BLOCKCHAIN IN GAMING

Our definitive guide to blockchain in gaming
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Virtual currencies have become something of a norm within the video game world – whether it be ‘V-Bucks’ in Fortnite, ‘FIFA Points’ in FIFA, or maybe you’re paying to unlock Darth Vader in Star Wars: Battlefront 2.

In any event, it makes reasonable sense for the crypto world to tap into the hugely profitable video games market.

Blockchain gaming is already real, and non-fungible tokens (NFTs) are growing in popularity across the community.

Many cryptocurrencies are non-fungible, meaning they can’t be liquidated into fiat. They are, however, interchangeable with other cryptocurrency tokens. If we were to see the adoption of non-fungible tokens in the mainstream video game world, we could be on the cusp of seeing an exponential increase in the size of the cryptosphere.

Blockchain is pivotal for cryptocurrencies, but what’s its relevance within the gaming world? The technology behind blockchain enables transparency as well as proof of ownership, which are particularly relevant for gaming.

There is nothing more soul crushing than losing your entire progress for some unfortunate reason. Sometimes the console/PC breaks, other times game progress can become corrupted. This is an issue that can be alleviated with the integration of blockchain technology as it can provide absolute digital ownership.
Digital ownership
Non-fungible tokens are pieces of digital content that are bound to the blockchain. Since they cannot be liquidated, each one is unique and part of a limited supply. This increases rarity, which in turn increases overall value. If an NFT is converted into in-game currency, players will be able to purchase a new character costume or weapon skin.

Since NFTs are bound to a blockchain, everybody on it will know that specific items belong to your account. Your personal identity will not be revealed, but since the blockchain is publicly available, there will be some indication as to who/where the item belongs.

As the word ‘distributed’ implies, the blockchain is not controlled by any singular authority. Instead, the blockchain network is supported by multiple nodes (computer devices) across the globe. It is therefore distributed across the people. This also means that the blockchain is immutable – it cannot be retroactively altered.

Once you own an in-game item on the blockchain, it is yours. The item is no longer in the custody of the game developer or a third party – you own it. This is how ‘digital scarcity’ is achieved, because items suddenly become unique and cannot be duplicated. Naturally, this drives the value of the item up, creating a marketplace of sorts in the world of gaming.

The future might already be here
Many game developers have already noticed the open market for decentralised gaming. Developers that have worked for video game behemoths like Microsoft, PlayStation, and Nintendo are already involved in the space.

The Ethereum blockchain has been a leading tool for the creation of blockchain games for a short while now. On the Ethereum blockchain, game developers can create decentralised applications, or dApps for short. In fact, there is even a marketplace that ranks all the top dApp games that have been created on the blockchain.

However, a lot of these games are limited and pale in comparison to traditional AAA games or other titles released on Xbox, PlayStation, and PC.

But rumours and reports have been indicating that this could all change soon. There is already a first-person shooter on the market that allows players to win or lose cryptocurrency based on the amount of kills and deaths they record.

There is also another game currently in development that focuses on digital scarcity and in-game item ownership, while another game developer has rallied a team of industry veterans, including a former Rockstar CEO and the ‘Father of PlayStation,’ to develop a series of blockchain-based games.

It remains to be seen how any of these projects will do in the future, but in any case, recent events seem to be hinting at a bright, decentralised future for video games.
dApps (decentralised applications) are applications that run on a peer-to-peer network of computers, such as a blockchain network. They were designed as a type of software that is not controlled by a single entity and that exists on the internet.

Many people are familiar with apps such as Twitter or Instagram. However, these are all centralised apps, meaning they put data and content into one main entity. These entities are normally things like data banks or servers. However, dApps are not served from one central server. Instead, they run and live on a decentralised blockchain network.

dApps are open source and autonomous. They can only be altered by consensus and there is no single body that holds the majority of tokens on the network. They were created to connect users with one another without the need for a middleman. There isn’t a single, universal definition of a dApp, but there are many characteristics that all dApps have in common.

**Common factors**

All dApps are open source, allowing them to give users higher transparency than standard centralised apps. Being open source also means they are available for people to see and edit when they like. They are more robust and resilient to online hackers wanting to steal information.

dApps have a consensus protocol for transactions, meaning proof-of-value for a decentralised app is essential if it wants to succeed. For this to happen, a dApp needs to deploy an algorithm that can be implemented and used. Examples of these algorithms include proof-of-stake or proof-of-work used by the Ethereum blockchain.

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**WHAT ARE DAPPS AND HOW ARE THEY CREATING A NEW ECOSYSTEM?**

So, dApps seem to be the new games on the block. Let’s take a deeper look at what they are and how they are creating and changing ecosystems.
The majority of dApps on the market incentivise users or miners with tokens. These tokens hold value or utility, allowing a user to have access to the software for free or with discounts. This reward system then encourages users to carry on using the dApp of their choice.

