



Intro to Web3 Games

Solana Foundation

Senior Tech Director KR, Hakhyun Kim
Developer Relations KR, Chaerin Kim



Solana Foundation

SOLANA 2023

The Solana Foundation is a non-profit foundation based in Zug, Switzerland, dedicated to the decentralization, adoption, and security of the Solana ecosystem.

Solana Labs: building products, tools, and reference implementations to further expand the Solana ecosystem.

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We Work For Solana Network

Community Management Based

Business, Climate, Developer Relations, University Relations, Strategy, Marketing, etc



Technical Product Based

Core, Cryptography(ZK), Client, Library, etc



Introduction of Korea team

Solana Foundation

Senior Tech Director KR, Hakhyun Kim
Developer Relations KR, Chaerin Kim

Hakhyu n Kim



Hakhyun Kim is a Senior Tech Director @ Solana Foundation in Korea. He has held managerial and engineering roles at top companies like Havok, Unity, Nexon, from 2001.

He is passionate about tooling and game engines like Unity and Unreal, which enable developers to create games without obstacles.

He also contributes to the Solana ecosystem by helping game engines integration with Solana.

He is managing Off-chain Solutions

Chaerin Kim

Chaerin Kim is a Developer Relations in Korea. She is currently creating Solana lectures on Fast Campus, and primarily focusing on on-chain solutions.

Previously, she worked on EVM-based development, and since joining Solana, she has been working on examples and sessions related to transitioning from EVM to SVM (Ethereum to Solana). She was a President of Ewhachain, Blockchain Club of Ewha Womans University. (Now advisor of Ewhachain)

She is managing On-chain Solutions

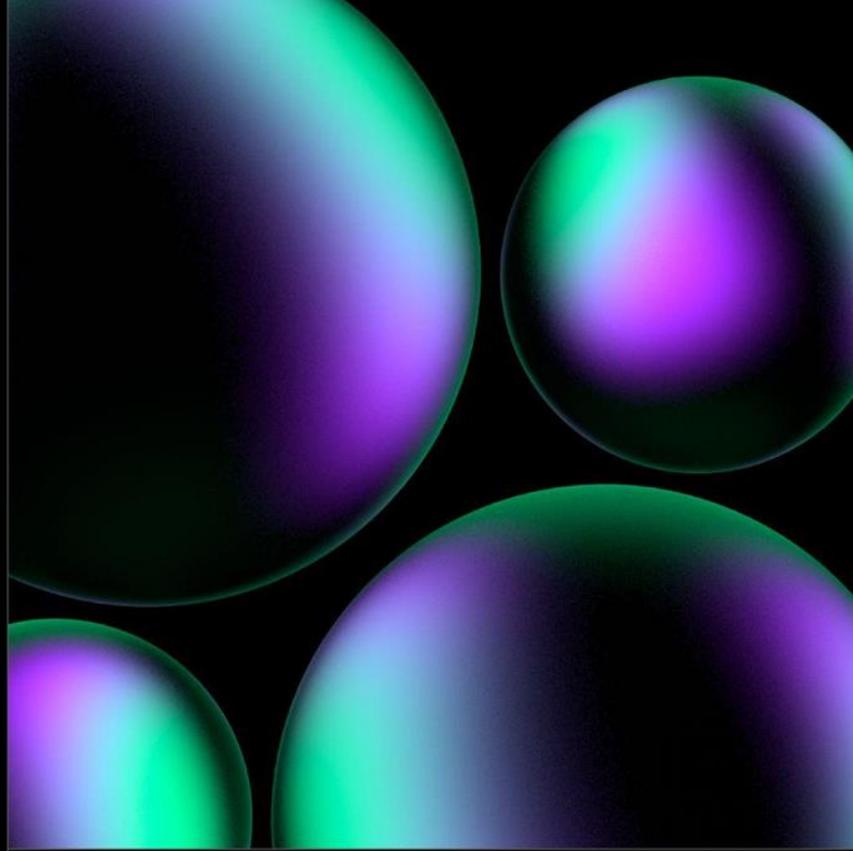
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What distinguishes traditional Web2 Games from Web3 Games? What problems on traditional games we can solve with web3?

