

Title: Fashion beyond physical space: NFTs & intellectual property challenges in the metaverse

Abstract

Reviews the legal challenges that fashion brands may face in the metaverse, and considers how they can maximise their intellectual property protection, given that this novel and unregulated virtual market space, where business takes place, also lays ground for copyists.

1. Introduction

The ever-growing fashion industry has long realised the importance of developing a strong online presence, particularly due to the noticeable shift in consumer behaviour, favouring online shopping during the Covid-19 post-pandemic world¹. The latest business venture for fashion brands, as well as other creative industries, such as art and gaming, is the tokenisation and marketing of digital and physical assets, in this case digital fashion designs, in the form of non-fungible tokens or NFTs. And while those tokens were originally listed and sold in specialised NFT marketplaces, the latest trend, the so-called metaverse has taken the online world by storm. The metaverse is a virtual interactive 3D environment that facilitates life-like interactions, perceived very much like a video game, but at the same time offering a novel digital fashion market space. Brands are able to exhibit their designs to users all around the globe, host events and create exclusive virtual experiences for the buyers of their NFTs, including having the ability to virtually try on the NFT clothing on their metaverse avatars. Not only is the metaverse viewed as a potential new stream of generating income for fashion brands, but also makes it possible to reach out to a wider and potentially more diverse audience, including fashion-conscious consumers, technology enthusiasts and gamers. But no matter how exciting this new market space may seem, designs may be faced with potential legal challenges, in relation to both the protection and enforcement of such rights, partly owed to the unregulated nature of the metaverse, where most of the fashion-related trade takes place, on the one hand, and the territorial nature of intellectual property rights vested in those designs on the other. This article is first going to explore the exciting new developments and fashion brands' interaction within this new environment, followed by a discussion on the potential legal issues that may arise.

2. Metaverse, NFTs and fashion

In early 2022, numerous fashion brands, including premium brands Coach and Tommy Hilfiger, have expanded from a solely physical presence at the New York, London,

¹ Retail Economics, Eversheds Sutherland, 'The Future of the European Apparel Industry Report Series: A Seamless Fit - Evolution of Stores in a Digital-centric Customer Journey', (Oct. 2021), <https://www.eversheds-sutherland.com/global/en/what/industries/consumer-law/evolution-of-stores-retail-report.page> [Accessed 11 April 2022].

Paris, and Milan Fashion Weeks, by getting actively involved with the launch of the first-ever digital Fashion Week, hosted in the metaverse's platform Decentraland².

But what exactly is the metaverse? Although no prevailing definition exists, it can be best described as a virtual 3D environment that facilitates real-time interactions of its users, whose digital identities are expressed in the form of avatars, just like the ones used in video games. Gonzalo Brujón, president of consultancy company Interbrand Group explains:

“At its most ambitious, the metaverse is imagined as a single, digital universe that people can inhabit, bodily, through the use of virtual reality (VR) – a space that will be used to exist: to shop, to play, to go to school or to work”³.

Users from across the world are able to visit digital plots of land owned by others and engage with shopping, gaming, museum exhibitions and concerts, among other experiences, closely resembling real-life activities, as well as activities that have long been performed online in other virtual environments, i.e. through social media platforms or video games. But, with all these possibilities gathered on a single virtual 3D space, the metaverse has dramatically increased in popularity, currently being viewed as “a trillion-dollar revenue opportunity”⁴, turning into one of the most prominent new global marketplaces for expanding a business' online presence. Multiple fashion brands are already in the game, including luxury brands Dolce&Gabbana, Gucci and Ralph Lauren, as well as fast-fashion brands H&M and Boohoo. Other than established brands, the metaverse presents independent designers and creators with a unique opportunity to engage with an international audience for no added cost, compared to the costly advertising campaigns that they would have to fund, if they wished to receive analogous audience exposure in the real world. As such, this novel digital market space is equally accessible by all creators, irrespective of their size, while giving them the chance to be at the forefront of the – often reserved for a few big players – fashion industry. But, how does apparel shopping work in the metaverse?

