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PLAY-TO-EARN VIDEOGAME BUSINESS MODEL: *A LEGAL ANALYSIS*

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PLAY-TO-EARN'S CREED: ORIGINS

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"GameFi" and "Play-to-Earn" (often abbreviated as "**P2E**") have rapidly become buzzwords in both the blockchain industry and the video game industry, as these notions set a relevant point of intersection between the said industries.

Although these two terms are often used synonymously to describe video games based on the use of blockchain technology, smart contracts, and tokens, to enable users to earn in one or more forms, in our opinion it would be more correct to make the following distinction:

"**GameFi**", as the union of the terms "gaming" and "finance", mirrors "DeFi", which is the union of "decentralized" and "finance", and relates to the combination of gaming with certain peculiarities of (decentralized) finance, such as the possibility of gaining revenues deriving from the ownership of in-game tokenized assets;

"**Play-to-Earn**", as the term suggests, describes a video game model based on game mechanics that allow players to earn tokens upon completion of certain tasks in the game itself.

Thus, The Sandbox, a product that allows users to interact in a world that is in effect a 'sandbox' inspired by Minecraft, could be associated with the term GameFi because, as reported in the project's whitepaper, it is based on a utility & governance token named "SAND", which "*allows for staking, which allows for passive revenues on LANDS*", *i.e.* the tokenized virtual lands that users can buy and own.[1] But The Sandbox is not a Play-to-Earn game, since it does not have game mechanics that allow you to earn money, although its editor named "Game Maker" enables users to craft their own game experiences, be game designers, and implement game mechanics among those supported by the editor, including P2E mechanics.

By contrast, Axie Infinity, the video game that has become the benchmark paradigm of the P2E model, allows players to earn tokens directly upon completion of certain tasks in the game, such as winning battles. It is worth noting that Axie Infinity is considered by most a "GameFi" product even if, technically speaking, the Whitepaper of the project never uses this term and provides for "rewards" arising from the staking of the Axie Infinity Shard, the utility & governance token of the project, without ever promising "passive revenues" or "annual percentage yield" (APY).

That being said, most of the P2E games that we have examined up to the date of publication of this work include at least some staking rewards deriving from the ownership of the utility & governance token of the product which raises the question of whether or not this token qualifies as a security token under applicable law. For this reason, this work will focus on products that are P2E video games and at the same time include at least rewards from staking, thus embracing the GameFi concept to a certain extent.

The P2E games can be developed in a way that prevents fraud or corruption due to blockchain technology such as item duplication, gold hacks, and other exploits that are common in traditional games. A crucial part of an in-game item's value is its rareness. With blockchain, there is no possibility to copy and paste them. Unique items cannot be replicated. This helps in the creation of real-world value for in-game items.

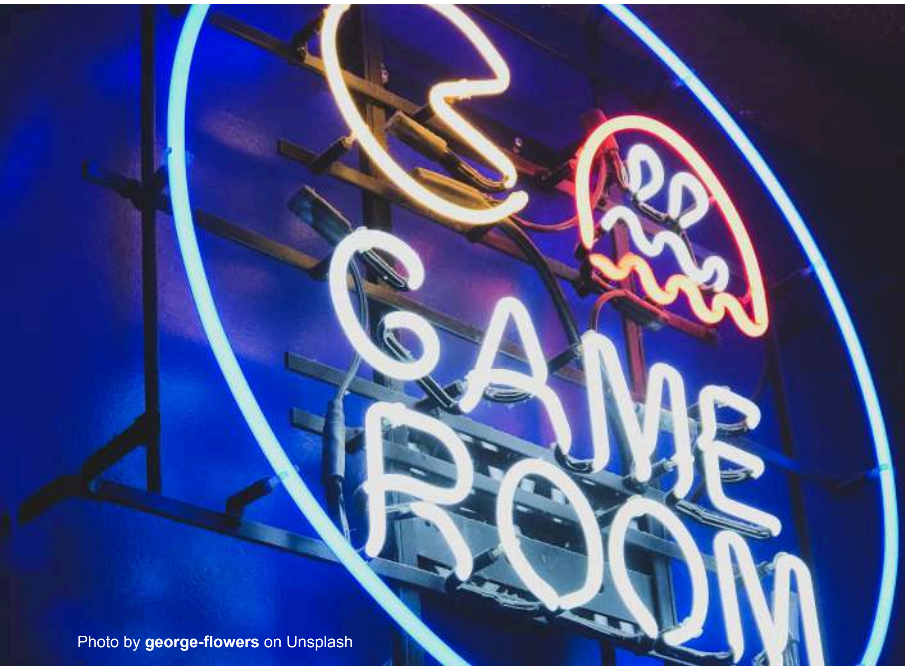
The key component of the P2E model is the ownership by players over in-game assets which allows them to increase their value by actively playing the game. Players are creating value for both players and the developers by contributing to the in-game economy. As a result, they receive in-game assets. These digital assets might range from attractive characters with varying scarcity to a certain type of cryptocurrency. Briefly, the P2E model is creating real-world value while playing the game has the potential to upend traditional business models in the game industry by rewarding players for putting time and effort into their game.

