



Legal Issues with Real Estate in the Metaverse

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Abstract. The word ‘meta’ gained prominence when the social media platform Facebook renamed itself ‘Meta Platforms, Inc.’ Originating from ancient Greek, the word means ‘beyond’ or to ‘transcend’ and was popularised in the 1990s by online gaming industry in games like ‘Dungeons and Dragons’. The term ‘metaverse’ itself was coined by author Neil Stephenson in his book ‘Snow Crash’. Today once again the online gaming industry is pushing the frontiers with blockchain, tokens and AI to create a new dimension, the ‘phygital’ world that merges the augmented, virtual and mixed reality to create a new immersive experience. Users are being given the opportunity to create and market their virtual goods and services, and digital assets including virtual real estate. This article explores the legal issues focussing on ownership rights arising from investing in real estate in the metaverse through a case study of ‘Second Life’ created by Linden Lab, the pioneers in real estate in the metaverse. The methodology adopted is a doctrinal study, based on currently available literature on the subject.

Keywords: Legal issues · Real Estate · Metaverse · Blockchain and NFTs

1 Introduction

The word ‘*Meta*’ originates from ancient Greek, meaning ‘after’, ‘beyond’ or ‘transcend’. It is generally used as a prefix e.g. ‘metabolic’, or ‘metamorphosis’ where it means ‘change’ or ‘altered’ [1]. The word gained popularity in the online gaming industry in the late 1990s where it referred to using knowledge about the game itself to win and gain mastery as in games such as ‘Dungeons & Dragons’. It became synonymous with cheating. The word ‘metaverse’ was created by Neil Stephenson in his 1992 novel ‘Snow Crash’ which envisions two parallel worlds, the real physical world and the virtual metaverse dominated by corporations that have commercialised every aspect of human life. However, in 2021 the word gained new significance when Facebook the popular social media platform rebranded itself to Meta Platforms, Inc (‘Meta’) and the word graduated to a standalone ‘noun’. Meta’s purpose is to introduce its users to the ‘metaverse’, a new world of augmented, virtual and mixed reality technologies, providing an interactive, immersive online experience already in vogue in games such as ‘Minecraft’, ‘Roblox’ and ‘Second Life’ [2].

The metaverse and artificial intelligence (AI) are revolutionising our lives and activities. This new dimension that allows us to merge our physical and digital worlds has spawned the converged ‘phygital’ world where we are allowed to recreate ourselves as

‘avatars’ i.e. our digital persona or alter-ego. It has also given rise to the ‘token’ economy driven by blockchain and AI. These tokens such as Financially Integrated Decentralized Organizations (FIDO) and Non-Fungible Tokens (NFT) give people the opportunity to own a bit of property (in pixels) rights in the internet [3]. This article explores the legal issues arising from investing in real estate in the metaverse. Since property rights in the metaverse was pioneered by Linden Lab with its ‘Second Life’ this paper will focus its study on Second Life and the engendered legal issues. The methodology adopted is a doctrinal study, based on currently available literature on the subject.

2 Blockchains and Digital Currencies

Blockchains are distributed digital ledgers that are used to record transactions in ‘blocks’ of computer code that are time stamped and linked together, demonstrating the provenance of a digital asset. As decentralised networks they are permanent, provide transaction histories for recorded digital assets and security against tampering [4]. Tokens are transferrable digital assets in the blockchain ecosystem that are used for specific purposes and properties. Bitcoin or other cryptocurrencies are fungible tokens that are identical and exchangeable for equal value. Conversely, an NFT, contains a unique identification code and metadata that distinguishes one NFT on the blockchain from another, and cannot be replicated [5]. So, unlike a bitcoin it cannot be substituted in a transaction with another NFT. It’s clearly identifiable and distinguishable, one of a kind, characteristic renders it non-fungible. Additionally, NFTs are composed of software code in the form of ‘smart contracts’. Smart contracts are self- executing open-sourced blockchain protocols that control the transfer of digital currencies or assets between parties when certain predetermined terms and conditions are met. Once the code for the smart contract is written, it is then minted into a token on a blockchain, such as Ethereum, serving as a non-replicable digital certificate of ownership of a digital creative work [5]. The code controls the execution, and transactions are trackable and irreversible providing transparency, trust, security and cost efficiency for disparate, anonymous transacting parties without a central authority, legal system, or external enforcement mechanism [6]. However, as NFTs are still nascent, the attendant legal issues are still evolving and uncertain.