- _ Background
- _ Web2 Gaming
- _ Web3 Gaming
- _ Play and Own

Do you play
Games?

And Why do
you play
Games?



What makes games FUN?

- _ **Challenge** *Games should be challenging but not frustrating*
- _ **Progression** *Players should feel a sense of progression as they play*
- _ **Reward** *Players should be rewarded for their efforts*
- _ **Socialization** *Games can be a great way to socialize with friends*
- _ **More** *What do you think about this?*

Looting, Gotcha

_ Items have different qualities and effects that affect your character's power and playstyle.

_ The randomness of looting is an important aspect of the game. It makes the game more exciting and unpredictable, but also cause a lot of problems



Looting: getting items from enemies(Boss monsters) or collecting items, such as weapons, armor, or resources



Gotcha: trying to catch or capture something (ex. Pokémon or a monster)

Blockchain will help Games

1. Governance

Looting and Gotcha

2. User Generated Content

Social

3. Investing from Users

Social

4. Matchmaking

Challenge

5. In-game user to user trades

Reward

1. Governance

Governance

Looting and Gotcha

- _ Transparency: track the probability of winning certain items or rewards.
- _ Player input: create a system where players have a say in how the gotcha system is designed and implemented.
- _ Preventing manipulation



Truck protest in front of Nexon headquarters regarding the suspicion of probability manipulation in MapleStory.

User Generated Content

- _ Ensuring authenticity and provenance
- _ Providing a secure and transparent platform for monetization
- _ Giving creators more control over their content



One of the famous metaverse & UGC platform, Roblox.

3. Investing from Users

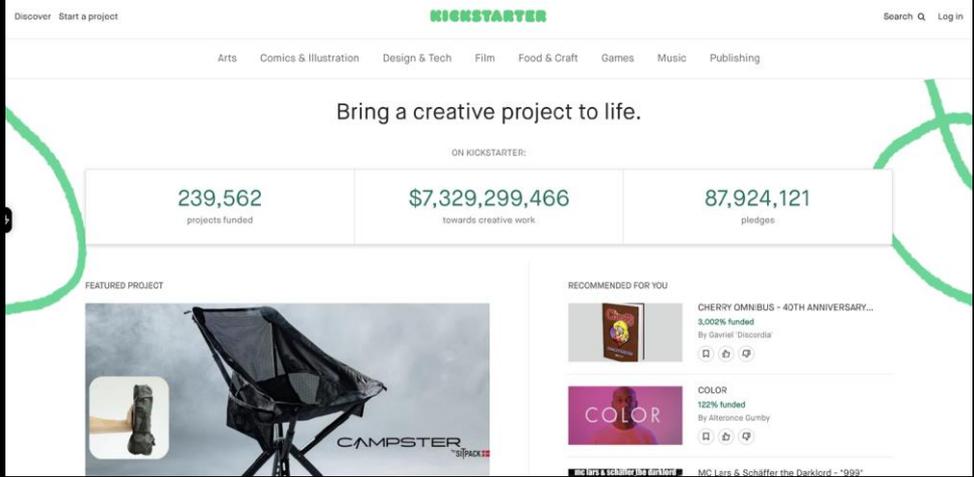
Kickstarter

Web2 Investment Model



KICKSTARTER

- _ A well-established platform with a large user base. It is relatively easy to use.
- _ Project creators keep 100% ownership of their work, and Kickstarter cannot be used to offer equity, financial returns, or to solicit loans.



Discover Start a project

KICKSTARTER

Search Q Log in

Arts Comics & Illustration Design & Tech Film Food & Craft Games Music Publishing

Bring a creative project to life.

