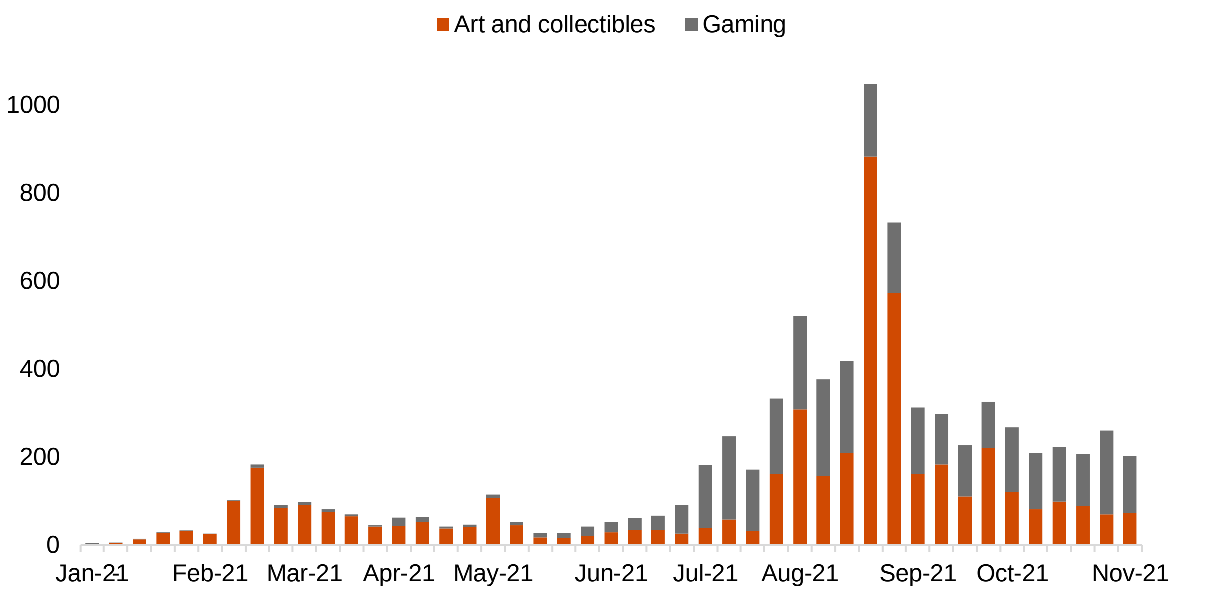
Non-Fungible Tokens (NFTs): Legal, tax and accounting considerations you need to know

Contents

Foreword

Non-fungible tokens (NFTs) are unique and non-interchangeable digital assets stored on a blockchain. The rise of NFTs this year has surprised people in not only the growth of the ecosystem but also the practical utilities of NFTs. Since early 2021, the market has grown exponentially from US$13.7 million in the first half of 2020, to US$2.5 billion in sales in the first half of this year[1].

Weekly trading volume of NFTs by category ($m)[1]



One of the most remarkable news about the growth of Non-Fungible Tokens was the sale of the Beeple artwork for US$69 million at the auction house Christies[2]. which made Beeple the third most expensive living artist at auction. In particular, we have seen an explosion of new methods and tools when creating digital art as NFTs. In certain aspects, this is game changing as there are now viable ways for large and small independent artists alike to monetise their efforts after their NFTs are sold on globally accessible marketplaces.

1 Source: The Block Research, Nov 2021
2 Source: The Verge, 11 Mar 2021

Definition and technology

The history of NFTs began with Kevin McCoy on May 3rd, 2014 when he minted a non-fungible token called “Quantum”, an octagon shape with red and blue. However, NFTs started to become well-known from the public when CrypotKitties, a game built on the Ethereum blockchain in 2017, was responsible for clogging up the Ethereum network because people were rushing to buy cartoon cat NFTs, delaying transactions and increasing the gas price[3]. In parallel, there have been further developments within the NFT space such as the ERC 721 proposal which was introduced in September 2017 and submitted by William Entriken, Dieter Shirley, Jacob Evans and Nastassia Sachs in January 2018.

The ERC-721 proposal is recognised as the first standardised interface for creating NFTs on the Ethereum blockchain. However, one of the key issues with the ERC-721 protocol is that when the Ethereum blockchain is congested, the cost of minting an NFT increases significantly which impacts the economic viability of minting new NFTs.

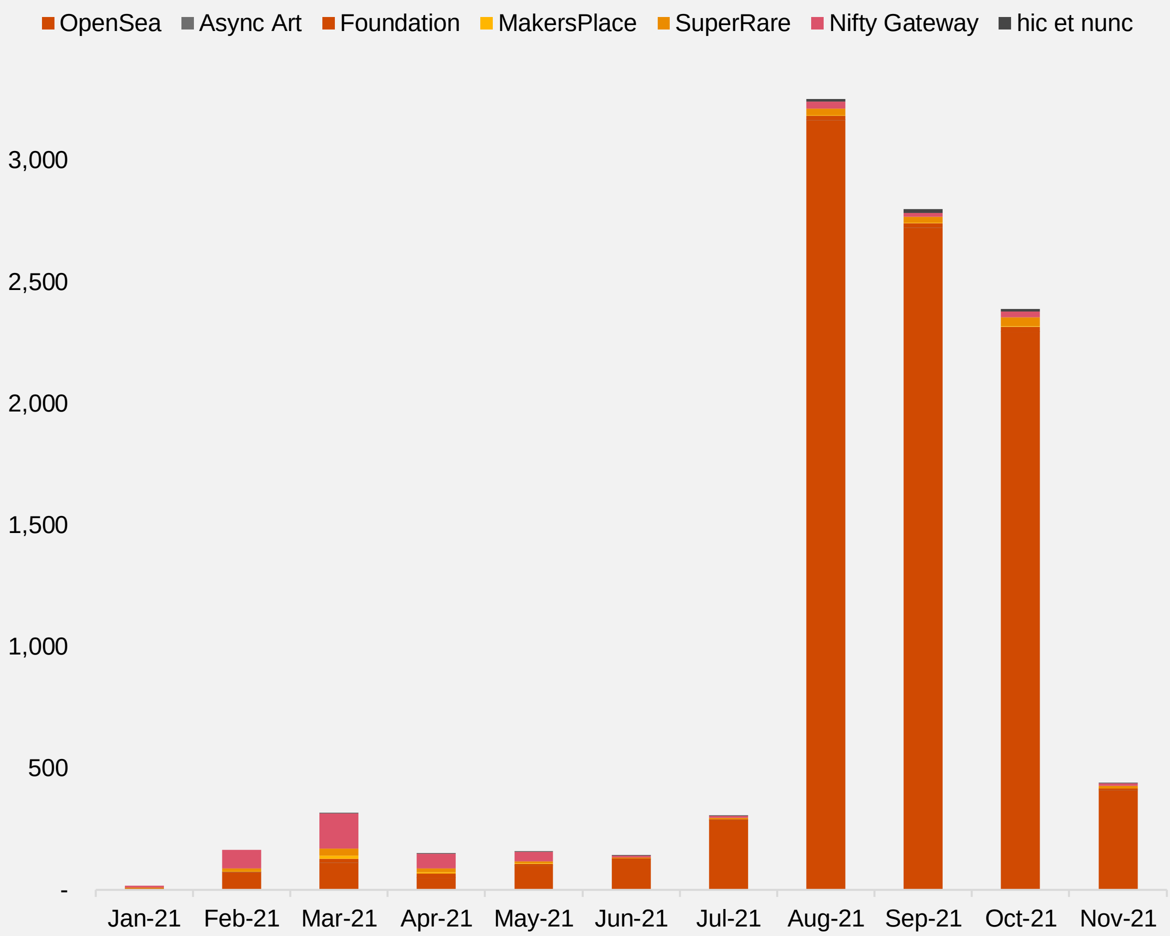
This led to one of the most recent proposals which was the development of the ERC-1155 standard by Enjin, which supports non-fungible tokens (NFTs) and fungible tokens. It improves upon the ERC-721 standard by making the NFTs faster and more efficient to use in batch transfers. According to some estimates, gas fees are cut by 90%.