3 The Origins of Real Estate in the Metaverse

In 2003, Linden Lab launched its Massively Multiplayer Online (MMO) game ‘Second Life’, and chartered new territory with its offer of ‘property ownership’ similar to property rights in the real world, to its Second Life residents. This created marketable value for the various things that people had invested time to create or build, what they owned or had purchased. Users were able to generate income in the Second Life market, through ‘Linden dollars’ and the ‘LindenX’ currency exchange where Second Life residents could buy and sell their Linden currency for US dollars [7]. Investors could purchase Metaverse land and use it for any purpose. They could keep, rent or sell [8], and monetise their metaverse digital real estate in various ways such as [9]:

- (i) charging money for company promotional advertisements and banners;
- (ii) promoting your social media e.g. Instagram and Tiktok accounts, or that of an influencer;
- (iii) keep your virtual property and wait to resell when its value appreciates in the Metaverse.
- (iv) Promote your real-world business by purchasing Metaverse real estate for a digital impact as users of the metaverse increase.
- (v) Rent your digital property to virtual real estate companies or avatars. Artistes such as Justin Bieber, Ariana Grande and Travis Scot have held concerts on the Metaverse.

The metaverse and Web3.0 or simply Web 3, technologies have brought about a paradigm shift in internet commerce and the digital economy. Whilst Web 2.0 represents corporate management of public content with revenue driven by advertising, Web3 is expected to be more consumer participatory allowing users to monetise digital property by becoming active creators [5]. Web3 focuses on cryptocurrencies, NFTs, decentralized finance (“DeFi”) and DAOs [8]. Jon M Garon (2022), [5] foresees an international multiverse that will be partially interoperable, with an array of metaverses, each subject to different independent state authorities, corporate oversight, and participatory governance. This portends the creation of new markets accompanied by various legal, business, and regulatory issues.

4 Legal Issues and Real Estate in the Metaverse

Property ownership rights in the metaverse gives rise to a plethora of legal issues that have both social and economic impact such as:

- (i) What exactly do you own?
- (ii) How are ownership rights established?
- (iii) How can ownership rights be transferred for value?
- (iv) Do parties need capacity to contract since minors will often be involved?
- (v) Do contracting parties have to reveal their real identities since most users remain anonymous?
- (vi) How are any contractual disputes to be determined?

Similarly, there are also ancillary issues such as fraudulent scams, intellectual property and ownership concerns with respect to in-game items, in-game regulation, and questions of ownership of the video game itself. Since jurisdictional laws are inapplicable how and what sort of remedies could be enforced? [10].

5 Second Life

In Second Life, Linden Lab had promoted the ability for users to own property as one of the key benefits. On 14 November 2003, Linden announced a revision in its Terms of

Service ('TOS') for Second Life. It now allowed subscribers to retain full intellectual property protection for the digital content they create in Second Life including characters, clothing, scripts, textures, objects and designs. This led to the view that only intellectual property rights were protected not proprietorship in land. Consequently, in December 2003, Linden began allowing players to 'own' land in Second Life. Philip Rosedale, the then CEO of Second Life was quoted in a Guardian interview as saying:

"We like to think of Second Life as ostensibly as real as a developing nation...The fundamental basis of a successful developing nation is property ownership...We started selling land free and clear, and we sold the title, and we made it extremely clear that we were not the owner of the virtual property". [11]

To get started in Second Life, one can register for a basic package free of charge at its homepage and then proceed to install its Second Life client software. After logging in one has to agree to the Second Life End User Terms and Conditions, enter 'Welcome Island' where you choose or create your own custom made Avatar, read the Guidebook and start exploring [12]. One can live in Second Life, become a 'resident', interacting with other residents without participating in the economy. The virtual currency in Second Life is 'Linden Dollars (or L\$), which can be purchased with real world US dollars. The exchange rate varies. It is also possible to earn Linden Dollars by creating user generated content and marketing goods and services, holding events etc. in Second Life. A Premium account comes with a monthly subscription which then entitles the user to receive a small weekly stipend from Linden [13]. Only Premium account residents can own land in Second Life. Land may be purchased either directly from residents who are selling, at auctions or private regions that are offered by Second Life from time to time [14]. Landowners also pay a land use fee, similar to land taxes in the real world. Land acquisition gives one the right of control over the land. According to its website. Landowners can prevent others from visiting or building there, change the shape of the land, subdivide and sell it, etc. [15]. Some residents have made significant profits through investing and trading in Second Life, the most famous case being that of 'Anshe Chung' (created by Ailin Graef). In 2006 Anshe Chung became the first millionaire Avatar, through earnings entirely from Second Life, mainly from virtual real estate [16].