ON KICKSTARTER:

239,562 projects funded	\$7,329,299,466 towards creative work.	87,924,121 pledges
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FEATURED PROJECT

RECOMMENDED FOR YOU

CHERRY OMNIBUS - 40TH ANNIVERSARY...
3,002% funded
By Gavriel 'Discordia'

COLOR
122% funded
By Aterence Gumbly

MINI Cars & Trucks by Miniature
MPLearn & Schiffer for the Postcard - 1992'

Kickstarter: <https://www.kickstarter.com/>

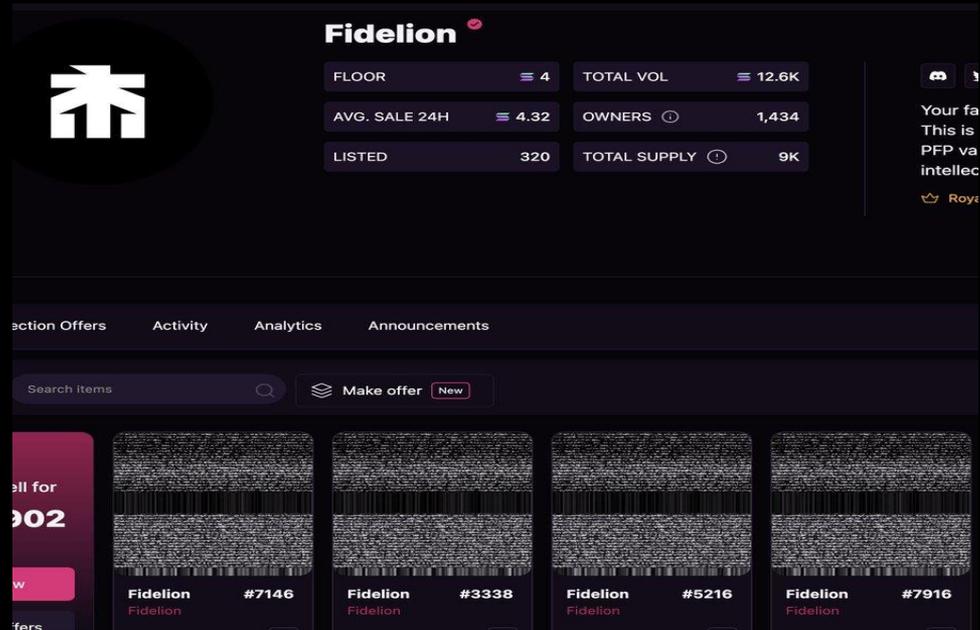
3. Investing from Users

Web3 Funding

_ Investors can get involved in projects earlier on, before they are released to the public.

_ Investors can get more involved in the development of the project, by providing feedback and suggestions.

_ Investors can earn rewards for their investment, such as NFTs or tokens, it's tradable too



Many projects usually get funds from NFT sales.

4. Matchmaking

Competition^(web2)

Matchmaking

_ Customization:
Gaming communities
to create their own
custom matchmaking
systems

_ Transparency:
Players to know how
they were being
matched



League of Legend's Matching System.

4. Matchmaking

Web3

Matchmaking

- _ Customization: Gaming communities to create their own custom matchmaking systems
- _ Transparency: Players to know how they were being matched



League of Legend's Matching System.

5. In-game user to user trades

MMORPG_(web2)

In-game Trade

- _ Fraud and scams
- _ Item duplication



Sell similar items but cheap

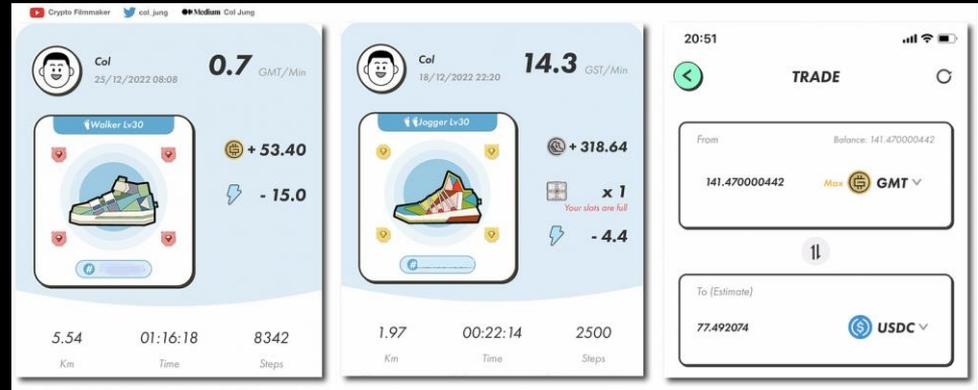
The situation of buying and selling items within the game.

