BGA
BLOCKCHAIN
GAME
ALLIANCE
2021
MEMBER
SURVEY &
REPORT

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Report Summary

Founded in 2018, the Blockchain Game Alliance (BGA) is a member organization of over 300 members including leading and upcoming gaming studios, major blockchain protocols, as well as individuals within the blockchain gaming community.

This report aims to document BGA members' perspectives on the challenges and developments shaping the current state and future of blockchain gaming. It includes data from an online survey conducted in September 2021, the purpose of which was to distinguish the industry's key themes over the past year and ensure that the BGA's plans for the coming year are consistent with the needs of its members.

SURVEY RESPONDENTS

34%
identify as gaming professionals.
A smaller group (27%) identify as blockchain professionals.

81%
have been in their current role for under three years. 42.5% have been in it for less than a year.

60%
work at companies with less than 50 employees. 25% work at companies with less than 10 employees.

INDUSTRY DRIVERS

68%
say play-to-earn has been the biggest driver behind industry growth.

83%
value gameplay as the most important aspect when assessing games overall.

85%
say that true ownership of digital goods is the most important aspect of blockchain games.

MOVING FORWARD

86%
believe at least some of the traditional gaming industry will use blockchain within two years.

52%
say regulatory uncertainty is their biggest concern and the industry's most significant challenge.

43%
say education about the core concepts underpinning blockchain gaming is the next biggest pain point.

Letter from the BGA President

When the BGA was formed in 2018, we were just eight members, and it's fair to say that blockchain gaming was still pretty niche back then. Fast forward to today and we have over 300 members, with 198 of those having joined us in just the last twelve months. With funding flowing, user adoption figures skyrocketing and the world's leading media publications reporting on our rise, this is the most exciting period in blockchain gaming the world has ever seen, and certainly, in the six years that I have been personally involved.

With the spotlight on blockchain gaming, we have also seen increased scrutiny around issues such as a lack of clear understanding of what blockchain gaming is, the benefits of blockchain gaming for developers and users, the environmental impact of NFTs and the regulatory gray areas surrounding digital assets. While some of this critique has been balanced and thoughtful in promoting constructive discussion regarding the challenges ahead, other commentary has been poorly researched and has done little other than fuel FUD (fear, uncertainty and doubt). The latter has surely contributed to some deeply disappointing actions, such as Valve's recent decision to ban blockchain games from its digital distribution service, Steam.

As such, it is now more important than ever that we mobilize to fight misinformation and plug the knowledge gaps. And with the alliance having doubled its size this year, we wanted to take a moment to check in with our members and survey their views on how our industry's narrative is evolving.

The purpose of the survey was to identify the most important themes at this point in our industry's development and ensure that the BGA's roadmap for 2022 is in line with member needs. With 64% of respondents identifying themselves as founders or C-suite executives, the perspectives in this report represent a truly global group of industry leaders and professionals across 51 countries.

Women, however, count for just one in five survey respondents, which tells me we must do more to ensure adequate gender representation in the conversation. The BGA has committed to strengthening diversity and inclusion via a range of initiatives over the past years, and we will bolster those efforts moving forward.

I want to say how delighted I was to see that gameplay and experience is still the number one focus for our industry. I fell in love with video games long before I discovered blockchain, and I am glad to see that all of us are committed to delivering amazing experiences for gamers.

Thank you to everyone who took the time to respond to our survey.
The positive response we received is a good start, and we will continue building the momentum over the coming year.

Sebastien Borget, President, Blockchain Game Alliance

BGA Board Members Update

The BGA currently has over 300 members across 56 countries. We welcomed 198 of those members in 2021, marking a membership growth of 186% from 2020.

We have also had new members joining the board. We are delighted to welcome Piers Kicks, whose participation will ensure that venture capital is represented for our members, thanks to his experience at BITKRAFT and Delphi Digital. BGA also extends its thanks to Caty Tedman of Flow and Sam Englebardt of Galaxy Interactive who recently stepped down from their board positions.

Members and member projects have also closed huge funding rounds and received great media coverage in 2021. Animoca Brands achieved unicorn status with a capital raise of US$88,888,888 in May, then went on to raise another US$138 million in July, and another US$65 million led by Ubisoft in October. Dapper Labs took the world by storm with NBA Top Shot generating US$230 million in gross sales in Q1, January to March. Meanwhile, Axie Infinity became the first game to surpass US$1 billion in NFT sales (now over US$3.6 billion), and the short documentary "Play-to-Earn: NFT Gaming in the Philippines" produced by Emfarsis, Yield Guild Games and Delphi Digital, received coverage on CNBC, and has since been viewed over 750,000 times on YouTube.

As part of the core activities of the BGA, we had 17 educational webinars covering a range of topics such as "NFT New Frontiers: Applications and Economies," "Women Founders & Play-to-Earn Games" and "End-User License Agreement (EULA) and Terms and Conditions (T&Cs) for Blockchain Games" in response to our members' interest. With more members joining in the alliance and covering various facets of the blockchain gaming industry, we are optimistic that more opportunities for collaboration will take place among projects in this space.

Piers Kicks, head of crypto at BITKRAFT, said, *"As gaming and the Metaverse collide, I look forward to engaging with our members to ensure that we tackle some of the major issues ahead of us so that blockchain gaming and crypto adoption continue to empower players and studios alike. Definitely, I am optimistic that there will be more developments coming in the blockchain gaming industry."*

Details of the current BGA board members can be found ahead of the member listing at the end of this report.

2021 Consumer Update

This summary was prepared in collaboration with BGA member, DappRadar. As a curator of blockchain game asset information and related statistics, DappRadar produces monthly as well as quarterly reports on the subject. These are some of the highlights found in the DappRadar 2021 reports.

HIGHLIGHTS

A total of 2.5 million Unique Active Wallets (UAW) connected to blockchain dapps on a daily average, making blockchain games responsible for half of all blockchain usage.

Metaverse-related activity exploded during the first half of 2021, fueled by virtual land sales that hit US$42.6 million. Growth has continued with the market cap for virtual world dapps reaching an all-time high, surpassing $4.6 billion at the end of November.

Blockchain metaverses and play-to-earn were two of the most talked about topics in the Asia region, growing 33% month-over-month while reaching 1.7 million mentions across Asian media outlets.

The metaverse trend is dominated by the US. However, the Asia presence is becoming more visible with India, Singapore, and Indonesia increasing their audience by 500%.

The migration of Axie Infinity from Ethereum to the Ronin sidechain helped Ronin become the number one blockchain platform in NFT trading volume. In June 2021, Ronin processed US$124.2 million in gaming NFT transactions versus Ethereum's US$16 million.

Polygon also got off to a great start in 2021, led by Aavegotchi's transition from Ethereum to the second layer platform. Some other considerable blockchain game titles have more recently followed suit, including Decentraland, Ember Sword, F1® Delta Time and The Sandbox. Like WAX, Polygon's low transaction fees render it an attractive alternative to Ethereum.

KEY STATISTICS

The following are some statistics compiled from several reports, representing data collected since January 1, 2021:

- Game footprint became more visible in NFTs as in-game collectibles generated US$2.32 billion in sales during Q3, representing 22% of total NFT trading volume industry-wide.
- The number of wallets relating to gaming activity increased 2,453%, from 29,563 during the first week of 2021 to 754,000 in Q3 2021.
- Axie Infinity dominated blockchain gaming NFT trading volume for the first half of the year, reaching a record-high US$2.5 billion in trading volume in September and surpassing sales records of NBA Top Shot and CryptoPunks.
- The WAX blockchain experienced the most new user adoption, with the number of active wallets growing 1,082% on a quarter-over-quarter basis. This was led in sales by Alien Worlds, which saw more than two million transactions in the second quarter.
- Splinterlands became one of the most played games in the industry, with the trading card game attracting over 245,000 daily Unique Active Wallets in September, up 3,267% from the end of Q2.
- From January to November 2021, the top five games with the most Unique Active Wallets are Alien Worlds, Axie Infinity, Splinterlands, CryptoMines, and Bomb Crypto.

"Blockchain gaming has firmly established itself as the industry's darling. With the consumer growth participating in blockchain games, dapp and gaming trends will come together into something even bigger and potentially all-encompassing: the Metaverse. We're headed towards a complete shift in how we form communities, create, play, trade and socialize. Blockchain gaming is catalyzing the establishment of the virtual hubs that will host this new digital life."

Dragos Dunica
Co-founder, DappRadar

Survey Overview

OBJECTIVE

The purpose of the survey was to assess the views of BGA members and blockchain gaming professionals on the state of the industry and the challenges and opportunities that lay ahead. This was to ensure alignment between the BGA's future activities and industry priorities as determined by its membership base.

METHODOLOGY

The Blockchain Game Alliance engaged Emfarsis Consulting to design and execute the member survey.

