws protect brands in the age of the metaverse?

⁹² Tan, C. (2022, August 31). *Hermes Hints at NFT and Metaverse Plans with New Web3 Trademark Filing*. NFTgators. <https://www.nftgators.com/hermes-hints-at-nft-and-metaverse-plans-with-new-web3-trademark-filing/>

⁹³ Small, Z. (2023, February 8). Hermès Wins MetaBirkins Lawsuit; Jurors Not Convinced NFTs Are Art. *The New York Times*. <https://www.nytimes.com/2023/02/08/arts/hermes-metabirkins-lawsuit-verdict.html>

Chapter 3

Intellectual Property Rights in the Metaverse

3.1 IP challenges in the metaverse

The metaverse has introduced a completely new landscape upon which IP rights must be enforced and reinterpreted. On this experiential, decentralized, and mutable virtual landscape, legal frameworks are struggling to stay ahead of changing patterns of creation, distribution, and commercialization. Trademarks are replicated in virtual environments, inventive products become NFTs, wearable technology blurs the distinction between patents and design, and user-end engagement creates new content that is not necessarily well-regulated. This raises a central question: Is the existing IP legislation sufficient to provide effective protection in the metaverse, or are structural limits necessitating regulatory reform?

This chapter answers these questions by critically evaluating the main legal tools in use today, identifying the five pillars of intellectual property: trademarks, copyright, patents, and user-generated content. Each section looks at both the potential and loopholes of these rights, determining whether current legal tools can address the evolving needs of digital fashion and the metaverse.

3.2 Trademark Protection for Virtual Goods

The emergence of the metaverse as an immersive virtual world has massively expanded the traditional limits of trademark law, particularly relating to classification, registration, and enforcement of marks used on virtual goods. There is yet no tailor-made international legal regime governing trademarks in the metaverse, and so the existing regimes such as: the Nice

Classification, the European Union Trademark Regulation (Regulation (EU) 2017/1001,⁹⁴ EUTMR), and the U.S. Lanham Act (15 U.S.C. §§ 1051 et seq.)⁹⁵ must be interpreted and applied to a scenario they were not originally designed to address.

The nice classification provides different classes for applicants that must apply for metaverse goods and services:

- Class 9: virtual goods, including goods authenticated by non-fungible tokens (NFTs)
- Class 35: marketplaces and exchanges for virtual goods, including NFT exchanges (e.g. the platform OpenSea); auction services.
- Class 36: financial exchange services related to virtual goods; cryptocurrencies; tokenization and fractionation of physical world assets (e.g., real estate or valuable art pieces)
- Class 41: virtual experiences
- Class 42: third -party software providers and back end blockchain coding services.

As we can see from above, virtual goods generally are being filed in Class 9 and not in the same class as their physical-world counterparts. This seems to be the approach taken by the EUIPO in its recent guideline on this matter, and WIPO also recently introduced “downloadable digital files authenticated by NFTs as a class 9 good in the 12-2023 Nice classification edition.”⁹⁶

However, there is still uncertainty since the term catch-all “virtual goods” are deemed insufficiently clear by regulators.

⁹⁴ *Regulation - 2017/1001 - EN - eutmr - EUR-Lex*. (2017). Europa.eu. <https://eur-lex.europa.eu/eli/reg/2017/1001/oj/eng>

⁹⁵ U.S. Patent & Trademark Office. (2013). *Trademark Statutes*. https://www.uspto.gov/sites/default/files/trademarks/law/Trademark_Statutes.pdf

⁹⁶ Bermejo, L. F., Martin, M., Swaine, K., Scales, D., Mondolfo, M., Halski, J., Espinosa, J., Turco, A., Souto, M., Stottele, M., Lakhani, N., Fatimilehin, O., Mateu, C., & Porcario, B. (2023). *White paper: Trademarks in the metaverse*. International Trademark Association (INTA).

As a matter of fact, the EUIPO define virtual goods as: non-physical items intended to be used during trade in online or virtual environments. They could, for instance:

1. merely depict real-world goods (e.g. *virtual fruit* – a digital image of a piece of fruit to make a supermarket in an online game appear more realistic);
2. depict and emulate the functions of real-world goods (e.g. *virtual fruit* – a digital image of a piece of fruit that is somehow ‘eaten’ by an avatar);
3. represent objects with no equivalent in the real world (e.g. *virtual time machines*).

The term virtual goods by itself lacks clarity and precision and will not be accepted for classification purposes unless the goods or type of goods are specified (e.g. *virtual goods*, *namely, virtual clothing*). The same principles apply as those for specifying the subject matter of retail services in Class 35. Thus, it is sufficient to indicate the type of goods instead of listing individual goods (e.g. instead of *virtual lipstick*, *virtual mascara*, *virtual eyeliner*, the applicant can simply apply for *virtual cosmetics*).⁹⁷ On this point, C. Ramírez-Montes notes that although the EUIPO’s approach stems from the requirement of clarity and precision it has raised practical challenges for applicants, as many metaverse-related applications have been rejected for failing to specify the virtual goods adequately. The author also highlights the lack of a consistent European position on how to classify metaverse trademarks, suggesting that the current system is not yet fully equipped to deal with the legal complexities introduced by virtual environments.⁹⁸

⁹⁷ EUIPO Guidelines. (2024). Europa.eu. <https://guidelines.euipo.europa.eu/2214311/2215360/trade-mark-guidelines/4-4-1-virtual-goods>

⁹⁸ Ramírez-Montes, C. (2023). *EU trademarks in the metaverse*. IDEA: The Law Review of the Franklin Pierce Center for Intellectual Property, 63(3), 555–716.

These developments show that classification systems are evolving to accommodate the metaverse, but not without debate: some experts and trade organizations have even proposed creating a fully new Nice Class (e.g., Class 46) exclusively for digital goods and services, whereas others think that virtual goods should be simply categorized in the same classes as their tangible counterparts.

Harmonizing these approaches is seen as crucial so that brand owners can predictably protect their marks for virtual goods on a global scale. Brands, not waiting for perfect clarity, have already started broad trademark filing programs to cover virtual products. Practitioners recommend registering trademarks for significant digital goods and services in advance, as a mark's protection in the physical world may not automatically apply to virtual products.⁹⁹

Despite these initial adaptations, there are still major legal interpretation challenges that need to be addressed. Namely concerning distinctiveness, “use in commerce,” and territorial scope of trademarks for virtual goods. Trademark law is based on the principle of distinctiveness which requires a sign to be able to identify and distinguish the origin of products and be capable of distinguishing one party’s goods from another’s, and this standard is being tested by digital items. A fashion-related case illustrates the uncertainty: Burberry’s attempt to register its iconic check pattern as a trademark for various NFT-authenticated virtual goods met resistance. In 2022, Burberry filed an EU trademark application covering several classes of virtual goods and services, aiming to extend its famous tartan check to the metaverse; however, the EUIPO¹⁰⁰ issued a partial refusal, finding that the pattern was not sufficiently distinctive for certain goods. In the examiner’s

⁹⁹ Bonadio, E., & Mohnot, R. (2024). *Trademarks and the metaverse: Challenges, developments, and the way forward*.

¹⁰⁰ Csáky, C., & Kasslatter, S. (2023, March 20). *EUIPO refuses to register Burberry pattern as trademark for metaverse-related goods and services for lack of...* Lexology; GRAF ISOLA Rechtsanwälte GmbH.
<https://www.lexology.com/library/detail.aspx?g=d6d3d0b9-1a75-48c8-a3fa-f00a8f4da8b4>

view, the “trademark application lacks distinctiveness because the check pattern employed is not materially different from other designs regularly used in the trade”. In other words, even though Burberry’s check is well known on physical products, its application to digital goods was deemed too mundane or common in appearance when judged against the wider universe of design content. This outcome highlights the cautious approach of trademark offices: they are applying traditional standards to novel virtual marks, often requiring a demonstration that the virtual version of a mark departs significantly from industry norms or common designs (a bar that Burberry’s pattern failed to clear in that context). The decision prompted debate about whether distinctiveness for virtual items should be evaluated under the same criteria as physical goods. Some commentators argue that what makes a virtual item distinctive may differ for instance, the scarcity of a design (if sold as a limited NFT) or its blockchain-backed uniqueness could arguably impart source-identifying significance even if the visual appearance is simplistic.¹⁰¹

As Chiroasca (2024) notes, absent explicit new rules, examiners will likely continue to analogize to established trademark doctrine: a common shape or pattern that would be non-distinctive on a T-shirt may likewise be non-distinctive on a virtual avatar’s T-shirt. Brand owners thus face an uphill battle to prove that their digital assets are not merely generic depictions but authentic trademarks with source-distinguishing power, and they must craft their applications (and sometimes the products themselves) to emphasize creative, non-functional elements that stand out in the virtual environment.¹⁰² Scholars underscore the need for “sophisticated and adaptive” interpretations of these principles, urging regulators to harmonize traditional trademark concepts with the unique challenges of the virtual realm. In practice, this might mean recognizing new kinds

¹⁰¹ IRJMETS. (2024). *Trademarks in the Metaverse: Opportunities and Challenges*. *International Research Journal of Modernization in Engineering, Technology and Science*, 6(5), 544–545

¹⁰² Bonadio, E., & Mohnot, R. (2024). *Trademarks and the metaverse: Challenges, developments, and the way forward*.

of distinctiveness or ensuring that absolute grounds for refusal (like lack of distinctiveness or functionality) are applied in a way that makes sense for digital goods, which often have no physical form or traditional “use” at all.¹⁰³

The notion of “use in commerce” is another pillar of trademark law now under strain. It is a fundamental requirement under Section 1(a) of the U.S. Lanham Act (15 U.S.C. §1051)¹⁰⁴ for acquiring and maintaining trademark rights through registration. It refers to the bona fide use of a trademark in the ordinary course of trade, not made merely to reserve a right in a mark. For goods, this means the mark must be placed on the goods or their containers, displays associated with the goods, or on documents associated with the goods, and the goods must be sold or transported in commerce (15 U.S.C. §1127).¹⁰⁵ In the metaverse context, this standard has become difficult to interpret. The USPTO¹⁰⁶ requires applicants (except those filing based on foreign registrations) to submit evidence, called specimens, showing the mark as used with the claimed goods or services. This has led to early refusals in metaverse-related applications where the specimens failed to convince examiners that a legitimate use was occurring. For instance, applicants who submitted screenshots of a branded virtual store or an NFT marketplace listing have sometimes been told that this does not show “use” analogous to a real-world point of sale. Questions arose such as: does an image of a digital handbag in a virtual gallery constitute a good “sold or transported in commerce,”

¹⁰³ Chiroasca, A. (2024). *Navigating the metaverse: Legal challenges and trademark protection*. *Intellectus: Journal of Intellectual Property, Science and Education*, 2024(1), 48–57.

¹⁰⁴ U.S. Patent & Trademark Office. (2013). *Trademark Statutes*. https://www.uspto.gov/sites/default/files/trademarks/law/Trademark_Statutes.pdf

¹⁰⁵ 15 U.S. Code § 1127 - Construction and definitions; intent of chapter. (n.d.). LII / Legal Information Institute. <https://www.law.cornell.edu/uscode/text/15/1127>

¹⁰⁶ USPTO. (2024). *United States Patent and Trademark Office*. Uspto.gov. <https://www.uspto.gov/>

or is its mere advertising? How does one demonstrate the location of use when the transaction and display occur entirely online?

Because so few marks for virtual goods have matured to registration in the U.S. so far, guidance is limited, but indications are that the USPTO¹⁰⁷ will insist on a clear association between the mark and a real commercial transaction or offering in the virtual world.¹⁰⁸

Furthermore, a foundational principle in trademark law is that rights are territorial, meaning they exist only within the jurisdiction where the mark is registered and used. For example, under U.S. law, protection is granted through use in interstate commerce, that is, commercial activity involving more than one state or with an effect on interstate trade, as required by the Lanham Act (15 U.S.C. §1127).¹⁰⁹ Similarly, in many civil law jurisdictions, such as those governed by the European Union Trademark Regulation (EUTMR)¹¹⁰, trademark rights depend on genuine use within the territory typically the EU or a specific member state to preserve and enforce registration.