NFTs exist on a blockchain, which is a distributed ledger that records transactions. NFTs are most commonly distributed on the Ethereum network but are increasingly seen on other platforms such as Solana, Flow by Dapper Labs as well as layer 2 platforms such as Immutable X, which is built on top of Ethereum.

There are many permutations of NFTs, one of which is generative art, and the most well-known one is Artblocks. Artblocks is an Ethereum-based NFT project that generates original digital artwork pieces via an algorithm. Another form is “Profile Picture” (“PFP”) where a certain number of digital avatars are created or “minted” that can be used as profile pictures on social media platforms. The most notable PFP collection is “Crypto Punks” that was created by Larva Labs. Crypto Punks is a collection of 10,000 uniquely generated pixel art avatars that were launched on June 23rd of 2017. Each avatar comes with unique combinations of randomly generated features that are supposed to represent different personalities.

3 A general reference for approximate transaction fees on the Ethereum blockchain, gas price refers to the amount of ETH (in a small unit called gwei) that must be paid to miners for processing transactions on the network.

NFT market place monthly volume ($m) [4]



Apart from minting an NFT directly on a blockchain or purchasing an NFT in an auction, NFTs can also be bought and sold on marketplaces such as OpenSea, SuperRare, Nifty Gateway, MakersPlace and Async Art. These marketplaces take commission for the sale of NFTs similar to traditional auction houses and a number of these generated significant revenue in August and September 2021. These platforms are seen as the start in bringing wider adoption of NFTs to larger communities as well as different industries.

4 Source: Markets Insider, 7 July 2021

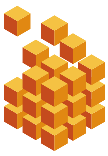
Market structure

NFTs are game changing for art, creative contents and how intellectual properties are handled. Much like how cryptocurrencies continue to disrupt the financial markets, by reducing the need for intermediaries or middlemen, and in a similar vein, NFTs are shifting the balance of power from intermediaries to content creators. This powerful shift in the market is only just the beginning but will have a far-reaching impact. Many content creators, artists specifically, are used to being paid on delivery of their content only to watch future buyers of the piece go on to sell it for multiples of the original sale price time and time again. With NFTs that no longer needs to be the case. Through the use of NFTs, because blockchain technology is utilised, royalties can potentially be easily tracked and paid directly to the artist indefinitely. This means that when a piece of art is used commercially the artist would see continued benefits, which is a significant change to the business models for the creative content industries.

With the advent of countless social media platforms and communication tools it is getting easier for people all over the globe to communicate and bond over common interests. As NFTs expand beyond simple collectibles to digitally represent one's identity online, they are becoming more ingrained in society. One of the largest social media platforms have seen a rise in users putting their NFTs as their profile picture. NFTs are offering the possibility to engage consumers in a new and exciting way.

NFTs offer the ability for the creator of the NFT or brand to connect directly with the consumer, whether it be through special perks or a conversation about the product. They offer traditional business new revenue streams. As we begin to exit the pandemic the shift towards a preference for experiences over material possessions will be further accentuated further promoting the growth of experiential NFTs such as Generative NFTs which are generated through artificial intelligence or algorithms.

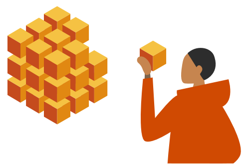
Maybe most interesting is the intersection between NFTs and Decentralised Finance ("DeFi"), where the boundaries of NFT use cases are being tested. DeFi describes a set of financial applications built on a blockchain to disintermediate centralised exchanges and traditional financial services. Due to the aforementioned growth of the market, some generative art and NFT collectibles have "mooned" or increased in price to levels that they can become a person's most valuable asset, even more than one's home. The world of DeFi can offer multiple ways to monetise assets without requiring an owner to sell it. There are three keyways:

1 

Fractionalisation:
DeFi platforms can create liquidity by allowing the fractionalisation of certain digital assets by substituting the digital asset with a different pool of tokens that can then be traded on the secondary market. The concept of fractionalisation also helps to enable those users that have been priced out of participating in the initial project the opportunity to be a part of a "wider community" without having to mortgage their home to do so.

2 

Collateralisation:
Following the same logic as collateral tokens, currently issued by various exchange platforms, NFTs can act as a security to loan issuers. This is because NFTs can represent the digital ownership of certain assets and can be traded in an open market, having therefore a recognisable value. The fact that transactions are transparent means that the same assets cannot be collateralised twice, providing more trust and transparency to the market. This transparency and automation can decrease the cost of financing arrangements.

3 

Creator rewards:
A newer trend in the NFT space is rewarding holders of a project with a percentage of the fees earned from sales. Part of the power of NFTs is that instead of secondary sales benefiting only the current owner of the piece, a portion of the sale can be paid back to the creator when designated as such.

The NFT ecosystem

- Collectibles
- Gaming
- Physical art
- Sports
- Cultural artefacts and history
- Real estate – real world asset representation
- NFTs in music/ digital art
- Tickets and any form of access authorisation
- Education and research

$69m

In March 2021, the NFT "Everydays: the First 5000 Days" was sold for US$69 million

Source: The Verge, 11 Mar 2021

Over **$94m**

In 2020, the total amount of volume generated by the NFT collections tracked by DappRadar equalled $94,862,807

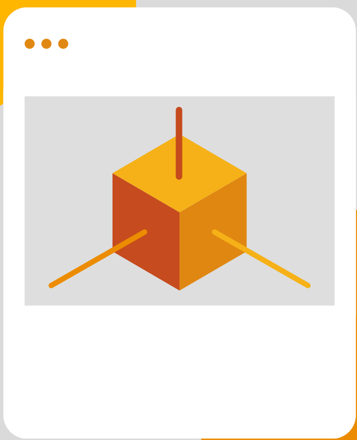
Source: Markets Insider, 7 July 2021

Increased **704%**

NFT trading volume surged in the third quarter of 2021 to US$10.67 billion. That's a 704% increase from the previous quarter

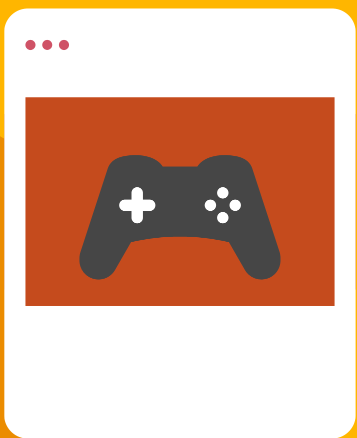
Source: CNBC.com, 6 October 2021

Collectibles



Scarcity is a desired property for any collectible item. The Blockchain immutability and transparency create the uniqueness of virtual or physical objects. The value of collectibles can be readily available to potential buyers if those are traded within a public blockchain environment. An example of an already established NFT collectibles initiative is the NBA Top Shot, a blockchain based platform that allows fans to buy, collect and trade a predefined number of officially licenced video clips of NBA players and other highlights. Less than a year since its launch, it has already reached more than US$700 million in total sales and more than 1 million users.

Gaming

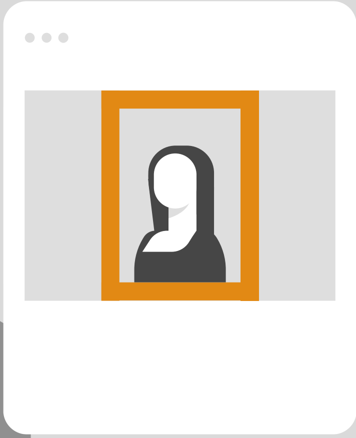


When it comes to gaming, NFTs can serve as digital certificates of achievements or ownership of items in the virtual world. This can potentially allow trading of such items through an in-game marketplace or through any form of open market. Cross platform transfer of achievements and game items is also possible if interoperability is allowed between the relevant networks. The most successful games in the market have developed in-game economics. By offering NFTs, game creators could offer a whole set of new possibilities to attract even more players and create profitable economies for both developers and in-game players.

