

IE – ECIJA DIGITAL LAW OBSERVATORY

Focus Group Report – THE METAVERSE AND
TOKENIZATION

June 22, 2023



<https://www.ie.edu/odigitallaw/>

1. Introduction

As part of the program of activities of the IE – ECIJA Digital Law Observatory, a focus group on tokenomics and the metaverse was held on May 10, 2022.

The purpose of the discussion was to analyze and address the legal implications that the arrival of these emerging technologies and social and business phenomena are having on our society, and how our legal system should respond to them.

During the discussion, the participants—representatives of companies in the technology sector and experienced legal experts—analyzed, debated and shared their opinions and experiences in the field of cryptoassets, tokens, blockchain and the metaverse.

They also considered the challenges posed by the sector and discussed the scope of current and future regulations in these matters, both in Spain and in Europe. In particular, with respect to the recently approved MiCA (Market in Crypto-Assets) regulation¹.

Some of the participants were knowledgeable about these technologies, having had firsthand experience with or having already been involved in implementing projects related to these technologies. Other participants, despite not having direct experience with these technologies, showed interest in learning about their characteristics, benefits, the challenges they entail and the different opportunities they can offer.

During the exchange of ideas and experiences, participants agreed that cryptoassets are one of the greatest opportunities that blockchain technology provides, opening up the opportunity to develop alternative assets, products and services whose transmissibility, value and digital operability are extraordinarily flexible.

The innovative nature of cryptoassets can also offer the possibility of creating new digital assets, such as non-fungible tokens or NFTs, which give both businesses and consumers the ability to create something new, unique and innovative.

The surge in cryptoassets, as the focus group discussed at length, has given rise to what is known as “tokenomics” or token economics, a term that refers to the study and design of economic models governing the functioning of tokens within the blockchain technology ecosystem. Tokens are digital assets that can represent ownership of a physical good, access to certain services or a stake in an organization or project.

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32023R1114>

The following key elements of tokenomics will be further discussed in this report.

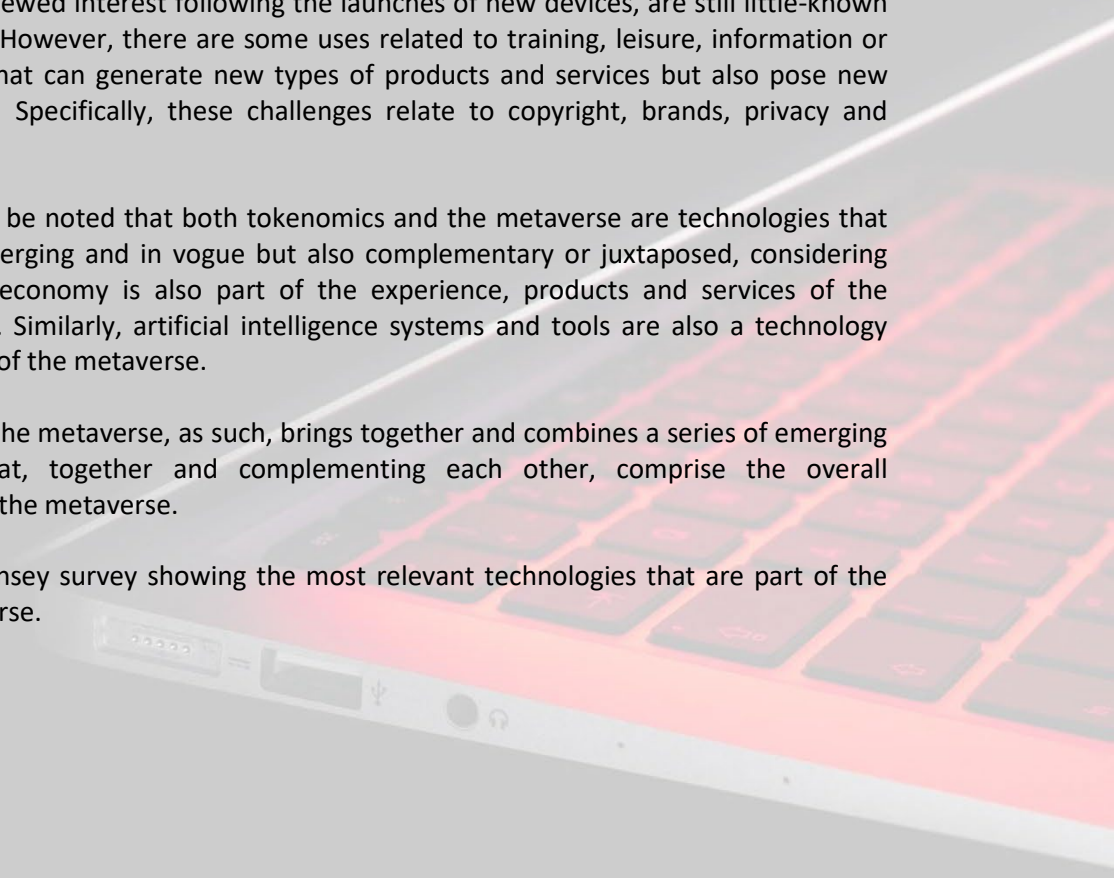
- **Issuing and distribution:** the way tokens are created and distributed. This can include a fixed or variable supply, as well as mechanisms such as mining or rewards for holders.
- **Utility and value:** tokens must have a purpose within their ecosystem, which may be as a means of payment, a governance incentive or representation of an asset. Their value can be linked to various factors such as demand, utility or scarcity.
- **Security and legality:** measures to protect against fraud and compliance with legal regulations. This is especially important given that tokens can be classified as securities, which would make them subject to specific regulations.
- **Incentives and governance:** how tokens can be used to encourage desirable behaviors and participation in decision-making within the ecosystem.