In a nutshell, with the P2E, all actors have benefits: by participating in the in-game economy, players are creating value for other players and the developers. As a return, they get in-game assets as a reward.

In the following paragraphs, we will try to map out the key elements that at the current stage characterise such videogames, and the legal risks arising from them, with the clarification that this work is not a legal opinion, it does not claim to give advice to readers, but rather to group together some patterns that in our experience appear to be recurrent and to identify the underlying legal issues.

[1] It is worth noting that the Whitepaper of The Sandbox never uses the word "GameFi".

INSIGHT INTO CORE THEMES



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a) *The Non-Fungible Scrolls*

As mentioned in the introduction, all P2E games are based on the use of blockchain, smart contracts, and tokens, to enable the implementation of a game tokenomics and automate the contractual relationships taking place among users.

A key element of these games is in particular the buying, selling and using of in-game assets (e.g. characters, creatures, buildings, land) associated on the blockchain layer with non-fungible tokens (NFTs).

For readers unfamiliar with this term, an NFT is a token that is unique or non-interchangeable. The non-fungible property of NFTs prescribes that each individual token has independent value of others and not as a class. In contrast, fungible tokens are the digital representation of assets and/or rights having the same characteristics, thus they are identical and interchangeable with each other, also in terms of exchange value.

If not the first, then certainly the best known gaming application to make use of NFTs was Crypto Kitties, where each in-game kitten was a collector's item made unique by being paired with an NFT. Axie Infinity, which as already mentioned has become a kind of reference template for P2E games, has taken this design choice of combining NFTs, in-game creatures, and collecting, and built a game based on buying, trading, feeding and collecting creatures named “Axies” that the player uses to battle in-game, and where each Axie is a unique piece represented by an NFT.

Therefore, creating, buying, selling, and re-selling in-game assets as NFTs has been a key concept of the P2E model.

Usually, NFTs represent the assets needed to start playing. Generally, users purchase NFTs by using a cryptocurrency, such as Ether, however the price may also be listed in dollars. The company making the video game then also sells these NFTs without which the player would not have the avatar or the other means to play the game. The value players base in a P2E game lies in such NFTs (in addition to other types of tokens examined in the next section). Blockchain provides true ownership and complete transparency. Accordingly, players can actually exchange their NFTs on secondary markets. To facilitate the resale of NFTs, usually the company providing the video game also provides a marketplace for trading the NFTs. As players "level up"[2] the assets linked to the NFTs, they could increase the value of such NFTs and then sell them for better prices at the NFT marketplace.

NFT marketplace is based on the idea that just digital content can be scarce like physical content that is limited in quantity and hence meaningfully owned and traded.

In practice, NFTs can be visible in many shapes inside virtual worlds: characters, in-game skin; items like weapons; real estate properties; decorative personalization features such as digital clothing; artwork; or even an animal you can breed. Players earn the most valuable items by playing the game very well and can sell them for real-world money on their terms.