5. In-game user to user trades

Web3

In-game Trade

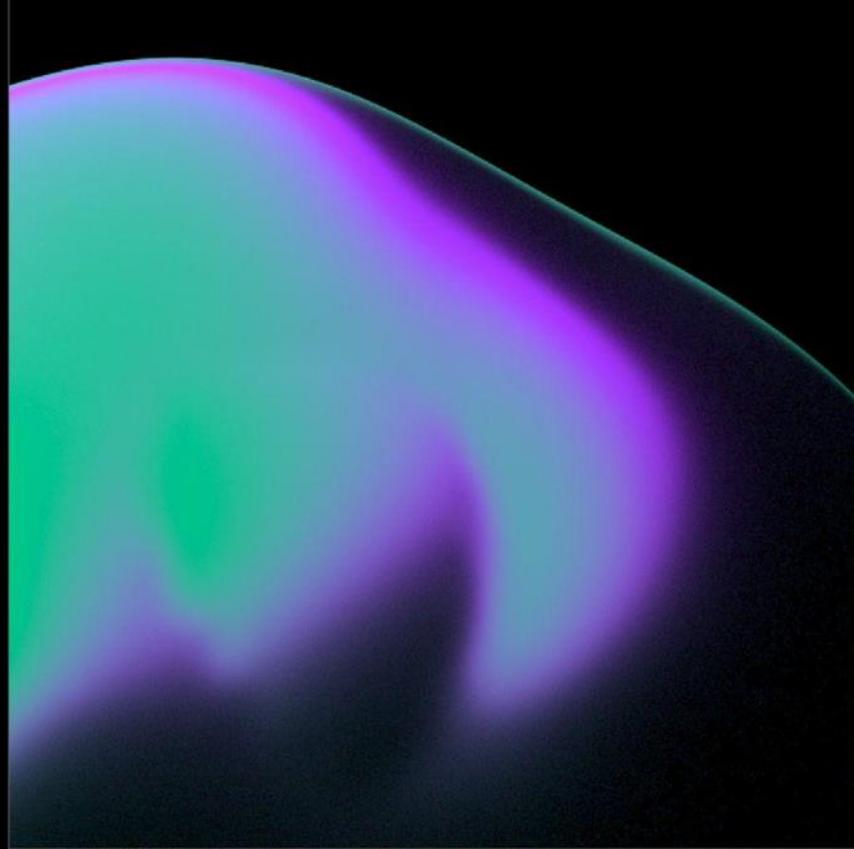
- _ Security: transactions are irreversible and cannot be hacked
- _ Transparency: all transactions are public and can be verified by anyone
- _ Ease of use: in-game trading easier to use by providing a simple and user-friendly interface



STPEN's In-game Trade System.

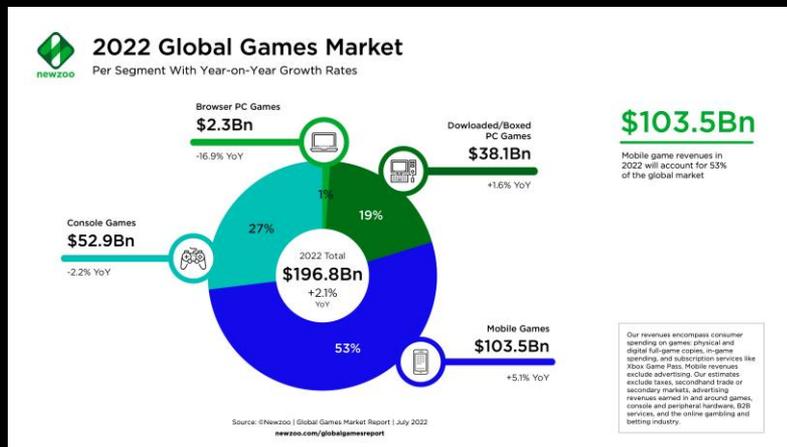
Let's see Web3 Games History -

Have you ever
played web3
games?