For example, through the application of NFTs for items/ avatars/ skins/ characters released in-game, gamers could eventually see the opportunity to sell these assets on marketplaces after playing and developing them for years. Additionally, those NFTs could outlive the games for which they were created and could be used in the future as collectables rather than items per se.

The combination of blockchain technology and gaming is expected to face exponential growth in the near future.

Physical art



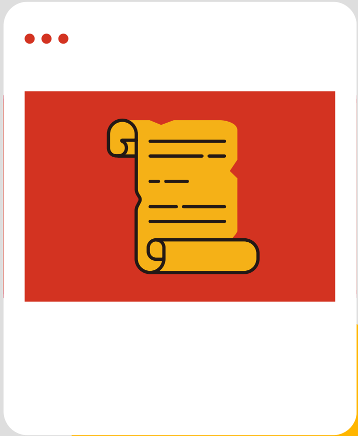
The traditional approach for the proof of authenticity of physical art involves participation of various experts which is often time consuming and costly. Blockchain transparency allows investors to trace transactions of NFTs, associated with a specific piece of art, to the original creator in order to verify ownership. Apart from the obvious benefit to NFT holders of the proof of ownership of an authentic piece of art, tokenisation of such assets can evolve the way that the market functions. For example, smart contracts linked to the NFTs may include clauses with regards to the percentage of royalties that will be paid to the original creator's account from every transaction, ensuring that artists are treated and compensated fairly.

Sports

Increasingly, sports brands as well as sports teams have started to partner with crypto companies in order to offer their fan base a new way to strengthen their engagement with their favourite athlete and teams. For example, the National Football League has partnered with a NFT related company to issue virtual highlights as NFTs which could be a GIF or video rather than a still photo. Other European football clubs decided to partner with NFT related companies to create football player digital cards, which have varying degrees of rarity. In addition to being just sports collectibles, some of these NFTs are expected to become usable in fantasy games in the future, which provides collectors with further utility.

Additionally, sports companies have also been reportedly investigating the metaverse and possible uses for NFT items. For example, Nike have reportedly been planning to release digital shoes through the metaverse, allowing people to collect digital footwear for their avatar.

Cultural artefacts and history



Certain media outlets started to express their interest towards NFTs. The Economist, the international weekly magazine, has announced a plan to auction off the front cover of its September 18 DeFi edition as an NFT. The South China Morning Post in Hong Kong SAR, published a litepaper in July 2021 presenting a standard for recording accounts of history and historical assets on the blockchain, thereby ensuring immutability and decentralised ownership. The standard, called ARTIFACT, will use NFTs to allow anyone to trade historical moments.

Other non-media related projects such as the Beeple's Wenew platform aims to place the most celebrated moments in history on the blockchain, allowing collectors to own and pass down NFTs for the most celebrated moments in music, fashion, sports and politics

Real estate – real world asset representation

The proof of ownership concept through NFT minting can also be applied to assets with physical substance, such as land, buildings and jewellery. This can potentially benefit the liquidity of various assets since the issued tokens can be traded in an open market on a blockchain. In addition to that, the immutability of blockchain records can replace the current centralised and bureaucratic approach followed for the transfer of title deeds or any other form of ownership validation documents from one party to another. Legal ownership of physical assets, identified through NFTs, can also be associated with voting rights with regards to how and for what purpose the physical assets will be used.

NFTs in music/ digital art

Content creators of many different crafts are also among the most who can benefit from this new industry. Artists that do not have the possibility to reach a large audience could sell their work as NFTs without being part of an exquisite art exhibit or profitable music label.

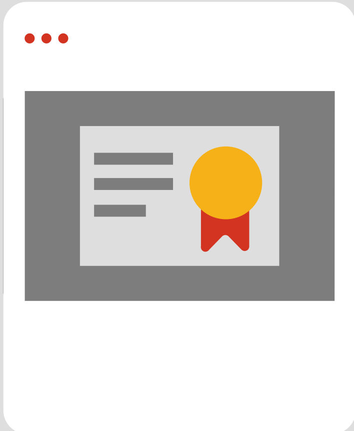
Thanks to the versatile application of NFTs, musicians could sell traditional albums, unique bonus tracks or tickets, etc. as NFTs. In these cases, NFTs acted as a certificate of ownership that creators sell to their audience.

When the owner of a piece of art finds a person who is willing to pay the desired price, the NFT is transferred to the buyer. Meanwhile, the funds paid (or a portion thereof) by the buyer of the art piece can go to the creator initially without splitting large portions of the profits with record labels, music agents or other intermediaries. Even if the piece of art is sold after many years, with NFTs a payment can be paid to the original creator of the NFT in perpetuity. Additionally, given that an NFT gives the ability to track the use and ownership of the NFT through its entire lifecycle, it gives the creator the ability to continually engage the owner through the provision of additional content post sale.

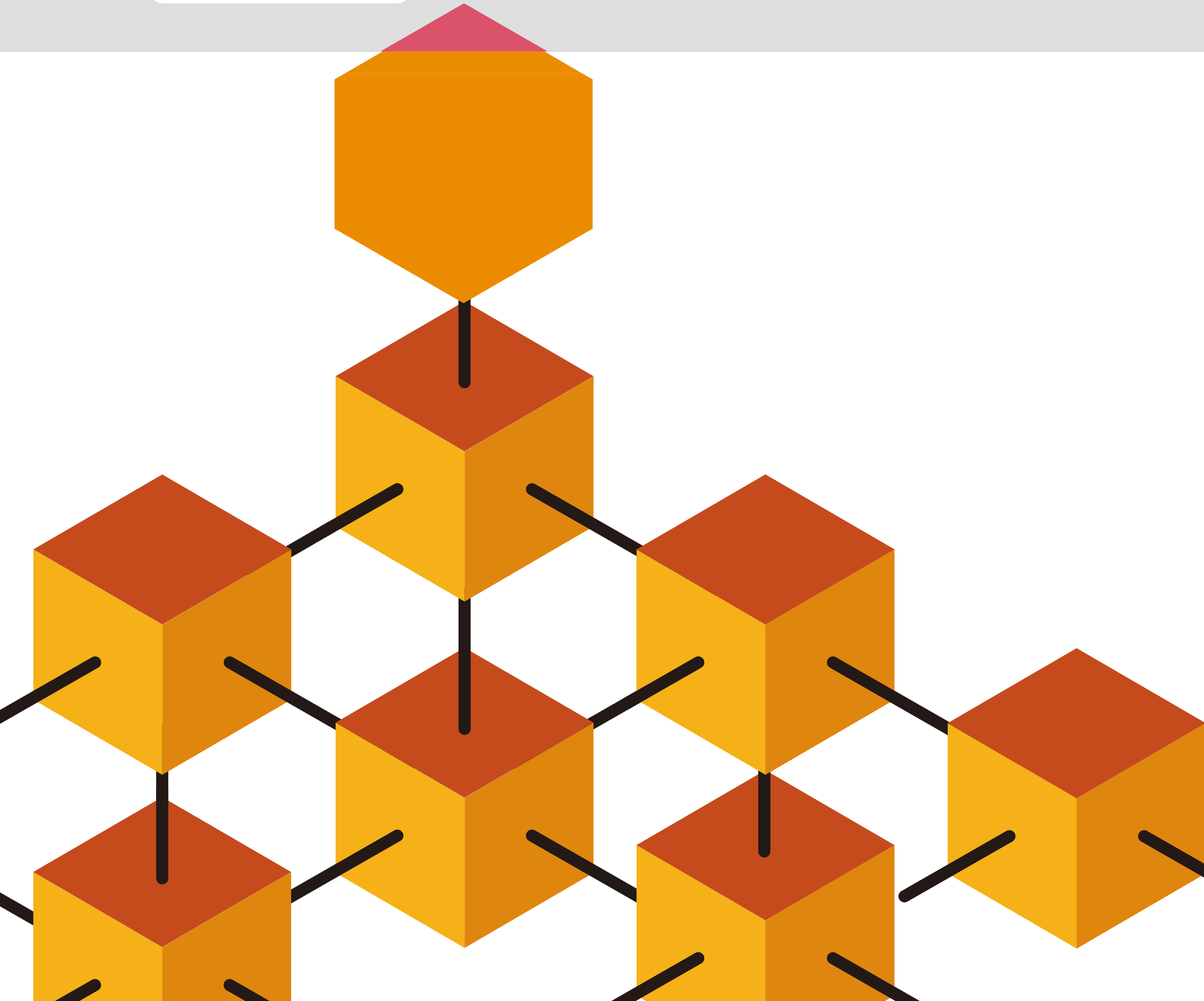
Tickets and any form of access authorisation