The 20-question survey covered the topics of careers, growth, adoption and various key issues facing the industry today among 212 professionals from the blockchain gaming sector. Prior to designing the survey, Emfarsis conducted 11 interviews to ensure that BGA board member and member perspectives were considered in creating the survey. The members interviewed were Lisa Chandler (Alien Worlds), Chris Clay (Gods Unchained and Immutable), Marc Coupal (Enjin), Ludovic Courcelas (ConsenSys), Gianluigi Guida (Guida & Associates), Jon Jordan (BlockchainGamer.biz), Piers Kicks (BITKRAFT), Aleksander Larsen (Axie Infinity and Sky Mavis), Shaban Shaame (EverdreamSoft), Serena Tabacchi (MoCDA) and David Tng (TZ APAC).

The survey was open to individuals who consider themselves working in the blockchain gaming industry. One of the key distribution channels of the survey was the BGA database consisting of members and other partners. However, the survey was not restricted to BGA members, as it was shared publicly on BGA-owned channels (LinkedIn and Twitter) and voluntarily shared by many members in their network.

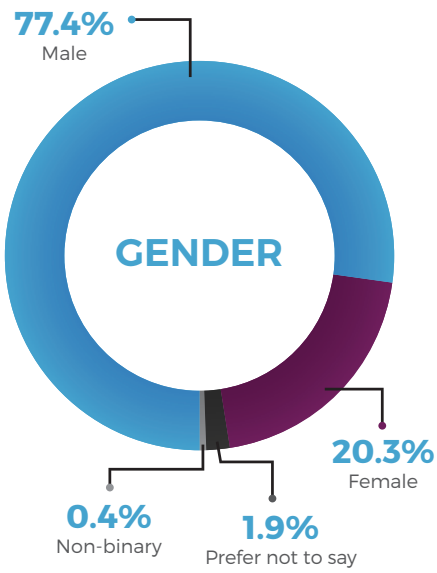
The results were collected via a dedicated surveying tool (SurveyMonkey) from September 2 until September 24, 2021. They were analyzed using both the platforms' own analysis tools and classical statistical analyzing tools (SPSS).

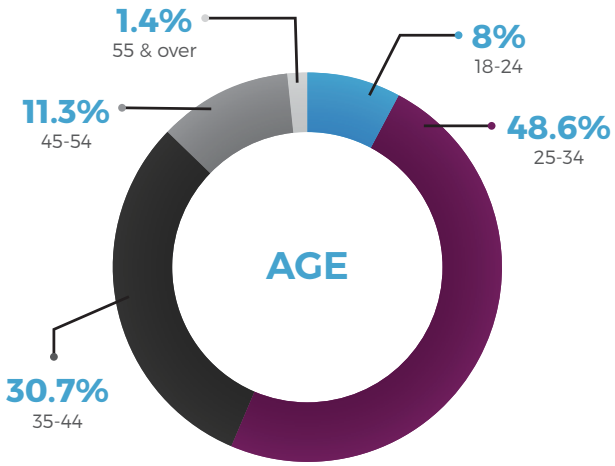
RESPONDENTS

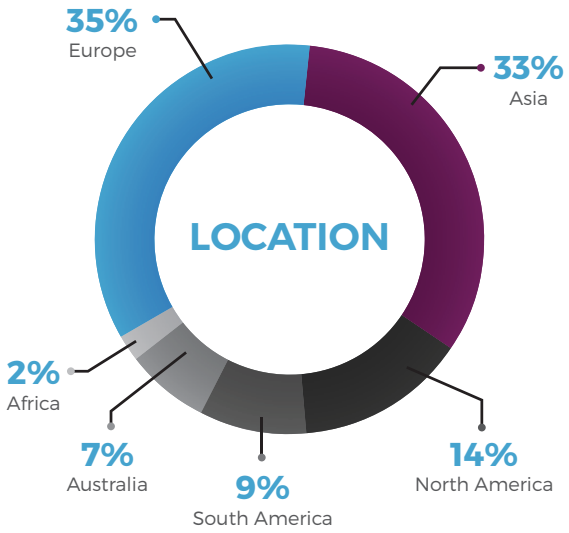
A total of 212 professionals representing 118 different projects or companies in the blockchain sector responded to the survey.

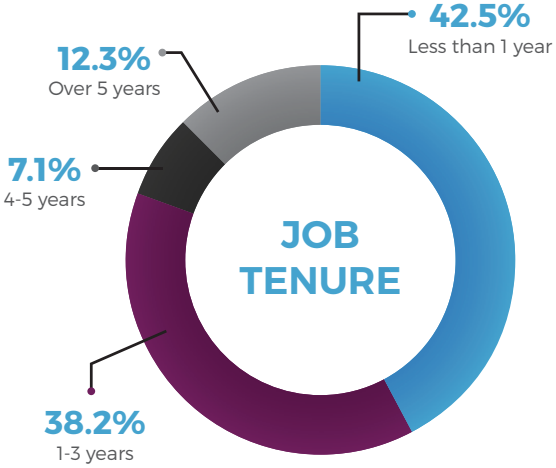
61% of respondents were BGA members. The remaining 39% were not members of the BGA.

RESPONDENT DEMOGRAPHICS









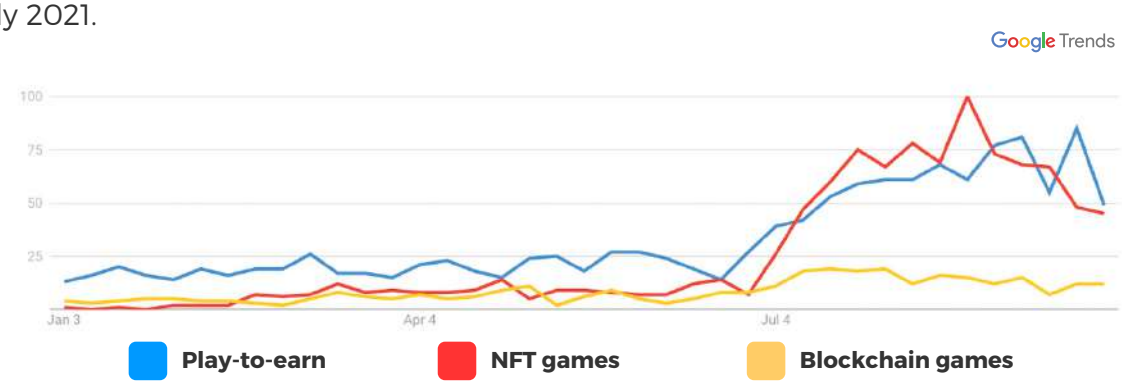
The respondents who answered the survey were mostly middle-aged males (almost 80%), working for blockchain gaming companies (56%) in middle- and top-management positions (77%).

Females were less represented (20%) in the sample. Women who answered the survey were generally younger than the male respondents and were more likely to have held their current position for less than five years. There were also less women in founding positions (16% of women respondents were founders, compared to 37% of men).

Aminata Cissé, lead community manager of The Sandbox, said, *"While I have seen improvements since I first entered the blockchain gaming industry, it still lacks diversity and inclusion in some parts. I think we can achieve this by adding more representation in our games and visuals, and most importantly, by hiring more women and more people of color."*

Adoption of Blockchain Gaming

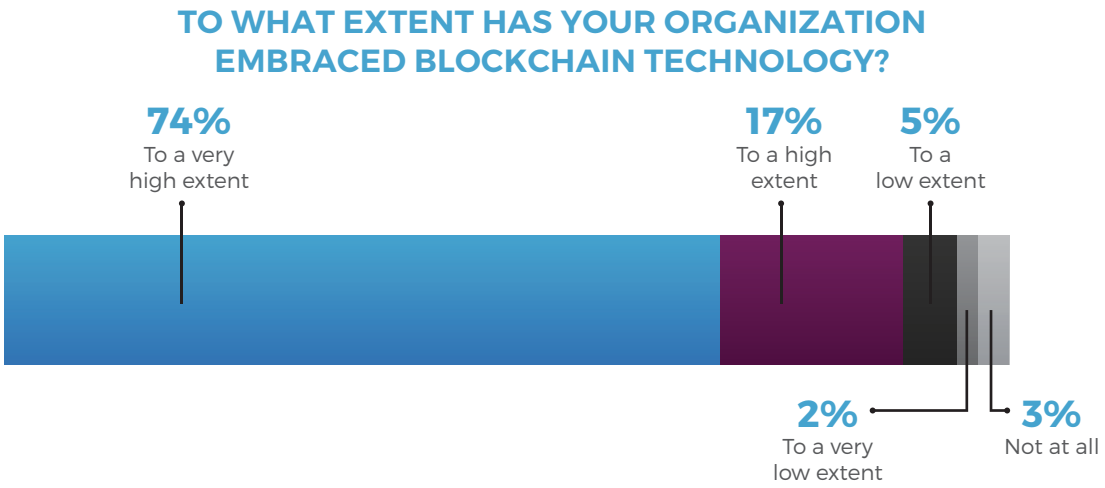
Interest in blockchain gaming has been growing steadily through 2021. The graph below shows the global search interest according to Google Trends. Blockchain gaming, NFT games and play-to-earn keyword searches saw a significant increase around the first week of July 2021.