The metaverse, virtual reality and augmented reality spaces on the internet, beyond experiencing renewed interest following the launches of new devices, are still little-known and used fields. However, there are some uses related to training, leisure, information or entertainment that can generate new types of products and services but also pose new legal challenges. Specifically, these challenges relate to copyright, brands, privacy and cybersecurity.

Finally, it should be noted that both tokenomics and the metaverse are technologies that are not only emerging and in vogue but also complementary or juxtaposed, considering that the token economy is also part of the experience, products and services of the metaverse itself. Similarly, artificial intelligence systems and tools are also a technology that will be part of the metaverse.

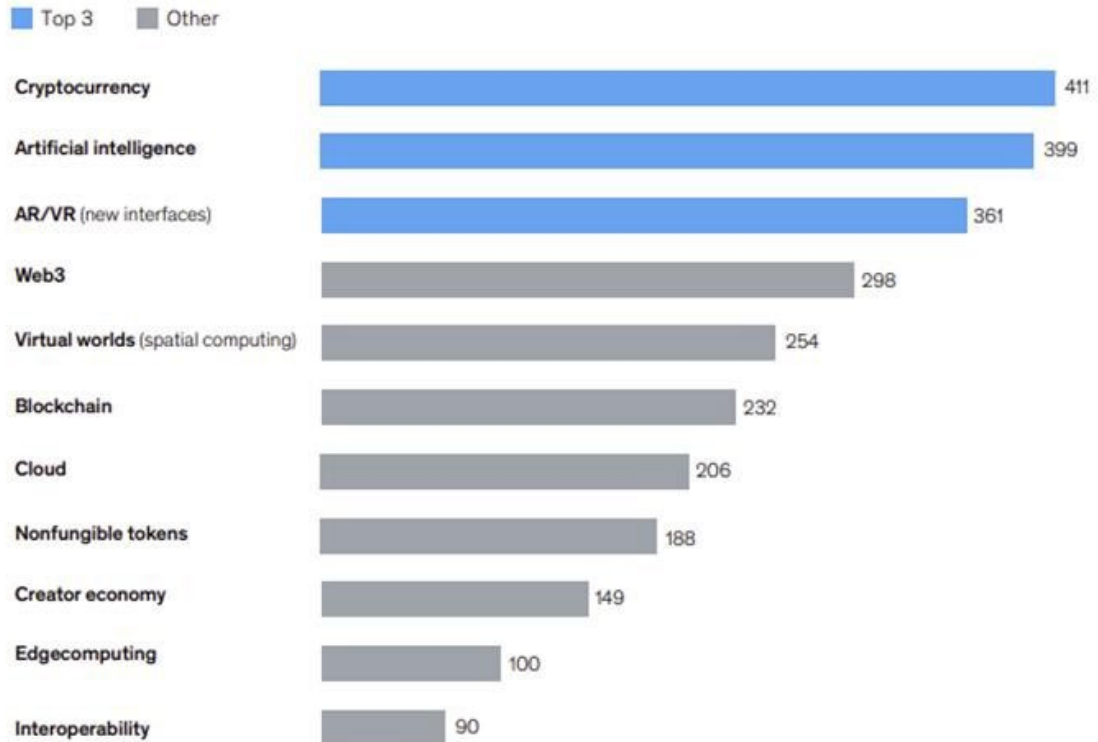
In other words, the metaverse, as such, brings together and combines a series of emerging technologies that, together and complementing each other, comprise the overall phenomenon of the metaverse.

Below is a McKinsey survey showing the most relevant technologies that are part of the metaverse universe.



Looking ahead, executives consider cryptocurrency, AI, and AR/VR the top three metaverse technologies.

Top 3 metaverse technologies, points-based ranking¹



¹Q: What do you consider the top three metaverse technologies for businesses in the future? (Rank top 3); Points ranking assigned with 3 points for every 1st ranked technology, 2 points for 2nd, 1 point for 3rd (n = 448).
Source: McKinsey & Company Senior Executive Survey, April 2022

The following is an organized and systematized summary of the content and discussion of the focus group.

2. The era of cryptoassets

a. The various components that make up the structure

As progress has been made, the universe of cryptoassets continues to expand. Often described as an innovative, promising, but also speculative phenomenon, cryptoassets remain a type of asset that is still very difficult for many legal professionals to understand.

Regardless, cryptoassets, and tokens, as a subcategory of these, are experiencing rapid growth and have diversified in terms of type and use.

This boom is due both to their potential in the creation of new digital assets and to their ability to improve efficiency in the management and transmission of pre-existing assets.

In this regard, it is important to bear in mind that the so-called tokenization of assets and, consequently, the phenomenon of tokenomics is not just a new trend or a fad resulting from technology. Rather, it is a phenomenon that has the capacity to generate economic opportunities, not only for the entities or companies that use them, but also for individuals.