5.1 Land Ownership in Second Life

The legal concept of 'ownership of land' in Second Life, is interesting. According to its Terms of Service (TOS) under 'Tilia', by becoming a Premium account holder, you obtain an End User Licence Agreement (EULA) and terms of use to access the platform and use its services, which is offered by a third party provider [17]. The service may be discontinued at the sole discretion of Tilia. So, what was earlier marketed by Philip Rosedale has since changed. Land ownership rights came into question in *Bragg v. Linden Research, Inc.* [18]. (*Bragg*).in the United States.' The plaintiff Bragg claimed that in 2005, he had duly paid and joined.

Second life and bought virtual land. By April 2006, he had bought several parcels of land in Second Life. The dispute arose in April 2006, when Bragg acquired a parcel of virtual land named 'Taessot' for L\$300. Linden sent Bragg an email notice that

‘Taessot’ had been improperly acquired through an ‘exploit’. Linden claimed that Bragg had violated their terms of service by a URL hacking of the Second Life virtual land auction website and gained access to otherwise-unavailable auctions. This was the result of a loophole left open by Linden’s computer programmers. This enabled Bragg to purchase virtual land within Second Life valued at L\$1,000 for approximately L\$300. Linden proceeded to suspend Bragg’s account for investigations, and later closed it completely. Bragg alleged that by closing his account, Linden had dissolved his virtual assets and consequently sued Linden for recovery. Linden argued that there was no personal jurisdiction and that the dispute ought to be arbitrated rather than litigated as per the Terms of Service. In 2007 Judge Eduardo Robreno of the Pennsylvania District Court, rejected both these arguments and additionally found the TOS to be unconscionable [19]. However, the dispute was later privately settled in October 2007 [5].

Nevertheless, a real cause for concern in the *Bragg* case which went unanswered by the Court due to the private settlement, was proprietary rights to virtual land. Linden contrary to its public statements, denied that:

Second Life allows for the actual ‘conveyance of title’ in ‘virtual land,’ as ‘virtual land’ is not property to which one may take ‘title,’ but instead a license of access to Linden’s proprietary servers, storage space, bandwidth, memory allocation and computational resources of the server, which enables the experience of ‘land’ and the things that one can do with ‘land’ on the Second Life platform [20].

Additionally, Clause 2.6 of its TOS (which led to the unconscionability finding) proclaimed that:

Linden Lab has the right at any time for any reason or no reason to suspend or terminate your Account, terminate this Agreement, and/or refuse any and all current or future use of the Service without notice or liability to you. In the event that Linden Lab suspends or terminates your Account or this Agreement, you understand and agree that you shall receive no refund or exchange for any unused time on a subscription, any license or subscription fees, any content or data associated with your Account, or for anything else.

After the *Bragg* case, Second Life revised its TOS to declare that participants would receive a “limited license” to virtual property. Participants were required to agree to the revised terms in order to continue using the service and having access to their virtual goods. However, despite the revision of terms, Linden continued to represent that users could ‘own’ virtual land. This led to a second class action in *Evans et al. v. Linden Research Inc.* [21].

In April 2010, 57,000 plaintiffs who had purchased virtual items and or land in Second Life sued Linden, alleging that Linden had unilaterally terminated or suspended their accounts without compensating them. The Plaintiffs comprised two classes, a Main Class and a Sub-Class A. The Main class comprised all former and current purchasers, creators etc. in Second Life who claimed that:

‘the Defendants . . . Lured class members into participating in Second Life by making false promises that the participants would actually ‘own’ their virtual land and items, and then later reneged on those promises.’

Subclass A claimed for conversion, intentional interference with contractual relations and prospective economic advantage, and unjust enrichment.

The parties agreed to a mediation and reached a settlement in May 2013.

5.1.1 Findings

It can be discerned that the heart of the virtual land ownership issue is the EULA, that participants are required to sign before they are allowed to participate. Whilst the EULA provided users with detailed information about Second Life and terms and conditions it also clearly stipulated that Linden had the sole right to discipline users, suspend or terminate their agreement, accounts and avatars, confiscate and liquidate their assets in the event of any breach of the EULA and any other TOS agreements. This was the crux of the legal problem. Apart from the issue of contractual unconscionability, which is beyond the scope of this paper, the EULA only gives the user a licence-lease hybrid right. The TOS declares that “Virtual Land” is Virtual Space in Second Life that we license” [22]. Contrary to the marketing puffery, the EULA did not grant its users proprietary rights in the virtual land. In both *Bragg* and *Evans*, the Court’s decision was based on consumer protection, misrepresentation and adhesion contracts with unconscionable terms. In both cases, as the Court’s inclination became clear, Linden found it prudent to mediate a settlement.