In addition, DappRadar's report data shows a 6,566% increase in daily unique active wallets (UAW) interacting with game-related smart contracts, rising from 23,100 in Q3 of 2020 to 1.54 million daily in Q3 of 2021.

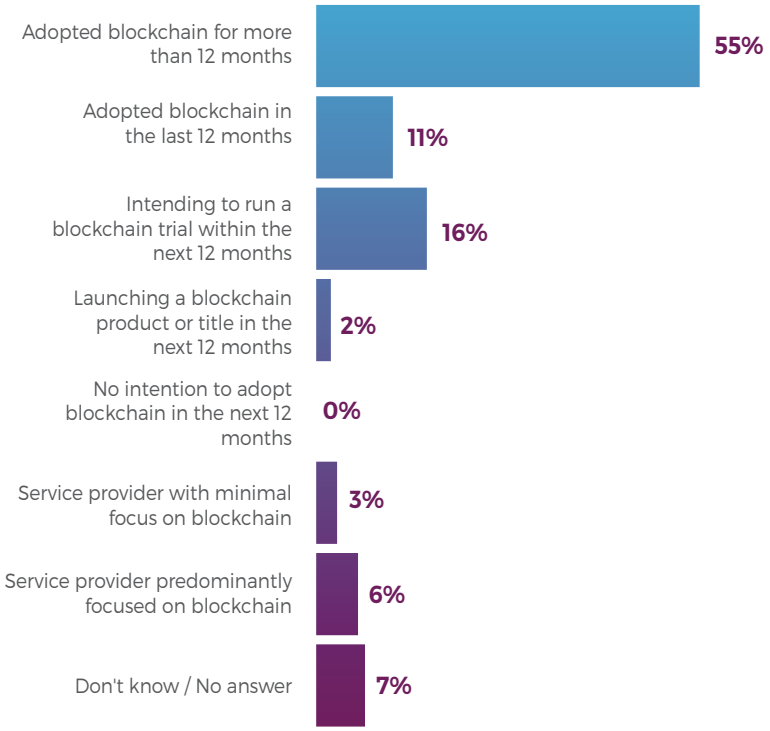
Jon Jordan, editor-at-large of BlockchainGamer.biz, said, *"What's been fascinating about 2021 is how quickly complex topics such as NFTs and play-to-earn mechanics have generated excitement (and sometimes anger) across a very wide cross-section of the global gaming community. Obviously, the main drivers of this have been blockchain-first projects such as NBA Top Shot and Axie Infinity. But what I'm looking forward to in early 2022 is when experienced traditional game teams start launching their first wave of products."*

When asked about blockchain adoption at their current workplace, 91% of respondents said the company they work for has embraced the technology to a high or very high extent. This skewed result is reflective of the survey sample, given blockchain gaming professionals were the primary target.



Over half (55%) of survey respondents said their company had been using blockchain technology for more than a year, while 11% were more recent adopters (within the last 12 months). 16% intend to launch their first blockchain product or title in the next 12 months.

WHAT IS YOUR COMPANY'S EXPOSURE TO BLOCKCHAIN?



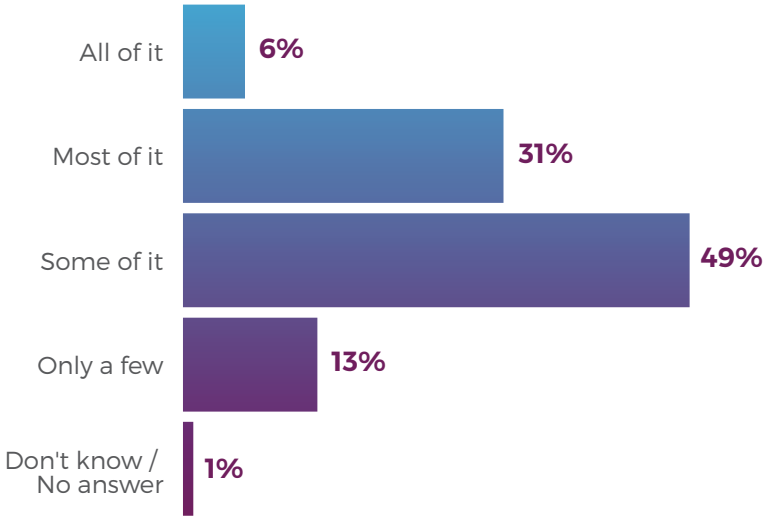
Small companies (less than 10 employees) were 3.5 times more likely to be launching a blockchain product or title in the next year compared to larger companies. At a regional level, respondents from North and South America were twice as likely to have already been using blockchain for more than 12 months.

Regardless of their own plans to adopt blockchain, 86% of respondents said they believe that at least some of the gaming industry will leverage blockchain technology in the future, while 37% think that most of the gaming industry will leverage blockchain within the next two years, if not all of it.

"Give it 10 years and you won't find a single game not being built on the blockchain."

Kieran Warwick
Co-founder, Illuvium

HOW MUCH OF THE GAMING INDUSTRY IS LIKELY TO LEVERAGE BLOCKCHAIN WITHIN THE NEXT TWO YEARS?

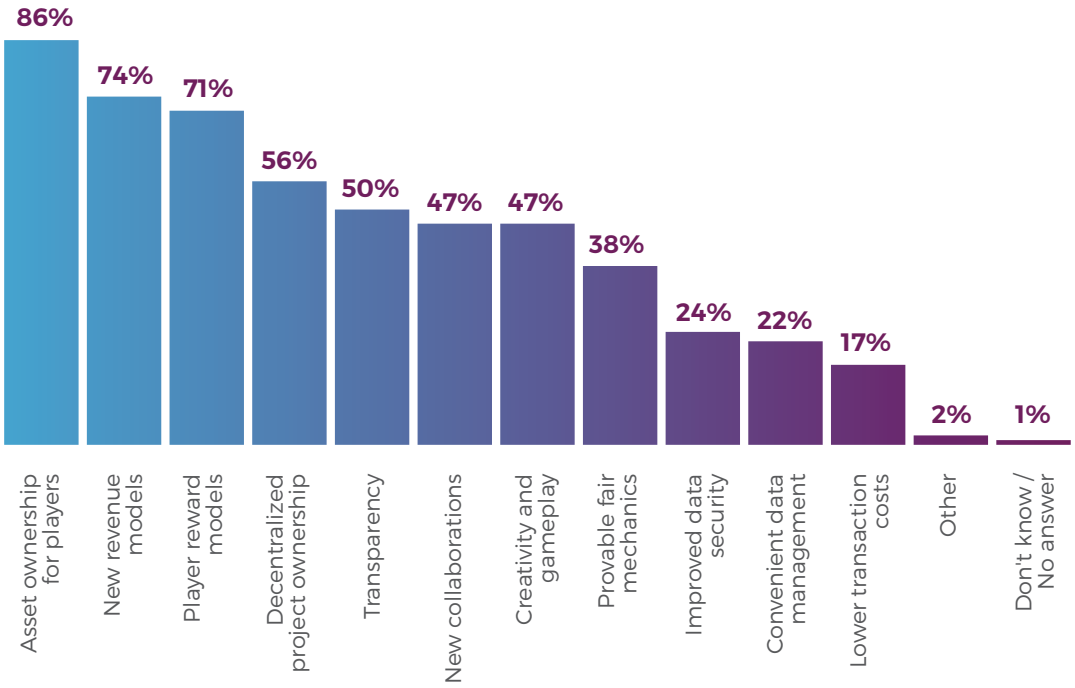


Why Blockchain for Gaming?

85% of survey respondents agree that asset ownership is the most important advantage of blockchain games as the technology delivers digital property rights and allows players to have true ownership of their in-game assets. This is in contrast to the traditional practices of centralized gaming platforms that strictly prohibit the sale of in-game assets on external markets. An example of this played out in Chinese courts this year when Tencent, the largest video game publisher in the world, sued DD373.com for US$6.2 million worth of damages for allowing players of Dungeon Fighter Online to trade in-game assets on their site.

HOW DOES THE GAMING INDUSTRY BENEFIT FROM BLOCKCHAIN TECHNOLOGY?

Respondents were given the option to select more than one answer.



New revenue models (74%) and player reward models (71%) ranked second and third respectively as the greatest benefits of blockchain gaming.