This territoriality principle ensures that trademark rights reflect real commercial presence in a defined geographic space. However, the metaverse fundamentally disrupts this logic. Platforms in the metaverse are inherently borderless, accessible globally and often hosted on decentralized blockchain infrastructures, which do not align with the concept of national or regional “territory.” If a brand offers a virtual sneaker in a metaverse platform for example, through a decentralized

¹⁰⁷ USPTO. (2024). *United States Patent and Trademark Office*. Uspto.gov. <https://www.uspto.gov/>

¹⁰⁸ Bermejo, L. F., Martin, M., Swaine, K., Scales, D., Mondolfo, M., Halski, J., Espinosa, J., Turco, A., Souto, M., Stottele, M., Lakhani, N., Fatimilehin, O., Mateu, C., & Porcario, B. (2023). *White paper: Trademarks in the metaverse*. International Trademark Association (INTA).

¹⁰⁹ 15 U.S. Code § 1127 - Construction and definitions; intent of chapter. (n.d.). LII / Legal Information Institute. <https://www.law.cornell.edu/uscode/text/15/1127>

¹¹⁰ Regulation - 2017/1001 - EN - eutmr - EUR-Lex. (2017). Europa.eu. <https://eur-lex.europa.eu/eli/reg/2017/1001/oj/eng>

NFT marketplace or a virtual retail space the trademark use occurs in a digital space that may reach users in every country, regardless of where the business is legally based.

This raises unresolved questions: Does such use qualify as trademark use in every country where the platform is accessible? Or only where the company is headquartered? Or perhaps where the platform is hosted?

These ambiguities may require a fundamental rethinking of what “territorial use” means in virtual environments. At a minimum, brand owners must remain aware of jurisdiction-specific use requirements. For instance, a European Union Trademark (EUTM) can be revoked after five years of non-use, which means that a trademark registered for “virtual clothing” must eventually demonstrate genuine use within the EU’s digital marketplace to remain valid. This may require evidence that EU-based users are accessing, interacting with, or purchasing those virtual goods.

Similarly, countries like the Philippines, Cambodia, or Mexico (which require declarations or proof of use at intervals) will expect brand owners to show that their trademarks aren’t merely registered on paper but actually appear in the metaverse in a way consumers from those countries can encounter. These requirements put pressure on companies to not only register defensively but to engage in the metaverse marketplaces to maintain their rights, blurring the line between legal formalities and business strategy. Underpinning both distinctiveness and use is the core issue of territoriality. Trademark rights are granted by sovereign legal systems, a mark is registered country by country (or region, in the case of the EU) and infringement is typically assessed under the law of the place where the unauthorized use occurs or has effect. The metaverse, by contrast, is

borderless and decentralized. As the INTA ¹¹¹ observes, in a fully developed metaverse “there will be no ‘borders’ because platforms will be interoperable”, and this creates a tension with laws that assume borders at every turn.

Jurisdictional ambiguity is a major concern for brand owners: if an infringer in Country X sells virtual knockoffs of a luxury brand to users worldwide, can the brand owner sue in X? In each country where a user bought the item? Or perhaps in the country where the brand owner is located and experiencing harm to its goodwill? Courts are only beginning to tackle with these questions. Early indications from analogous internet cases suggest that courts might apply a “targeting” test i.e. if a virtual store or experience is targeted at consumers of a particular country (by language, currency, marketing, etc.), then that country’s courts have jurisdiction, and its trademark law can be applied. But in a global, persistent virtual world, targeting might be diffuse or nonexistent, leaving brand owners in a potential enforcement limbo. From this we can infer that there is a need to develop criteria to establish jurisdiction in the metaverse context, balancing competing concerns: on one hand, trademark owners must be able to “take action against infringers” who might be physically anywhere on the planet; on the other, we don’t want endless forum-shopping or brands having to defend themselves in remote courts merely due to virtual activities.¹¹² Traditional notions like the defendant’s domicile or the location of a server may be of limited help when both are obscured or intentionally distributed (as with blockchain-based content). Moreover, enforcement is complicated by the anonymity of users (a person minting infringing NFTs might be identifiable only by a cryptographic address) and the decentralized nature of platforms (some

¹¹¹ *The Metaverse and Nontraditional Trademarks: A Perfect Match?* - International Trademark Association. (2023, September 27). International Trademark Association. <https://www.inta.org/perspectives/features/the-metaverse-and-nontraditional-trademarks-a-perfect-match/>

¹¹² *Ibid*

virtual worlds run on peer-to-peer networks without a central host to hold accountable). All these factors mean that trademark enforcement in the metaverse is fraught with practical difficulties: identifying the infringer (who might be an avatar or alias), identifying the proper jurisdiction (when the harmful activity is everywhere and nowhere), and overcoming the lack of cooperative legal frameworks for global virtual environments. Brand owners have voiced concerns that even if they obtain a judgment, enforcing it across borders or against a defendant with no physical assets in the jurisdiction can render the victory hollow.¹¹³ In short, the borderless commerce of the metaverse strains the territorial nature of trademark rights, creating a need for innovative legal reasoning and perhaps international consensus to ensure trademarks don't lose their value as enforcement tools when used in a virtual space.

Facing these challenges and limitations, brand owners and legal experts are pursuing several strategies and proposing reforms to bolster trademark protection for virtual goods. One set of solutions focuses on clarifying and extending existing legal frameworks. For example, to address classification confusion, recommends that the international community consider harmonizing how virtual goods are classified whether through a new class or uniform guidance for using current classes. A harmonized approach (possibly via WIPO's Nice Classification revision or through coordinated trademark office practices) would reduce the risk that a brand's virtual product is protected in one jurisdiction but inadvertently unprotected in another due to clerical differences in classification. Consistency in terminology (such as universally requiring "virtual" or "digital"

¹¹³ Boora, D. (2024). *Legal, contractual and IP diligence in implementing trademarks in metaverse*. *International Journal of Law Management & Humanities*, 7, 4278–4289.

prefixes and specifying the nature of the good) would also help later enforcement, by clearly framing the scope of rights in registrations.¹¹⁴

Another proposal tackles the gap between physical and virtual trademarks: normally, a trademark registration only covers the goods/services listed, which might not include virtual items. Thus, a third party could register or use a famous mark on virtual goods where the original owner hadn't yet entered that space. To preempt such brand hijackings, some argue for expanding the doctrine of natural expansion (or zone of expansion) in trademark law. This doctrine traditionally allows that a mark owner might extend into a related market and should be accorded some latitude by courts to prevent others from exploiting the mark in that related market. However, it's uncertain whether courts would view, say, virtual apparel as a natural extension of a physical apparel brand, absent an existing registration for virtual goods. There is a compelling policy argument that they should: as the *Hermès v. Rothschild* case in the U.S. demonstrated, where a creator sold "MetaBirkins" NFTs depicting Hermès's Birkin bag, tribunals were willing to find infringement and dilution, effectively treating the NFT images as within the ambit of Hermès's trademark rights. Observers note that "where the value of a virtual good is derived from its physical-world value, it only makes sense for the physical-world owner to reap the benefits". Thus, guidelines or legal principles to ensure that existing trademark rights carry over to the metaverse (at least when the virtual good clearly references the real product) are being called for. Studies suggests further study on establishing clear rules so that brand owners are not forced to undertake duplicate registrations for every virtual analog of their products, especially given that bad-faith actors could otherwise register those marks first in the virtual classes. In parallel, scholars like Bonadio & Mohnot (2024)

¹¹⁴ Park, J. (2022). *Trademarks in the metaverse: Brands get real in the virtual world*. WIPO Magazine. <https://www.wipo.int/web/wipo-magazine/articles/trademarks-in-the-metaverse-42518>

argue that wholesale new laws may not be necessary “existing laws, with some modifications, are sufficient to address the trademark law... issues” likely to arise in the metaverse, as long as courts and legislators interpret those laws in an adaptable manner (Bonadio & Mohnot, 2024, p.51). In practice, such modifications might include updating statutory definitions (to clarify that offering a digital good can qualify as use in commerce), tweaking infringement provisions (to ensure virtual displays of a mark count as “use of a sign” in the course of trade, even if no physical product changes hands), and recognizing new infringing acts (such as tokenizing a trademark without permission). Thus far, no country has created a separate “metaverse trademark law” the consensus is to apply and adapt existing trademark principles, but this adaptation needs to be deliberate and well-informed by the peculiarities of virtual environments.¹¹⁵

Another set of solutions is more practical and cross-disciplinary, addressing the enforcement difficulties and the need for new brand protection tools. Companies are increasingly turning to technology itself to guard against infringement in virtual spaces. Blockchain technology often the same technology underlying NFTs and virtual assets can be repurposed to help authenticate legitimate products and flag counterfeit or unauthorized uses. For instance, a brand can issue its official virtual goods as NFTs recorded on a public blockchain; consumers (and potentially courts) can then verify authentic items, and any identical item not on the blockchain can be presumed fake. While this doesn’t stop unauthorized creations, it provides a means to differentiate genuine brand-sanctioned virtual goods from copies, potentially reducing consumer confusion (since savvy users might check provenance) and providing evidence in infringement cases (a blockchain record

¹¹⁵ Chiroasca, A. (2024). *Navigating the metaverse: Legal challenges and trademark protection*. *Intellectus: Journal of Intellectual Property, Science and Education*, 2024(1), 48–57.

showing the defendant's NFT is not one of the authentic ones). Brands are also deploying automated monitoring: much as they employ brand protection software to detect online counterfeits, they now use bots or hire specialized firms to patrol popular metaverse platforms for trademark misuse for example, scanning user-generated content libraries for suspicious uploads of logos, or monitoring virtual marketplaces for listings of branded items by unofficial sellers. When infringements are found, the next step often involves the platforms' own intellectual property policies. Big metaverse platforms (like game worlds or social VR spaces) typically have Terms of Service that prohibit users from infringing intellectual property. Brand owners can leverage these terms by reporting infringing content, which, under contract, the platform can remove or disable much faster than a court process. As one commentator notes, "explicit provisions concerning the utilization rights, geographical extent, and means for enforcing trademarks in virtual environments" can be built into such contracts or into license agreements with the platform.¹¹⁶

In fact, contractual solutions are key: brands entering the metaverse via collaborations (such as a fashion brand partnering with a game to release virtual outfits) are now careful to sign agreements that clearly delineate trademark ownership and usage rights. These agreements specify who can use the mark, in what virtual context, and how issues like quality control, infringement by third parties, and jurisdiction will be handled. By proactively addressing these points, the brand retains control and avoids inadvertently weakening its mark. Additionally, inter-brand and public-private cooperation is emerging as a strategy. Industry groups and enforcement agencies might form coalitions to tackle large-scale infringers who operate across multiple platforms. For example, if a ring of counterfeiters is selling similar fake virtual goods in several virtual worlds and websites, a

¹¹⁶ Boora, D. (2024). *Legal, contractual and IP diligence in implementing trademarks in metaverse*. *International Journal of Law Management & Humanities*, 7, 4278–4289.

coordinated legal action or information-sharing between stakeholders can improve efficacy much like anti-counterfeiting coalitions in the physical world.

In summary, while trademark protection for virtual goods in the metaverse still relies on existing legal frameworks, it requires flexible and technologically informed interpretation. Concepts like distinctiveness, use, and infringement remain central, but their application must adapt to the digital, borderless nature of the metaverse. Cases like Burberry illustrate that even well-known brands must meet new legal standards for virtual goods. Though challenges persist such as classification ambiguity, territorial limitations, and enforcement hurdles legal scholars and institutions agree that an evolutionary, not revolutionary, approach is best. By refining existing doctrines, harmonizing international practices, and embracing digital realities, trademark law can continue to protect both brand value and consumers in virtual environments.