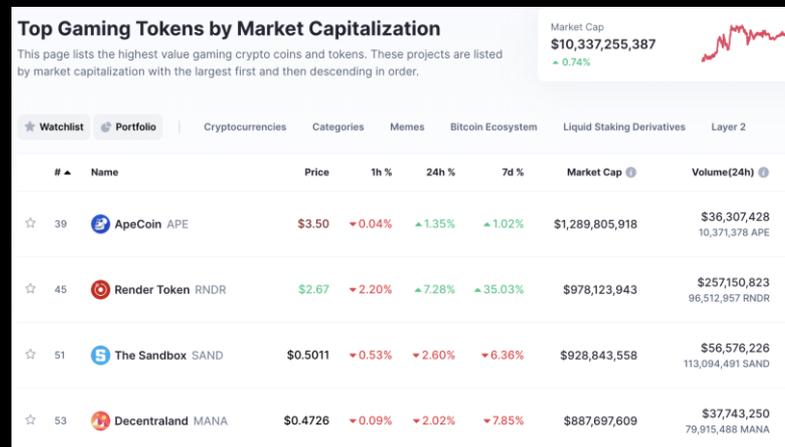
Marketcap

< Web2 >



196.8 billion

< Web3 >



About 10 billion

MAU (Monthly Active Users)

< Web2 >



120 million

< Web3 >



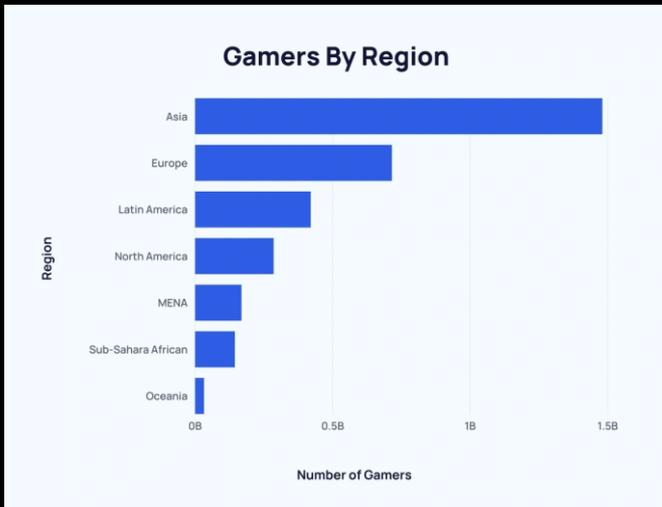
2.7 million

*The most famous Web3 game. the maximum value.

Region

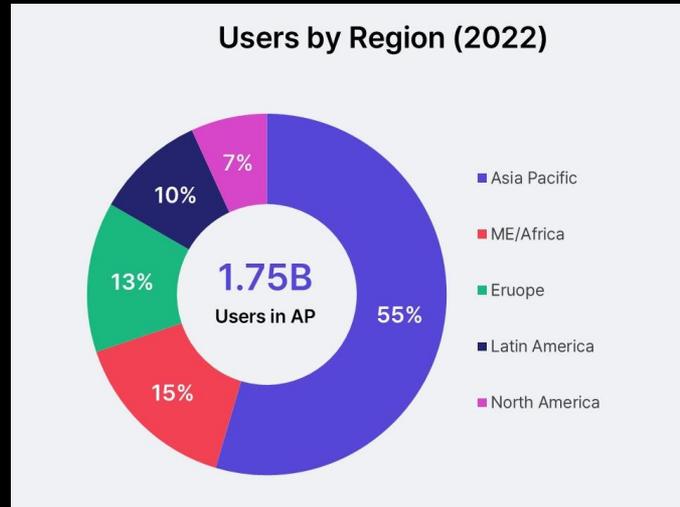
< Web2 >

(2022, Mobile)



< Web3 >

(2022)



Axie Infinity

Ethereum

STEPN

Solana

Star Atlas

Solana

Mini games

Utilities for products like De-Fi

MapleStory

Polygon

More..