Therefore, thanks to blockchain technology, tokenization can significantly improve the management and transmission of assets, creating new products and sales channels and thus improving opportunities and benefits for the companies that issue or make use of them.

However, there is still little uniformity of terminology in society. In general, the term cryptoasset is used to refer to a wide range of digital assets that are often linked to blockchain technology. However, this idea is not entirely correct. To understand what is meant by a cryptoasset today, we must turn to the recently approved MiCA regulation, Article 3.1 of which states that a cryptoasset is "a digital representation of a value or a right that can be transferred and stored electronically, using distributed ledger technology or similar technology."

We can therefore identify certain characteristics of cryptoassets:

- **Functionally**, they represent both a value (intrinsic or established by the market) or rights (either pre-existing, or derived from and linked to the cryptoasset itself).
- **Technically**, they are assets that are characterized by using distributed ledger technologies ("DLT") or similar technologies, as well as the use of cryptography to ensure the security of transactions.

We must bear in mind that the main technical characteristic of these cryptoassets is the use of DLT technologies, whose main feature is their decentralization. Among these types of DLT technology is the famous, predominant blockchain, but to this we must add the large number of DLT technologies that are constantly emerging in the market, such as DAG, Hashgraph, Holochain and Radix.

We therefore understand that cryptoassets have become, at present and in the coming economy, a type of digital and intangible asset that will have a certain market value and that, depending on the type, will allow their holder to enjoy a series of functionalities. They can also be a mode of generating income, either by selling them or by transferring and disposing of them in different alternative ways that could emerge as new possibilities in the digital market.

In the cryptoasset ecosystem, we find a diversity of assets that we must be able to define in order to differentiate between them.

- **Cryptocurrencies:** although their name seems to refer to a means of payment or electronic currency and they are sometimes presented as an alternative to legal tender (fiat), they cannot be considered as such. Cryptocurrencies are intangible assets that can be considered by their users as an investment and/or medium of exchange in a bilateral transaction in which the contracting parties accept them. Cryptocurrencies are issued digitally through blockchain networks. The core characteristic of cryptocurrencies is precisely that they are not issued by a centralized agency, but are created using decentralized technology and are not subject to that central authority or agency. This is the main way it differs from legal tender (fiat), as it will be issued and backed by a central bank.

Among cryptocurrencies, we find non-stable cryptocurrencies (e.g., Bitcoin), whose value depends on supply and demand on exchange platforms, and stablecoins, whose value is more stable because it is linked to other assets (e.g., one or more commodities, one or more cryptoassets, a combination of these assets, or even a fiat currency). Stablecoins fall into the subcategory of algorithmic cryptocurrencies, whose value is determined by an algorithm.

- **Tokens:** This English word “token” can be translated into Spanish as “ficha.” If we look at the definitions of “ficha” in the Royal Spanish Academy’s Dictionary of the Spanish Language, we find that it can be defined as “*a small item to which an agreed value is assigned and is used to replace currency in casinos, industrial establishments, etc.*” It is therefore clear that tokens have always existed in Spanish society and in the economy to manage and transfer assets or for access to certain services.

A token, in the context we are analyzing it, is a digital token, a cryptographic asset, registered and backed by a distributed ledger technology and representing assets or rights.

Tokens can be used as representations of pre-existing tangible and intangible rights or assets (for example, you can “tokenize” a work of art that you authored or certain rights to a home you own) or they can be “native” representations of rights and assets that will be created using these distributed ledger technologies.

One type of token that can be used as a representation of a pre-existing asset is the NFT, a digital representation of value (e.g., a right or an asset) which is entirely unique and is created using the ERC721 technology standard. The asset represented will either be located in the real world if it is a physical asset or, in the case of a digital asset, the file containing it will be hosted on a server outside the blockchain (“off-chain storage,” typically under an IPFS system). The NFT will make it possible to establish this unique and

non-fungible character of the asset or right it represents and will facilitate the transfer of the asset or right through smart contracts.

The focus group discussion emphasized that the adoption, use and exploitation of cryptoassets is not without its challenges. These include market volatility, security issues, the learning curve in technology adaptation, and the pressing need for digital literacy education.

Also specifically discussed were the potential liabilities stemming from malfunctions, errors, security breaches in the blockchain itself or in applications and the associated smart contracts. This has aroused the attention of jurists and regulators, since blockchain, as a distributed and decentralized technology, challenges traditional legal frameworks.

One of the main points of debate lies in the identification of the responsible parties. In centralized systems, it is easier to determine where responsibility lies, whereas with blockchain, due to its distributed nature, this task becomes complex. Should developers, network nodes, or end users be held responsible in the event of failures or vulnerabilities?

Also, smart contracts, which are programs that run automatically on the blockchain, can contain errors and be subject to attacks. The irrevocability of these contracts raises questions about the adequacy of the available legal remedies. Another concern is the applicable jurisdiction, given that blockchain is not confined to a specific territory. This can lead to conflicting laws and complications in dispute resolution.

It's essential that regulators work to develop legal frameworks that address these challenges. Clear and well-structured regulations could ensure that blockchain technology is developed in a safe and reliable manner, protecting the interests of all parties involved and promoting responsible innovation.