Blockchain gaming has introduced the play-to-earn model that empowers gamers to own their in-game assets and earn rewards in return for contributing their time and skill to playing the game. While this has obvious benefits for players, it has also opened up new possibilities for developers and publishers to earn revenue from the sale and open trading of these assets. In the case of scholarships, where yield-generating NFT assets (such as the NFT creatures needed to play Axie Infinity) are purchased and then leased to new players under a revenue-sharing model, this can even serve to externalize user acquisition costs for games looking to gain traction without the traditional marketing budgets associated with launching a new product.

Supreet Raju, co-founder of OneRare, said, *"Blockchain gaming will not be an extension of the current gaming industry; it will be a disruption that redefines gaming. With play-to-earn models and asset ownership, gamers will become an integral part of the system rather than passive consumers. Blockchain gaming will be the most powerful tool for bringing the crypto-curious to Web3 and converting interest into participation."*

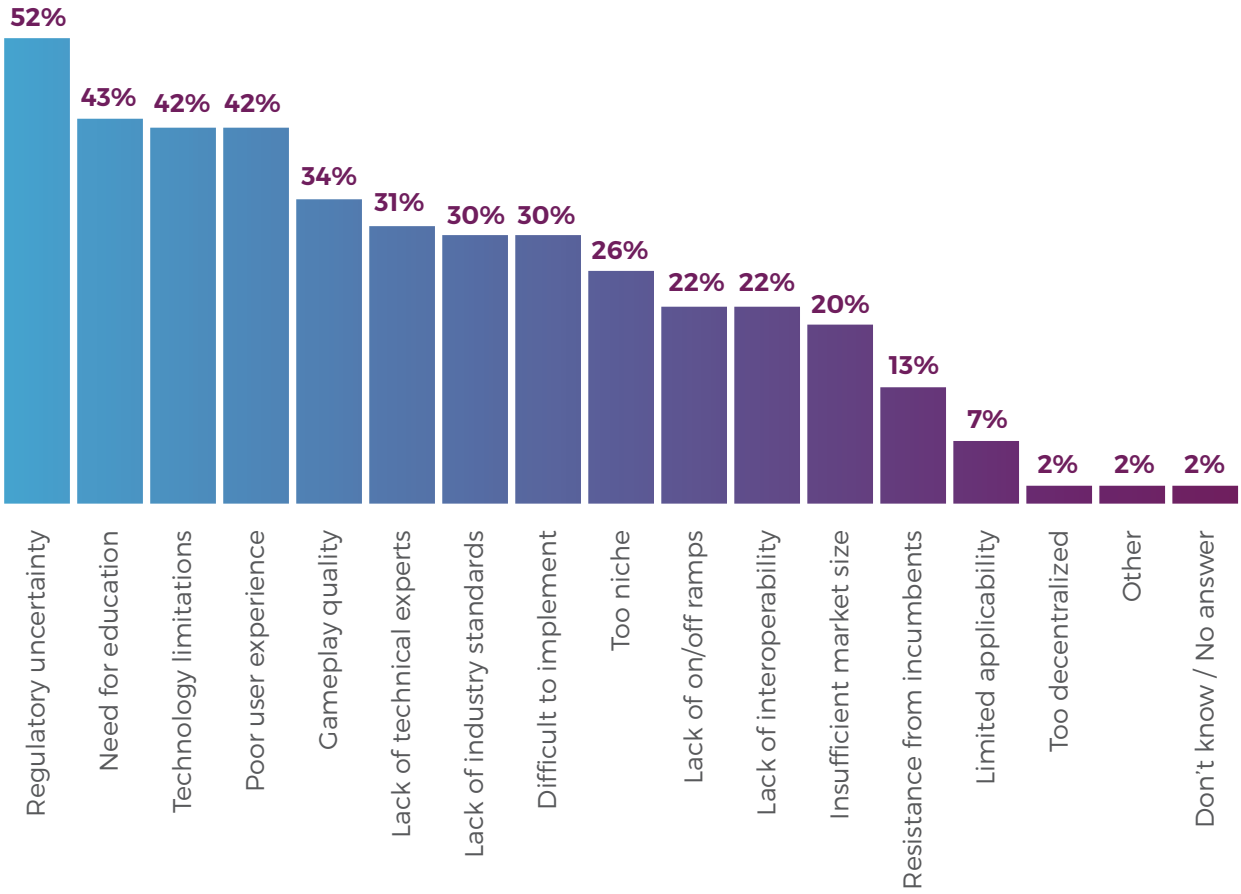
Decentralized project ownership (56%), which relates to the existence of decentralized autonomous organisations (DAOs), and transparency (50%), were also cited as key advantages to blockchain gaming. With new types of decentralized organizations being enabled by the blockchain, transparency around the way that projects and people work is highly valued by industry professionals.

Industry Challenges

Despite the positive sentiment from the survey, the blockchain gaming industry is not without its challenges. When asked about its main pain points, survey respondents were presented with 15 industry-related issues.

WHAT ARE THE PAIN POINTS FOR BLOCKCHAIN GAMING?

Respondents were given the option to select more than one answer.



52% of respondents cited regulatory uncertainty as the main challenge. Regulation will be an issue for all crypto assets, particularly as various jurisdictions determine how they will deal with NFTs in the years to come. In-game assets, if not structured properly, can be treated as securities under some laws. In particular, NFTs have also introduced a new conundrum for many jurisdictions when it comes to intellectual property (IP) rights and ownership of non-fungible assets. There is also confusion surrounding the patentability of blockchain games and collectibles that needs further education within the industry.

Gianluigi Guida, name partner at Guida & Associates, said, *"Technology is moving fast, and lawmakers cannot keep up with its pace. That said, a framework or set of rules is needed to help the developers in understanding the boundaries that should not be crossed. Having clear rules in place and acting in accordance with them is fundamental in order to gain trust from the general public, and this will eventually lead to the mass adoption of cryptocurrencies."*

Katherine Ng, head of marketing and operations at TZ APAC, said, *"Know Your Customer (KYC) and Anti-Money Laundering (AML) regulations are important to protect consumers against scams, and they need to be balanced against blockchain gaming innovation and the ability to reward game creators and players fairly."*

43% of participants highlighted that a lack of understanding of the core concepts underpinning blockchain gaming was an obstacle blocking broader adoption. This was reiterated by survey respondents when asked about the most common misconception about the industry, as 59% of the respondents said that users who do not understand blockchain gaming assume that it is a Ponzi scheme or scam.

Dan Kelly, co-founder of NonFungible.com, said, *"More often than not, development studios are opting for centralized 'blockchain' solutions, which completely defeat the purpose of blockchain. The biggest challenge that we see is regarding education. Many new entrants are joining the space simply as a marketing tool, ignoring the value proposition and power of decentralized blockchain technology."*

Other issues included the current limitations of blockchain technology, particularly with reference to scaling (including high transaction fees and slow speed of transactions), and poor user experience, which were cited equally by 42% of respondents.

The following were also listed as common challenges, but of lower priority:

- Lack of technical experts
- Lack of on/off ramps
- Insufficient market size
- Limited applicability

Only 13% of respondents thought that resistance from industry incumbents, or their unwillingness to adopt decentralization technologies, would pose a challenge to blockchain gaming.

Public debate has raged over the likelihood that traditional gaming companies will integrate blockchain into their popular games, as not everyone is so bullish on NFTs. Valve recently banned all blockchain-based games on its Steam platform. Meanwhile, Epic Games *"will welcome games that make use of blockchain tech provided they follow the relevant laws, disclose their terms and are age-rated by an appropriate group"* in their Epic Games Store, but will not use crypto in their own published games, according to CEO Tim Sweeney.

Nicolas Gilot, co-CEO of Ultra, said, *"Valve's recent ban on all blockchain-based games on Steam heavily restricts those wanting to embrace blockchain technology. Ultra Games, the games distribution application within the Ultra platform, provides a comprehensive solution to this and welcomes all game developers to tokenize any and all parts of their games. Ultra delivers a range of customization options, revenue split, marketing opportunities and a robust blockchain infrastructure to take NFT creation and distribution to the next level."*

However, the BGA survey data suggests that blockchain gaming professionals are not overly concerned about this lack of blockchain readiness in traditional video games.