Web3 Games Case Study



Axie Infinity

Play-to-Earn (P2E)

STEPN

Move-to-Earn (M2E)

Star Atlas

Metaverse, Triple A game

Mini games

Marketing, Strategy

MapleStory

Web2 domain games

More..

Web3 Games Case Study



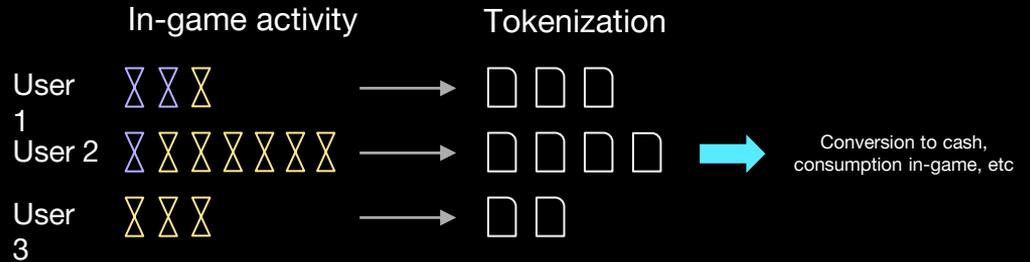
1. Axie Infinity

Token Economy

Tokenomics

_ Providing services that leverage coins and tokens on the blockchain to generate revenue.

_ Securing liquidity and activating the game by giving rewards to game users.



Designed based on game theory and incentive systems.

Typically, it forms an economic structure that allows appropriate rewards to be returned according to the level of participation.

** Each game is constructing its own unique Token Economy. The nature and purpose of the game have a close relationship with Token Economy.

1. Axie Infinity

Axie Infinity

Play-to-Earn (P2E)

_ a collectible card mobile game developed by the Vietnamese startup Sky Mavis.

_ a first-generation game that kicked off the 'Play to Earn' model.

_ a turn-based JRPG that allows 3:3 battles, where players collect and form parties with virtual animals called 'Axies' for battles.



Axie Infinity: <https://axieinfinity.com/>



_ You can buy and sell Axies based on ERC-721 NFTs through the marketplace, and other NFTs such as land and accessories can also be purchased.

_ When you win in the game, you earn assets called Small Love Potion (SLP), which can be used to breed Axies. Small Love Potion is an ERC-20 token that can be traded on exchanges like Binance.

Marketplace

Overall stats



Top Sales

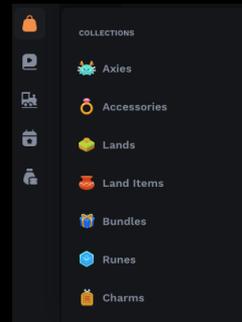
Rank	Item	Price	Age
1	Land	\$8,328.49	1 hour ago
2	Accessory	\$722.53	8 hours ago
3	Item	\$348.27	16 hours ago
4	Accessory	\$234.82	17 hours ago

Recent listings

Item	Price	Age
Axie	0.00249	1 min ago
Axie	0.00105	1 min ago
Axie	0.00349	1 min ago
Axie	0.00519	1 min ago