Participatory brands in the metaverse's first Fashion Week have all showcased their digital collections in the form of non-fungible tokens. This means that individual garments and accessories can be purchased in exchange for cryptocurrency in various NFT platforms, including OpenSea⁵ and Zepeto⁶, as well as digital luxury NFT marketplaces, such as Arianee⁷ and UNXD, where luxury fashion house Dolce&Gabbana launched an exclusive NFT couture apparel collection, generating 5.7\$ million⁸. But what exactly is being bought with a fashion NFT? NFTs are best understood as unique digital editions of fashion designs or other physical and digital assets (cryptographically linked with them via the NFT's metadata), equivalent to

² Metaverse Fashion Week, <https://metaversefashionweek.com/> [Accessed 5 April 2022].

³ E. Seares, 'Virtual insanity? How to make returns in the metaverse', *Drapers* (Mar. 23, 2022) <https://www.drapersonline.com/insight/analysis/virtual-insanity-how-to-make-returns-in-the-metaverse> [Accessed 11 April 2022].

⁴ F. Holmes, "The Metaverse Is A \$1 Trillion Revenue Opportunity. Here's How To Invest", *Forbes* (Dec. 20, 2021) <https://www.forbes.com/sites/greatspeculations/2021/12/20/the-metaverse-is-a-1-trillion-revenue-opportunity-heres-how-to-invest/?sh=510df5884df9> [Accessed 12 April 2022].

⁵ OpenSea, <https://opensea.io/> [Accessed 11 April 2022].

⁶ Zepeto, <https://www.producthunt.com/posts/zepeto-studio> [Accessed 12 April 2022].

⁷ Arianee, <https://www.arianee.org/> [Accessed 12 April 2022].

⁸ D. Thomas, "Dolce & Gabbana Just Set a \$6 Million Record for Fashion NFTs", *The New York Times* (Oct. 4, 2021), <https://www.nytimes.com/2021/10/04/style/dolce-gabbana-nft.html> [Accessed 11 April 2022].

holding a certificate of authenticity of the underlying asset, which is permanently stored and verified on a blockchain network⁹. In simple terms, the owner of an NFT of a digital fashion design, is the owner of a scarce version, much like a limited-edition, of that design, which partly explains the value that it holds. But a fashion NFT is much more than just a blockchain-based certificate that can be bought or sold.

The purchase of digital garments linked to an NFT, often means that buyers can enhance both their digital and physical appearance, as apart from the wearable fashion NFTs featured on users' avatars that can be displayed at their universal metaverse profiles, a physical twin of the item for buyers' real wardrobes is automatically being purchased, too. Other 3D digital experiences unlocked with the purchase of a fashion NFT, include exclusive access to brands' future events, as well as the ability of users to feature clothing NFTs in different compatible NFT platforms, including 3D gaming platforms, i.e. Roblox, with an estimated revenue of \$1.9 billion in 2021¹⁰. Various high-end brands have engaged with Roblox, including Nike, Stella McCartney and Gucci, selling digital accessories that users could try on their digital avatars¹¹. Other brands, such as Louis Vuitton have even developed their own online NFT games¹², while Burberry has designed an exclusive NFT collection for video game Blankos Block Party¹³, selling for approximately \$375,000¹⁴.

Although it is not clear whether users are purchasing fashion NFTs as collectibles, with the hope that they will have the fate of the NFT craze of digital artworks, whose value has rapidly skyrocketed soon after their initial sale¹⁵, or simply because it is a trend, and they enjoy engaging with this virtual world. Similarly, the longevity of the metaverse fashion market and the stability of this novel revenue stream is unknown and some of the brands may be simply experimenting with NFTs to see what is out there, while largely relying on their core real-world business. Nonetheless, NFTs popularity among brands is partly owed to its potential of being a unique anti-counterfeiting tool, giving brands the option to authenticate their original creations on a secure blockchain network, while offering consumers the option to confirm the authenticity and even trace the life cycle of a garment. Another powerful incentive for brands to get involved with NFTs, is the potential of implementing a resale royalty within the NFT's metadata, meaning that a percentage of each future resale of the token would be directly paid to their digital wallet¹⁶. Gucci has

⁹ F. Idelberger, P. Mezei, "Non-fungible tokens", 11 *Internet Policy Review* 2 (2022), <https://doi.org/10.14763/2022.2.1660> [Accessed 11 April 2022].