5.2 Capacity to Contract and Other Legal Issues

Clause 2 of the TOS stipulates that users must be 18 years and above to participate in Second Life. Additionally, users are required to submit account verification as required by Linden, and provide only true and accurate identification documentation to Linden Lab or its third-party service providers for age verification.

According to Clause 3 of the TOS, the medium of exchange will be Linden Dollars (L\$) in the form of NFT tokens. Each token constitutes a limited licence that can be transferred and traded within the Second Life community in strict compliance with the TOS. Significantly, Linden Lab imposes a fixed time period during which the license rights provided by the Linden Dollar may be exercised. The L\$ are not currency and cannot be redeemable within Linden Lab or outside. However, the validity period of this licence has not been specified in the TOS.

The TOS also contains links to various other agreements and policies all of which are stipulated to form part of the TOS agreement [23]. A potential resident therefore must exercise caution and diligently read all these linked agreements before agreeing to the TOS.

6 Comparison with Other Platforms

Sandbox which was founded in 2012, is another community based gaming platform that allows its users to create and market their goods and services using decentralised

Ethereum blockchain through NFTs. Participants can own and transact their digital assets including virtual land. The land value is based on its scarcity, location and activities, similar to the real world. Unlike Second Life, land prices on the primary market in Sandbox are fixed at \$1,000 Sand, which can be traded in the major coin exchanges such as Binance, Coinbase or Uniswap [5]. Further the ‘land’ can be acquired directly through Sandbox or from the secondary market such as Open Sea or Rarible, using the Ethereum e-wallet [24]. This therefore offers more flexibility than Second Life whilst also making it more vulnerable to scams and hacks [5].

Nevertheless, the actual concept of land ownership in the Sandbox is once again a complex issue similar to Second Life. The real issue lies in appreciating the difference between owning an NFT on the blockchain and buying a digital asset from a platform server. The assets created on the platform belong to the private metaverse platforms and are subject to their unilateral control [25].

Next Earth, launched in 2021, is another similar platform that advertises itself as “The first true land ownership platform in the Metaverse” [26].

Each Next Earth Land is represented as a 10x10 m NFT-based tile of a square on Earth. As in the previous cases, a buyer could use his land for a variety of purposes. Its aim is to evolve into a fully operational DAO. It is traded through the Binance NFT e-wallet. Although each platform type may offer exciting and uniquely differentiating features and experiences for its users, ultimately it is not possible to ‘own’ land on the metaverse as explained above.

7 Conclusion and Recommendations

The metaverse has today become more than just a platform for virtual reality games. Creative companies are looking to monetise investments in the metaverse through NFTs. Linden Lab through its Second Life pioneered a virtual market place for trading in goods and services that expanded to include bits of digital real estate. However, the problem with Linden Lab’s Second Life concept was that it initially set out to offer something unique i.e. proprietorship to real estate in the metaverse. Subsequently it became clear that actual freehold title to real estate in the metaverse was not possible since it had to be acquired through the mechanism of a licence. In reality the licence is a hybrid licence – lease model as unlike a pure licence, it permits the user in Second Life to acquire, hold, use and trade for a fixed contractual period. Therefore, lessons learned by Second Life from *Bates* and *Evans* is that its advertising and marketing must be in line with its EULA and TOS. The NFT tokens provided for acquiring any asset including virtual real estate in Second Life are only a digital title granting a limited modified licence – lease. These are freely tradeable through its NFTs only within the Second Life community. Any Linden dollars earned are only exchangeable at the LindeX exchange for real currency at rates of exchange fixed by the LindeX exchange.

Looking at other platforms such as Sandbox, Next Earth etc. it can be concluded that it is legally possible to engage in investing in real estate in the metaverse through NFTs and the DeFi ecosystem. However, a careful study of each platform’s EULA and TOS is required to understand how it operates and the specific rights of the user. The concept of ownership through the NFT is limited to a hybrid licence-lease model.

Currently there is no standard regulation of NFTs or contracts related to real estate in the metaverse. With more transparent contracts and certainty of contractual terms, and dispute resolution mechanisms, real estate in the metaverse could become an attractive investment. Jurisdiction, dispute resolution and consumer protection are areas requiring serious attention. Greater consumer protection should be introduced by providing for mutuality in the amendments to clauses, notification of breaches, and termination of contracts and or confiscation of assets. It is recommended that a self-governance policy be adopted to overcome the jurisdictional and dispute resolution issues. To surmount jurisdictional issues, the platform should provide for an independent mediation centre for dispute resolution. Such a mediation facility should be presided by neutral third party professionals to ensure neutrality and confidence in the dispute resolution process.

Authors' Contributions. This paper contributes towards the awareness, knowledge and resolution of legal issues in an exciting new area that is still evolving.

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