Any form of evidence that allows holders to access certain events, software, airplane tickets, etc., can be minted and created using unique NFTs. Different functionalities could also be programmed on these types of NFTs. For example, the value of tickets can be programmed to vary in accordance with the demand, ensuring that full capacity is utilised and that event organisers or service providers maximise their gains.

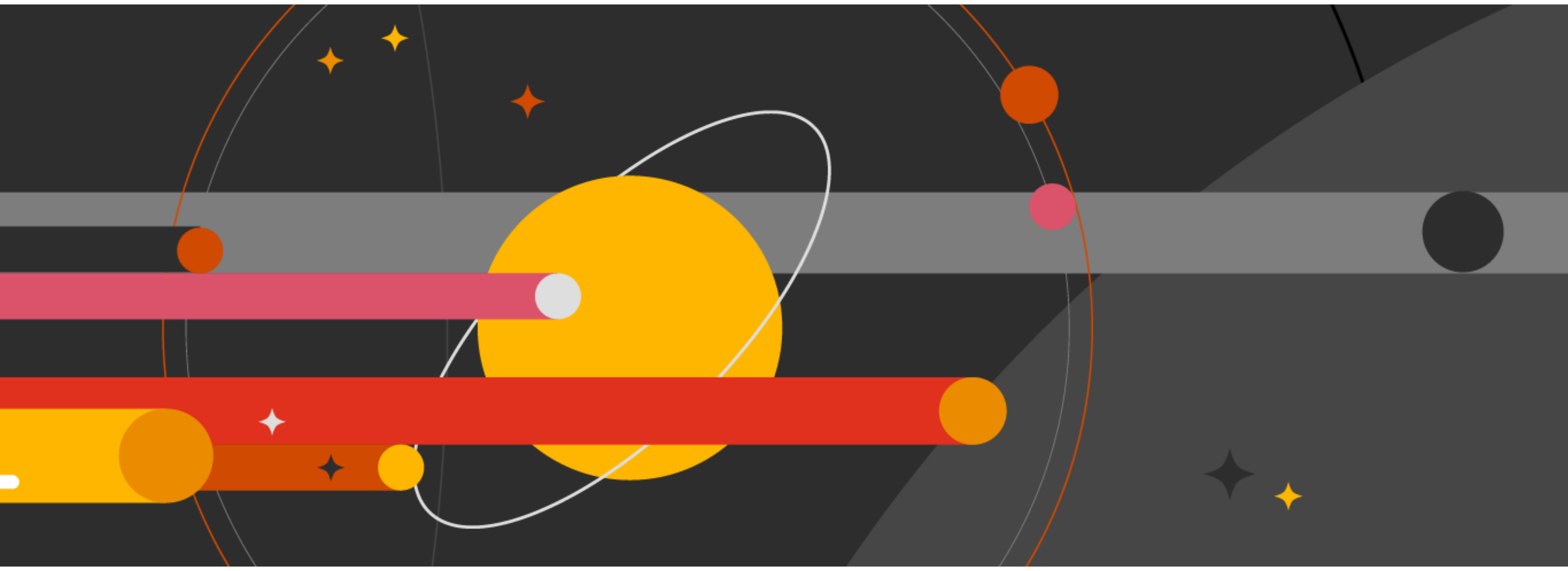
Education and research



Authenticity of educational achievements and degrees are of vital importance not only for the education industry but also for the business and professional world in general. Tokenisation of certificates can prove the authenticity of documents to third parties without the need to contact the issuer. Literary property can also be protected through NFTs improving the value of research activity.



The future and the metaverse



Although NFTs are currently the subject of much discussion, it is not yet possible to forecast their exact future development. Even though the market and the associated funds invested in the NFT market are growing significantly, the market for NFTs is still relatively young. Critics consider the high amounts paid for some of the NFTs as a first sign of a possible speculative bubble, whilst proponents see a unique opportunity to change a variety of industries in the long term.

We now take a look into the future and highlight possible fields of application for NFTs. One of the developments currently at the centre of attention and which is increasingly being associated with NFTs is the metaverse. The metaverse is a vision that spans across the most well-known tech companies and could be developed by partnerships between the biggest private companies of the world, individual creators and developers.

The vision of the metaverse can be described as an embodied internet, where instead of just viewing content — people feel embodied in the environment. Industry experts describe the metaverse to become the successor to the mobile internet. People would feel present with other people as if they were in places, having different experiences that couldn't necessarily be experienced on a 2D app or webpage. Potential Use Cases span from gaming and entertainment to a synchronous environment where people can work and socialise together. This could be a platform which resembles a hybrid between social platforms that we know today and an embodied environment.

The expansion of the Metaverse is also closely related to the expansion of NFTs. A larger number of users interacting through different platforms and blockchain marketplaces makes it possible for users and developers to create, sell and purchase NFTs.

Following these thoughts and as we progress towards an immersive multiverse, we can expect to see the emergence of products that are delivered solely in the virtual world. The value of these virtual products will also likely increase as the participation of these multiverses increase. These virtual products could be exclusively digital or virtual representations of real products. As it currently stands, we already see gamers willing to pay considerable sums for game accessories, clothing or costumes for their in-game characters, and some of these virtual items are even solely cosmetic. The urge to possess a collection and the virtual bragging rights alone are able to make some free-to-play games profitable. This showcases that there are new opportunities for many companies to generate sales or attract new customers. The uses of these virtual product can even extend beyond collection as we already see virtual racehorse NFTs that can be used in virtual horse racing gambling[5] that even translates to monetary gains. The rarer breeds are also sought after not only for their scarcity or performance in races but their ability to breed new generations. Another example was an artist's burning of his own art in the physical world only for the piece to be recreated as an NFT[6]. These are stark examples in the NFT space of their attempts to recreate digital representations of the physical world virtually and only touch upon the surface of how NFTs can exist in a virtual environment.

The advent of NFTs is also viewed by some as another solution to a problem that many companies face in the real world and even more so in a virtual environment – the counterfeiting and imitation / copying of their products. In the physical world, high valued items are often prone to counterfeiting, and some high-quality imitations can even copy materials and details flawlessly that can only be distinguished by experts (sometimes!). In virtual worlds, it is possible to generate "virtually" identical copies of virtual products with no apparent distinctions in the product files themselves. However, because NFTs can leave a unique fingerprint on a blockchain that is verifiable at all time and by anyone, it provides a way to identify and protect virtual ownership, this can then even allow owners to sub-sell while enforcing licensed uses of the intellectual property (IP) by the original creator in these virtual spaces. However, the standards for how these IP rights can be enforced are yet to be developed.