3.3 Copyright Challenges for Digital Fashion Creations

The rise of digital fashion including virtual garments, textile patterns, 3D models for avatars, and fashion NFTs has tested the limits of existing copyright law in both the EU and the U.S. At their core, copyright laws in both jurisdictions are intended to protect original creations of the human mind, provided they meet specific legal thresholds. In the EU, the standard of protection is tied to the concept of the author's own intellectual creation, a formulation confirmed by the Court of Justice of the European Union (CJEU) in cases such as *Infopaq* (C-5/08)¹¹⁷ and *Painer* (C-145/10)¹¹⁸. These decisions clarified that a work must reflect the personality of its author and result from free and creative choices to qualify for protection. Similarly, Article 2(1) of the Berne

¹¹⁷ *Infopaq* (C-5/08) – The CJEU held that a work is protected by copyright if it is the author's own intellectual creation, even if it consists of very short extracts, as long as it reflects creative choices.

¹¹⁸ *Painer* (C-145/10) – The Court confirmed that photographic works can be protected if they are original and reflect the author's free and creative choices, reinforcing the originality standard in EU copyright law.

Convention,¹¹⁹ which underpins both EU and U.S. copyright law, defines copyrightable works broadly to include “every production in the literary, scientific and artistic domain, whatever the mode or form of its expression” (Berne Convention, 1971)¹²⁰. In the U.S., copyright protection is granted to works that exhibit a modicum of creativity *and are* fixed in a tangible medium of expression, according to Section 102 of the U.S. Copyright Act (17 U.S.C. § 102).¹²¹ The foundational logic stems from Article I, Section 8, Clause 8 of the U.S. Constitution¹²², which empowers Congress to protect “the writings” of authors for a limited time to promote the progress of science and useful arts.

In principle, digital creations are covered by the same rules that protect traditional works: if a virtual garment or texture is an “original” work fixed in a tangible medium (even a digital one), it can qualify for copyright protection. This standard has been interpreted to include digital designs created in the metaverse such as avatar clothing and 3D textiles provided, they reflect the creator’s free and creative choices.¹²³

United State law likewise requires a modicum of creativity and fixation in a tangible medium, criteria that digital fashion files can satisfy. In practice, however, applying these criteria to fashion in immersive virtual environments has exposed several gaps and ambiguities in the law. A threshold issue is originality: digital fashion often draws from pre-existing designs or algorithms, blurring the line between inspiration and infringement. For instance, a designer may decorate a

¹¹⁹ *WIPO Lex*. (n.d.). [Www.wipo.int](https://www.wipo.int/wipolex/en/text/283698). <https://www.wipo.int/wipolex/en/text/283698>

¹²⁰ WIPO. (2019). *Berne Convention for the Protection of Literary and Artistic Works*. Wipo.int. <https://www.wipo.int/treaties/en/ip/berne/>

¹²¹ Legal Information Institute. (n.d.). *17 U.S. Code § 102 - Subject matter of copyright: In general*. LII / Legal Information Institute. <https://www.law.cornell.edu/uscode/text/17/102>

¹²² *Overview of Congress’s Power over Intellectual Property | Constitution Annotated | Congress.gov | Library of Congress*. (n.d.). Constitution.congress.gov. https://constitution.congress.gov/browse/essay/artI-S8-C8-1/ALDE_00013060/

¹²³ Haerting, N. (2023). *Metaverse und Recht: Urheberrecht*. Haerting Rechtsanwälte.

virtual jacket with a famous painting or logo without authorization, as in the case of Mango, the Spanish fashion brand, which exhibited NFTs incorporating well-known artworks by Joan Miró and Miquel Barceló. These NFTs were displayed both in Mango's Manhattan physical store and on virtual platforms like OpenSea and Decentraland. The Spanish collecting society VEGAP filed a copyright infringement lawsuit, alleging a violation of the artists' moral and economic rights. Mango argued that its use was legitimate, asserting that it had lawfully purchased the physical artworks years earlier and that the NFTs were "lazy-minted" meant only for exhibition and not for sale. The Barcelona Commercial Court No. 9, in a decision from January 2024, found that the moral right of disclosure had been exhausted, as the artworks had already been made public. Furthermore, it ruled that the economic rights had not been infringed, since Mango had no intent to commercialize the NFTs; their purpose was purely exhibitory, which did not compete with the original market for the artworks. Although Mango ultimately prevailed, the case illustrates a critical legal gray area: even when digital representations of existing works are not monetized, their presence in immersive or commercial virtual environments may still trigger copyright claims. For fashion brands, this case serves as a cautionary precedent: the use of third-party artwork in digital clothing or fashion NFTs must be handled with legal diligence, especially in the metaverse where questions of rights clearance, market effect, and user access are amplified.¹²⁴ Beyond the risks of unauthorized appropriation, the Mango case also underscores the need to examine how emerging design technologies, such as AI generation, raise further complexities for copyright protection in digital fashion. Such scenarios also show that digital apparel can implicate overlapping copyrights (the fashion item and any artwork applied to it), complicating the

¹²⁴ *VEGAP v. Mango*, Commercial Court No. 9 of Barcelona, Judgment of 11 January 2024, as discussed in "Creative Industries and Business Model Innovation," 2024, p. 55.

originality and derivative work analysis. Moreover, when an AI engine or generative algorithm produces a new virtual dress or pattern with minimal human input, it is unclear if the result meets the human authorship requirement. U.S. authorities have taken a firm stance that purely AI-generated material lacks the “human authorship” needed for protection, allowing copyright only in those elements “independent of” the AI contributions. The EU’s standard of the author’s intellectual creation implicitly presumes a human creator as well, suggesting that entirely algorithmic fashion designs would fall outside the scope of protection.¹²⁵ This leaves a legal void for couture created by bots or avatar algorithms a growing reality as brands use AI to generate clothing designs—since those designs might be ineligible for copyright under current law.

Fixation is another nuanced issue in copyright law. Generally, digital fashion assets such as model files or texture images are considered fixed when stored on a server or device, thus satisfying the requirement that a work be recorded in a stable medium (U.S. Copyright Act, 17 U.S.C. §101).¹²⁶ However, the metaverse introduces dynamic and interactive environments where garments may only render temporarily on screen or change in real time with user input. If a fashion design “materializes” ephemeral in an XR setting such as a dress that is procedurally generated anew each time and never saved one might question whether it is sufficiently fixed to be protected. While U.S. courts have held that even brief RAM storage may constitute fixation, the intangible and transient nature of many virtual assets stretches this principle (*MAI Systems Corp. v. Peak Computer, Inc.*, 1993). So far, this remains largely a theoretical concern, as most platforms do log or store assets, but it underscores how the fixation requirement could be strained in fully dynamic

¹²⁵ Haerting, N. (2023). *Metaverse und Recht: Urheberrecht*. Haerting Rechtsanwälte.

¹²⁶ 17 U.S. Code § 101 - Definitions. (2010). LII / Legal Information Institute. <https://www.law.cornell.edu/uscode/text/17/101>

or user-generated digital fashion contexts. This issue is especially acute for digital fashion, where the visual rendering of garments often the sole expression of the design is central to user experience. Unlike static artworks or text, virtual fashion lives through motion, animation, and context-sensitive display, making its fixation more fluid and difficult to capture in traditional legal terms.

Questions of authorship and ownership are equally thorny. In traditional fashion, an individual designer or brand usually claims authorship of a print or garment design. In virtual worlds, creation is often collaborative, and user driven. Multiple contributors (a 3D modeler, a texture artist, and even the end-user customizing an outfit) might each have a hand in a single digital garment's creation, making it unclear who the "author" is. If several avatars collaboratively design a virtual couture piece in a sandbox platform, are they joint authors, or does the platform itself own a stake? Platforms' terms of service often muddy the waters by asserting broad rights over user-generated content. For example, some metaverse platforms like Roblox and Decentraland require users to grant the platform a license (or even transfer rights) to any content they create in-world. This can lead to conflicts between the original creator and the platform over who controls the exploitation of a virtual fashion item.¹²⁷

Even defining the "author" is tricky when the creation process is avatar-mediated legally, the avatar is not a person but a proxy for one. The law will attribute authorship to the human user behind the avatar, but only if that user's contribution is creative. If an avatar simply applies an algorithmic filter or template to generate a clothing design, the user's claim to authorship (and thus copyright) becomes tenuous. In short, the attribution of creative ownership in digital fashion is far

¹²⁷ Intepat Interns. (2024, December 6). *COPYRIGHT IN METAVERSE - Intepat IP*. Intepat IP. <https://www.intepat.com/blog/copyright-in-metaverse/>

from straightforward, often requiring case-by-case parsing of human input versus automated generation. This uncertainty erodes the incentive function of copyright: designers may be unsure if they hold exclusive rights in their virtual couture, or if the platform (or no one at all) does.¹²⁸

Even when a digital fashion creation is clearly eligible for copyright and its author determined, enforcement in the metaverse poses profound challenges. One major hurdle is the ease of copying in a decentralized, user-driven environment. A designer can invest substantial effort into a unique virtual sneaker or dress, only to have copycats replicate the asset pixel-for-pixel and sell knockoffs as NFTs or in-world items. The metaverse is rife with “digital fast fashion” infringements: users can create near-identical replicas of popular virtual clothes or NFT wearables at virtually no cost, undermining the value of the originals. Unlike the physical world, where making a convincing fake handbag requires some manufacturing effort, in a virtual space a perfect copy can be effortlessly replicated with a simple file transfer.¹²⁹

This has led to phenomena like “NFT counterfeit rings” unofficial tokens that imitate genuine branded fashion NFTs. The decentralized nature of blockchain-based worlds exacerbates the problem. Copyrights holders face anonymity and jurisdiction issues when pursuing infringers. Users operate under pseudonyms, and blockchain transactions are semi-anonymous, making it difficult to identify the real-world individual behind an infringement. Even if the individual is identified, they could be located anywhere in the world. A designer in Europe might discover an infringer in a country with weak IP enforcement, or vice versa, complicating the ability to sue and obtain relief across borders. International copyright enforcement is governed by the territorial “lex

¹²⁸ *Ibid*

¹²⁹ Mesevic, M. (2023). *A comparative legal analysis of copyright protection in the metaverse*. *Regional Law Review*, 3(1), 339–359.

protectionis” principle one must typically sue under each country’s law where infringement occurs. In a global metaverse, a single act of copying can infringe in dozens of countries at once, forcing a rightsholder to pursue a patchwork of legal actions (the so-called “mosaic” of national cases). This is costly and inefficient, meaning practical enforcement often lags or fails, especially for independent designers without massive legal budgets.¹³⁰

Furthermore, metaverse platforms frequently disavow liability for user misconduct in their terms of service. As noted by an EU legal analysis, users often agree to terms that “*exonerate the Metaverse platform from liability in case of an infringement performed by a user*”. This leaves the individual infringer as the sole target, with platforms playing a limited role in policing content beyond what their policies or the DMCA¹³¹ require.

Some centralized platforms (like Roblox) do respond to takedown requests and have internal content moderation, but in open decentralized environments (like certain blockchain-based worlds) there may be no easy takedown mechanism at all. The result is that a fashion brand may obtain a favorable judgment in theory yet struggle to locate assets to seize or otherwise enforce it against a fleeting avatar in practice. These enforcement obstacles anonymity, jurisdictional conflict, lack of platform accountability create a de facto gap in protection: even where the law recognizes rights in digital fashion, enforcing those rights within the metaverse remains an uphill battle fragmented, reactive, and often ineffective against the rapid and borderless nature of digital infringement.¹³²

¹³⁰ UIC Review of Intellectual Property Law. (2022). *Special Issue: Copyright Law in the Metaverse*, 21(1), 1–98.

¹³¹ Digital Millennium Copyright Act, a U.S. law enacted in 1998.