The most recurring legal issues when one offers NFTs in the context of P2E games are in our experience the following:

- the management of intellectual property rights (e.g., the video game company providing the game and selling the NFTs intends to grant the buyer the exclusive right to use the associated in-game asset, but will likely also want to preserve the intellectual property rights to the code and art design of that asset, also in order to prevent its plagiarism by third parties and/or in other games);
- the terms of sale of the NFTs applied by the video game company and the concrete characteristics of these NFTs, because if the terms promise passive earnings or APY and/or the in-game assets concretely allow to make level ups and consequent increases in value of the underlying NFT in a totally passive way, under the applicable law the terms of sale could entail an investment contract and the NFTs could qualify as security tokens, *i.e.* tokenized financial products;
- in case the video game company also provides a marketplace for

[2] "Level up" is a game mechanic that provides that upon completion of certain tasks and/or the gaining of a certain number of experience points, the in-game asset used, be it a humanoid character, creature, vehicle, or other assets, will level up and due to the effect, its parameters will be enhanced, allowing the player to play more efficiently.

the resale of NFTs, it is necessary to provide terms of use of the marketplace and general terms and conditions that on the one hand protect the provider, and on the other hand ensure users an exchange environment that complies with, among others, applicable consumer and privacy laws.

b) World of Tokens

In the P2E model, there is always at least one fungible token related to non-in-game elements, a sort of main token of the project, whose advertised functions are usually payment, staking, and governance. The legal qualification of such a token depends on the applicable law (which are determined by considering both the jurisdiction of the offeror and the jurisdiction of the offerees). The token categorisation in turn may vary according to national and supranational institutions according to their functions.

Generally, a "**payment token**" is a token intended to be used as a payment instrument accepted by a community and not merely on one single software application; a "**utility token**" is a token required to access a platform or to use the services offered by a platform and a "**security token**" is a token that is equivalent to financial or investment instruments in that they represent equity or other financial assets and/or rights.

In the following, we provide a brief general overview of the legal issues that may arise from the project's primary token functions as a result of the applicable token categorizations:

- **Staking or farming:** staking allows participants to make an extra income from their tokens. It allows token holders to lock their assets in DeFi platforms to get benefits as rewards. All without the need to sell their tokens. By locking up tokens, participants can receive rewards based, depending on the criteria applied by the video game company, on the annual percentage yield (APY), the number of tokens staked, or prize-giving policies. For the purpose of the legal qualification of the token, the presence or absence of an active performance by the token holder could make the difference: in principle, giving expectations of "profits" or "passive income", without any active performance required to the buyer of the token, may increase the risk that the staking provisions of the token sales contract might render such a contract an investment contract and the token being sold a security token. In contrast, a combination of passive participation in the ecosystem with an active performance, could influence the token classification;
- **Governance:** rights granted to token holders to help affect the future of a protocol. Governance token holders have the ability to

influence project choices such as submitting and voting on new feature requests, as well as changing the governance structure itself. If the scope of the governance rights granted by the token ends up including major business decisions, in a manner similar to what would happen with shareholder rights in the shareholders' meeting, the token may legally qualify as a security token. In fact, by way of example, an equity token generally may represent ownership of an underlying share or otherwise grant a claim to a company's equity, voting rights, or the right to dividends, whereas a debt security token may represent ownership of an underlying bond or otherwise, grant a claim to predefined coupon or principal payments. In contrast, if the voting rights in an organisation provide blockchained methods for players or other stakeholders to provide feedback and contribution without any major corporate decision being involved, the token may not be considered equivalent to a security;

- **Payment:** for the players, in order to purchase the NFTs that are required to start playing, or useful to progress faster through the game and earn more as a result. If the token is not intended as a means of payment to be used outside the video game, as an alternative to other payment cryptocurrencies such as Bitcoin or Ether, nor is it meant to be used as an alternative to fiat currencies, the qualification as payment token or cryptocurrency in the strict sense could be avoided.

In addition to the main token of a given project in the P2E model, there is always an in-game currency, which serves to run the economy of the game world and thus the gameplay itself, usually also represented by a fungible token. *i.e.* a fictional currency that exists as a means of payment in the fictional game world and can be used by our avatar to make purchases in that world (nevertheless, there is the possibility to exchange such currency on the secondary market as well). Since this currency, more often than not with the main token, is offered as a reward for the successful completion of certain activities in the game (it can be obtained by fulfilling in-game activities such as signing in, winning matches, etc.) one should always question, first and foremost, whether under the laws of the jurisdictions involved in providing the game, the in-game currency could be legally equipared to real money. Then, in light of the concrete game mechanics implemented, one should in addition question whether the issuance of these token rewards might trigger the application of any special laws regarding gambling or prize money.