The traceability and programmability features offered by NFTs also creates opportunities to facilitate the utilisation of online identity as well as strengthen personal data protection. NFT based online identities and smart contracts may provide an enhanced visibility and better distinction of the ownership of one's personal data. Users would have better control of where their data goes, and potentially receive payments when their personal data is being utilised or sold. In the Metaverse, people will be able to create specific avatars or identity representations with different personalities. These avatars can be minted as NFTs and could potentially become a commodity that could be bought and sold on marketplaces. Buyers can then leverage these avatars for branding and marketing purposes or even leverage their influence to spread messages to specific followers.

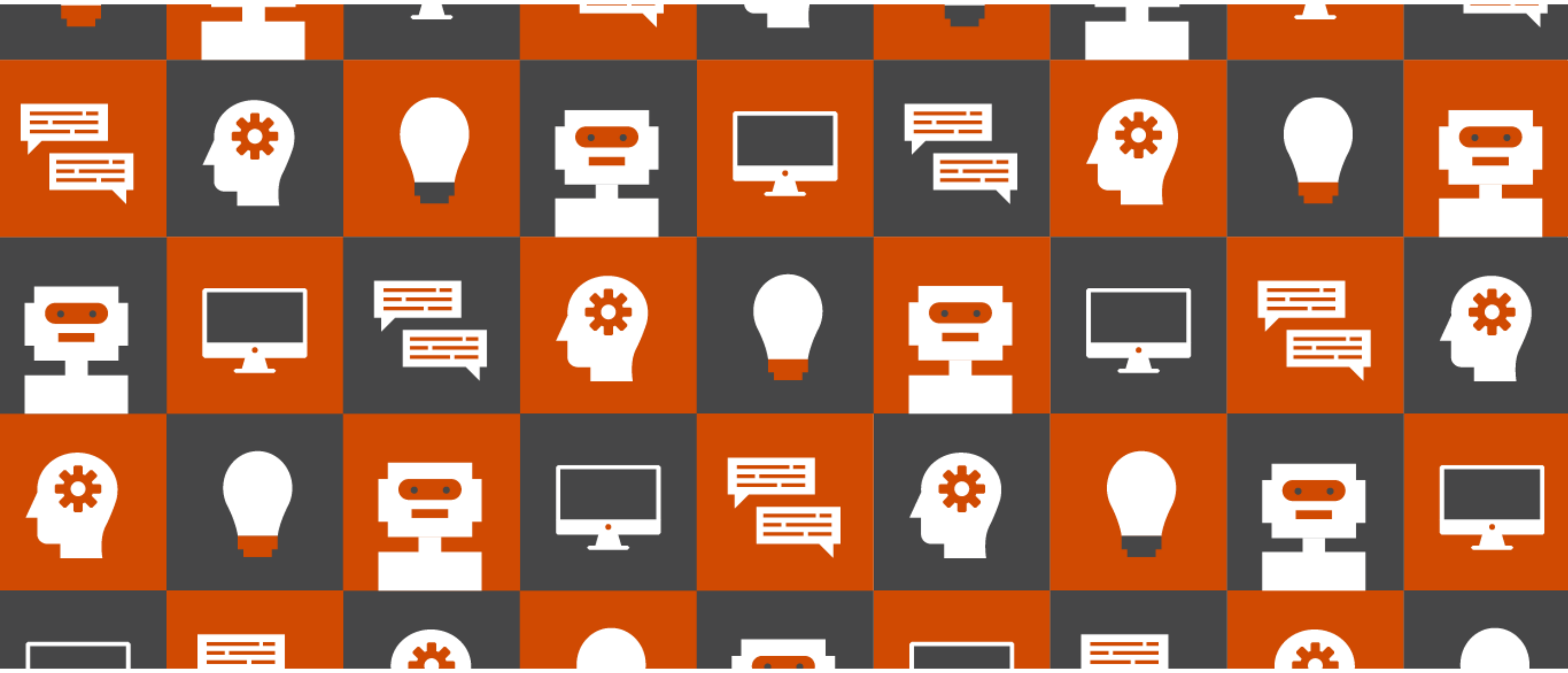
The Web3 space is going to generate significant attention as well as multiple new concepts that may transform the way identity is currently structured on the Internet.

5 Source: Financial Times, 16 July 2021
6 Source: BBC.com, 9 March 2021

Thoughts on how businesses could approach NFTs

Given that the landscape of NFTs is vast and burgeoning, for companies which would like to explore its potential, they should equip themselves with as much market knowledge prior to entering this space. It is crucial to understand who are the players already in the space, what is the underlying popularity driver of the different NFT's and the various opportunities within the value chain of the NFT ecosystem. Companies should also assess their own operational capabilities, and legal and tax implications that relate to issuance, ownership and transfer of these novel assets. We will cover some of these in the later sections of this report. When dealing with third parties, care should also be taken to conduct proper due diligence in finding the right service provider and counterparties to work with. Finally, when deciding to undertake any specific projects, it is important to establish proper governance and controls to protect the company and shareholder interests and ensure there is an experienced team to manage the progress of the project. There are an increasing number of NFTs being launched as a result of the boom, but competition is fierce for both issuers and companies who would like to capture the opportunities in this space, and ensuring a project is executed in a timely and efficient manner is one of the first few challenges that all players in the NFT space will need to face.

Legal and regulatory



As is often the case with innovative business models, legal and regulatory aspects need to be considered, and these can sometimes take time. Whilst regulators across the globe have largely understood and are dealing with the legal and regulatory challenges of fungible digital assets, there is no clear guidance on the legal and regulatory treatment of their non-fungible cousins yet. The following legal and regulatory considerations are of paramount importance to anyone considering to engage in the issuance of or trade in NFTs. First, intellectual property ("IP") laws play a major role for content creators in providing powerful tools for creators to protect their content. Then, creators of NFTs and resellers such as marketplaces must design robust contractual frameworks in order to ensure adequate protection of their business and product. Finally, financial regulation plays a major role as well given the opaque distinction between financial instruments and digital assets. The following section aims to provide an overview of the key legal and regulatory considerations that should be considered when starting an NFT project.

1. Intellectual property ("IP")

Given their non-fungible nature, NFTs should be seen as a unique solution to protect intellectual property rights. Certifications, titles of ownership, virtual passports attached to real world-assets are already using the issuance of NFTs to create a marketplace where the authenticity of goods can be better guaranteed and where IP rights can be better controlled. Creators of NFTs, owners, resellers as well as marketplaces should have a comprehensive plan for protecting the intellectual property rights attached to NFTs.

With respect to copyrights, NFTs are created on blockchains that support smart contract programming. As such, NFTs may be protected by software copyright depending on the jurisdiction. When NFTs are virtual art-forms embedded in the code itself, the work of authorship is the NFT itself. When the NFT is only a proof of ownership or title pointing at a real-world asset, this proof cannot be altered, thereby providing protection to its legal owner. When licensing or transferring copyrighted material, NFTs can be used to distribute rights in a compliant and transparent manner by bringing certainty as to the author, owner and licensee.

As for trademarks, the origin of the NFT is known to the participants. They can therefore be used in connection with trademarks to enhance legal protection. In an interesting recent development, famous brands have extended their trademark registration to digital goods and assets, anticipating a significant market growth in virtual universes (Metaverse).

Patents can be filed in relation to NFT issuance, depending on the jurisdiction. That can be the case if the structure includes a technical solution which is novel and therefore qualifies as an invention. In some instances, smart contracts may even be patented provided the NFT is captured as a technical system implemented using the software, rather than the software/code itself. Just like for copyrights, NFTs can also be used to transfer or license patents in a secure and transparent manner.

Key IP challenges

The legal challenges are mainly twofold. First, NFTs bear a number of risks which are the same for any other digital asset, such as security breach, theft, loss of private key, etc. These are more technical risks. Second, when NFTs are linked to a real-world asset, the main challenge resides in connecting the two. In some instances, some NFTs were simply "pointers" to a webpage, which was later modified by its owner. In such instances, the effective power of disposition over the property is defective as the possession of the asset can be disturbed by a third party.