¹³² *Intellectual Property in the Metaverse. Episode IV: Copyright*. (n.d.). Intellectual-Property-Helpdesk.ec.europa.eu. https://intellectual-property-helpdesk.ec.europa.eu/news-events/news/intellectual-property-metaverse-episode-iv-copyright-2022-06-30_en

To overcome these limitations, legal scholars and policymaker have begun proposing solutions. One approach is to make copyright laws more definitive and modern to fit the metaverse context. Experts have noted that “*current regulation is unclear and does not provide specific solutions*” for NFTs and virtual works. Others argue that no radical change is needed the metaverse should “comply with the existing copyright rules” without a paradigm shift but rather that those rules need to be enforced uniformly and supplemented with clear contractual practices. For example, ensuring that NFT marketplaces clearly state what rights (license or ownership) are transferred with a fashion NFT can prevent buyer confusion and litigation. Others call for more fundamental reforms. One recommendation is international harmonization of metaverse copyright norms. Given the inherently borderless nature of virtual worlds, greater cooperation through bodies like WIPO could help establish baseline rules for instance, an international treaty or soft law guidelines on the IP status of purely digital objects.¹³³ Harmonized norms could address issues like the copyrightability of avatar apparel and the responsibilities of metaverse platforms, creating more legal certainty across jurisdictions. Another set of solutions is technological: employing blockchain and smart contracts to strengthen copyright management. Blockchain ledgers can irreversibly record the origin and ownership of a digital fashion item, and smart contracts can automate licensing terms even, for example, ensuring the original designer gets a royalty each time an NFT dress is resold. While these tools do not prevent copying of the underlying asset, they can help authenticate originals and potentially deter infringement by making it easier to verify legitimate items. Additionally, technological advancement in AI-driven content monitoring may aid enforcement:

¹³³ UIC Review of Intellectual Property Law. (2022). *Special Issue: Copyright Law in the Metaverse*, 21(1), 1–98.

just as YouTube uses Content ID to spot copyrighted music, metaverse platforms could use algorithms to detect unauthorized copies of protected clothing textures or 3D models in real time.

Naturally, this raises its own challenges (accuracy, privacy, and the risk of false positives), but it offers a possible technical aid to overstretched human enforcement. Platforms are a crucial piece of the puzzle. Experts suggest that metaverse platform operators should take more proactive measures for instance, implementing robust digital rights management and quick takedown procedures for virtual items. Some suggestions even see in-world arbitration or dispute resolution mechanisms to handle IP conflicts between users and brands, avoiding the need for multi-jurisdictional court battles.¹³⁴

Finally, greater user education and norms could improve the landscape. Many metaverse participants simply may not realize that copying a famous designer's virtual gown is unlawful. Educational initiatives by platforms or IP offices tutorials, warnings, visible indications of protected content can foster a culture of respect for creative rights in these communities.

In summary, a combination of legal clarification, international policy coordination, technological innovation, and industry self-regulation is being explored to address the copyright challenges of digital fashion. The stakes are high: without effective copyright protections, fashion brands and independent creators alike might be deterred from investing in the metaverse, fearing that their virtual designs will be free for the taking. But tight controls also risk stifling user-driven creativity that makes the metaverse appealing.

¹³⁴ Mezei, P., & Arora, G. C. (2023). Copyright and metaverse. In *Chapter 11, Handbook of Intellectual Property and the Metaverse*..

In the future, lawmakers will need to strike a delicate balance extending robust protection and enforceable rights to creators of virtual fashion, while adapting doctrines like originality, authorship, and infringement to the unique context of immersive digital worlds. The current trend, as reflected in EU and U.S. debates, suggests incremental adjustments rather than a complete redesign of copyright law. Digital fashion is testing old doctrines in new ways, but it also offers impetus for legal evolution. By learning from early cases and experiments, courts and legislators can gradually close the gaps ensuring that the couture of the metaverse can be as securely protected as couture in the atelier, without stifling this emerging industry. Such legal evolutions will determine whether creators and brands can confidently flourish in the virtual fashion frontier, knowing their works are truly theirs in law as well as in code.

3.4 Patent Considerations in Wearable Tech and AR Fashion

The rise of the metaverse has led to a boom in patent activity, particularly in the realm of wearable technology and augmented reality (AR) fashion. Globally, nearly 390,000 patent applications related to AR, VR, and XR (extended reality) technologies are pending, with the United States and China leading the filings (WIPO, 2023).¹³⁵ This reflects an upward trend as companies race to protect innovations bridging physical and virtual worlds. In the metaverse context, patent law must contend with inventions ranging from hardware (e.g. VR/AR headsets, smart glasses, haptic wearables) to software (e.g. AR image filters, blockchain-based virtual goods, avatar interaction algorithms) (Bonadio & Mohnot, 2024).¹³⁶

¹³⁵ *Metaverse Patents - Kluwer Patent Blog*. (2024, May 20). Kluwer Patent Blog. <https://patentblog.kluweriplaw.com/2024/05/20/metaverse-patents/>

¹³⁶ *The Metaverse Patent Wars: Ownership, Access, and User Rights in Virtual Realities*. (2025, March 31). The IP Press. <https://www.theippress.com/2025/03/31/the-metaverse-patent-wars-ownership-access-and-user-rights-in-virtual-realities/>

Both the European Patent Convention (EPC)¹³⁷ and U.S. Patent Act¹³⁸ require an invention to be novel, non-obvious (inventive step), and useful/industrially applicable to be patentable. These core criteria (sometimes summarized as the “NUNS” test: Novelty, Utility, Non-obviousness, Statutory subject matter) apply equally to metaverse-related inventions. Thus, a new AR wearable device or an AR software process must present a technical solution that is new and non-obvious to qualify for a patent, just as in any field.¹³⁹ In practice, companies are filing patents both for hardware innovations (e.g. advanced processors, sensors, or displays for AR/VR headsets and smart garments) and for software processes that enable virtual experiences (e.g. algorithms for rendering virtual clothing or managing blockchain-based fashion assets). For example, Apple’s 2024 “Vision Pro” AR headset that aims to integrate virtual world seamlessly, meaning that wearing the Vision Pro one can see the world around and icons, operations and functions as a display without borders on the real world. This technology reportedly had over 5,000 patent filings covering its hardware and software features a testament to how extensively companies seek protection in this area(Kluwer IP Blog, 2024).¹⁴⁰Europe’s patent regime (through the European Patent Office, EPO)¹⁴¹ is generally more restrictive on software and purely digital innovations than the U.S. In Europe, computer programs “as such” are excluded from patentability, meaning a software-implemented invention must demonstrate a technical character or technical effect beyond the normal interactions of software and hardware.¹⁴²

¹³⁷ *European Patent Convention* | *Epo.org*. (n.d.). *Www.epo.org*. <https://www.epo.org/en/legal/epc>

¹³⁸ *U.S. Code: Title 35. PATENTS*. (2012). LII / Legal Information Institute. <https://www.law.cornell.edu/uscode/text/35>

¹³⁹ Pablo, I. de. (2023, March 15). *Metaverse patents boom*. H&a Internacional. <https://hyaip.com/en/metaverse-patents-boom/>

¹⁴⁰ *The Metaverse Patent Wars: Ownership, Access, and User Rights in Virtual Realities*. (2025, March 31). The IP Press. <https://www.theippress.com/2025/03/31/the-metaverse-patent-wars-ownership-access-and-user-rights-in-virtual-realities/>

¹⁴¹ European Patent office. (n.d.). *Homepage* | *Epo.org*. *Www.epo.org*. <https://www.epo.org/en>

¹⁴² LG. (2025, March 27). *IP & the Metaverse: What Can Be Patented*. Potter Clarkson. <https://www.potterclarkson.com/insights/intellectual-property-and-the-metaverse-what-can-be-patented/>

The EPO¹⁴³ will grant patents on software or AR/VR processes only if they solve a technical problem in a novel way. For instance, an AR fashion filter that simply adds a virtual garment onto a user's image might be deemed a mere presentation of information or aesthetic creation (non-technical), and thus unpatentable in Europe. However, if that AR filter involves a new image processing technique that reduces motion sickness or improves real-time tracking, it could be patent-eligible by virtue of its technical contribution. Indeed, European practice shows that with the right claim drafting emphasizing technical features and tangible effects even software-centric metaverse inventions can be patented. During an EPO¹⁴⁴ Board of Appeal decision in 2021 has further tightened the rules for computer simulations, requiring that a simulation achieve an intended technical purpose (not merely simulate a process) to be patentable. This means many purely virtual simulations (including some AR/VR environments) “are likely unpatentable” unless they produce a concrete technical effect or solve a specific technical problem.¹⁴⁵

The United States, by contrast, has historically been more permissive on software and business-method patents, but since the Supreme Court's *Alice v. CLS Bank* decision (2014)¹⁴⁶ there is a stricter eye on abstract ideas. Under 35 U.S.C. §101¹⁴⁷, (a section of the United States Patent act and defines what innovations are eligible for patent protection), U.S. examiners ask whether a claim is directed to an “abstract idea” (such as a mere rule, method of organizing human activity, or mathematical algorithm) without an inventive concept that transforms it into a patent-eligible

¹⁴³ European Patent office. (n.d.). *Homepage | EPO.org*. [Www.epo.org. https://www.epo.org/en](https://www.epo.org/en)

¹⁴⁴ European Patent office. (n.d.). *Homepage | EPO.org*. [Www.epo.org. https://www.epo.org/en](https://www.epo.org/en)

¹⁴⁵ *Metaverse Patents - Kluwer Patent Blog*. (2024, May 20). Kluwer Patent Blog. <https://patentblog.kluweriplaw.com/2024/05/20/metaverse-patents/>

¹⁴⁶ In *Alice Corp. v. CLS Bank* (2014), the U.S. Supreme Court ruled that abstract ideas implemented using generic computers are not patentable unless they contain an “inventive concept” that transforms the idea into a patent-eligible application.

¹⁴⁷ *35 U.S. Code § 101 - Inventions patentable*. (2011). LII / Legal Information Institute. <https://www.law.cornell.edu/uscode/text/35/101>

application. Many AR/VR inventions qualify as technical processes, but there is still a risk that a broad virtual-world concept could be deemed abstract. For instance, a method of controlling avatars in a virtual space solely through generic software steps was found patent-ineligible by a U.S. court as an abstract idea lacking inventive concept. (In that case, claims on filtering avatar positioning data to manage crowd sizes in an online game were invalidated).¹⁴⁸

U.S. law does not categorically exclude computer programs a well-defined technological improvement in AR interfaces or a novel wearable device will generally be patentable if it is new and non-obvious. Notably, the U.S. has seen thousands of metaverse-related applications in recent years. Between 2020 and 2022 alone, over 4,600 metaverse patent applications were filed at the USPTO¹⁴⁹, covering both hardware (headsets, haptic suits, etc.) and software (VR/AR methods, blockchain integration) innovations. This surge indicates that U.S. companies anticipate enforceable rights in this space, although they must draft claims carefully to survive the Alice test (for example, by anchoring them to specific technical improvements in AR/VR technology rather than broad abstract results).

The divergence in EU and U.S. frameworks has practical implications. Innovators in AR fashion tech may find it easier to secure U.S. patents for software-based innovations like virtual try-on algorithms or avatar customization systems, whereas in Europe they must ensure those inventions meet the technical-effect standard. Indeed, analysts have observed that the metaverse patent boom is centered in the US and China, not Europe, partly due to Europe's stricter stance on software

¹⁴⁸ Zoderu, J. S. (2022). *Patent Considerations and the Metaverse*. Natlawreview.com; National Law Review. <https://natlawreview.com/article/patent-considerations-and-metaverse>

¹⁴⁹ USPTO. (2024). *United States Patent and Trademark Office*. Uspto.gov. <https://www.uspto.gov/>

patents (Kugler, 2022). Nonetheless, when it comes to hardware (wearable devices, AR hardware), both jurisdictions provide robust protection as those are classic technical inventions. Both the EPO¹⁵⁰ and USPTO¹⁵¹ have already granted patents on AR/VR hardware ranging from head-mounted display improvements to novel user interface methods for 3D environments.¹⁵² For example, patents have been filed on reducing AR motion sickness via image adjustments and on eye-tracking based user attention detection in AR glasses these illustrate that as long as a metaverse innovation solves a concrete technical challenge, it can be patented under both regimes. In essence, European law demands a *tech-centered* claim (to avoid the “software-as-such” exclusion), while U.S. law demands a *tangible application* (to avoid the “abstract idea” bar). Innovators in wearable AR fashion tech must navigate these nuances when seeking international patent protection.