¹⁰ Roblox, "ROBLOX REPORTS FOURTH QUARTER AND FULL YEAR 2021 FINANCIAL RESULTS", (Feb. 15, 2022) <https://ir.roblox.com/news/news-details/2022/Roblox-Reports-Fourth-Quarter-and-Full-Year-2021-Financial-Results/default.aspx> [Accessed 12 April 2022].

¹¹ Roblox, "The Gucci Garden Experience Lands on Roblox", (May 17, 2021) <https://blog.roblox.com/2021/05/gucci-garden-experience/> [Accessed 12 April 2022].

¹² M. McDowell, "Why games became luxury fashion's NFT on-ramp", *Vogue Business* (Aug. 10, 2021) <https://www.voguebusiness.com/technology/why-games-became-luxury-fashion-nft-on-ramp> [Accessed 12 April 2022].

¹³ Burberry, "Burberry drops NFT collection in Mythical Games' Blankos Block Party", (Aug. 4, 2021) <https://www.burberryplc.com/en/news/brand/2021/Blankos.html> [Accessed 12 April 2022].

¹⁴ D. Thomas (n 8)

¹⁵ I. Lapatoura, "Copyright & NFTs of Digital Artworks", *The IPKat* (Mar. 23, 2021) <https://ipkitten.blogspot.com/2021/03/quest-post-copyright-nfts-of-digital.html> [Accessed 11 April 2022].

¹⁶ I. Lapatoura, "Creative digital assets as NFTs: A new means for giving artists their power back?" (2021) 32 *Entertainment Law Review* 6, 171-172.

reportedly not implemented this term within the NFTs sold in Roblox, meaning that any resales would not benefit the brand, including the \$4,000 generated from the resale of a single fashion piece in this platform¹⁷. However, this possibility of capitalising on any future NFT resale is of striking importance to independent fashion designers, who may have just debuted their work to the world and whose NFT designs' value may enormously increase in the metaverse, in a similar fashion to the digital artworks field. In fact, some fashion brands may even consider collaborating with so-called metaverse 'virtual influencers', such as Superplastic toy-looking virtual avatars¹⁸, to boost the sales of their tokenized digital garments.

3. Metaverse & Legal Implications for Intellectual Property Owners

What must be kept in mind, however, is that NFTs are subject to intellectual property laws, as they are not merely a piece of computer code, but represent and are directly linked to valuable and IP protected assets. And this is where part of the fun ends and things turn complicated for brand owners. No matter how promising the metaverse may appear for business growth, it is an unregulated land with no set borders, visited by hundreds of anonymous users daily and hence, offers plenty of opportunities for copyists. But before delving into the not-so-new – and certainly not completely unexpected to brand owners – fashion counterfeiting phenomenon in the metaverse, other legal challenges that intellectual property owners may have to face will be highlighted, especially those concerned with unregistered design rights, trade marks and copyright.

i. Protection of Fashion Designs in the Metaverse - Unregistered Design Rights

The first potential challenge relates to fashion designers' need to ensure that protection of their intellectual property interests in their valuable fashion assets is upheld, both in the 'real world' and in this 'virtual reality' world. However, securing certain types of IP protection for digital assets in the metaverse, does not appear as straight-forward as it is in the physical world, largely owed to its borderless ecosystem, where business takes place. Arguably, one of the most problematic aspects of marketing fashion designs in the metaverse's Fashion Weeks first, before anywhere else, is the lack of clarity as to which territory the design was first disclosed to the outside world. First publication in a virtual world with no set territorial boundaries, causes uncertainty as to whether an unregistered design right (UDR) can subsist in the virtual fashion design at all, given that it is one of the key requirements for protection¹⁹.

This may be particularly concerning for fashion designers, a high percentage of whom solely rely on such unregistered protection for part or the whole of the 'shape or configuration' of their designs, due to the frequent changes in fashion trends every season

¹⁷ M. McDowell, "The 'Baby Birkin' NFT and the legal scrutiny on digital fashion", Vogue Business (June 15, 2021) <https://www.voguebusiness.com/technology/the-baby-birkin-nft-and-the-legal-scrutiny-on-digital-fashion> [Accessed 29 March 2022].