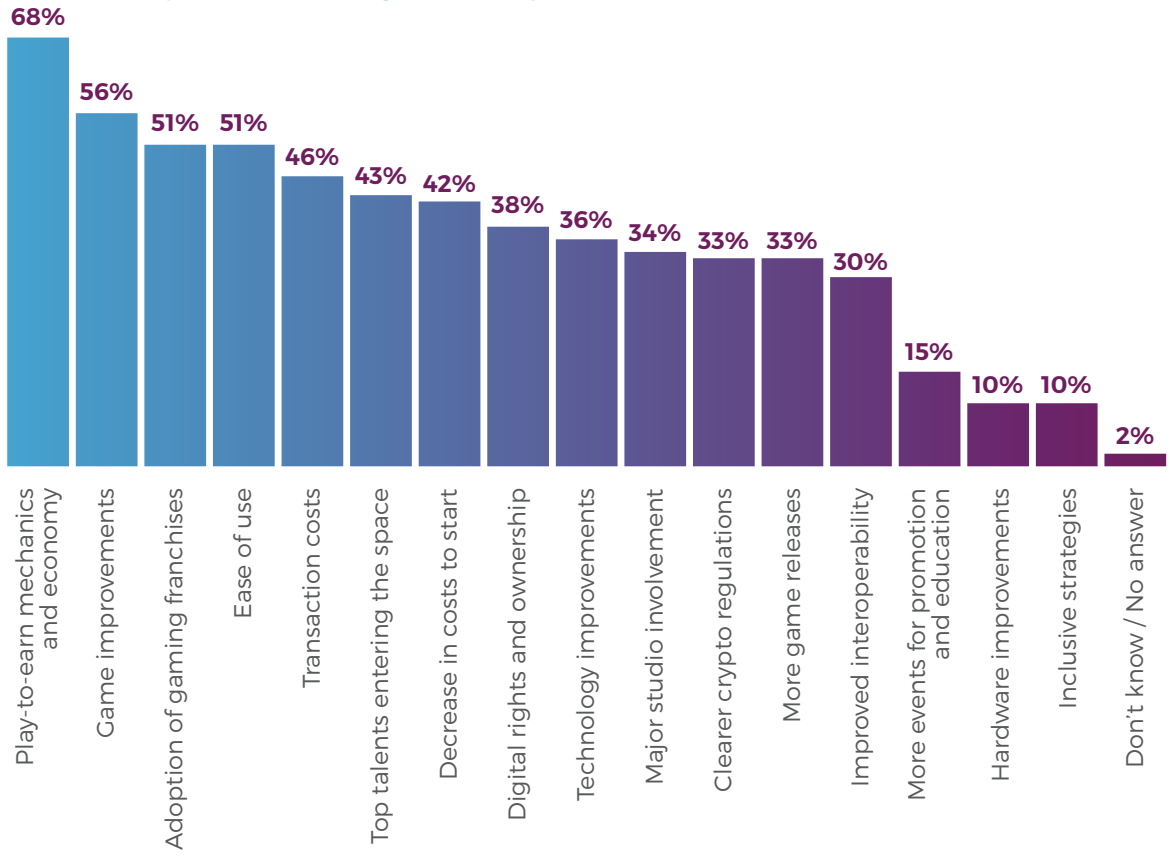
"While it is too early to fully grasp the full impact blockchain will have on traditional gaming, it holds the potential to bring a new dimension for players and developers to play with. By positively shifting the balance of power towards players, blockchain can make for a fairer, more player-centric experience. Traditional gaming will never disappear, but it will surely evolve, granting players more control than ever over their experience."

Nicolas Pouard
VP - Strategic Innovation Lab, Ubisoft

Despite the challenges cited in the survey, respondents had confidence that the following factors will continue to drive the industry forward:

WHAT WILL DRIVE BLOCKCHAIN GAMING FORWARD?

Respondents were given the option to select more than one answer.



68% of respondents stated that play-to-earn mechanics and economy will be the main force driving industry forward. As a new category in gaming where players are rewarded with in-game cryptocurrencies that can be exchanged for fiat money, play-to-earn has spurred new demand and fueled growth for young game studios. It has also had a significant impact on emerging economies, such as the Philippines and Latin America, where play-to-earn games such as Axie Infinity have become a source of income for players, particularly amid the COVID-19 pandemic and resulting job losses. The play-to-earn phenomenon attracted new users as well as mainstream media attention that put blockchain gaming's potential in the spotlight.

While play-to-earn was deemed most likely to drive broader industry growth, the professionals surveyed were inclined to focus on gameplay as the most important aspect of the games themselves. 83% of respondents said that the most important factor in assessing a blockchain-based game is quality of gameplay, demonstrating that the industry is committed to improving this aspect of play-to-earn.

Lenny Pettersson, CEO of Antler Interactive, said, *"There are already good, fun and very successful games out there, but to achieve true mainstream adoption, quality and accessibility need to be further improved. With that said, I´m very excited about the level of quality and gameplay in the next generation of blockchain games currently being developed, not least in our very own, My Neighbor Alice."*

56% of respondents believed that continual game improvements, particularly to elements such as gameplay and graphics, would be the next most important effort to advance the blockchain gaming industry, after the introduction of play-to-earn incentivization models.

> "The number one thing that will drive mass adoption will be, in my view, involvement from top gaming talent. Right now, blockchain gaming is being built by blockchain developers, with the gameplay as a secondary consideration."
>
>
>
> **Davis Grainger**
> Marketing Manager, Binance Australia

Small companies (1-10 employees) were twice as likely as their mid-sized counterparts (11-50 employees) to think that releasing a greater number of blockchain games would charge industry growth.

Adoption of gaming franchises was listed by 51% of respondents as having the potential to greatly influence the growth of the industry.

BGA member Animoca Brands is known for producing franchised NFT collectibles and blockchain games such as F1® Delta Time and MotoGP. Animoca Brands chairman, Yat Siu, said, *"At Animoca Brands, we already count Ubisoft, Scopely, Gamevil and Square*

Enix as shareholders. They invested because they have a deep interest in the potential of blockchain gaming, and it's reasonable to expect more game franchises entering the space — very soon."

Ease of use was the third important factor, chosen by 51% of respondents. According to Camilo Torres, Creator Fund production manager and artist at The Sandbox, *"If blockchain games want to become the real future of video games and not just a portion of the gaming industry, it needs to solve a lot of usability issues to make it user-friendly for the common gamer and to focus on designing better gaming experiences. Right now, blockchain game designs feel too focused on monetization."*

What's Next for Play-to-Earn?

68% of respondents agreed that play-to-earn has been the biggest driver behind industry growth in 2021, spurring exponential user adoption and attracting mainstream media. Here, BGA members offer their thoughts on what to expect over the coming year.

"Further entrepreneurialism will continue to show itself as it has done notably in Alien Worlds. Players have been ingenious in developing products and services that they offer to other gamers. Utility NFTs give inventor-entrepreneurs more tools to create their own products and services."

Sarojini McKenna
Co-founder,
Alien Worlds

"Play-to-earn is entering a new historic chapter with the advent of mainstream Metaverse structures. This will attract not only the 2.7 billion mainstream gamers but potentially the entire global population, making play-to-earn economies like Star Atlas synonymous with the global economy and GDP."

Michael Wagner
Co-founder and CEO, Star Atlas

"Play-to-earn is still evolving. More games are getting built and bigger businesses are building them. We will start to see even more adoption as big brands with large following get into this space."

Aggroed Lighthacker
Co-founder, Splinterlands

Climate Controversy

A criticism of blockchain technology, particularly by the traditional gaming industry and mainstream media, is its perceived environmental impact. However, only 15% of respondents to the BGA member survey cited environmental concerns as an important aspect when assessing a blockchain game.

A greater number of respondents (25%) were focused on protocol selection. Environmental impact — as well as security, speed, decentralization and transaction costs — are all factors that make protocol selection an important aspect of blockchain game development.

Many blockchain protocols are prioritizing sustainability as a feature. Ultra is carbon negative, and is CarbonNeutral® energy usage certified. Layer 1 protocols such as Tezos, Algorand, Avalanche, Enjin, NEAR and WAX have also outlined their roadmap to be carbon-neutral. Australian-based Layer 2 solution, Immutable X, is building on technical concepts such as ZK-rollups (SNARKS/STARKS) and consumes less than 1% of the energy required for an Ethereum trade. Immutable X, along with Polygon is also investing in carbon offsets.

"At Immutable, we believe that creating an environmentally sustainable platform is a baseline requirement to empower this amazing shift in power from incumbents to content creators. Ultimately we believe we just need to show the way blockchain technology can be applied in a way that benefits that game and gamers without serious environmental impacts."

Chris Clay
Game Director, Gods Unchained

"There are rising concerns over the sustainability and energy consumption of not just blockchain gaming, but the blockchain industry, as a whole. Fortunately, there is an increasing number of eco-friendlier blockchains that game developers can now choose to build on as the industry grows, such as Tezos. Game developers can now prioritize their selection based on the features and benefits that are most consistent with their community's needs and values."

David Tng
Head of Growth, TZ APAC

"A shift towards Proof of Stake networks have massively reduced environmental impact by the very nature of how they work. Many projects are already embracing this, but it is probably the fastest and smartest way for the industry to negate energy concerns."