2. Contractual terms

As part of the strategy to protect the creator's rights, the terms of sale and/ or use are of the utmost importance. A robust and comprehensive agreement will ensure adequate protection of the rights attached to NFTs.

For instance, it can be contractually agreed to sell an NFT "naked" (i.e., without intellectual property rights to the underlying work attached to it). In doing so, the creator of an NFT ensures proper retention of a part of the value derived from its creation. The contractual terms can be drafted in a way to allow sufficient flexibility in determining what are the rights that the creator sells with the NFT and which rights shall be retained by the seller.

For example, some NFT marketplaces' terms of service state that the acquisition of an NFT does not include the ownership rights to the underlying artwork. The rights attached to the underlying artwork such as copyrights, trademarks or other intellectual property rights remain the sole property of either the marketplace itself or the NFT creator.

Owners of the NFT may also be restricted from using the underlying artwork for commercial purposes, including, for example, selling copies of the artwork, selling access rights to the artwork, selling derivative products embodying the artwork, or otherwise commercially exploiting the artwork.

Identifying the intellectual property rights that can be protected and drafting specific terms of sale will ensure the highest level of protection for NFT creators.

Another ground-breaking innovation that comes with NFT and more specifically with blockchain technology is the possibility to determine in advance and to embed directly within the smart contract, consideration to be received by the NFT creator. Such features shall also be reflected and appropriately drafted in the contractual terms in order to ensure its enforceability. Thanks to such provisions, an NFT creator can ensure receiving benefits derived from its creation long after its initial sale. In those instances, smart contracts act as an automated performance of the underlying contract.

Other contractual aspects to consider include limitation of liability clauses, dispute resolution methods as well as the applicable law and governing jurisdiction.

One interesting aspect is the consumer rights legislation. It remains to be seen how courts will apply the core principles of such legislation which inter alia requires goods to be properly described, of satisfactory quality and fit for purpose to smart contracts and NFTs.

3. Regulatory

NFT issuance

NFTs, which are digital pieces of art and to which no other rights and/ or claims are attached are not likely to be qualified as transferable securities under MiFID II. To qualify as such, an NFT must belong to a class of securities mentioned in MiFID II. The key requirement to enter said class is the fungibility nature of the token which are usually not present in NFTs. Conversely, the non-fungibility attribute of an NFT would exclude it from being considered as a transferable security under the MiFID II regime provided it does not have any other properties that would qualify it as such.

In the US context, there is yet no established precedent which would anchor NFTs to the US 1933 Securities Act, in particular with regards to the well-known investment contract rule derived from the long-standing Howey test. Given the numerous variations of NFT structures, it cannot be excluded that some of them may fall within the definition of an investment contract.

The classification of an NFT as a security has a major impact as it would trigger compliance with onerous requirements and restrictions with regards to its issuance, distribution as well as its tradability on non-regulated marketplaces. Given the large variety of different NFT structures, a thorough assessment should be carried out on the design of an NFT as well as its marketing campaign in order to understand what type of legal definition falls based on its characteristics.

The use of the ERC 721 or of the ERC 1153 standard may have an impact on the regulatory classification of an NFT and by extension to its tradability on the secondary markets. Particularly fractionalised NFTs may be seen as fungible digital assets which in turn may result in a classification under MiFID II.

From a European ("EU") regulatory perspective, such digital assets may fall in the catch-all category of the MiCA proposal (Markets in Crypto Assets Regulation) as the proposal intends to provide comprehensive regulation of crypto assets not yet covered by EU financial law. Consequently, both issuers of NFT's and service providers will be subject to the MICA proposal. Moreover, an NFT that falls outside of MiFID II may still be regulated under the MiCA proposal, assuming that it is adopted in its current form. The latest MiCA draft mentions that fractional parts of NFTs should not be considered unique and would therefore be subject to MiCA. It also states that the proposed regulation should explicitly apply if the NFT grants to the holder or its issuer specific rights linked to those of financial instruments, such as profit rights or other entitlements. In such cases, the tokens may then be assessed and treated as "security tokens".

Operating a marketplace

The operation of a marketplace raises multiple complex questions. On the one hand, the NFTs listed on it may need to be thoroughly assessed as the listing of an NFT that has been classified as a security would result in the operation of an illegal securities trading venue. On the other hand, AML/ KYC regulations that NFT marketplaces may be subjected to are not yet clear in most jurisdictions. In the US, FinCEN has not yet issued a clear guidance directed to NFTs. In the EU, the provision applicable to art market participants may apply to NFT marketplaces where there are NFTs that are sold for EUR 10,000 or more.

The participants who would have access to a particular NFT marketplace may also be subject to various cross-border rules applicable to financial markets and these NFT marketplaces may want to consider appropriate controls in order to mitigate these regulatory risks.

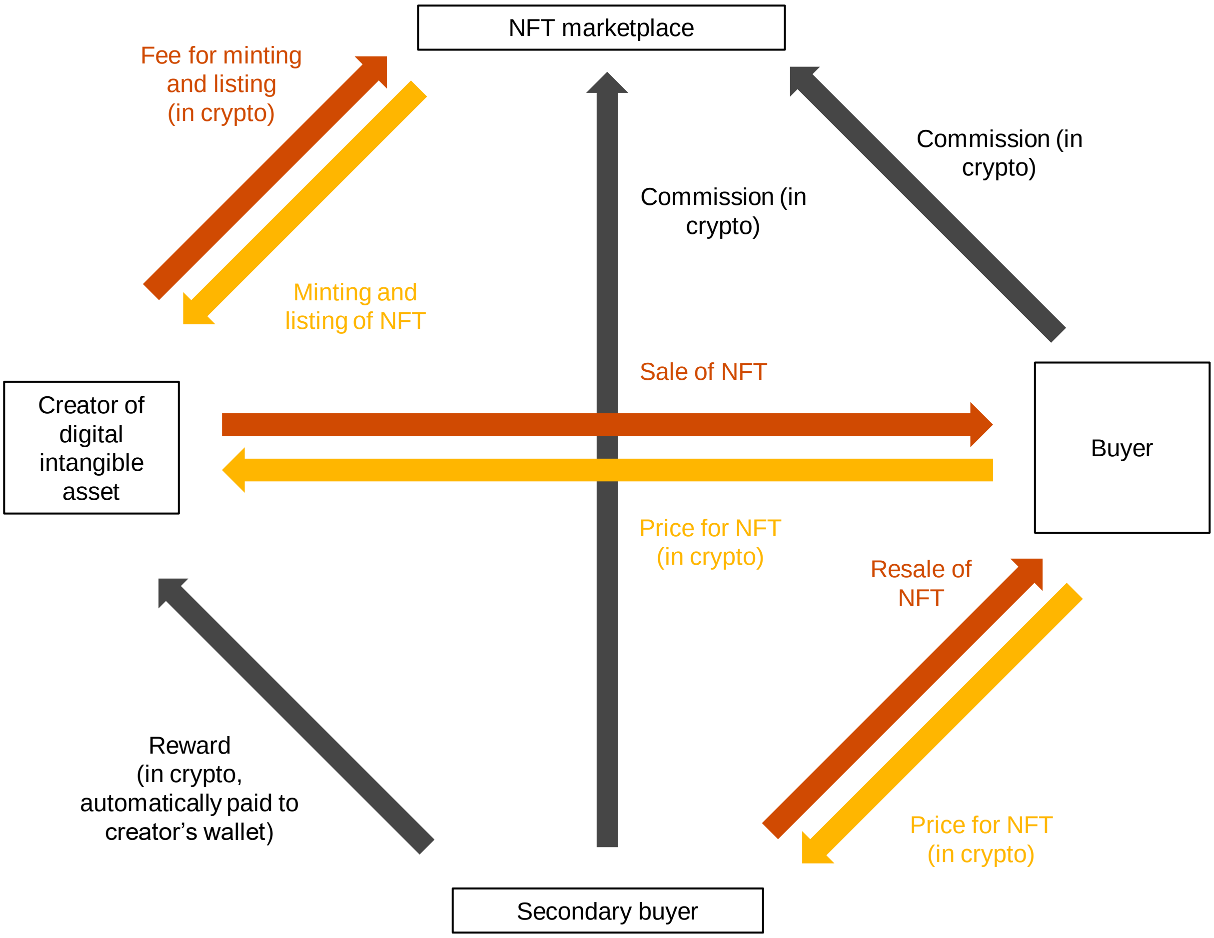
The Financial Action Task Force (FATF) has recognised NFTs within the definition of virtual assets (VA) and has recently called for further regulation in the short-term considering that NFTs may create opportunities for money laundering or terrorist financing activities.