¹⁸ Superplastic, 'Superplastic NFTs', <https://superplastic.co/pages/nft> [Accessed 11 April 2022].

¹⁹ Regulation 6/2002/EC, Art. 4-6.

that passes²⁰. UDR subsists automatically for 3 years, usually offering them plenty of time to reap the economic benefits of their work. The potential inability to secure such protection, presents them with the registered design protection alternative, a more time-consuming and costlier process, which may not be wise or practicable to pursue, unless the fashion design in question is expected to thrive and survive multiple seasons, i.e. the timeless designs of a Rolex watch or the classic Gucci loafers.

ii. Protection of Fashion Designs in the Metaverse - Trade Marks

Despite the potential for increased sales of fashion designs as NFTs, currently flooding the metaverse, to users from all over the world and hence, to a much larger and arguably more diverse audience than a physical store in Paris or London, it may possibly come with a cost to trade mark owners. As previously discussed, it is often the case that the sale of NFTs, i.e. such as those presented at metaverse's Fashion Week in March 2022, are accompanied by the sale of a physical counterpart to the buyer. However, given a trade mark's territorial nature and scope of protection, the automatic sale of a physical garment to a buyer located overseas, where no protection exists over their mark, could leave brand owners exposed to infringement proceedings, if similar previous rights exist in that territory. Although large fashion brands could potentially rely on their established goodwill and reputation, emerging designers would likely be left in a vulnerable position. As such, designers may consider expanding their scope of protection to other territories, to ensure protection of their mark is upheld, or alternatively, place limitations to sales of their goods only to few eligible territories, after ensuring that they are not infringing upon any existing third-party rights there. In theory, this could be achieved by means of a license, i.e. by embedding this type of instruction within the code of the smart contract that would perform the NFT sale. However, in practice, placing limitations on a licensee's rights in a borderless virtual environment, as well as determining the exact location of users could be complicated. At the same time, brands may need to expand their trade mark portfolio and register for other Classes of goods and services, that cover digital goods and/ or digital artworks, as well as uses in virtual environments, to strengthen their position in a potential legal dispute over use of their mark on the metaverse. Nike, for instance, has already filed applications to the USPTO, to cover "downloadable virtual goods" (Class 9), "retail store services featuring virtual goods" (Class 35), and "entertainment services, providing on-line, non-downloadable virtual footwear, clothing, [...]and accessories for use in virtual environments" (Class 41)²¹.

Another hurdle that fashion designers may need to overcome for securing intellectual property protection, is to ensure that their design is distinct and does not resemble any pre-existing designs within the jurisdiction that their design is to be protected. However, given that the metaverse's borders have not been yet defined, in the sense that it is not expressed in any fixed territory other than being an online environment, and the fact that, owed to the Metaverse's and NFTs' explosive popularity, new designs are being minted as NFTs daily, conducting due diligence would likely be a substantially time-consuming and complex process for brands. Not only would it likely be more difficult to secure IP protection

²⁰ J. Darcy, "Under-Regulated or Under-Enforced: Intellectual Property, the Fashion Industry and Fake Goods", 35 EIPR 2 (2013), 82-92.

²¹ USPTO, Trade mark Registration No. 97096366, (Oct. 27, 2021).

globally, but also any omissions of newly minted content during the due diligence exercise, could potentially expose them to IP legal disputes.

iii. Infringement of Fashion Designs in the Metaverse – Copyright & Trade Marks

Other than the above-mentioned potential legal challenges in the metaverse, there is a high likelihood that brand owners, including fashion designers, involved with this fast-evolving digital market space will be faced with the unauthorised use and sale of tokenized virtual works that infringe upon their IP rights. In fact, another potentially problematic aspect of NFTs relates to the fact that anyone has the ability to create and own one, using a user-friendly NFT platform, i.e. OpenSea, that allows them to ‘mint’ a token that represents their work either for free or for a small fee.