Sandeep Nailwal
Co-founder, Polygon

Funding the New Frontier

2021 has seen a dramatic increase in the funding of blockchain games. According to BGA member BlockchainGamer.biz, an estimated US$4 billion has been invested in blockchain gaming in the year of of 2021 with the top five by investment raised being:

- Forte: $900 million
- Sorare: $783 million
- Dapper Labs: $607 million
- Mythical Games: $270 million
- Animoca Brands: $221 million

The potential of blockchain and NFTs in the gaming world has attracted major investors including Andreessen Horowitz (a16z), Arca, BITKRAFT Ventures, Coinbase, Galaxy Interactive, and Softbank among others.

BITKRAFT has over six years of experience in traditional gaming venture capital. In October 2021, BITKRAFT launched a US$75 million token fund for blockchain games.

Another emerging form of fundraising is coming from decentralized autonomous organizations (DAOs). Some prominent examples include 3D Gamers Guild, AngelDAO, Avocado Guild, BlackPool, BlockchainSpace, Good Games Guild, Merit Circle, Ready Player DAO, UniX Gaming, and Yield Guild Games.

Blockchain gaming focused incubators and launchpads are also a way for projects to fundraise, such as Seedify.fund, Enjinstarter, Solanium, Polkastarter and Moonstarter.

"2021 was the year blockchain in gaming truly emerged. At scale, gaming companies' financing, games infrastructure and game design have all seen utilization, adoption and thereby proof of blockchain technology in our industry. And as a result of that, blockchain technology has captured serious attention from the gaming industry and the gamer community at large. Blockchain technology has now set the stage for one of the most impactful and disruptive changes in the gaming industry."

Jens Hilgers
Founding General Partner, BITKRAFT

"DAOs are a new model for blockchain games to raise capital, with decentralized ownership allowing players to become part-owners in the game economies to which they bring so much value. More importantly, guilds like YGG are making sure that those without money can contribute their time and skill instead, and still get a meaningful share in these player-owned economies."

Gabby Dizon
Co-founder, Yield Guild Games

Careers
in Blockchain Gaming

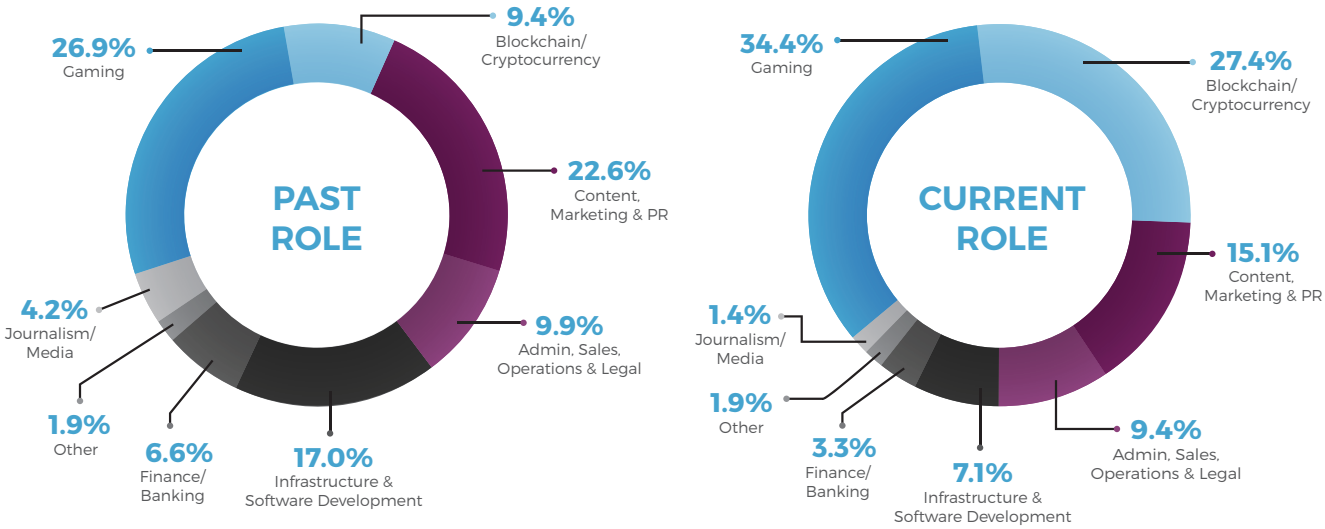
The majority of survey respondents said they were new to the blockchain gaming industry, with 42.5% having been in their current role for less than a year, and a total 81% having worked in the space for less than three years.

Overall, 34.4% of survey respondents described their current role as being in the gaming space while 27.4% said their role was focused on blockchain or cryptocurrency.

Prior to their current role, 26.9% of respondents were working in gaming. This is compared to 9.4% that said they were previously working in blockchain or cryptocurrency.

22.9% said they had been working in marketing or public relations previously, but only 15.1% still held the same title within blockchain gaming. Likewise, 17% were previously working in infrastructure and software development, but only 7.1% said they held the same title now. This suggests that the blockchain gaming industry represents a significant career shift for many newcomers.

Horizon Blockchain Games co-founder, Michael Sanders, came from the advertising industry prior to focusing on blockchain games. According to him, *"Gaming is one of the most fun ways we can introduce blockchain to the world. By creating games and applications that are fun and user-friendly, we can welcome the masses to Web3, the next generation of the internet, where both users and creators can share in the value generated by the networks they participate in."*

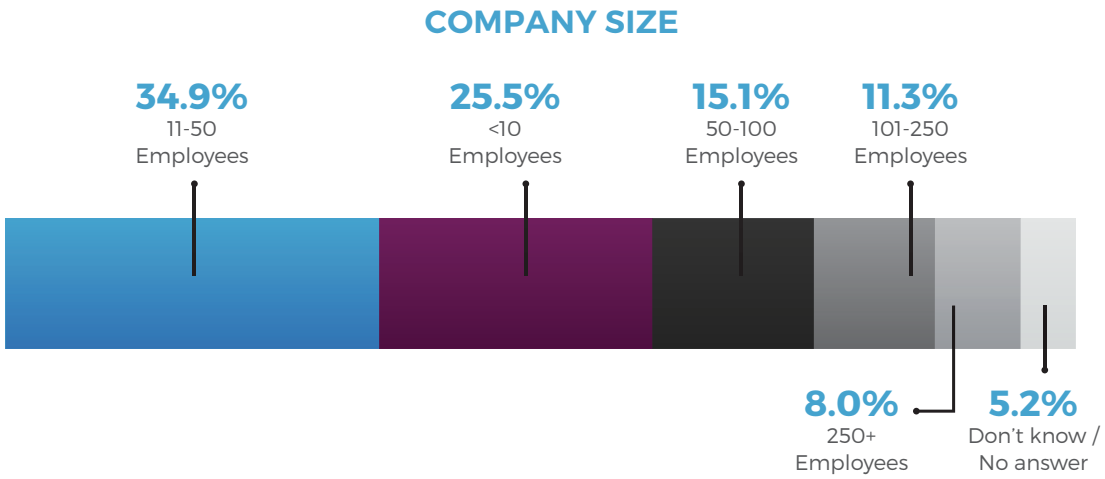


Sales, operations, admin and legal roles within blockchain gaming made up 9.4% of respondents. For people in these types of jobs, there was little contrast between their current and previous roles.

Only 3.3% of respondents viewed their current role as finance or banking-focused, but twice as many said their previous role would have fit into this category.

60% of all respondents worked for companies with less than 50 employees, of which 25% were employed companies with less than 10 employees. Only 19.3% of respondents worked for companies with over 100 employees. In contrast, from the traditional gaming industry, nearly half of the respondents (47%) to the International Game Developers Association (IGDA) 2021 Satisfaction Survey worked for companies of more than 100 people.

Meanwhile, only 8% of our survey respondents said they were employees of companies with 251—1,000 employees. This was also the only group that did not consider top talent entering the blockchain gaming space as a key driver to move the industry forward.



Founders and C-level are up to four times more likely than regular employees to believe that the lack of specialists (e.g. engineers and smart contract developers) was a challenge for the blockchain gaming industry.

"It is indeed a challenge for GameFi companies to find talented blockchain specialists or engineers. But moreover, the difficulty at the current stage is to find one who understands how to create a game that hooks and retains users."

Ikuma Ueno
Head of Crypto Strategy,
Digital Entertainment Asset Pte. Ltd.

"Increasingly, projects are turning to innovative models, like the DAO, as one way to help attract, retain and reward the right talent to projects through shared ownership."

Beryl Li
Co-founder,
Yield Guild Games

Regulatory Uncertainty

More than half (52%) of survey respondents said that regulatory uncertainty was their biggest concern and the most pressing challenge for the blockchain gaming industry.