To summarize, the field of cryptoassets is in a state of expansion, opening up new avenues for innovation and economic growth. At the same time, it's crucial to address the challenges inherent in cryptoassets through education, adaptation and well-grounded regulation to ensure sustainable and beneficial development for all involved.

b. The MiCA regulation

After a complex legislative process lasting almost three years, on April 20, 2023, the European Parliament and Council approved the long-awaited Markets in Crypto-Assets Regulation, known as MiCA, amending Directive (EU) 2019/1937.

As for its effective date, the standard establishes that the general regime will be applicable after a transition period of 18 months following its publication, which means that it will be fully applicable from the beginning of 2025. For stablecoins, however, the timeframe

for its implementation is 12 months, so the regulation will enter into force in the spring of 2024.

The lawmaker has given the green light to the European regulatory framework applicable to digital asset markets, and puts the spotlight on issuers of certain types of cryptoassets (utility tokens and stablecoins) and cryptoasset services. This standard implements new common rules on the supervision, consumer protection and environmental safeguards of cryptoassets, positioning Europe as a pioneering region in the regulation of these markets.

MiCA was created with the clear intention of serving as a reference text in regulating this type of instruments. It covers both primary market activities related to the issuing or public offering of cryptoassets, as well as matters concerning the access and interaction (listing) of cryptoassets in the secondary market.

After an intense debate during the years spent developing the standard and related texts, it can be quickly deduced from the description of MiCA's scope of application that this regulation approved by the European Parliament leaves out NFTs or security tokens that have the nature of financial instruments, as these will fall under the scope of application of the MiFID II and the Securities Market Act.

Based on the classification of cryptoassets it introduces, MiCA establishes a scale of requirements for cryptoasset issuers and service providers, described in general terms below:

The most lax regime is envisaged for utility tokens, which are issued free of charge and whose value of issue, for the twelve months following their release, is less than €1,000,000. The standard for utility tokens will only require the preparation and publication of a whitepaper with minimal information, as determined by the regulations.

At a higher regulatory level, utility tokens exceeding the above threshold, as well as stablecoins, whose total issued assets over 12 months do not exceed the value of €5,000,000, will be required to file a request for authorization with the national supervisory authority and to publish a whitepaper with requirements that are more exhaustive than those stipulated for utility tokens.

The most stringent rules are those imposed on issuers and service providers in terms of tokens linked to significant assets which exceed the above threshold, as well as to e-money tokens; they are subject to review by the European Banking Authority (EBA).

In addition, MiCA establishes a taxed list of services that the text itself defines in Article 3.1.9 as "Cryptoasset Services" and bear a certain resemblance to the list of financial services established by the Markets in Financial Instruments Directive 2014/65/EU (MiFID II).

Likewise, MiCA, similarly to the European Union's General Data Protection Regulation, seeks to implement a highly punitive regime,

incorporating the new obligations that are envisaged, under threat of severe sanctions.

The European Parliament also approved the standard on the information that must accompany transfers of funds and certain cryptoassets (better known as the Travel Rule), which requires cryptocurrency operators to identify their customers. This standard thus complements and clarifies anti-money laundering regulations.

3. The metaverse

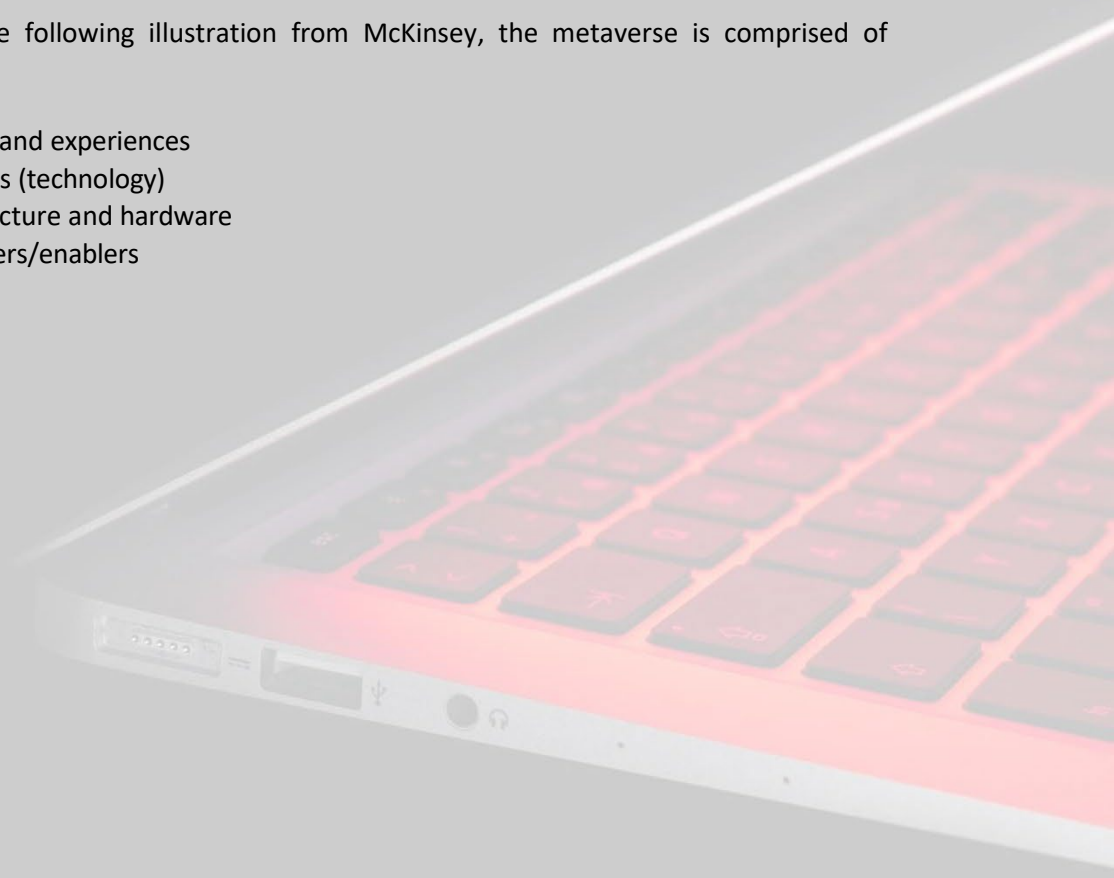
a. An introduction to the virtual reality internet