Regulatory treatment of NFTs and NFT marketplaces is fragmented, and no clear guidance has been issued from regulators of the key financial markets centre. Businesses in the NFT space should plan ahead of the regulatory curve and establish best practices as well as comprehensive measures to mitigate regulatory risks including exposures to money laundering and terrorist financing activities. A holistic and global approach is highly recommended for businesses who envisage to carry out their NFT related activities on a global scale.

Tax

The exact tax implications of different stakeholders depend largely on the business model, the nature of the transactions and, in many jurisdictions, the accounting treatment. Absent any new rules or guidance from tax authorities, an analysis of how existing rules may apply would be required on a jurisdictional basis.

The business model surrounding NFTs can take many different forms which will continue to evolve. The below is a simplified illustration of a common model at present.



Potential tax considerations

Creator of digital intangible asset

The creator typically has two income streams: (i) the net sales receipts from the first buyer of the NFT; and (ii) perpetual future income from subsequent resales. These income streams are likely to be subject to income tax in the jurisdiction where the creator is located (by reason of citizenship/ incorporation, residence, domicile, etc.) depending on the relevant domestic law.

On the other hand, whether these income streams (depending on how exactly it is characterised from a tax perspective based on the terms and conditions, and the rights associated with each party) are subject to tax (collected either via withholding at source or through a requirement to remit tax) in another jurisdiction is worth exploring. This area is particularly complex given the following issues:

- The characterisation of the income to the creator (both on minting and secondary sales) is not clear in many jurisdictions and may be subject to different characterisation in different jurisdictions. These characterisation decisions are further affected by:
    - The legal rights and obligations created by the NFT (including the smart contract and the terms of service/use);
    - The application of relevant legal protections related to the underlying property (including, but not limited to, copyright or trademark law); and
    - The characterisation principles used by the relevant jurisdiction.
- Even if the income streams are characterised as rewards, in many jurisdictions, not all types of rewards are subject to withholding tax. Generally, those that attract withholding tax involve some sort of commercial exploitation of intellectual property. Rewards or licence fees paid by end users, for instance, may not be subject to withholding tax. Whether the two income streams above fall within the scope of withholding may require detailed analysis.
- Some jurisdictions take into account the location of use or protection, or the location of title passage, in determining the source of the income generated. In this case, the potential practical difficulty in identifying the location of the buyer may add to the complexity of this analysis.
- Even if these income streams fall within the scope of withholding, it may be unclear who has the withholding obligations. Jurisdictions do not generally impose withholding obligations on individuals (assuming many NFT purchasers are individuals). On the other hand, if payments do not flow through NFT marketplaces, it would be inappropriate for them to be the withholding tax agents.

- The potential interplay between domestic law and tax treaties further adds to the complexity, and depends upon the creator to document to the satisfaction of the relevant tax authority a claim for treaty protection.
- Where the income is subject to tax in both the jurisdiction in which the creator is located and the jurisdiction of “source” from a withholding tax perspective, the claiming of double tax relief, if any, may also be an administratively burdensome process which could involve the production of tax payment receipts, tax resident certificates, etc.

Apart from direct taxes, whether these income streams may be subject to indirect taxes (e.g. VAT, US State and Local Sales and Use Taxes, transactions taxes, or even Digital Services Tax / Equalisation Levy or the like – though these are not regarded as indirect taxes by some) is another challenging issue. Just as tax authorities around the world started to look at and issue guidelines on the indirect tax implications of cryptocurrency transactions in recent years, they may need to add NFTs to their list. Whether transactions in NFTs constitute a taxable supply (in the context of VAT) may vary region by region, which means that market players cannot simply factor in a standard cost for tax in the transaction as a one-size-fits-all approach to address the tax risks. Coupled with the potential difficulty in identifying the location of the buyer, it would also be challenging for both the taxpayers and tax authorities to properly administer these transactions and remit / collect such revenues.

Buyer and secondary buyer

The consideration used for purchasing an NFT is typically another cryptocurrency (e.g. BTC, ETH or any others accepted by the marketplace/ seller). Many jurisdictions regard cryptocurrency as property rather than fiat equivalent, such that any gain realised from the exchange of that cryptocurrency with another asset (i.e. the NFT in this case) when the buyer first purchases the NFT is taxable.

In jurisdictions where capital gains are treated differently from trading gains (e.g. exempt or taxed at a different rate), the characterisation of the NFTs from the perspective of the buyer would be relevant. Further, in jurisdictions that adopt a territorial tax system, the determination of the source of income from the secondary sale can be a challenge for the reasons discussed above.

From an indirect tax perspective, whether an NFT buy-sell transaction would be regarded as only one taxable supply or two taxable supplies would need to be determined under local rules of the relevant jurisdictions.

Marketplace

As the intermediary and value-added service provider for the NFT ecosystem, the jurisdiction(s) in which the marketplace is subject to tax requires careful consideration. There are situations where the platform is set up in a location different from where the human activities take place.

Under the traditional tax rules, taxation generally follows physical presence and substance where value is considered to be created. The allocation of profits (and hence taxing rights) between group companies would involve the determination of an appropriate transfer pricing methodology based on the functions, risk and assets employed by each entity. Moving forward, this approach will be modified as jurisdictions around the world agree on a new international tax framework which, inter alia, reallocates the profits of the largest multinational enterprises to market jurisdictions.

The establishment of the marketplace may also involve substantial investments in capital expenditure and/or creation of intellectual properties, the accounting and tax treatments of which may require further thought.

Separately, with the evolving compliance requirements for marketplaces of all kinds, NFT or not, NFT marketplaces should devote sufficient resources to manage the relevant obligations, for instance Common Reporting Standard if relevant, and the European Union's recent initiative to strengthen existing rules and expand the exchange of information framework in the field of taxation to include crypto assets and e-money — "DAC8". PwC has expressed its views in hopes for regulatory clarity necessary to push the digital asset industry in the right direction.

Similarly, In the U.S, the expanded information reporting requirements of Digital Assets which passed recently as part of the Infrastructure Bill may be viewed as capturing the sale of NFTs. Specific guidance is needed on the information reporting required for NFTs, both as a "digital asset" or whether they also represent a digital "goods" (in assessing the potential application of section 6050I reporting for payments of cryptocurrency for non-cash goods and services).

From an indirect tax perspective, whether (and where) the intermediary services rendered would be considered taxable supplies and hence trigger registration and reporting requirements is worth investigating.

Accounting

Similar to other digital assets, NFTs come in a variety of forms. The accounting considerations vary depending on the rights and obligations created and the commercial substance. The considerations also vary depending on the Holder or Creator. We examine some of these below.

Holder

Depending on the rights and obligations and commercial substance, an NFT could be accounted for by a holder as an Intangible Asset, Financial Asset, Inventory, or an IP Licensing Arrangement. For example, if an NFT in essence gives a holder ownership rights over a piece of art then it would likely be considered an Intangible Asset. The terms and conditions attached to the NFT are critical in assessing what kind of rights are conveyed and accordingly what kind of asset (if any) may be recorded. Another consideration is the impact of any contractual restrictions on reproduction or copying of NFTs. This may impact the measurement of the NFT. Whilst by definition NFTs are non-fungible i.e., one of a kind, the practical ability to recreate may also need to be considered in assessing its true value. In many instances, purchases of the NFT may provide rights to the NFT (i.e., the blockchain record), but do not provide the buyer with intellectual property rights (e.g., rights to restrict the use or reproduction of the artwork).