The following is an overview of some of the potential legal and compliance issues that may arise in blockchain gaming within the context of U.S. law. It is not a comprehensive list and must be evaluated based on all locally applicable laws.

1. **Tokens as Securities.** Some currencies, NFTs and other tokens may be securities depending on how they are structured and offered. The test is whether they are an "investment contract," which includes 1) an investment of money in a common enterprise, and 2) an expectation of profits derived from the efforts of others (e.g., presale of tokens with proceeds used to build the platform).

2. **Token Marketplaces as Security Exchanges.** If a token marketplace or platform offers trading of digital assets considered as securities, the law requires compliance with securities exchange rules.

3. **Gambling.** The risk of gambling exists if players stake or risk something of value on some chance- based activity to win a prize or something of value. Digital assets traded on secondary markets may cause the items to be deemed things of value.

4. **Money Transmitters.** When a crypto game company engages in certain financial activities involving virtual assets deemed to be a convertible virtual currency, they may be a money transmitter subject to stringent AML/KYC requirements. Enforcements are increasing.

5. **Blockchain-based Virtual Worlds.** Blockchain-based virtual worlds are thriving and offer a variety of business models. In some, users can purchase parcels of land and other digital assets and create, experience and monetize these assets and other content. Over time, there have been a number of legal issues with "traditional" virtual worlds. All of these issues should be considered with blockchain-based virtual worlds, plus the issues addressed above.

6. **Patents.** There are many misconceptions about the patentability of blockchain technology and games. If the criteria for patentability are met, there is no prohibition to patenting any software, including blockchain technology, game mechanics and game technology. It is harder to get some of these patents, but this should not stop developers from seeking patent protection where appropriate. It is important to work with a patent attorney who specializes in these areas to understand what aspects of blockchain and game technology can be patented and to draft applications in a way that maximizes the likelihood that it will be granted and be enforceable.

The above is an excerpt from "Legal Issues With Blockchain-Based Crypto Games and Collectibles" by James Gatto of Sheppard Mullin.

James Gatto leads Sheppard Mullin's Blockchain Technology and Digital Currency Team and co-heads its Social Media and Games Team. Sheppard Mullin is a member of the BGA and an AmLaw 100 law firm with offices located in the United States, Europe and Asia.

Protections and Pitfalls

Intellectual Property Law for Blockchain Game Developers

Players and game developers may view blockchain technology as the ideal path to both monetization and an unforgettable user experience. Blockchain game developers should take care, however, to install adequate protections for their own intellectual property (IP) as well as ensuring they do not infringe on trademarks, copyrights, rights of publicity and other privileges belonging to other IP holders.

OWNERSHIP OF IN-GAME PROPERTY

NFTs offer a means for proving ownership of in-game assets or other virtual possessions that may hold real-world value for collectors or players. Developers need to understand that NFTs must adhere to IP laws wherein ownership of an NFT representing the item is a matter of contract where the only thing "owned" is the digital token itself. The in-game item it represents is subject to a license that may grant broad commercial rights or limited personal-use rights. Generally, NFT terms merely grant buyers the right to reproduce, create derivative works or sell prints or copies of the object.

In-game assets that use or resemble company logos, cartoon characters or famous real people could run afoul of trademark, copyright and publicity rights protections. This is especially true in the case of user-generated content in which the NFT minter is not the asset owner or where game developers have acquired a license but not the title — to the intellectual property.

MONETIZATION

Blockchain game developers can leverage their own intellectual property in several ways, on and off the blockchain.

- **Sale —** Selling IP is the end-game for some serial entrepreneurs and investors. Their goal is to perfect a technology's application and sell it to a business that wants to implement it.
- **Licensing Agreements —** Game developers may allow other producers to use the IP they develop for a specific purpose, timeframe and financial considerations. They may license their IP to several companies at the same time and even continue to use it themselves, depending on the agreements they sign.
- **Litigation —** Regardless of whether you use your IP, if others use it without permission, you will likely maintain the right to assert a claim for damages. In some cases, litigation is the business model, or an important part of it.

Complex issues of ownership and license rights and restrictions become more complicated in a blockchain environment. In addition, securities laws, gambling regulations and financial services business restrictions may apply once tradable assets are involved. Developers are well advised to engage experienced legal counsel to reduce the risk of IP liability or lost value and to comply with applicable laws.

David Hoppe is the founder and managing partner of Gamma Law, a San Francisco-based firm supporting select clients in cutting-edge business sectors. Gamma Law provides clients with the support required to succeed in complex and dynamic business environments, to push the boundaries of innovation and to achieve their business objectives, both in the U.S. and internationally.

How to Get Involved

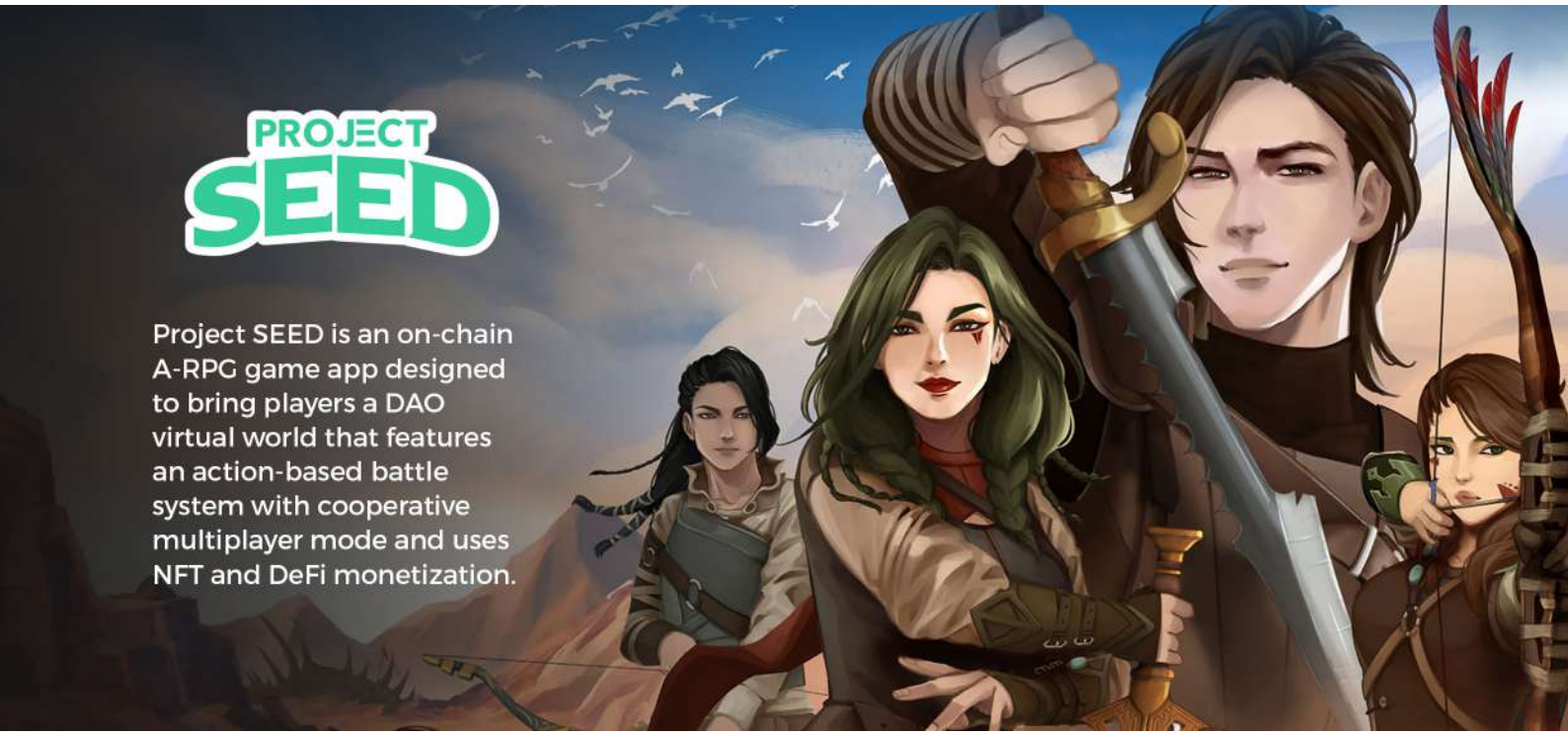
With the goal of spreading awareness about blockchain technologies and encouraging adoption by highlighting its potential to foster new ways to create, publish, play and build strong communities around games, the BGA allows individuals, projects and companies to:

- Participate in BGA events such as New Members presentation, Play the Game and Demo Days
- Collaborate, create common standards and establish best practices
- Get exclusive access to the BGA network with over 300+ members

Membership in the BGA provides:

- BGA association voting rights
- Working group access
- Member-exclusive newsletters
- Invites to events organized by the BGA
- Exclusive discounts and offers
- Access to a members-only Discord
- Listing in BGA members directory
- Industry introductions
- Speaking opportunities
- Other educational and networking opportunities

To join the alliance and to know more about the basic, silver and gold sponsorships, please head to the BGA's website. For more updates about the BGA, visit our Twitter and LinkedIn page.