Recent sales

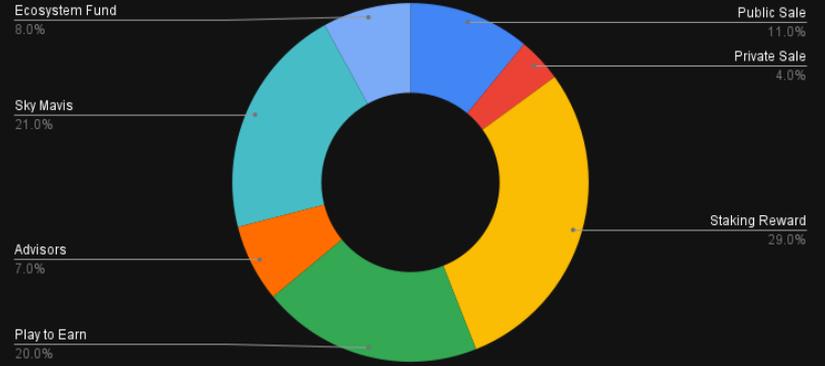
Item	Price	Age
Axie	0.00079	1 min ago
Axie	0.00078	1 min ago
Axie	0.03949	1 min ago
Axie	0.00078	1 min ago





Axie Infinity(AXS)'s Tokenomics

AXS Allocation



_ The Axie Infinity ecosystem has its own unique governance token called Axie Infinity Shards (AXS). These are used for participating in key governance votes and inform how funds from the Axie community treasury are spent.

_ Almost all Web3 games announce in advance about the distribution and use of resources, and they write a white paper that is made available for everyone to see.

2. STEPN

STEPN

Move-to-Earn (M2E)

_ a Game-Fi project, where players can make GST tokens earned through walking, jogging or running While wearing sneaker NFTs that are traded within the platform.

_ The amount of tokens mined varies based on the rarity, performance, and stats of the sneakers, and the daily mining limit also varies depending on the number of NFTs you own.



It gained so much popularity that it accounted for about 20% of Solana network users, and it was one of the cases that onboarded the most Web2 users to Web3.

STEPN: <https://stepn.com/>

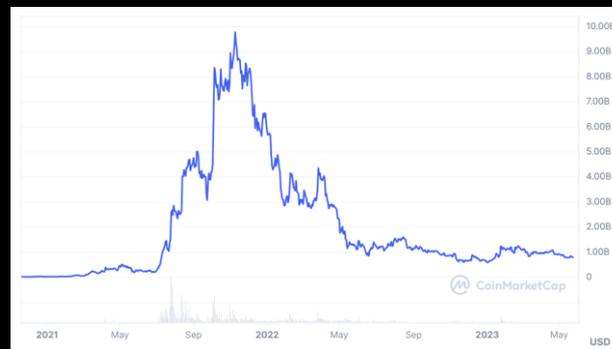
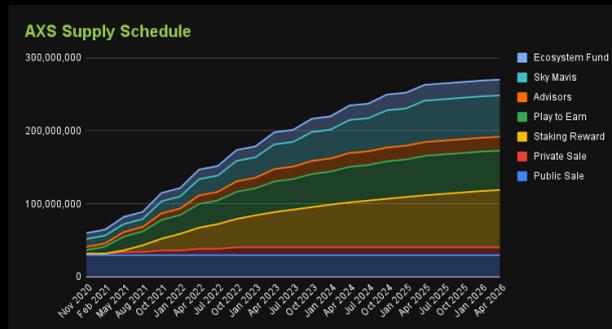
2. STEP N

X2E

X(activity)-to-Earn

_ There's an inevitable moment when the supply becomes greater than demand. X2E models faced sudden inflation due to an oversupply of tokens caused by a sudden increase in users and failure to secure token burn mechanisms. (If liquidity is secured through various utilities, it can maintain a large number of users.)

_ Directly linking income to the traditional game model for fun makes it difficult to sustain.



3. Star Atlas

Star Atlas

Metaverse, Triple A game

_ a next-gen gaming metaverse emerging from the confluence of state-of-the-art blockchain, real-time graphics, multiplayer video game, and decentralized financial technologies. It is a grand strategy game of space exploration, combat, and political intrigue set in the 26th century.