On the one hand, the easy and straight-forward NFT minting process facilitates an environment where infringers can produce and monetise exact copies of fashion designs in a quick manner and make them accessible to an international audience, while incurring substantially less costs than those required for producing physical counterfeit goods. At the same time, the fact that anyone can mint NFTs, effectively means that other than the rightful IP owner of the token’s underlying asset, it is possible that an NFT of that asset becomes minted by a third party, as NFT platforms are not currently performing any thorough checks on their users’ identities. This opens up the possibility of minting an NFT which is tied to someone else’s intellectual property, thereby posing a serious threat to the preservation of creators’ rights, including trade marks and branding as well as copyright, where the fashion design in question meets the EU originality standard²². So, unless this third party has acquired the authorisation of the IP holder, i.e. through a license, or mints a work for their own personal use and not for sale, or produces a ‘transformative’ work inspired by the original, that would likely fall within the fair use domain²³, the act of minting a scarce token tied to another’s artwork or protected logo, name or symbol without consent, would likely amount an unauthorised act²⁴. In other words, the unapproved minting of a copy of one’s trade marked or copyright work, by means of an NFT, could give rise to trade mark infringement, on the basis that consumers could be confused as to the origin or affiliation of the user with the brand, and/or copyright infringement, on the basis that “*a copy was made to generate, display, or promote the NFT, or some other exclusive right of the copyright owner was violated*”²⁵.

Although the third party who mints another’s work without authorisation does not acquire any intellectual property over the NFT, i.e. copyright over an original fashion design, but rather all rights vested in the work linked to the NFT are retained by the designer²⁶, an

²² C-5/08, *Infopaq International v DDF*, ECR I-6569, (16 July 2009).

²³ InfoSoc Directive 2001/29/EC, Art. 5.

²⁴ A. Guadamuz, “The treachery of images: Non-fungible tokens and copyright”, (2021) 16 *Journal of Intellectual Property Law & Practice* 12, 1378-1382.

²⁵ A. Dergacheva, C. Archer, “NFTs: Key Considerations for Rights Clearance”, (Feb. 10, 2022) Morgan, Lewis & Bockius LLP <https://www.morganlewis.com/blogs/sourcingatmorganlewis/2022/02/nfts-key-considerations-for-rights-clearance> [Accessed 5 April 2022].

²⁶ The IP holder retains such rights, despite signing a licence agreement with the NFT platform used, which often only gives the platform permission for certain limited uses, for instance, displaying the NFT to the world. See A. Thomas, ‘User-Generated Content’, Copyright-User.Org

unauthorised minting act may nevertheless mean that copyists can unjustly profit from using the work of others, especially when a resale royalty is implemented within the NFT's smart contract code. And when use of a trade mark is involved, the sale of an infringing NFT could potentially tarnish, dilute or have some other negative impact on the brand's image in the real world.

In fact, the unauthorised minting of others' works is not completely unknown to creators. Since last year's craze over the sale of tokenized digital art, numerous original copyright-protected artworks have been tokenized by individuals with no legitimate IP interests in the works, who reportedly minted and marketed them online²⁷. Intellectual property theft by means of NFTs has not been confined to works of art and according to popular NFT platform OpenSea, with approximately 80m individual NFT listings²⁸, "*more than 80 percent of the items created with [its free NFT minting] tool were plagiarized works, fake collections, and spam*"²⁹. Fashion brands have not been left unaffected by this phenomenon, as numerous brand names and other source identifying symbols have been used and sold by third parties on OpenSea for substantial amounts, as in the case of fashion brand Supreme, whose logo was turned into an NFT without authorisation and was sold for \$3.1 million³⁰. Similarly, unauthorised sales of tokenised fashion products, such as a Versace print scarf or Cartier 'love bracelets', have been spotted in metaverse platform Roblox³¹.

4. MetaBirkins – The first Intellectual Property Dispute Involving Fashion NFTs

Depending on the scale and popularity of tokenised fashion counterfeits among metaverse users, there comes a serious risk of tarnishing a brand's image and reputation. In fact, this is exactly what was argued in the first ever metaverse fashion dispute in the US, involving the unauthorised use of Hermès iconic Birkin bag design, protected both under copyright and trade mark law. Hermès brought legal action against Mason Rothschild³², a digital artist who created multiple digital furry versions of the Birkin design as NFTs, and sold them for thousands under the name 'MetaBirkins', closely resembling the Birkin bags' style and protected name. In its trade mark infringement and dilution claim, the luxury fashion

<https://www.copyrightuser.org/understand/rights-permissions/user-generated-content/> [Accessed 5 April 2022].