At the dawn of the 21st century and the so-called fourth industrial revolution, a new digital horizon is emerging: the metaverse.

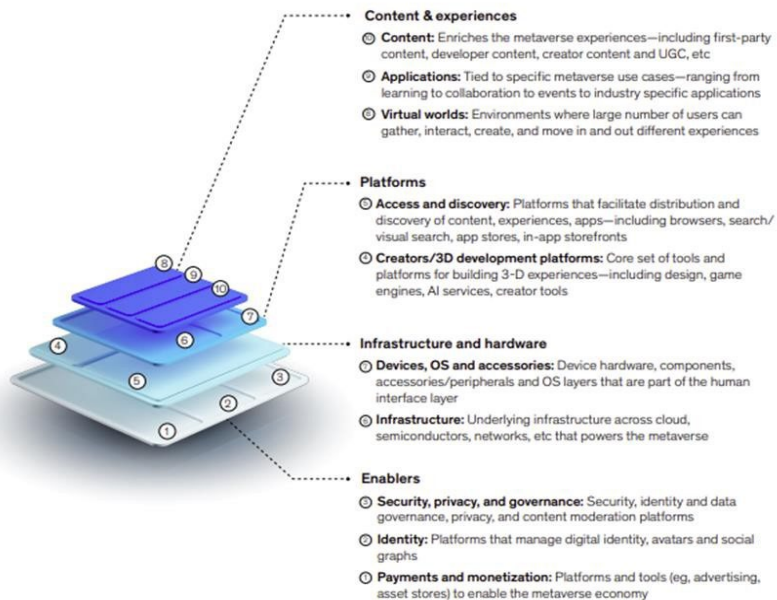
This virtual parallel universe, as it has been dubbed, is born of the convergence of virtual reality and augmented reality, and it promises to change the way we interact in cyberspace. In other words, the metaverse is a new way of accessing and using the internet. This is an immersive and sensory internet whose gateway is no longer a 2D screen, but rather a 3D device such as virtual or augmented reality headsets.

As shown in the following illustration from McKinsey, the metaverse is comprised of different layers:

- Content and experiences
- Platforms (technology)
- Infrastructure and hardware
- Developers/enablers



Today's metaverse is made up of ten layers, which fall into four categories.



Value creation in the metaverse: The real business of the virtual world

The metaverse is a collection of interconnected digital spaces where users can interact virtually and in real time. However, its modest expansion, for the time being, and the diversity of its uses, raise important legal questions that require meticulous analysis.

First, the protection of trademarks and intellectual property within the metaverse is a matter of considerable debate. As users and companies create and share content, it is crucial to establish mechanisms that safeguard copyrights and trademark rights.

For example, how should unauthorized use of a trademark in a virtual environment be addressed? The difficulty lies in the fact that the metaverse transcends geographic boundaries, which can lead to conflicts between different jurisdictions and regulations.

In addition, service providers for the development of virtual spaces face a series of responsibilities and guarantees. Not only must they guarantee the security and privacy of user data, but they must also ensure that their platform is not used for illegal or harmful activities. This may include monitoring and moderating content and establishing clear and equitable terms of service.

In addition, as users employ virtual and augmented reality devices to access the metaverse, new conflicts and challenges related to the

ownership and use of these devices emerge. For example, the creation of avatars and virtual objects could lead to disputes over ownership and rights of use. Also, real-time interaction within these virtual spaces can create conflicts between users, such as cases of harassment or invasion of privacy.

Finally, the metaverse also opens a window of unprecedented economic and social opportunities. These range from trading of virtual goods to events, training and entertainment activities. However, this also raises the need to establish regulatory frameworks that allow these activities to flourish in a sustainable and ethical manner.

In short, the metaverse, fueled by the progressive use of virtual and augmented reality, is redefining how we access and use the internet. While this offers a range of possibilities and opportunities, it also entails a number of legal challenges and conflicts that must be addressed with insight and diligence. Matters related to intellectual property protection, guarantees and responsibilities of service providers and management of conflicts between users are just some of the issues that merit our attention in this new digital era.

b. Trademarks and the metaverse

As discussed earlier, the metaverse provides fertile ground for innovation and creativity, but it has also posed significant challenges in terms of trademark law: the ability to create, customize and market virtual objects brings with it the need to address issues of trademark use and protection within this innovative virtual space.