Ethereum dApps
Ethereum is known as a leader in the world of dApps. It hosts around 90% of the world’s dApps, with that number expected to grow. In its white paper, Ethereum stated it had the intention of creating a protocol for building decentralised applications with a large emphasis on better security, speed, and scalability. Here are some examples of Ethereum dApps that are currently on the market.

Golem
The Golem project has the goal of creating the very first global market for idle computer power. It is a decentralised supercomputer that provides shared computing power to users for free. The processing power of the supercomputer is made up of the combination of the processing power of all users signed up to the Golem network. Users can range from one person with a laptop right up to data processing centres.

CryptoKitties
CryptoKitties is the new game/app that allows users to look after digital cats. Users can then buy, sell, or breed the digital cats, also known as crypto collectibles. The app is blockchain powered and hosted on the Ethereum blockchain. The cryptokitties replicate real cats in that they cannot be replicated or copied and are unique to a user. Because they are on the Ethereum blockchain, all cryptokitties are secured and free of fraud, giving a user full trust in the game knowing their digital cat is safe.

Augur
Augur is a cryptocurrency platform that provides a decentralised predictions market for asset speculation. The platform covers a variety of prediction markets like sports and politics, all the way to ‘time of death’ markets. People can use the Augur platform to make predictions using Augur’s native token to power your guesses. If your forecast is correct, you are rewarded. What distinguishes Augur from a traditional betting market is that no centralised single party sits in the middle, meaning that users are likely to pay lower prices.

Mainstream adoption
Blockchain is here to stay, meaning decentralised applications are going to carry on playing a large role in the future of all blockchains and their ecosystem. Because dApps have the ability to work across all industries, the technology will more than likely be used across a broader spectrum, allowing blockchain to become more mainstream.
FIVE WAYS BLOCKCHAIN WILL TRANSFORM THE GAMING INDUSTRY

In the last decade, we have seen the gaming industry being rapidly transformed by the introduction of new technologies which allow for immersive experiences, such as AI, VR, and AR.

However, one of the latest of these emerging technologies — blockchain — is set to redefine the future of gaming by turning what has been seen as a leisure activity into a potentially economic endeavour. In this respect, the technology looks set to disrupt the industry, and enable a new way for players and developers to interact with gaming platforms. With nearly 70% of the American population playing video games, and with the market forecasted to be worth more than $138 billion by the end of the year, how is blockchain set to transform the gaming industry?

1. Gamers will have full control of their virtual assets
Due to the risk of assets being duplicated, gaming companies often store in-game assets on centralised servers. However, this means that gamers don’t actually own their purchased virtual assets, and don’t have the capacity to buy, sell, or trade assets outside of the game. Currently, if a gamer wants to trade or sell virtual assets, they would have to do it through non-traditional means.

Blockchain allows full transparency and decentralised control of virtual assets, meaning players will have ownership of their virtual assets. They will be able to exchange these assets with other players, and for assets on other games, instantly. Gamers will also be able to use their virtual assets across different games, providing players with a more personalised video gaming experience.

2. Players stand to be rewarded for their interaction with video games
Through the tokenisation of platforms, players will be able to earn tokens for playing, reviewing, or sharing games on social media. Players will also be incentivised to provide reviews and feedback to developers, leading to...
the improvement of games available. Blockchain will allow players’ activities to be tracked, and for them to be rewarded accurately and instantly.

3. Blockchain builds gamer credibility and accountability
   As the blockchain is an immutable ledger which records all transactions and allows players to use their account across multiple games services, gamers’ interactions, player history, and trading of in-game items are always tracked and documented.

   With these records made publicly available, a player’s reputation is tied to the blockchain, therefore encouraging good behaviour within the community. This builds and fosters a safer gaming environment, giving value to those with credible reputations, and encourages transparency within the gaming ecosystem.

4. Better security for games
   In the past, virtual goods ownership and trading was never fully possible. For example, the rare or expensive item players worked hard or paid for was often copied by fraudsters and resold, making their item neither unique nor as valuable. Blockchain prevents the trading of illegal virtual assets on the black market, as well as the hacking and stealing of keys, by creating an immutable ledger of that item and who it belongs to, making duplicating impossible. After all, the original purpose of blockchain was to irrefutably prove ownership of Bitcoin and other cryptocurrencies.

5. Transparent and faster payments to developers and gamers
   Blockchain technology will allow players to purchase items or games faster, while ensuring their payments are secure. Developers are increasingly having a hard time selling their software outside of app stores, which result in large commission fees and loss of control over their own customers. Blockchain makes it possible to process nano-payments and for developers to get paid instantly, enabling developers to quickly reinvest money in their game launch marketing.

   Meanwhile, gamers will have access to a range of new revenue opportunities, with proof-of-activity potentially earning gamers free swag.
CONCLUSION

Blockchain gaming is becoming more popular, giving gamers more control over their in-play experience and even protection over their in-play purchases.

It’s also driving up a larger marketplace as more developers can apply their skills to create original games and in-game items. As a result, gaming may just become a far more profitable and competitive industry. It can also be a new pathway to encourage mainstream adoption of blockchain technology, starting with a younger generation.
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