²⁷ L. Beckett, "'Huge mess of theft and fraud': artists sound alarm as NFT crime proliferates", The Guardian (Jan. 29, 2022) <https://www.theguardian.com/global/2022/jan/29/huge-mess-of-theft-artists-sound-alarm-theft-nfts-proliferates> [Accessed 2 April 2022].

²⁸ Ibid.

²⁹ OpenSea (@opensea), (Jan. 27, 2022) Twitter https://twitter.com/opensea/status/1486843204062236676?s=20&t=n3BdITo1qn07NBfum4k9_g [Accessed 5 April 2022].

³⁰ T. Lince, "OpenSea: how trademark infringement is rampant on the biggest NFT marketplace" (Jan. 20, 2022) World Trade Mark Review <https://www.worldtrademarkreview.com/opensea-how-trademark-infringement-rampant-the-biggest-nft-marketplace> [Accessed 2 April 2022].

³¹ Roblox, "VERSACE Scarf with Black Sweater" unauthorised NFT listing, <https://www.roblox.com/catalog/601326141/VERSACE-Scarf-with-Black-Sweater> [Accessed 11 April 2022].; Roblox, "Cartier Bracelet" unauthorised NFT listing, <https://www.roblox.com/catalog/2646174097/cartier-bracelet> [Accessed 11 April 2022].

³² *Hermès International, et al. v. Mason Rothschild*, 1:22-cv-00384 (SDNY). See also *Nike, Inc. v. StockX LLC*, 1:22-cv-00983 (SDNY).

house argued that MetaBirkins NFTs constitute fakes that infringe upon their rights and dilute upon the brand's reputation. The brand's argument that Rothschild is using the mark as a source indicator is further strengthened by the fact that the the MetaBirkins NFTs are also being sold at premium prices, while the artist auctioned a 'Baby Birkin' NFT for \$23,500, exceeding the average \$9,500 price of original 'baby' Birkins sold by Hermès³³. These high-value MetaBirkin sales possibly translate as the result of consumer confusion, based on the belief that there is some sort of affiliation among the artist and the fashion house. On the other hand, Rothschild argues that the allegedly infringing use fur-like Birkin bags is in fact, artistic and falls within the scope of fair use, offering criticism to the brand's values and "*the animal cruelty involved in the production of those bags*"³⁴. He later filed for dismissal of the claim, with no response by the Court at the time of writing.

If the case moves forward, the court may need to offer clarifications as to whether trade mark protection in the physical world extends to products sold in the virtual world, and what exactly NFTs are, namely whether they qualify as digital goods or art. Hermès' position may be flawed, as the brand neither holds any registrations of the Birkin mark over Classes that cover digital goods or digital artworks, nor has the brand engaged with NFTs and thereby, has no metaverse presence. Nonetheless, it may still be possible to rely on its established reputation, and claim that protection may also extend to other Classes of goods and services, beyond the ones for which the mark is registered. Nevertheless, if the court strictly relies on US legal precedent³⁵ and perceives NFTs as 'digital commodities', it could be concluded that a brand's intellectual property cannot be enforced against NFTs in virtual worlds. This outcome could bear a serious risk, not only potentially immunising copyists from trade mark infringement liability in the metaverse, but also precluding Hermès, and other fashion brands that are still sceptical on engaging with NFTs, from expanding their business activities in this zone in the near future.

5. Enforcement of Intellectual Property Rights in the Metaverse

But how to enforce a – territorial in nature – intellectual property right in a borderless virtual environment? This question is not new to brand owners, given the ever-growing involvement of brands on the Internet over the past two decades. One major problem that intellectual property owners have witnessed online, is the anonymity of users, equally maintained by some of the user-controlled metaverse avatars, making it particularly difficult to identify them and take legal action against them. Certain NFT platforms may indeed request for users' identity verification, but this measure has yet to become fully developed and universally applied, giving leeway to unauthenticated users to infringe with minimal accountability for their actions. As a result of anonymity, enforcement alongside some of the legal remedies are possibly out of reach for fashion brands.