In the coming years, it is expected that 70% of large companies will be present in the metaverse, and that, gradually, all sectors, companies and brands will find their space and identity in this new virtual world. The coordination and correlation between the physical and virtual worlds will be among the most important challenges for companies and brands: what to sell and what to communicate in both spaces, and the legal conflicts resulting from this activity.

This coordination or interrelationship will define new ways of relating not only to each other but also to companies and their products and services. For example, new business models will appear. One such model is DTD, digital to digital, characterized by virtual products that will only be consumed and enjoyed in the metaverse (such as skins, avatars and NFTs). Another is DTP, digital to physical, which are products purchased in the metaverse and consumed in the physical space (such as the purchase of clothing in a virtual store and delivery of the physical product at home). There is also PTD, physical to digital, referring to the purchase of a physical product in a physical store (such as clothing, sneakers, etc.), as well as and gifts or discounts of digital replicas in the form of skins or avatars to be used in the metaverse.

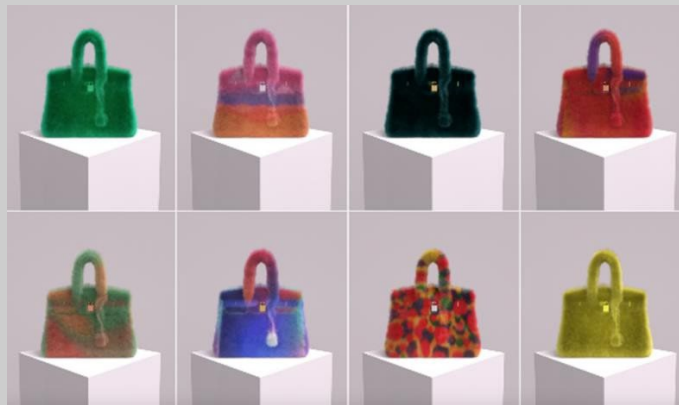
Some luxury brands such as Balenciaga, Gucci and Burberry have taken the plunge into the virtual universe, creating their own digital garments and accessories in NFT format, in collaboration with video games and virtual reality platforms.

However, as is always the case, the emergence of new sales channels and new types of brand or product exploitation entails the emergence of new forms of piracy, scams and the use of other people's efforts and trademarks.

This is the case, for example, of the MetaBirkins, the NFTs inspired by the famous bag that the French firm Hermès created for the French actress Jane Birkin.

Mason Rothschild, a New York graphic artist, went on to produce more than 100 MetaBirkins NFTs "inspired" by the Hermès Birkin model, which he marketed through OpenSea, a marketplace specializing in buying and selling NFTs. Rothschild had not obtained or even requested the appropriate authorization from Hermès.

Mason Rothschild's MetaBirkins



Once the French brand learned that a transformed version of its most iconic bag was being exploited in the form of NFTs, it sent several requests to the artist and the platform.

OpenSea promptly removed the bags following Hermès's notice. However, since Rothschild did not recognize the infringement, Hermès chose to file a lawsuit for violation of its trademark, design and unfair competition rights before a federal court in New York. In a public statement, Rothschild defended his creation as a form of freedom of expression and artistic creation, since his MetaBirkins were nothing more than a criticism of the luxury fashion sector for participating in and supporting animal abuse. In other words, the artist claimed to be justified under the doctrine of fair use or limitation of exclusive rights to the Hermès bag.

Ultimately, on February 2, a nine-person jury in the Southern District of New York (the federal court with jurisdiction over intellectual property matters) ruled that Rothschild's MetaBirkin NFTs infringed on Hermès' rights to its "Birkin" trademarks.

The jury ruled in favor of Hermès on all legal grounds, finding that, although the MetaBirkin NFTs were "at least in some respect works of artistic expression," Rothschild intended to mislead potential consumers (as was shown) and, therefore, the First Amendment (free speech) did not protect him.

from colliding with trademark rights. Beyond this confusion, it was also noted that unauthorized use of a well-known trademark such as "Birkin" was likely to cause trademark dilution, undermining the distinctive power of the trademark.

At this point, it is worth recalling that the owner of a trademark has the exclusive right to exclude third parties from using their trademarks. In any case, unlike copyrights, the exceptions or limitations to the exclusive use of trademarks are certainly very limited (for example, to provide information on spare parts or original products for sale, distribution, comparisons, etc.). Uses other than these cases should be covered by another (higher) category of rights, such as the fundamental right to freedom of expression. However, such unauthorized use of a trademark, protected by freedom of expression, is not an absolute right; the jury found in this case that Rothschild's use, beyond its artistic content, caused unjustifiable confusion among consumers, a dilution of the trademark and an unfair economic advantage which is, we repeat, not justified or protected by the First Amendment. Criticism and parody is indeed protected, but not when it causes unjustified reputational or economic damage to the trademark. Additionally, Rothschild had several other options for getting his message across (criticism of animal cruelty) without the need for unauthorized and damaging use of a third party's trademark.

Similarly, the popular brand Nike has taken legal action against StockX, an online platform for reselling sneakers. StockX, in order to promote and advertise the Nike sneakers it sells, decided to "mint" NFTs for several iconic models of the American brand. According to StockX, these NFTs were a kind of certificate of originality and ownership of the sneakers that buyers purchased on their platform. In order to do this, the company allegedly relied on a kind of exhaustion and limitation of trademark rights, which, according to their argument, would cover reproductions or the generation of digital twins.