Advertisement: BGA survey respondent prize winner - Project Seed

BGA Board of Directors

Sebastien Borget is co-founder and COO of The Sandbox, a decentralized gaming virtual world with NFTs. He has over 13 years of experience in growing startups and has been at the cutting edge of bringing blockchain technology into the gaming experience. He is passionate about blockchain technology, gaming and education.

Marc Coupal is the business development manager for Enjin. With six years of experience in the gaming industry, he has built and sold successful applications and SaaS businesses in the gaming space. He has also helped top talent from YouTube, Twitch, esports, startups, and Fortune 500 companies with their branding, marketing, and merchandising.

Ludovic Courcelas is a technical project manager for ConsenSys, a software engineering leader of the blockchain space. He is also a project lead for the EU Blockchain Observatory & Forum. With his blockchain experience, he has previously worked with Microsoft and financial institution BNP Paribas.

Gabby Dizon is a co-founder of Yield Guild Games, a decentralized autonomous organization (DAO) for investing in NFTs used in virtual worlds and blockchain-based games. With over two decades of experience in the gaming industry, he is also the CEO of mobile game studio Altitude Games and former president of the Game Developers Association of the Philippines.

Nicolas Gilot is the founder and CEO of Ultra. A serial entrepreneur and strategist, he has led multiple game companies, including the US$100+ million game console project Subor Z+ as Xiaobawang's CSO and the PC game studio PixelBeam. Nicolas has also helped multiple game and app projects, including Plants vs. Zombies, High Noon and The Economist, generate 1.5x–3x revenue through his monetization strategy firm.

Piers Kicks is head of crypto at BITKRAFT, where he identifies and evaluates new investment opportunities with a particular focus on the rapidly evolving crypto landscape. Prior to joining BITKRAFT, he was a founding partner in the investment arm of the leading institutional research firm covering the digital asset market, Delphi Digital.

Aleksander Larsen is the co-founder and COO of Sky Mavis, a technology-focused game studio known for creating the play-to-earn NFT game Axie Infinity. The game has seen immense growth in the blockchain gaming industry, topping Ethereum's daily protocol revenue at the height of its popularity.

Nicolas Pouard is the VP of Ubisoft's Strategic Innovation Lab, where he previously managed various projects around game world-building, system design and augmented reality. He co-founded the Ubisoft Startup Program at Station F, a program that supports innovative startups that have the potential to transform the entertainment industry.

Shaban Shaame is the co-founder of blockchain pioneer game studio EverdreamSoft. Shaban has been in the gaming industry as a producer for mobile games since 2010 and has been developing blockchain games since 2014. With the mobile game Spells of Genesis, launched in 2017, EverdreamSoft set a trend of "true ownership" of digital assets.

BGA Members Overview

With over 300 members, the Blockchain Game Alliance membership base has grown substantially in 2021. Our members are located in over 56 countries, including the United States, United Kingdom, Canada, France and Singapore. This year, the BGA has put on 47 events, 12 of which were specifically to introduce new members. BGA also hosts a "Demo Day" where members can talk about their project that other members may find useful for collaboration or knowledge-sharing. For 2021, the BGA hosted 12 Demo Day events that featured over 71 members.

To know more about BGA member activities and projects, head to the BGA website.

BLOCKCHAIN GAME PLATFORMS AND PROTOCOLS

Ajuna Network	Algorand	AnRKey X	ATARI, Inc.
Avalanche	B2Expand	Blockchain Cuties Universe	Boson Protocol
bountyblok	Bright Star Studios	Byterum Technology	Cartesi
Chromia/ChromaWay	COFFE multichain	Conflux Network	ConsenSys
Crypto Colosseum	CUDOS	DapperLabs	Dark Country
DFSocial	Enjin	EverdreamSoft	Funfair Technologies
FYX Gaming	GAME Credits	Game X Change	GamePower
GG DApp	Immutable	KardiaChain	Label Foundation
Ludena Protocol	Monkhub	NEXTYPE	NFTone

BLOCKCHAIN GAME PLATFORMS AND PROTOCOLS

Phantasma Chain	Planetarium	Playcent	Polkadot
Polygon	Powder	QORPO	Salad Technologies
Screenshot	Seascape Network	Totality Corp	TZ APAC
Ultra	Venly	XAYA	ZEBEDEE
Zero Techonologies			

DEVELOPER SOLUTIONS

Curvegrid	Dogira	Drops	Machinations.io
Playthora	Stardust	StreamingFast	Tatum

ESPORTS, GAMING GUILDS AND BLOCKCHAIN TOURNAMENT PLATFORMS

Azarus, Inc.	BlockchainSpace	Chain of Insight	Community Gaming
Mazer Gaming	Metabase.gg	ProLeague.gg	UniX Gaming
Yield Guild Games			

GAMES AND GAMING COMPANIES

1st11	Aavegotchi	Animoca Brands	Astra
Avaxtars	Axie Infinity	Bitcoin Origins	Black Eye Galaxy
CG-ART	ChainGuardians	Cindrum	Citizen Finance
Coindogs	CryptoMibs	CryptoMotors	Cryptopick
Dacoco GmbH/Alien Worlds	Decentral Games	Decimated	Digital Entertainment Asset Pte. Ltd
DinoX	DNAxCAT	Dogamí	dotmoovs
Dvision Network	Ethermore	FEAR	Flying Fox Game
Fuego HD	Gala Games	GAMEE	GameFi
Gameloft	GamerHash	GamyFi	Geekoid DÜO
Gif Games	GOAT Entertainment	Guild of Guardians	HODL God
Horizon Blockchain Games	Illuminated Entertainment	Illuvium	Jadu
Kingdom Raids	Leyline	Lucky Kat	Mega Cat Studios

GAMES AND GAMING COMPANIES

Merfolk Games	Mirror World	MonkeyBall	My DeFi Pet
My Neighbor Alice	NFTdraft	Node Runners	OneRare
ONEWAYBLOCK	Oxalis Games	Partavate Studios	Pepemon
Pixelynx	Pixie Interactive	Project SEED	PunkPirates
Purple Penguin Pebble Inc.	QUDO by Block Bastards	Reality Gaming Group	Revolve Games
Revomon	SIX 3D	Somnium Space	Splinterlands
Star Atlas	StarMon	Super Evil Megacorp	Supersocial
Tevaera	The Football Club	The Kryptomon Company	The Sandbox
The Six Dragons	Thetan Arena	TradeStars	Triple O Games
Turbo Chili	Ubisoft	Ultimate Gamerz	Upland
Usiku Games	vEmpire DDAO	VCOIN by IMVU	Virtualsense
Vulcan Forged	Waterdeep	Widow Games	win.com

INVESTMENT FIRMS

AngelDAO	Arca	BITKRAFT Ventures	BlockRock Capital
Chain Capital	CMT Digital	Cointelligence Fund	Decasonic
Outlier Ventures	Parsons & Whittemore		

LEGAL

Gamma Law	Guida & Associates	Sheppard Mullin

MARKETING AND PROMOTIONS

Amplify Games	GameInfluencer	TriplePoint PR

MEDIA

Altcoin Buzz	BeInCrypto	Bitcoin Mexico	BlockchainGamer.biz
Castle Crypto	CGC	Cointribune	Crypto Briefing
CryptoStache	DappRadar	HackerNoon	NFThub
Play2Earn	PlayToEarn.net	The Dapp List	The PhotoMode

NFT PROTOCOLS AND MARKETPLACES

Curio Digital	DeFine Art	Digital Village	NFTb
NFTfi	Nifty Drops	NonFungible.com	NFTSwaps
OpenSea	Pixelchain	RARA Social	RD Land
SENSORIUM	Stater Technologies	TriumphX	

OTHERS

AMD	Blockchase	G2A.com	Metamask
MODA DAO	Museum of Contemporary Digital Art (MOCDA)	NFT London Meetup	Simplex
Spielworks GmbH	TIBA	Utrust	Vougan

TOKENS, DEFI PROTOCOLS AND EXCHANGES

Aave	Bondly Finance	Effort Economy	JOJO
Proton	Sushi		

LAUNCHPADS

Enjinstarter	Seedify.fund	YooShi

BLOCKCHAIN GAME ALLIANCE

Get in touch with us

- blockchain-game-alliance
- BGameAlliance
- discord.gg/9MXnj5x
- BGA_Discussion_Channel
- twitch.tv/blockchaingamealliance
- blockchaingamealliance.org/join-the-bga