Despite the growing number of patent filings, current patent laws reveal significant limitations when applied to metaverse technologies like virtual garments, sensor-enabled wearables, and AR filters:

1. Intangible Subject Matter

Patent law traditionally protects inventions with *tangible or technical results*, which creates tension when the “product” is virtual. A digital fashion item (e.g., an NFT dress or an AR outfit filter) is an intangible good by itself, it may be seen as an abstract or aesthetic creation rather than a technical invention. As noted by Bonadio and Mohnot (2024), “*virtual patents in the Metaverse*” are conceivable only if we focus on the underlying technical process or functionality, since a virtual

¹⁵⁰ European Patent office. (n.d.). *Homepage | EPO.org*. Wwww.epo.org. <https://www.epo.org/en>

¹⁵¹ USPTO. (2024). *United States Patent and Trademark Office*. Uspto.gov. <https://www.uspto.gov/>

¹⁵² LG. (2025, March 27). *IP & the Metaverse: What Can Be Patented*. Potter Clarkson. <https://www.potterclarkson.com/insights/intellectual-property-and-the-metaverse-what-can-be-patented/>

object itself might not be patentable. For example, you likely cannot patent a virtual dress design purely for its look (that would fall under design rights or copyright), but you might patent the method/system that renders that dress in AR with realistic physics or the embedded sensor technology that links a physical garment to its virtual twin.¹⁵³

This limitation means fashion brands innovating in AR must identify a *technical aspect* of their creation to patent. European authorities have stressed this: if a metaverse implementation of a process is merely doing what's known in the real world (e.g. “buying land” virtually), it does not qualify as novel or inventive unless it solves a metaverse-specific technical problem. Simply moving an existing concept into VR or AR is often considered obvious. Thus, many creative or business ideas in virtual fashion while potentially groundbreaking culturally fall outside the scope of patent protection absent a technical innovation (Zodieru, 2022).¹⁵⁴

2. Novelty of Virtual vs Physical Implementations

A peculiar challenge is assessing novelty when an invention straddles the physical and virtual. Patent examiners may ask: *if a virtual garment with an embedded sensor works exactly like an existing physical smart garment, is it truly “new”?* The concept of a “digital twin” illustrates this dilemma. A patent application for a virtual object or process that closely mimics a known physical-world counterpart might be rejected for lack of novelty¹⁵⁵. For instance, a virtual reality method of trying on clothes could be compared to prior art of physical try-on or 2D online fitting systems. If

¹⁵³ *Virtual Patents in Metaverse*. (2025). Virtual Patents in Metaverse | DexPatent. <https://dexpatent.com/patent-guide/virtual-patents-in-metaverse/>

¹⁵⁴ LG. (2025, March 27). *IP & the Metaverse: What Can Be Patented*. Potter Clarkson. <https://www.potterclarkson.com/insights/intellectual-property-and-the-metaverse-what-can-be-patented/>

¹⁵⁵ *Metaverse Patents - Kluwer Patent Blog*. (2024, May 20). Kluwer Patent Blog. <https://patentblog.kluweriplaw.com/2024/05/20/metaverse-patents/>

the only difference is the context being virtual, the invention may be deemed not novel or at least obvious. As Guadamuz (2022) notes, metaverse inventions which are essentially *imitation of real-world activities* risk failing the non-obviousness test “*the only factor that distinguishes [buying virtual land] from buying land in actuality is that the land is virtual*”, making it potentially obvious.

In Europe especially, this is a complex exercise: examiners struggle with whether a “new” operation in the metaverse is fundamentally new, or just a *new environment* for an old idea (Bonadio & Mohnot, 2024). The novelty issue also arises with open-source foundations AR fashion software built on existing open code isn’t novel. If developers use public libraries for, say, marker-based AR tracking to display clothes on a user, that underlying method can’t be patented by them. Additionally, the fast-paced nature of AR/VR software means by the time a patent is examined (which can take years), the code may have evolved or been updated. The patent system’s slow timeline is ill-suited for such iterative development, making “*patentability a tedious job*” for software by grant time, the claimed virtual fashion technology might be outdated.¹⁵⁶

3. Overcrowded Patent Space (Patent Thickets)

In the wearable and AR hardware arena, one major limitation is the crowded landscape of existing patents. Modern tech products often incorporate dozens of patented components a phenomenon known as “patent thickets,” where overlapping rights make it hard to innovate without infringing. AR glasses or smart wearables for the metaverse are no exception: a single smart AR headset might rely on hundreds of patented technologies (from display optics to networking to motion sensors).

¹⁵⁶ LG. (2025, March 27). *IP & the Metaverse: What Can Be Patented*. Potter Clarkson. <https://www.potterclarkson.com/insights/intellectual-property-and-the-metaverse-what-can-be-patented/>

The IP Press observes that the “hardware patent space is overcrowded with many patents granted to AR/VR headsets,” making truly novel hardware improvements harder to find. A startup in AR fashion hardware could inadvertently collide with someone else’s patent on, say, embedded motion sensors or gesture-recognition circuits. Patent thickets can stifle newcomers and complicate product development since companies must negotiate licenses or risk litigation. This is especially problematic for wearable tech, where incremental innovations (lighter materials, extra sensors) might already be patented by earlier tech firms. In practical terms, a fashion company venturing into high-tech wearables may need to wade through dense patent landscapes or join patent pools to access fundamental AR technologies. The patent thicket issue underscores that patent law’s very success (in incentivizing lots of inventions) can become a limitation raising barriers to entry in the metaverse hardware market.

4. Interoperability and System Complexity

The metaverse vision relies on interoperability multiple platforms and devices working seamlessly and on user-generated content. However, as Zoderu (2002) highlights, patent law is designed to protect specific proprietary inventions, not the collective system. As a result, patents have “limited scope in covering the complex structure of the Metaverse, such as interoperability [and] user-creation”. No single patent can cover an entire metaverse experience, which spans countless inventions and contributions. For example, a company might patent a specific AR garment technology (like a method for projecting a 3D dress onto a user), but that alone doesn’t ensure an interoperable standard; other platforms might use a different method. In fact, too many patents owned by different parties could hinder interoperability, as each platform must avoid infringing or pay licenses for every patented feature. Another aspect is user-generated content and avatars: If a

platform's underlying engine is patented, when users create their own virtual fashion or accessories within that world, do they infringe patents? Patent law wasn't designed for end-users casually "performing" an invention, yet in a metaverse, an avatar's routine actions might utilize patented systems. This raises questions of infringement and ownership: *Can users be considered owners or inventors of the avatars and digital fashions they create using a platform's patented tools, or do those rights belong to the platform?*. Current patent law offers no clear answer traditionally, patent rights belong to the inventor or patent owner, and using a patented system without permission is infringement, but platforms typically license their tech implicitly to users. The uncertainty around user agency in patented virtual environments is a legal gray area. Additionally, patent law's territorial nature clashes with the borderless metaverse: patents are enforceable country-by-country, yet virtual activities happen globally. There is ambiguity about which jurisdiction's patent is infringed when, say, a user in Country A wears a virtual AR dress created by a company in Country B on a platform running in Country C's servers. The "ubiquity" of the metaverse challenges the territorial limits of patent rights. Traditional rules would focus on the location of servers or the user, but in a decentralized virtual world this becomes hard to pin down. Thus, enforcement of patents on metaverse tech can be difficult patent holders may struggle to detect unauthorized use (which might require examining a competitor's source code or algorithms hidden behind the scenes and to decide where to sue an infringer. These limitations suggest that while patent law provides a framework for protecting AR/wearable innovations, it is often out of step with the collaborative, fluid, and global nature of metaverse platforms.¹⁵⁷

¹⁵⁷ Zoderu, J. S. (2022). *Patent Considerations and the Metaverse*. Natlawreview.com; National Law Review. <https://natlawreview.com/article/patent-considerations-and-metaverse>

5. Inventorship and AI Contributions

Another emerging issue is inventorship in cases where AI or avatars contribute to innovation. In wearable AR fashion, AI might design new virtual garments or optimize a fitting process. Patent law currently recognizes only human inventors, as confirmed in cases like *Thaler v. Vidal* (holding AI cannot be an inventor under U.S. law). If a generative AI creates a novel fashion design in the metaverse, no patent can be obtained unless a human is credited as the inventor who conceived the idea. Likewise, if an AI-controlled avatar performs a process that would be patentable (say it discovers a new way to combine virtual fabrics), it's unclear how patent law would attribute that invention. This limitation may become more pronounced as AI-driven creation grows in virtual worlds. It also ties into infringement: if an AI or autonomous avatar infringes a patent (for example, an AI stylist in a game uses a patented clothing simulation method), who is liable? According to De Filippi and Hassan (2022), attribution and liability in decentralized, semi-autonomous systems remain unresolved in many jurisdictions. Normally, liability would fall to the human who directed the AI or the platform provider, but According to De Filippi and Hassan (2022), attribution and liability in decentralized, semi-autonomous systems remain unresolved in many jurisdictions. These scenarios haven't been fully tested. Overall, current patent law is *human-centric*, which may not align perfectly with a metaverse where creativity and innovation are often a blend of human and machine contributions (Gervais, 2021).¹⁵⁸

Real-world examples illustrate how fashion brands are engaging with patent law in the metaverse. A standout case is Nike, which has actively patented technology at the intersection of physical apparel and virtual assets. In 2019, Nike obtained a U.S. patent for a “*system and method for*

¹⁵⁸ *Ibid*

providing cryptographically secured digital assets,” essentially using blockchain to authenticate physical products and link them to virtual counterparts. This became known as the “CryptoKicks” patent (US 10,505,726 B1)¹⁵⁹ and operates as follows: when a customer buys a pair of Nike shoes, a digital version of the shoe is generated and assigned a unique cryptographic token (an NFT), so the digital shoe plus token represents a certified virtual sneaker owned by that customer. In effect, Nike’s invention creates a bridge between a physical wearable (the sneakers) and a metaverse wearable the owner’s avatar can wear the authenticated digital sneakers in a virtual world, and the NFT serves as proof of authenticity and ownership of the corresponding real-world shoes. This patent was a proactive legal move to secure a foothold in virtual fashion. Indeed, shortly after, Nike acquired the digital fashion studio RTFKT and launched Nike CryptoKicks NFTs customizable virtual sneakers that users can “wear” in Nike’s own metaverse space called Nikeland.¹⁶⁰ The patent gave Nike a potential monopoly on this specific method of tying physical goods to NFTs in footwear, demonstrating how traditional brands can use patents to protect innovative business models in the metaverse.