Issuer

From an issuer’s perspective the most critical consideration is identifying what has been sold. For example, is the issuer giving up control over an asset it previously controlled and recognised on its balance sheet or is it merely giving away certain rights to use certain intellectual property, brand name or other intangible in return for consideration? The fixed or variable nature of the consideration also needs to be considered as it may impact how and when it is recognised. Yet another consideration is whether the entity is required to store/ host the underlying NFT or provide other goods or ongoing services. Again, this determines what is the appropriate accounting guidance to apply. In many instances, guidance on revenue recognition may need to be considered.

Marketplaces

NFT marketplaces derive their revenue from listing fees for listing new assets, transaction fees when assets are exchanged on their platforms or commissions from users using their platforms for minting new NFTs. Some less common revenue streams would be custody fees for holding the NFTs and data fees for monetising the data gathered through their marketplaces and advertising revenue by backing or sponsoring featured projects. This will be treated like transactions in the traditional space in line with the accounting standards. One specific consideration would be to assess and measure the assets in escrow and disclosure requirements of these assets until they are cleared from the exchange.

NFTs are still an emerging space. As always, the devil is in the detail. The absence of clear contractual terms and conditions in many cases may aggravate the complexity and judgement involved in determining the appropriate accounting treatment. Accordingly, entities considering dealing in NFTs whether as holders or issuers would benefit greatly from having clarity around the rights and obligations created. Where possible, it may be advisable to consult lawyers and even blockchain technology experts who can provide a view on technical aspects e.g., practical ability to reproduce or copy, practical use cases, technical ability to derive intended use or benefit, as these specificities can significantly affect financial and accounting aspects.

Conclusion

Overall, the NFT space is growing fast and we continue to see demand in this space. While we continue to see a lot of growth driven by collectible NFTs, the use cases for NFTs have expanded to other areas such as gaming, sports, avatars and even physical art. With the advent and possibility of the new web 3.0, NFTs may see development further accelerate. NFTs might become one of the game changing innovations capable of bringing sustainable and robust economic development by revolutionizing the entire media and creative content industry. However, it is crucial that there is also proper support from a legal and business infrastructure perspective such as clearly defined property rights or clear regulatory guidance.

The guidance on various legal, regulatory, accounting and tax issues related to NFTs are still sparse with few jurisdictions having any guidance on this area. While there may still be some time before the development of NFTs reaches a mature stage, it is vital that NFT participants seek advice on the potential implications for the business activities they plan to enter into. For example, those involved in the design of NFT protocols and DApps may want to be mindful of the implications of having users from particular geographies or the potential returns or token distribution mechanisms on their platforms, whilst these are important business considerations, the legal, regulatory, accounting and tax implications may have far greater consequences that may not be as apparent but will certainly prove challenging as the market matures.

If there are any lessons to be learnt from the crypto industry's development, it is that these issues will always be present and as the companies in the industry grew in size, so has the complexity of these issues and the many legal and regulatory matters have now become challenges for participants who are going through the institutionalization process. Dealing with these matters early could provide long term benefits and these issues need to be proactively managed, to avoid any repercussions in the future.

Glossary

DApp – Decentralised application

Drop – The release of a NFT token project. A drop refers to the exact date, time and the minting price of the NFT

ERC–721 – Differs to ERC-20 where each token is unique and not interchangeable

Floor price – The lowest available asking price on a whole/ subset of a NFT collection

Fungibility – Property of an asset whose individual units are interchangeable

Generative art – Art that is algorithmically generated

Interoperability – Compatibility across different types of blockchains

Minting – The act of spending ETH/ Gas to receive an NFT in return

NFT generative art – NFT in whole or in part has been created with the use of an autonomous system/ artificial intelligence

PFP – Profile picture originally inspired by CryptoPunks

Contacts

Strategy

Henri Arslanian
Partner and Global Crypto Leader
PwC Hong Kong
henri.arslanian@hk.pwc.com

Duncan Fitzgerald
Partner
PwC Hong Kong
duncan.fitzgerald@hk.pwc.com

Matthew Blumenfeld
Director
PwC US
matthew.blumenfeld@pwc.com

Alexandre Tabbakh
Associate Director
PwC Hong Kong
alexandre.tabbakh@hk.pwc.com

Tax

Peter Brewin
Partner
PwC Hong Kong
p.brewin@hk.pwc.com

Gwenda Ho
Partner
PwC Hong Kong
gwenda.kw.ho@hk.pwc.com

Mazhar Wani
Partner
PwC US
mazhar.wani@pwc.com

Rebecca Lee
Partner,
PwC US
rebecca.e.lee@pwc.com

Tommy Hui
Senior Manager
PwC Hong Kong
tommy.hui@hk.pwc.com

Accounting

Anuj Puri
Partner
PwC Hong Kong
anuj.puri@hk.pwc.com

Kevin Jackson
Director
PwC US
kevin.c.jackson@pwc.com

Legal and regulatory

Robert Donovan
Managing Director
PwC US
robert.donovan@pwc.com

Gaven Cheong
Partner
Tiang & Partners*
gaven.cheong@tiangandpartners.com

Joyce Tung
Partner
Tiang & Partners*
joyce.hs.tung@tiangandpartners.com

Leandro Lepori
Senior Manager
PwC Switzerland
leandro.lepori@pwc.ch

* Tiang & Partners is an independent Hong Kong law firm that closely collaborates with the global PwC network.

Additional contributors

Charalambos Sergiou
Partner
PwC Cyprus
charalambos.sergiou@pwc.com

Alexandros Vacanas
Senior Associate
PwC Cyprus
alexandros.vacanas@pwc.com

Nikolas Stratis
Senior Associate
PwC Cyprus
nikolas.stratis@pwc.com

Michaela Kazmaier
Manager
PwC Germany
michaela.kazmaier@pwc.com

Karsten Kroll
Senior Associate
PwC Germany
karsten.k.kroll@pwc.com

Stefan Kohler
Associate
PwC Germany
stefan.kohler@pwc.com

Chiang Ling Li
Partner
Tiang & Partners*
chiang.ling.li@tiangandpartners.com

Oscar Fung
Senior Manager
PwC Hong Kong
oscar.sk.fung@hk.pwc.com

Sally Chen
Solicitor
Tiang & Partners*
sally.chen@tiangandpartners.com

Galen Law-Kun
Senior Associate
PwC Hong Kong
galen.s.law-kun@hk.pwc.com

Kunal Thakur
Senior Associate
PwC Hong Kong
kunal.k.thakur@hk.pwc.com

Jing Bei
Trainee Solicitor
Tiang & Partners*
jing.j.bei@tiangandpartners.com

Ali Madras
Senior Manager
PwC Ireland
ali.madras@pwc.com

Nico Salemans
Associate
PwC Netherlands
nico.salemans@pwc.com

Wei Jie Chan
Senior Manager
PwC Singapore
wei.j.chan@pwc.com

Ye Wen Wong
Senior Associate
PwC Singapore
ye.wen.wong@pwc.com

Anthony Zamore
Director
PwC Trinidad and Tobago
anthony.l.zamore@pwc.com

Kevin Maraj
Director
PwC Trinidad and Tobago
kevin.maraj@pwc.com

Alex Ferraro
Senior Associate
PwC US
alex.b.ferraro@pwc.com

* Tiang & Partners is an independent Hong Kong law firm that closely collaborates with the global PwC network.

www.pwchk.com

This content is for general information purposes only, and should not be used as a substitute for consultation with professional advisors.

©2021 PricewaterhouseCoopers Limited. All rights reserved. PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details