c) *P2E Fantasy*

P2E games are usually accessible through web apps directly made available by the video game company or are published as apps on online app marketplaces managed by third parties. Some marketplaces such as Steam effectively prohibit all games implementing NFTs and blockchain technology. The reason for Steam is that, according to Valve Corporation, the company that owns and manages Steam, the assets made available through P2E games have value and, as per Steam policy, they do not allow items that can have real-world value on their marketplace. On the other hand, Epic Games Store kindly welcomes games that use blockchain technology with a few caveats (if they operate their own payments; comply with relevant laws and regulations and signpost how blockchain is used). Also Ubisoft, which besides producing and developing video games also provides for an online store of videogames, at the end of 2021 announced that it wants to be a key player in blockchain gaming sector, and sees lots of potential for P2E mechanics. A few days later, Square Enix and Electronic Arts announced they have P2E projects in development as well.

The following legal considerations arise from the above:

- regardless of whether the video game company offers its P2E games on a third-party marketplace or through its own channel, it will have to equip the products with EULAs, terms and conditions of the services attached to the game, and manage aspects such as user privacy in compliance with the law;
- if the product is offered through a third party marketplace, first of all make sure that the product offered does not fall within the categories banned by the marketplace and then make sure that the product complies with the policy of the marketplace and, in particular, that the in-game payment system does not violate the rules of the marketplace (for more information we recommend you to read about see the very famous lawsuit Epic Inc. vs Apple Inc., relating to in-app purchase system implemented by Epic Inc. in Fortnite);
- given the aforementioned interest in P2E games shown by major publishers, the indie video game companies that gave birth to the P2E sector could sooner or later end up negotiating publishing contracts with these big corporations without adequate awareness about the rights and obligations at stake in the deal.

INSIGHT INTO SECONDARY THEMES

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The adoption of a P2E model gives rise to some other legal matters, including but not limited: Regulatory Risks, AML (anti-money laundering) and KYC (know your customer), consumer protection risks such as gambling and lootbox, and copyright issues.

- Some in-game currencies, NFTs, and fungible tokens may violate securities regulations if they are not properly constructed. The word "investment contracts," as defined by the Howey Test, is one of the fundamental components of the securities laws on which the SEC has focused. W.J. Howey Co. v. SEC, 328 U.S. 293, 301 (1946). Under this test a transaction is an investment contract, and thus a security, if involves: 1) an investment of money; 2) in a common enterprise; 3) there is a reasonable expectation of return from the investment; and 4) the profits are to be earned from the entrepreneurial or managerial efforts of others. If users pay money for digital products with the expectation of profit, and that profit is arguably earned through the work of managers, the token might be deemed a security (e.g., the token platform operator).
- Usually, gaming operators, including P2E models, are not required to comply with AML and KYC regulations but it is suggested to check local laws and interpretations of local regulators.
- Some P2E games and collectibles may violate gambling regulations if they are not properly structured. Many P2E games and digital collectibles platforms offer a marketplace where players may buy, sell, and exchange objects. The presence of a marketplace does not imply that there is

gambling, but when combined with other factors, it may lead to such a conclusion.

- Using loot boxes and other reward programs are a new trend for the developers. Loot boxes is a digital container which includes an unknown virtual item(s). Before purchasing, the user has no idea what is in the treasure box. The box could contain an exceedingly rare item or stuff that the user already has. Can be purchased with real money or in-game currency, or may be earned as a reward for completing in-game tasks. As a result, if not properly constructed and administered, it could be considered unlawful gambling[3] or a deceptive and unfair trading activity. Awards that can be exchanged for money or cryptocurrency with other players or off-platform may raise concerns about gambling. Gambling problems are amplified in games aimed at children and teenagers.
- Risk of losing the NFTs. For example by sending an NFT to a wallet that does not support that NFT type or by giving a malicious smart-contract access to the wallet. It is suggested to make sure to understand the types of tokens supported by the wallet and to send them to the correct address, and to interact with smart contracts from reputable projects.

GUILDS: A PHENOMENON RELATED TO PLAY-TO-EARN

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While P2E games are free to download or access via cloud, the majority of them require the purchase of an NFT in order to play. For instance, Axie Infinity requires players to purchase at least 3 characters before starting to play and earn. At the peak of the market between late 2021 and early 2022, the cost for an Axie character was around $355 on average, according to data reported by Dapp Radar. Sorare also requires players first to spend money in player cards, before they are able to earn cards in the weekly competitions. Games like Chainz Arena and League of Kingdoms are completely free-to-play, but gameplay mechanics and limitations sort of force gamers to spend some money into the game. As a result, even while gamers gain money, they must also pay.