Nike understands that the rule of exhaustion or limitation of the right does not apply, since it is not marketing a product placed on the market by Nike or advertising products that it legitimately sells, but rather it has created a new (digital), different creation, which implies a different exploitation and use of Nike's trademark and models of sneakers. StockX is essentially opening a new business and market with by digitally reproducing the sneakers.

Example of an NFT of Nike sneakers issued by StockX.





It is evident from the above cases that trademark law will have to adjust to the new uses and exploitations of creative works that the metaverse makes possible. Without prejudice to the analogue application of the current regulations and jurisprudence, it is clear and advisable that the types of use, as well as the limitations and exceptions of the exclusive right of the trademark, should be defined and delimited in a more precise manner for the sake of legal certainty.

In this regard, the following adaptations or clarifications can be highlighted:

1. First, the 12th edition of the Nice Classification, which entered into force on January 1, 2023, already contains a new wording of Class 9 with respect to NFTs, defining them as "downloadable digital files authenticated by non-fungible tokens." However, by itself, the use of the term "NFT" in the description of assets to be protected will not be accepted, the EU Intellectual Property Office points out, and it is necessary to specify the type of digital asset represented by the NFT (e.g., paintings, clothes, shoes, etc.).
2. Furthermore, it is considered necessary to redefine the limits of the exclusive right to use trademarks, Article 14, Regulation 2017/1001, on the European Union trademark:

"1. An EU trade mark shall not entitle the proprietor to prohibit a third party from using, in the course of trade:

[...]

c) the EU trade mark for the purpose of identifying or referring to goods or services as those of the proprietor of that trade mark, in particular, where the use of that trade mark is necessary to indicate the intended purpose of a product or service, in particular as accessories or spare parts."

Going back to the Nike case, StockX can be understood to be engaging in, as a distributor of Nike sneakers, marketing or advertising use, in the sense of being "necessary to indicate the end purpose of a product." That is, to market the physical sneakers that they already sell. Or, as alleged by Nike, StockX

is engaging in a new, totally different use, entering into a new market and type of use, the control and exercise of which would belong to Nike. This is the question that the American federal court will have to resolve. And this is the issue that the lawmaker will have to address in order to introduce new cases or exceptions to the exclusive use of trademarks.

4. In conjunction with the previous point, and linking it to the MetaBirkins case, it is likely that the lawmaker and the courts will have to redefine the concept of "likelihood of confusion" on the part of the public (Art. 7 of the European Union Trademark Regulation). The particular characteristics of virtual environments, of their products/services and of the new types of users or consumers may make it necessary to establish new criteria to determine the likelihood of confusion and, therefore, of trademark infringement.
5. Brands should also modify and adapt their rights assignment contracts so that they cover, explicitly and with legal certainty, the exploitation of the works, designs or brands they market, including digital products/services (NFTs) and virtual environments (the metaverse). In other words, if a creator or author cedes the exploitation of their work to a brand today, it can be understood without mentioning it in the contract that it would already cover the possibility for the brand to "mint" NFTs and to sell in its new online store. What happens to the assignments of rights that have been made in the past? In this regard, it is worth recalling that article 43 of the Intellectual Property Law (Royal Legislative Decree 1/1996) establishes a presumption or protection in favor of the author; if the assignment does not explicitly state a specific form of exploitation, it will not be understood to be assigned, such that brand and author will have to renegotiate the assignment and the price.

In general, the questions that are emerging are those that were already confronted some twenty years ago now with the massive boom of the internet. Does real-world protection apply to virtual reality? As was the case two decades ago, it seems that the protection in force in the "real world" cannot be applied directly to the "virtual world." Consequently, the industrial and intellectual property rights that companies hold over their major assets will have to be adapted to protect them as virtual objects in the metaverse.

Similarly, with respect to the role and responsibility of marketplaces or platforms where digital assets or NFTs are traded, it will be necessary to better define the degree of diligence and responsibility they have, as they are an important element in the possible infringement on intellectual and industrial property rights. Beyond the fact that the platforms contain provisions in this regard in their terms and conditions of use, it will be necessary to require greater diligence, control and promptness in the removal of infringing content. The EU regulations—the Digital Services Act and the Digital Markets Act—will help better to define the obligations and responsibilities of platforms with respect to this type of rights.

In conclusion, trademark law in the metaverse is a rapidly developing area that requires an adaptation and further development of existing legal frameworks. From the protection of signature products to the emergence of NFTs and the need for registering trademarks in additional categories, it is critical for trademark law to evolve in order to effectively address the unique challenges and opportunities of the metaverse. Collaboration between brands, lawmakers and the technology community will be essential for

shaping an ecosystem where innovation and intellectual property protection can thrive in harmony.

c. Copyrights in virtual environments

The metaverse, by providing a forum for the creation and distribution of digital works, poses a series of challenges and opportunities in the field of copyright. The possibility of easily reproducing, distributing and transforming content can facilitate the misuse of protected works, which necessitates a review of the current rules and practices relating to copyright protection.

Companies and platforms operating in the metaverse must implement control measures to prevent the misuse of protected works in their virtual spaces. This may include content recognition technology and tools for reporting and removal of infringing content. However, the effectiveness of these measures may be limited by the ease of copying and distributing digital content, as well as the lack of an internationally harmonized legal framework.