Nike’s example also highlights some of the earlier points: to get a patent, Nike emphasized the technical aspects (blockchain authentication, generation of a digital asset with token linkage) rather than just claiming a “virtual shoe.” The novelty lay in applying cryptographic tech to solve a problem of authenticity in both physical and virtual domains. This shows patent law can accommodate creative approaches to fashion tech if framed as a technical solution (here, solving

¹⁵⁹ *Nike Blockchain Patent Strategy: CryptoKicks against counterfeiting*. (2019, December 17). IP Business Academy. <https://ipbusinessacademy.org/nike-blockchain-patent-strategy-cryptokicks-against-counterfeiting>

¹⁶⁰ *Intellectual Property in the Metaverse. Episode III: Patents*. (n.d.). Intellectual-Property-Helpdesk.ec.europa.eu. https://intellectual-property-helpdesk.ec.europa.eu/news-events/news/intellectual-property-metaverse-episode-iii-patents-2022-05-30_en

forgery and transfer issues via NFT). However, even this forward-looking patent raises questions: if down the line other brands want to link physical fashion items with NFTs, they may need to design around Nike's patent or license it. It foreshadows a possible "patent war" in the metaverse fashion space companies like Nike staking claims on foundational techniques for virtual merchandise, potentially clashing with others doing similar things. In fact, legal commentators have begun calling it the "*Metaverse Patent Wars*," speculating about disputes as firms lock down core metaverse technologies.¹⁶¹

The interplay between patent law and the metaverse is still evolving, and various legal, technological, and policy solutions have been proposed to address the limitations discussed:

1. Adapting Patent Law & Examination

One approach is for patent offices and courts to *expand and refine* how traditional criteria apply to metaverse tech. Rather than a wholesale change, experts suggest a "*fine-tuning*" of standards for example, broadening the notion of patentable subject matter to clearly include technical inventions in an immersive virtual environment ((Bonadio & Mohnot, 2024). This could involve updated examination guidelines: the EPO¹⁶² and USPTO¹⁶³ might clarify how *novelty* should be assessed for digital twins or how *inventive step* applies when combining real and virtual features .¹⁶⁴ If an invention only differs in that it's in AR, examiners may need new frameworks to judge inventiveness (perhaps focusing on user experience improvements or efficiency gains unique to

¹⁶¹ *The Metaverse Patent Wars: Ownership, Access, and User Rights in Virtual Realities*. (2025, March 31). The IP Press. <https://www.theippress.com/2025/03/31/the-metaverse-patent-wars-ownership-access-and-user-rights-in-virtual-realities/>

¹⁶² European Patent office. (n.d.). *Homepage | EPO.org*. [Www.epo.org. https://www.epo.org/en](https://www.epo.org/en)

¹⁶³ USPTO. (2024). *United States Patent and Trademark Office*. [Uspto.gov. https://www.uspto.gov/](https://www.uspto.gov/)

¹⁶⁴ *Metaverse Patents - Kluwer Patent Blog*. (2024, May 20). Kluwer Patent Blog. <https://patentblog.kluweriplaw.com/2024/05/20/metaverse-patents/>

AR). The EPO's¹⁶⁵ requirement for a “further technical effect” could be interpreted more liberally for AR/VR contexts, acknowledging that an immersive experience itself might have a technical benefit (e.g., reduced *latency* or improved *realism* could count as technical effects). In the U.S., there have been calls for clearer rules on software patents to reduce uncertainty. While the Supreme Court has yet to provide additional clarification, the USPTO¹⁶⁶ may issue guidance specific to AI and simulation inventions. Continued dialogue between policymakers, judges, and practitioners is expected so that patent law “rules are followed” but also adaptable to new frontiers. We might even see new categories of patent-like rights for digital innovations, or adjustments to patent term or examination speed for fast-evolving tech.¹⁶⁷

2. International and Cross-Platform Cooperation

Because of the jurisdictional issues, one bold proposal is the creation of an international body or framework for metaverse intellectual property. Commentators have floated the idea of a Metaverse IP Council or integrating metaverse issues into WIPO's agenda. Such a body could develop international standards on inventorship (e.g. how to treat avatar-created inventions), set conflict-of-law rules, and perhaps even serve as a venue for resolving patent disputes that span multiple countries. While this is speculative, it indicates recognition that the traditional territorial patent system may need an overlay for the borderless metaverse. Another suggestion is to apply the Nationality Principle for legal issues in the metaverse meaning, use the user's or inventor's nationality to determine applicable law as opposed to the territorial principle tied to location (Guadamuz, 2022). This could simplify which patent law governs a particular act of creation or

¹⁶⁵ European Patent office. (n.d.). *Homepage* | *Epo.org*. [Www.epo.org. https://www.epo.org/en](https://www.epo.org/en)

¹⁶⁶ USPTO. (2024). *United States Patent and Trademark Office*. [Uspto.gov. https://www.uspto.gov/](https://www.uspto.gov/)

¹⁶⁷ Journal Editor. (2023, March 30). *What Will Patents Look Like in the Metaverse?* - *Chicago-Kent* | *Journal of Intellectual Property*. Chicago-Kent | Journal of Intellectual Property. <https://studentorgs.kentlaw.iit.edu/ckjip/what-will-patents-look-like-in-the-metaverse/>

infringement in a virtual space. On a more immediate, practical level, collaboration is happening through groups like the Metaverse Standards Forum, where major tech firms (Meta, Microsoft, Adobe, etc.) work on interoperability standards.¹⁶⁸ While not a legal body, this forum can indirectly alleviate patent issues by encouraging open standards. If companies agree on common protocols for AR fashion items, they might also cross-license necessary patents under fair terms (similar to how tech standards like MPEG or LTE involve patent pools). The goal is to avoid a fragmentation where each company's patented ecosystem doesn't work with others something particularly important for fashion, since consumers will want to use their virtual apparel across different platforms. Patent pools or licensing consortia could emerge for metaverse tech, enabling companies to share rights to core technologies (much as in telecommunications). This would reduce the risk of infringement and lawsuits, and help newcomers access essential tech for wearable AR devices without fear. In essence, broader cooperation – whether through formal international law or industry agreements – is seen as key to a “*fair and balanced system*” that supports innovation in the metaverse.¹⁶⁹

Wearable tech and AR fashion are stretching the limits of traditional patent law. While current U.S. and EU systems offer protection for genuine technical innovations evidenced by rising filings and Nike's metaverse patents they weren't built for borderless, interactive virtual spaces. Legal standards like “technical effect” or multi-user infringement will need clarification as courts adapt old rules to new realities. Until then, companies must blend patent protection with other IP tools and collaboration. Patents remain vital for securing R&D investments in virtual fashion, but

¹⁶⁸ LG. (2025, March 27). *IP & the Metaverse: What Can Be Patented*. Potter Clarkson. <https://www.potterclarkson.com/insights/intellectual-property-and-the-metaverse-what-can-be-patented/>

¹⁶⁹ *Virtual Patents in Metaverse*. (2025). Virtual Patents in Metaverse | DexPatent. <https://dexpatent.com/patent-guide/virtual-patents-in-metaverse/>

navigating their limits is key. The goal isn't to reinvent patent law, but to expand and refine it for a digitally immersive future.

3.5 Consumer-Generated Content and IP

User-generated content (UGC) is at the heart of the metaverse experience.

This implies that in digital fashion environments, users not only interact with fashion but also take on the role of creators, producing, remixing, and sharing apparel, accessories, skins, and NFTs. Roblox, Zepeto, and Decentraland are examples of immersive environments that exhibit this degree of democratized production.

However, while UGC encourages creativity and user interaction, it also raises significant legal issues, particularly in the domain of intellectual property (IP). As emphasized by Zodieru (2022) Current laws struggle to resolve issues of ownership, enforcement, and liability that arise when ordinary users not companies generate fashion content in virtual spaces.

UGC in virtual environments often exists at the intersection of user input and platform functionality. According to Kugler (2022) the terms of service of many platforms make ownership even more difficult by forcing users to grant the platform licenses or even complete rights to their contributions. This implies that even if a user designs a unique virtual handbag, the platform might still be able to copy, alter, or market that design.¹⁷⁰ Such terms may hinder innovation and reduce the creator's incentives to contribute valuable content.

Furthermore, because the metaverse is a decentralized, pseudonymous area, it is challenging to assign content to a particular person. An avatar's identity may be hidden, and in order to enforce

¹⁷⁰ Kugler, L. (2022). *Who owns the metaverse?* Communications of the ACM, 65(4), 18–19.

rights, virtual conduct must be connected to a real person a difficult legal and technical process.¹⁷¹

Fashion-related UGC is especially prone to infringement. Users frequently incorporate existing logos, prints, or designs into their virtual creations without obtaining rights or licenses. While some of this activity may be non-commercial and driven by fan culture, it can still infringe on trademark or copyright rights if the use confuses consumers or dilutes brand identity. In *City of Heroes*, a virtual world where players could design their own superheroes, Marvel sued the platform's operator for facilitating the creation of avatars that resembled Spider-Man and other copyrighted characters.¹⁷² While the case settled, it underscored the legal exposure platforms and users face when content creation tools allow for unlicensed replication of IP.¹⁷³

The issue is magnified in fashion where the visual appearance of a garment is often central to its brand identity. For example, if a user designs and sells a digital trench coat that mimics the iconic pattern of a luxury fashion house, it may constitute both trademark and design infringement even if the coat is a 3D render rather than a physical product. Yet policing such acts across multiple platforms and jurisdictions is resource-intensive, leaving smaller brands especially vulnerable.

Most metaverse platforms adopt an intermediary stance, positioning themselves as hosts rather than publishers. As such, they often limit their liability through broad disclaimers and place the burden of rights enforcement on IP holders. Some platforms implement takedown procedures

¹⁷¹ Greg Lastowka, *User-Generated Content and Virtual Worlds*, 10 Vanderbilt Journal of Entertainment and Technology Law 893 (2008)

¹⁷² *Marvel Enterprises v. NCSoft Corp.*, No. 04-9253 (C.D. Cal. filed Nov. 10, 2004)

¹⁷³ Chaney, L. (2004, November 14). *Marvel besieges "City of Heroes."* Variety. <https://variety.com/2004/digital/news/marvel-besieges-city-of-heroes-1117913511/>

modeled on the U.S. Digital Millennium Copyright Act (DMCA)¹⁷⁴, but others particularly decentralized blockchain-based environments lack any clear takedown mechanisms at all.

Content that is offensive or infringing may continue to exist indefinitely, undermining platform trust and damaging brand value. Furthermore, because assets are dispersed throughout blockchain nodes rather than centrally maintained, decentralized platforms would not be technically feasible to delete infringing content even when legally compelled to do so.

Current legislation provides limited clarity on how to handle user-generated virtual content. Existing copyright and trademark laws were designed for tangible creations and centralized distribution, not for the dynamic, collaborative, and often anonymous nature of the metaverse.

One particularly underdeveloped area is the treatment of derivative works. Suppose a user builds on a publicly available design e.g., retexturing a base avatar or reimagining a famous virtual sneaker. Traditional IP law allows for derivative works, but only with the permission of the rights holder. In metaverse environments, however, remix culture is rampant, and the boundaries between homage, parody, and infringement are unclear. The result is a legal gray zone that neither fully protects original creators nor fully enables transformative user expression.

To address these issues, several proposals have been suggested. First, clearer terms of service and licensing structures could help platforms and users understand the legal boundaries of creation and ownership. For instance, platforms might offer graduated licenses for user-generated fashion

¹⁷⁴ Copyright.gov. (2022). *The Digital Millennium Copyright Act* | U.S. Copyright Office. [Www.copyright.gov. https://www.copyright.gov/dmca/](https://www.copyright.gov/dmca/)

items, allowing creators to retain certain rights while granting the platform limited use. This would better align with the collaborative ethos of the metaverse while respecting legal ownership.

Second, tools like blockchain and smart contracts may help verify originality and automate attribution.¹⁷⁵ For example, each user-generated item could be tied to a unique token that records the creator, date, and underlying assets used. This would facilitate transparency and reduce unintentional infringement, especially in platforms where content circulates rapidly.