Due to the rising value of NFTs, many prospective players are unable to purchase them, that is why the guilds are born. With guilds allowing anyone to participate in games without having to pay any money. The gaming guild specializes in P2E games, investing in certain games, purchasing NFTs required to play and enabling hundreds or even thousands of players to use these gaming assets to play and make money. Profit is shared between players, managers, and the gaming guild treasury, accordingly, enabling them to invest more.

The majority of guilds purchase NFTs and rent them out to players to generate a fixed income on a revenue-sharing model. This is a win-win situation for these players because they can use the NFTs in-game to generate money. Some of them offer rent-to-earn programs and stake-to-earn programs. For instance, Yield Guild Games (YGG), a company that consists of a guild of players, many of whom are Axie Infinite players. The company provides scholarships for players by paying their startup fees so they can start to play and earn money.

In light of this, the first legal matters that people interested in forming a guild should consider are the following:

- How do I make my guild a legal entity?
- How do I give my guild the legal ability to sign contracts with players?
- Given how many underage players there are, how do I avoid child labour exploitation and prevent lawsuits in this area?

Apparently, many guilds make use or advertise the future use of decentralized autonomous organizations (DAOs)[4] developed to run the guild's operations. Through the DAO and the tokens granting rights relating to the DAO, guild members can stake tokens in the guild's treasure, make proposals and vote on the organization's direction, including how investments are made or how revenue is shared. In other words, the DAO is the governing and funding structure that helps to facilitate the projects. The Guild can send in a proposal to a DAO. The DAOs can be used for different purposes for Guilds and can be set up for specific projects or for the governance and funding of a specific Guild.

The adoption of DAOs and related tokens brings to light further legal matters that need for careful examinations, including the following:

- Can the DAO of the guild be a legal entity even if there is no incorporated company?
- If there is a company behind the DAO, is the DAO a transposition of the corporate organization and shareholders' rights/obligations on blockchain, or is it automation of a single business unit (in which case the guild is only a part of a larger organization)?
- What is the legal nature of the governance and staking token in use at the guild's DAO?

[3] In this regard see, among the others, the loot boxes class action lawsuits, L.A., et al. v. Take Two Interactive Software Inc., Case No. 1:22-cv-1019, in the U.S. District Court, Northern District of Illinois, Western Division; Kevin Ramirez, et al. v. Electronic Arts Inc., Case No. 5:20-cv-05672-SVK, in the U.S. District Court for the Northern District Of California, San Jose Division; Mark Sutherland, et al. v. Electronic Arts Inc., et al., Case No. S-209803, in the Supreme Court of British Columbia, Canada; as well the loot box administrative lawsuit Electronic Arts Incorporated, Electronic Arts Swiss Société à responsabilité limitée, en de raad van bestuur van de Kansspelautoriteit, Rechtbank Den Haag, ECLI:NL:RBDHA:2020:10428.

[4] A DAO is a developer-created organization based on blockchain and smart contracts to automate decisions and facilitate cryptocurrency transactions.

THE LAST OF REMARKS

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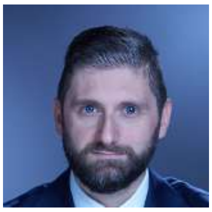
The promise of rapid earnings by playing the P2E games on a regular basis, along with the promises of return for token buyers advertised by many whitepapers that more or less explicitly mention GameFi, are driving the P2E scene to rapid growth, to the enthusiasm of many and the scepticism of just as many. Certainly, we will see rapid advancements in the gaming industry thanks to more investors backing these projects, as evidenced by the year 2021, which saw the P2E topic move from niches of crypto enthusiasts to occupy important spaces in major technology and video game newspapers, and finally also saw big corporations in the video game industry make important announcements on the subject.

With this paper, we have tried to map the current scene and what are the legal matters underlying each component of this multi-layered subject matter. We cannot predict how the P2E scene and the notion of GameFi will change in the coming months and years and, consequently, what legal issues will be added to the existing ones, but anyone wishing to operate in this sector will have to be very careful now that the scene is under the lenses of the mainstream audience and news, and therefore, presumably, under the lenses of the regulatory authorities too.