In this context, copyright management organizations play a crucial role. These organizations, which manage the rights of creators and other copyright holders, can facilitate the granting of licenses for the use of protected works in the metaverse. However, the global nature of the metaverse poses challenges for managing copyrights across national borders. Management organizations will need to work closely with digital platforms, lawmakers and copyright holders to develop effective and fair approaches to management of rights in this environment.

In this regard, NFTs are especially relevant to copyright in the metaverse. NFTs can be linked to digital works and used to demonstrate the ownership and authenticity of these works. However, they can also be used to modify and distribute protected works without the permission of the copyright holder. In these cases, questions arise as to how copyright applies to such modification and distribution. For example, does the holder of an NFT have the right to modify the linked work, or to distribute it in ways that are not covered by the original license?

Copyright in the metaverse must also address issues of fairness and recognition. Content creators in the metaverse must receive adequate recognition for their work and fair compensation for the use of their creations. This may require new remuneration and licensing models, as well as efforts to increase the transparency and traceability of digital creations. With blockchain and smart contracts, this possibility has become far simpler and more efficient.

In conclusion, the metaverse presents both challenges and opportunities in terms of copyright. Copyright holders, platforms, management organizations and lawmakers will need to work together to create a copyright framework that is suitable for this new digital environment. This will require a balance between protecting

the rights of creators and encouraging creativity and innovation in the metaverse.

d. Building your metaverse

The development of customized metaverses for companies is a complex process that involves collaboration with software developers and negotiation of technology contracts.

These contracts must address multiple key aspects to ensure that both the company and the developer are protected and that expectations and responsibilities are clearly defined.

1. **Licenses and rights of use:** an entity that wishes to create its own metaverse must negotiate the terms under which it has the right to use and exploit the software and technology provided by the developer. This includes the definition of exclusive or non-exclusive use rights, sublicenses and the ability to integrate technology with other solutions.
2. **Assignment of rights:** it is essential to address the ownership of intellectual property rights derived from the development of the metaverse. The company must ensure that it owns any work developed specifically for its metaverse or that it has the necessary rights to exploit such work.
3. **Guarantees:** contracts must include guarantees that ensure that the software and technology used to create the metaverse do not infringe on the rights of third parties and that they meet the quality and security standards agreed upon. In addition, a warranty may be included that the software will be free from defects for a specified period.
4. **Service Level Agreements (SLAs):** In the event that the metaverse is hosted and maintained by the developer, it is crucial to define Service Level Agreements (SLAs). This sets clear expectations about service availability, response times and troubleshooting procedures.
5. **Responsibility:** it is important to define the extent of the developer's liability in the event of failures, security breaches or any other events that may have a negative impact on the company. This must include limitations of liability and, potentially, compensation clauses.
6. **Confidentiality and data protection:** the contract must address how sensitive information and user data will be handled. This is especially relevant in the context of data protection regulations, and must ensure that all parties comply with the applicable laws.

7. **Termination:** it is essential to have clauses that describe the circumstances under which the contract can be terminated, as well as how the transfer of services and data will be handled in case of termination, ensuring the effective migration of the service to other digital spaces.
8. **Dispute resolution:** contracts must include provisions on how disputes will be resolved, whether through mediation, arbitration or litigation, and under what jurisdiction they will be governed. This is particularly relevant given the international nature of the activity.

In short, contracts for technology to create corporate metaverses require careful attention to a variety of legal and operational issues.

4. Conclusions

The following is a summary of the general conclusions reached in the focus group:

- 1) **The legal profession must adapt to new technological phenomena**, developing its training and expertise in the cryptoasset and metaverse sectors, whose relevance will increase in the coming years. These sectors will require legislative measures to mitigate risks and situations of legal uncertainty that will undoubtedly arise during this transitional period.
- 2) In terms of legal regulatory initiatives, **the EU is at the global forefront**. The MiCA regulation will have an important impact on the future of the sector, which, as discussed, will begin to unfold under a regulatory framework at European level that promotes security and transparency in the sector. MiCA is presented as the most relevant option for addressing the current and future needs of the cryptoassets market. It will also serve as a framework through which other jurisdictions, such as the United States, develop their own legislative texts on the subject, using MiCA as an initial guide on how to do so.
- 3) **The MiCA regulation is not an answer to all the challenges posed in the sector**. It is worth highlighting the complications that will come to light in the near future, especially due to the lack of regulations fully adapted to technological progress. This matter has already had repercussions when certain types of cryptoassets have had to be set aside. Despite the fact that MiCA remedies many of these problems, its explicit exclusion of cryptoassets such as NFTs—and implicit exclusion of others such as governance tokens, which do not fall under the concept of assets regulated by the MiCA—creates a lingering legal uncertainty and the potential need to amend this recently issued regulatory text.
- 4) **The metaverse will require the adaptation of trademark and intellectual property regulations:** as was the case twenty years ago, the metaverse, as a new, virtual, online space and marketplace, will give rise to legal situations and loopholes to which our

current trademark and copyright legislation is unable to provide an answer. In the transition to legislation that adapts to this reality, conflicts and situations of certain legal uncertainty will surely occur, and the courts will have to resolve these conflicts until the aforementioned legislative adaptation takes place.



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