Nevertheless, right holders can protect their intellectual property, by policing the NFT marketplaces against infringing digital uses and request to have allegedly infringing NFT listings removed, else known as the notice-and-takedown process³⁶, widely used to combat

³³ M. McDowell (n 17).

³⁴ *Hermès International* (n 32).

³⁵ *Dastar Corp. v. Twentieth Century Fox Film Corp.*, 539 U.S. 23 (2003).

³⁶ EC Directive 2000/31/EC, Art. 14.; EC Regulations 2002/2013, Reg. 17-19.

digital piracy, i.e. websites streaming illicit copyright content. Although online platforms may have the power to block users from access to a website and remove their infringing uploaded content, this measure has proved to be of limited effectiveness, mainly because users can simply come back with a new identity and counterfeit goods listings may pop up again. Kicking metaverse users out may, therefore, only be a temporary measure, as their hidden identities allow them to resurface, if they so wish. And while removing an infringing NFT sale listing, which displays the underlying asset, off a platform or marketplace may be possible, permanently removing it from the blockchain in which it has been minted may be even more complicated, given that all blockchain entries remain part of its immutable record. This could be reversed only in the rare occurrence where a blockchain consensus³⁷ would be reached, usually among the majority of nodes, of the specific blockchain network in which the token is stored. On the other hand, it is arguable that NFT removal from the blockchain is not justifiable under the takedown scheme, because the underlying protected assets, i.e. digital garments, NFTs represent are typically stored off-chain and a block may only contain information and pinpoint to the infringing copy of the garment, rather than hold an actual copy of it. This ultimately means that users who access the NFT, may still be able to be redirected to the infringing copy. Nevertheless, according to a recent CJEU decision³⁸, online platforms may be may also be required to remove any other content that is equivalent to the infringing content in question, meaning that the off-chain infringing file and any other related NFTs may be subject to a removal request.

Nonetheless, relying on platforms' reactive and usually not-so-timely takedown action, does not appear ideal to the fast-paced fashion industry, where time and speedy enforcement processes are of utmost importance, as new designs replace existing ones every season and the continuation of metaverse infringing uses for too long, could negatively impact brands. As such, the implementation of proactive anti-counterfeiting measures by NFT platforms, such as the introduction of a system for the verification of users' identities, to ensure that no intellectual property violations are being performed with the minting of a work, or the introduction of fees for minting a work, as in the case of OpenSea, may contribute to the minimisation of the uncontrollable phenomenon of minting protected works.

4. Conclusion

The first metaverse fashion dispute has seen the light of day, signifying that a brand's trade mark, as well as other underlying intellectual property vested in fashion designs, such as copyright or design rights, are far from safeguarded in this novel digital environment, resembling the longstanding counterfeiting problem of physical 'real world' fashion. That is not to say that simply because the domain where disputes are taking place is novel and digital, the current intellectual property laws are of no use to brand owners. Examples of the first steps towards increased protection of their business, are to expand their trade mark portfolio to cover both physical and digital goods or place territorial limitations on their metaverse sales. Importantly, the courts dealing with novel metaverse

³⁷ Reaching a consensus can be an extremely time-consuming and complex process, especially in a public Ethereum blockchain, used by i.e. OpenSea.

³⁸ C-18/18, *Eva Glawischnig-Piesczek v Facebook Ireland Limited*, ECLI:EU:C:2019:821 (3 October 2019).

fashion disputes will likely need to rule on issues that were previously unexplored, and decisions, such as the highly anticipated MetaBirkins judgment, will shape the breadth and future of intellectual property protection and enforcement in virtual worlds.

Even though fashion brands are encouraged to police unauthorised digital uses of their protected designs online, a key role in minimising the unauthorised tokenisation of intellectual property protected works is played by NFT platforms, which arguably have the power to implement proactive anti-counterfeiting measures, such as verifying users' identities. Whether the metaverse is here to stay, laying concrete ground for the tokenised commercialisation of fashion brands' intellectual property creations, while promoting the enforcement of designers' rights and shutting down copyists, is yet to be seen. The outcomes of first intellectual property fashion-related disputes will certainly shed light as to whether the metaverse is just another ecosystem, where mass fashion counterfeiting takes place, as is the physical 'real world'.