P2E is such an interesting sector from an innovation point of view, because it combines the currently highest turnover entertainment industry, *i.e.* the video game industry, with features from the most debated new technology-based industry, *i.e.* the blockchain industry. But this combination also brings with it all the legal challenges of both worlds, with the consequence that P2E stakeholders cannot ignore issues ranging from consumer law, security law, intellectual property, data protection, regulatory law, and corporate law.

The Authors



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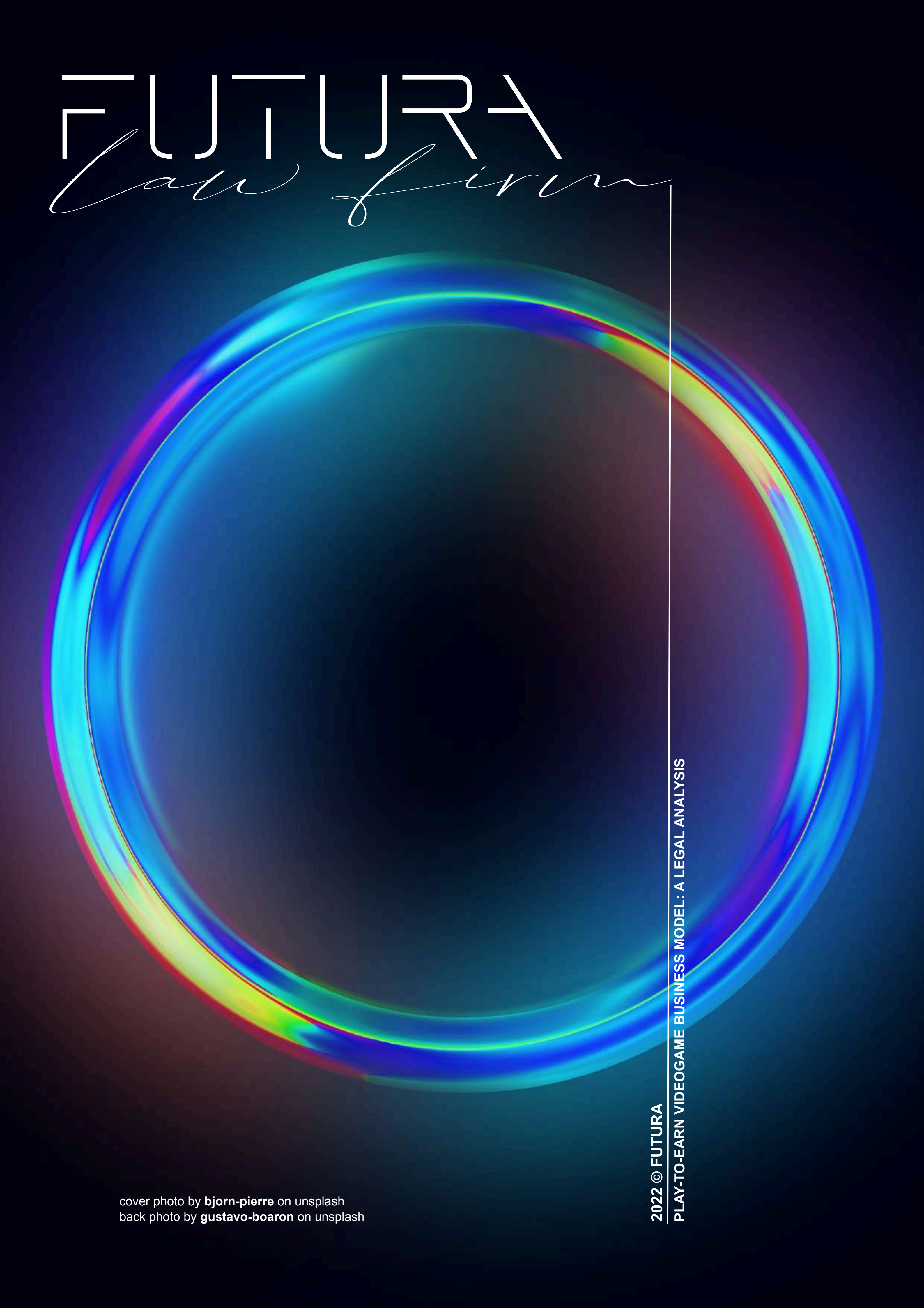

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