Third, legal harmonization is essential. National copyright laws vary widely, creating uncertainty for users who might reside in one country while uploading content to a global platform. Soft-law guidelines developed by WIPO or the EUIPO could provide much-needed clarity on issues like co-authorship, derivative rights, and platform obligations in user-generated digital fashion.¹⁷⁶

Lastly, as seen in the *MetaBirkin*), consumer protection frameworks must evolve to address these dynamics. Under EU Directive 2019/770, a consumer who buys an NFT that later becomes legally unusable due to an IP dispute may be entitled to a price reduction or contract termination. This concept of “lack of conformity” introduces a new consumer right in the digital IP space, potentially forcing marketplaces to conduct deeper due diligence before listing fashion NFTs.¹⁷⁷

¹⁷⁵ Guadamuz, A. (2022). *Smart contracts and copyright*. WIPO Magazine.

¹⁷⁶ sdlccorp. (2024, September 19). *The Role of User-Generated Content in Metaverse Games*. SDLC Corp. <https://sdlccorp.com/post/the-role-of-user-generated-content-in-metaverse-games/>

¹⁷⁷ Tzoulia, E. (2023). *The US “Metabirkins” case in the light of EU IP and consumer protection law*. *International Journal of Law in Changing World*, 2(Special Issue), 118–140.

Conclusion

The integration of fashion into the metaverse represents a revolutionary convergence of creativity, commerce, and technology. Throughout this thesis, I have examined how virtual worlds challenge the traditional assumptions of intellectual property law, particularly trademark, copyright, patents, and user-generated content. While the legal frameworks in both the EU and U.S. have made progress in adapting to digital innovations, it is apparent that numerous foundational principles remain unsuitable to the decentralized, anonymous, and highly collaborative nature of the metaverse.

I believe that the metaverse presents a chance to reconsider how we set up IP protection for upcoming sectors rather than just being seen as a legal anomaly. We must reevaluate the harmony between exclusivity and accessibility, between preserving brand identity and permitting creative freedom, considering the emergence of NFTs, avatar-based fashion, and AI-generated design. Fashion has always thrived on reinvention; now the law must do the same. The distinction between designer and user is frequently blurred by the openness of digital fashion, which enables customers to actively engage in the creative process. However, this also brings up significant moral issues. Confusion, exploitation, or damage to one's reputation can arise from a failure to address rights ownership transparently, as seen in the MetaBirkin case and issues involving user-generated content. For clearer standards, interoperable IP protections, and easily accessible enforcement tools for creators and rights holders, platforms and regulators must collaborate.

Looking forward, I do not think the solution lies in abandoning current laws. Instead, I support a nuanced evolution one that expands categories like design protection to fully cover virtual garments, embraces hybrid rights like NFTs-as-licenses, and acknowledges consumers not just as users, but as participants in the IP ecosystem. Most importantly, I believe the fashion industry itself must take an active role in shaping these legal discussions, rather than waiting for courts or legislators to catch up.

The metaverse offers a chance to redefine fashion's value, not just economically but culturally. If guided by thoughtful legal frameworks, it can become a space where innovation, inclusivity, and authenticity coexist. That future is not just possible it's necessary.

BIBLIOGRAPHY

CHAPTER 1

Baidoo, A. (2022, March 31). *Reality Bytes at Metaverse Fashion Week*. The Impression. <https://theimpression.com/reality-bytes-at-metaverse-fashion-week/>

Ball M.(2022). The Metaverse: And how it will Revolutionize Everything.

Beyond Sci-Fi. (2023). Vection-Technologies.com. <https://vection-technologies.com/blog/Beyond-Sci-Fi-A-Brief-History-of-the-Term-Metaverse/>

Definition of phygital | New Word Suggestion | Collins Dictionary. (n.d.). [Www.collinsdictionary.com. https://www.collinsdictionary.com/submission/22322/phygital](https://www.collinsdictionary.com/submission/22322/phygital)

Games, E. (2021, September 20). *Balenciaga Brings High Fashion to Fortnite*. Epicgames.com; Epic Games. <https://www.epicgames.com/site/en-US/news/balenciaga-brings-high-fashion-to-fortnite?>

Hadi, R., Melumad, S., & Park, E. S. (2023). The Metaverse: A new digital frontier for consumer behavior. *Journal of Consumer Psychology*, 34(1). <https://doi.org/10.1002/jcpy.1356>

Haeuiss, P. (2023, March 27). *Metaverse Fashion Report 2023 | Patricia Haeuiss*. Patricia Haeuiss. <https://www.patriciahaeuiss.com/post/metaverse-fashion-report-2023-unlocking-the-future-of-style#viewer-8ftkj>

Hedberg, H. (2024, January 17). *How Digital Fashion and the Metaverse Change the Clothes We Will Wear*. [Www.inuru.com. https://www.inuru.com/post/how-digital-fashion-and-the-metaverse-change-the-clothes-we-will-wear](https://www.inuru.com/post/how-digital-fashion-and-the-metaverse-change-the-clothes-we-will-wear)

High Digital Fashion Drops into Fortnite with Balenciaga. (n.d.). Epic Games' Fortnite. <https://www.fortnite.com/news/high-digital-fashion-drops-into-fortnite-with-balenciaga?lang=en-US>

<https://discover.certilogo.com/blogs/insights-blog/metaverse-for-fashion-brands>

<https://medium.com/metaverse-maven-musings/how-gucci-created-an-immersive-experience-in-roblox-9f0d07b94505>

https://www.ftaccelerator.it/blog/metaverse-luxury-fashion-trends/#The_Metaverse_for_luxury_fashion_today

https://www.researchgate.net/publication/372748814_The_Opportunities_Challenges_of_the_Metaverse_for_Fashion_Brands

<https://www.technavio.com/report/metaverse-in-fashion-market-industry-analysis>

Kaur, J., Mogaji, E., Manisha Paliwal, Jha, S., Agarwal, S., & Stephen Alaba Mogaji. (2023). Consumer behavior in the metaverse. *Journal of Consumer Behaviour*, 23(4). <https://doi.org/10.1002/cb.2298>

Khan, H., & Seelig, I.-M. (2022, November 8). *Metaverse interview with expert Irene-Marie Seelig | McKinsey*. [Www.mckinsey.com. https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/fashion-forward-in-the-metaverse](https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/fashion-forward-in-the-metaverse)

La Maison ha scelto la piattaforma Roblox per una speciale esperienza virtuale interattiva del Gucci Garden. (2025). Gucci.com.

https://www.gucci.com/it/it/stories/article/gucci-gaming-roblox?srsId=AfmBOopEk_F4ZkLfetKQaQdYL6Yg9jEbE0tNmave3rJuKA1dD9csF9M-

Maguire, L. (2021, September 20). *Balenciaga launches on Fortnite: What it means for luxury.* Vogue Business.

<https://www.voguebusiness.com/technology/balenciaga-launches-on-fortnite-what-it-means-for-luxury>

McDowell, M. (2024, April 22). *Louis Vuitton NFTs are back with a €7,900 phygital varsity jacket.* Vogue Business.

<https://www.voguebusiness.com/story/technology/louis-vuitton-nfts-are-back-with-a-euro7900-phygital-varsity-jacket>

Metaverse Fashion Week is here! (n.d.). Decentraland.org. <https://decentraland.org/blog/announcements/metaverse-fashion-week-is-here>

Metaverse in Fashion Market by Platform and Geography - Forecast and Analysis 2022-2026. (n.d.). Technavio.

Nast, C. (2023, June 6). *Louis Vuitton to Sell \$39,000 NFTs.* Vogue. <https://www.vogue.com/article/louis-vuitton-to-sell-dollar41000-nfts>

Neal Stephenson, *Snow Crash: A Novel*; Random House Publishing Group: New York, NY, USA, 2003

Peters, J. (2021, September 20). *Epic's high-fashion collaboration with Balenciaga in Fortnite includes a hoodie for a walking dog.* The Verge. <https://www.theverge.com/2021/9/20/22679754/fortnite-balenciaga-collaboration-epic-games-unreal-engine>

Phygital Fashion: Enhancing Consumer Experience | Infosys Equinox. (2025). Infosysequinox.com. <https://www.infosysequinox.com/resource/insights/trending-fashion-apparel.html>

Rodriguez, C. (2023, July 25). *How Gucci Created an Immersive Experience in Roblox.* Metaverse Maven Musings.

Sanghvi, Y. (2022, October 4). *How Balenciaga Does Marketing in the Metaverse.* Medium. <https://yomivins.medium.com/how-balenciaga-does-marketing-in-the-metaverse-7ae069e1fd72>

Sanghvi, Y. (2022, October 4). *How Balenciaga Does Marketing in the Metaverse.* Medium. <https://yomivins.medium.com/how-balenciaga-does-marketing-in-the-metaverse-7ae069e1fd72>

Smith, O. (2023, June 24). *Louis Vuitton: The Luxury Fashion Giant Innovating NFTs.* NFT Evening. <https://nftevening.com/louis-vuitton-the-luxury-fashion-giant-innovating-nfts/>

Technavio. (n.d.). *Metaverse in Fashion Market to Record a 30.5% Y-O-Y Growth Rate in 2022, Growing Number of Fashion Brands Entering the Metaverse Platform to Boost Growth - Technavio.* Www.prnewswire.com. <https://www.prnewswire.com/news-releases/metaverse-in-fashion-market-to-record-a-30-5-y-o-y-growth-rate-in-2022--growing-number-of-fashion-brands-entering-the-metaverse-platform-to-boost-growth---technavio-301595475.html>

Ti diamo il benvenuto a Gucci Town, la nuova piazza digitale della Maison su Roblox. (2025). Gucci.com. <https://www.gucci.com/ch/it/stories/article/gucci-town-on-roblox?srsId=AfmBOorb7JqLKp8LykDu2HFLT-AVXFVioMVELcHrU4BYCvnQ4gJUp-u>

Transforming Luxury Episode 5: Can Luxury Maintain Its Relevance in the Metaverse? (n.d.). The Business of Fashion. <https://www.businessoffashion.com/podcasts/luxury/transforming-luxury-episode-5-can-luxury-maintain-its-relevance-in-the-metaverse/>

Vogue Business. (2019, October 11). *Vogue Business – Fashion’s Global Perspective*. Vogue Business. <https://www.voguebusiness.com/>

Vuitton, L. (n.d.). *Louis Vuitton unveils the VIA Treasure Trunk | LOUIS VUITTON*. Eu.louisvuitton.com. <https://eu.louisvuitton.com/eng-e1/stories/louis-vuitton-via>

Welcome to Gucci Town, the House’s newest digital gathering place on Roblox. (2025). Gucci.com. https://www.gucci.com/th/en_gb/stories/article/gucci-town-on-roblox

CHAPTER 2

“Hermès or a MetaBirkin?” Jury rules in favour of Hermès in a persuasive case indicating trademark infringement in the Metaverse - Wiggin LLP. (2024, November 18). Wiggin LLP. <https://www.wiggin.co.uk/insight/hermes-or-a-metabirkin-jury-rules-in-favour-of-hermes-in-a-persuasive-case-indicating-trade-mark-infringement-in-the-metaverse/>

15.31 Anti-Cybersquatting (15 U.S.C. § 1125(d)) | Model Jury Instructions. (2024). Uscourts.gov. <https://www.ce9.uscourts.gov/jury-instructions/node/699>

CNBC International. (2021, March 23). *What are NFTs? | CNBC Explains*. YouTube. <https://www.youtube.com/watch?v=gSLiX1QihEc>

Cooper, J. M. (2023). *Intellectual property piracy in the time of the metaverse. IDEA: The Law Review of the Franklin Pierce Center for Intellectual Property*, 63(3), 479–517.

Dawson, N. (2024, February 5). *Hermès International v Mason Rothschild. What does this landmark NFT case mean for artists?* The Courtauldian. <https://www.courtauldian.com/single-post/herm%C3%A8s-international-v-mason-rothschild-what-does-this-landmark-nft-case-mean-for-artists>

Dilution (Trademark). (n.d.). LII / Legal Information Institute. [https://www.law.cornell.edu/wex/dilution_\(trademark\)](https://www.law.cornell.edu/wex/dilution_(trademark))

ESMA. (2024). *Markets in Crypto-Assets Regulation (MiCA)*. Ww.esma.europa.eu. <https://www.esma.europa.eu/esmas-activities/digital-finance-and-innovation/markets-crypto-assets-regulation-mica>

EUIPO Guidelines. (2024). Europa.eu. <https://guidelines.euipo.europa.eu/2214311/2215372/trade-mark-guidelines/4-4-3-non-fungible-tokens--nfts->

Fair Use. (n.d.). The Free Speech Center. <https://firstamendment.mtsu.edu/article/fair-use/>

Ferere, C. (n.d.). *Digital Artist Mason Rothschild Drops 100 “MetaBirkins” NFTs Through Basic Space*. Forbes. <https://www.forbes.com/sites/cassellferere/2021/12/13/digital-artist-mason-rothschild-drops-100-metabirkins-nfts-through-basicspace/>

HERMES INTERNATIONAL and HERMES OF PARIS, INC. v. “MASON ROTHSCILD” a/k/a SONNY ESTIVAL, 1:22-cv-00384 - *CourtListener.com*. (2024). CourtListener. <https://www.courtlistener.com/docket/62602398/hermes-international-v-rothschild/?page=1>

HERMÈS INTERNATIONAL HERMÈS OF PARIS INC v. MASON ROTHSCILD SONNY ESTIVAL (2024) | *FindLaw*. (2024). Findlaw. <https://caselaw.findlaw.com/court/us-dis-crt-sd-new-yor/115935892.html>

Hermès Logo: An Iconic Symbol of Luxury Fashion. (2024, November 4). Madison Avenue Couture. <https://madisonavenuecouture.com/blogs/news/hermes-logo-an-iconic-symbol-of-luxury-fashion?srsId=AfmBOoppJZGX8ju3HdYWNZV4gtpmR9A7mQn-0zSIQtQ6f5arIHjh2ZzgW>

Hermès Logo: An Iconic Symbol of Luxury Fashion. (2024, November 4). Madison Avenue Couture. <https://madisonavenuecouture.com/blogs/news/hermes-logo-an-iconic-symbol-of-luxury-fashion?srsId=AfmBOoppJZGX8ju3HdYWNZV4gtpmR9A7mQn-0zSIQtQ6f5arIHjh2ZzgW>

Hermès Logo: An Iconic Symbol of Luxury Fashion. (2024, November 4). Madison Avenue Couture. <https://madisonavenuecouture.com/blogs/news/hermes-logo-an-iconic-symbol-of-luxury-fashion?srsId=AfmBOoppJZGX8ju3HdYWNZV4gtpmR9A7mQn-0zSIQtQ6f5arIHjh2ZzgW>

Hermès Logo: An Iconic Symbol of Luxury Fashion. (2024, November 4). Madison Avenue Couture. <https://madisonavenuecouture.com/blogs/news/hermes-logo-an-iconic-symbol-of-luxury-fashion?srsId=AfmBOoppJZGX8ju3HdYWNZV4gtpmR9A7mQn-0zSIQtQ6f5arIHjh2ZzgW>

Johnson, H. (2024, May 7). *Case Review: Hermès International v. Rothschild*. Center for Art Law. <https://itsartlaw.org/2024/05/07/case-review-hermes-v-rothschild/>

Johnson, H. (2024, May 7). *Case Review: Hermès International v. Rothschild*. Center for Art Law. <https://itsartlaw.org/2024/05/07/case-review-hermes-v-rothschild/>

MetaBirkins NFT found to infringe Hermes trademark - *Legalmondo*. (2023, March 22). Legalmondo. <https://www.legalmondo.com/2023/03/metabirkins-nft-found-infringe-hermes-trademark/>

Murray, M. D. (2022–2023). *Trademarks, NFTs, and the law of the metaverse*. *Arizona Law Journal of Emerging Technologies*, 6(3), i–16. <https://azlawjet.com>

NFTs and Intellectual Property Rights. (n.d.). <https://www.nortonrosefulbright.com/De-De/Wissen/Publications/1a1abb9f/Nfts-And-Intellectual-Property-Rights>. <https://www.nortonrosefulbright.com/de-de/wissen/publications/1a1abb9f/nfts-and-intellectual-property-rights>

PAN 2/23: The classification of non-fungible tokens (NFTs), virtual goods, and services provided in the metaverse. (2023, April 3). GOV.UK. <https://www.gov.uk/government/publications/practice-amendment-notice-223/pan-223-the-classification-of-non-fungible-tokens-nfts-virtual-goods-and-services-provided-in-the-metaverse>

Rogers v. Grimaldi, 875 F.2d 994 (2d Cir. 1989).

Sei Generazioni Di Artigiani | Hermès Italia. (n.d.). www.hermes.com. <https://www.hermes.com/it/it/content/272476-sei-generazioni-di-artigiani/>

Simmons & Simmons. (2025). [Simmons-Simmons.com](http://www.simmons-simmons.com). <https://www.simmons-simmons.com/en/publications/clgkrh9jff00cupv4xxitnjt1/how-to-classify-nfts-virtual-goods-and-metaverse-services>

Small, Z. (2023, February 8). Hermès Wins MetaBirkins Lawsuit; Jurors Not Convinced NFTs Are Art. *The New York Times*. <https://www.nytimes.com/2023/02/08/arts/hermes-metabirkins-lawsuit-verdict.html>

Supreme Court Sharply Limits Applicability of Rogers v. Grimaldi Test for Trademark Infringement | Insights | Skadden, Arps, Slate, Meagher & Flom LLP. (n.d.). www.skadden.com. <https://www.skadden.com/insights/publications/2023/06/supreme-court-sharply-limits-applicability>

Tan, C. (2022, August 31). *Hermes Hints at NFT and Metaverse Plans with New Web3 Trademark Filing*. NFTgators. <https://www.nftgators.com/hermes-hints-at-nft-and-metaverse-plans-with-new-web3-trademark-filing/>

Trademarks. (n.d.). www.uspto.gov. <https://www.uspto.gov/trademarks>

Tzoulia, E. (2023). *The US “Metabirkins” case in the light of EU IP and consumer protection law*. *International Journal of Law in Changing World*, 2(Special Issue), 118–140.

United States Patent and Trademark Office. (2009). *About Trademark Infringement*. [Uspto.gov](http://www.uspto.gov). <https://www.uspto.gov/page/about-trademark-infringement>

What is the Definition of Cybersquatting? | Winston & Strawn Legal Glossary. (n.d.). Winston & Strawn - What Is the Definition of Cybersquatting? | Winston & Strawn Legal Glossary. <https://www.winston.com/en/legal-glossary/cybersquatting>

CHAPTER 3

Bermejo, L. F., Martin, M., Swaine, K., Scales, D., Mondolfo, M., Halski, J., Espinosa, J., Turco, A., Souto, M., Stottele, M., Lakhani, N., Fatimilehin, O., Mateu, C., & Porcario, B. (2023). *White paper: Trademarks in the metaverse*. International Trademark Association (INTA).

Bonadio, E., & Mohnot, R. (2024). *Trademarks and the metaverse: Challenges, developments, and the way forward*.

Boora, D. (2024). *Legal, contractual and IP diligence in implementing trademarks in metaverse*. *International Journal of Law Management & Humanities*, 7, 4278–4289.

Chirosca, A. (2024). *Navigating the metaverse: Legal challenges and trademark protection*. *Intellectus: Journal of Intellectual Property, Science and Education*, 2024(1), 48–57.

EUIPO Guidelines. (2024). Europa.eu. <https://guidelines.euipo.europa.eu/2214311/2215360/trade-mark-guidelines/4-4-1-virtual-goods>

Intellectual Property in the Metaverse. Episode III: Patents. (n.d.). Intellectual-Property-Helpdesk.ec.europa.eu. https://intellectual-property-helpdesk.ec.europa.eu/news-events/news/intellectual-property-metaverse-episode-iii-patents-2022-05-30_en

Intellectual Property in the Metaverse. Episode IV: Copyright. (n.d.). Intellectual-Property-Helpdesk.ec.europa.eu. https://intellectual-property-helpdesk.ec.europa.eu/news-events/news/intellectual-property-metaverse-episode-iv-copyright-2022-06-30_en

Intepat Interns. (2024, December 6). *COPYRIGHT IN METAVERSE - Intepat IP*. Intepat IP. <https://www.intepat.com/blog/copyright-in-metaverse/>

IRJMETs. (2024). *Trademarks in the Metaverse: Opportunities and Challenges*. *International Research Journal of Modernization in Engineering, Technology and Science*, 6(5), 544–545.

Journal Editor. (2023, March 30). *What Will Patents Look Like in the Metaverse? - Chicago-Kent | Journal of Intellectual Property*. Chicago-Kent | Journal of Intellectual Property. <https://studentorgs.kentlaw.iit.edu/ckjip/what-will-patents-look-like-in-the-metaverse/>

LG. (2025, March 27). *IP & the Metaverse: What Can Be Patented*. Potter Clarkson. <https://www.potterclarkson.com/insights/intellectual-property-and-the-metaverse-what-can-be-patented/>

Mesevic, M. (2023). *A comparative legal analysis of copyright protection in the metaverse*. *Regional Law Review*, 3(1), 339–359.

Metaverse Patents - Kluwer Patent Blog. (2024, May 20). Kluwer Patent Blog. <https://patentblog.kluweriplaw.com/2024/05/20/metaverse-patents/>

Metaverse Patents - Kluwer Patent Blog. (2024, May 20). Kluwer Patent Blog. <https://patentblog.kluweriplaw.com/2024/05/20/metaverse-patents/>

Metaverse Patents - Kluwer Patent Blog. (2024, May 20). Kluwer Patent Blog.
<https://patentblog.kluweriplaw.com/2024/05/20/metaverse-patents/>

Metaverse Patents - Kluwer Patent Blog. (2024, May 20). Kluwer Patent Blog.
<https://patentblog.kluweriplaw.com/2024/05/20/metaverse-patents/>

Mezei, P., & Arora, G. C. (2023). Copyright and metaverse. In *Chapter 11, Handbook of Intellectual Property and the Metaverse.*

Pablo, I. de. (2023, March 15). *Metaverse patents boom*. H&a Internacional. <https://hyaip.com/en/metaverse-patents-boom/>

Park, J. (2022). *Trademarks in the metaverse: Brands get real in the virtual world*. WIPO Magazine.
<https://www.wipo.int/web/wipo-magazine/articles/trademarks-in-the-metaverse-42518>

The Metaverse Patent Wars: Ownership, Access, and User Rights in Virtual Realities. (2025, March 31). The IP Press.
<https://www.theippress.com/2025/03/31/the-metaverse-patent-wars-ownership-access-and-user-rights-in-virtual-realities/>

The Metaverse Patent Wars: Ownership, Access, and User Rights in Virtual Realities. (2025, March 31). The IP Press.
<https://www.theippress.com/2025/03/31/the-metaverse-patent-wars-ownership-access-and-user-rights-in-virtual-realities/>

UIC Review of Intellectual Property Law. (2022). *Special Issue: Copyright Law in the Metaverse*, 21(1), 1–98.

Virtual Patents in Metaverse. (2025). Virtual Patents in Metaverse | DexPatent. <https://dexpatent.com/patent-guide/virtual-patents-in-metaverse/>

Virtual Patents in Metaverse. (2025). Virtual Patents in Metaverse | DexPatent. <https://dexpatent.com/patent-guide/virtual-patents-in-metaverse/>

Zodieru, J. S. (2022). *Patent Considerations and the Metaverse*. Natlawreview.com; National Law Review.
<https://natlawreview.com/article/patent-considerations-and-metaverse>

Zodieru, J. S. (2022). *Patent Considerations and the Metaverse*. Natlawreview.com; National Law Review.
<https://natlawreview.com/article/patent-considerations-and-metaverse>

Greg Lastowka, *User-Generated Content and Virtual Worlds*, 10 Vanderbilt Journal of Entertainment and Technology Law 893 (2008)