STAR ATLAS



Star Atlas: <https://staratlas.com/>

3. Star Atlas

Could it be that Web3 games are not enjoyable simply because they are 'Web3 games'?

STAR ATLAS



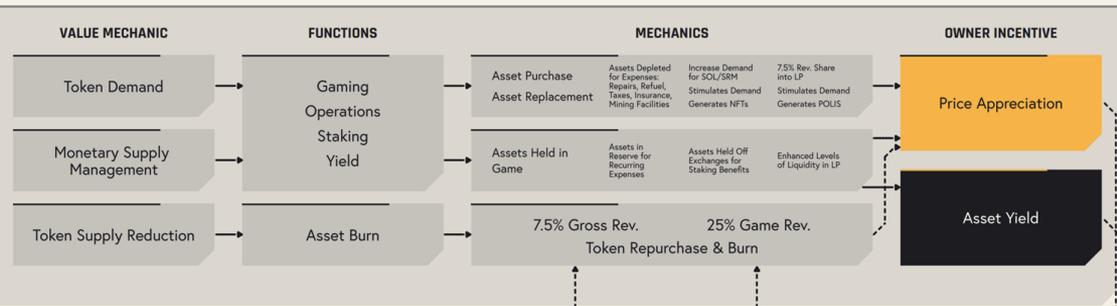
3. Star Atlas

_ Not solely focused on maximizing user profits, but on designing tokenomics such that the incorporation of blockchain technology adds an extra layer of enjoyment.

_ There's a recent trend of games being launched that adopt intricate tokenomics, taking into account a variety of economic factors, rather than sticking to basic tokenomics.

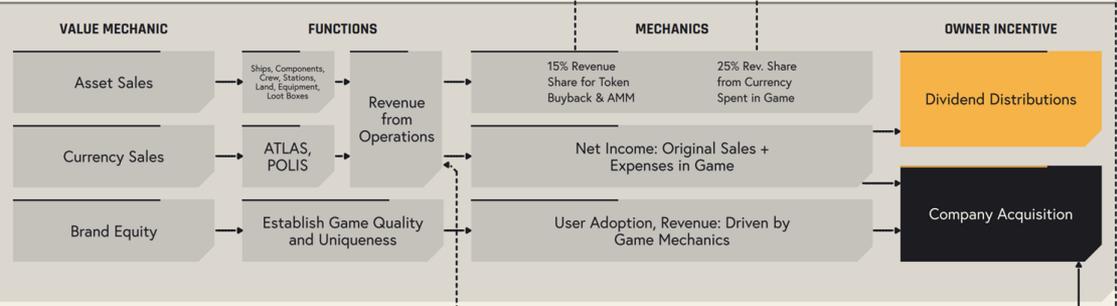
_ However, such large-scale games require a minimum of five years or more for development, and games developed by Web2 companies utilizing their existing domains are expected to be launched more quickly.

STAKEHOLDER Tokens



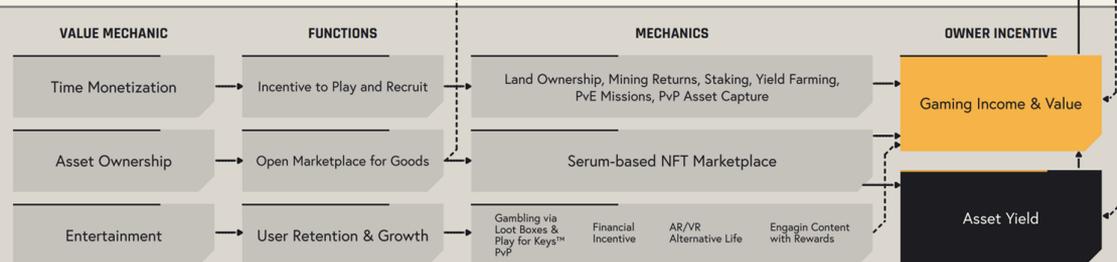
STAKEHOLDER

Equity



STAKEHOLDER

Gamer

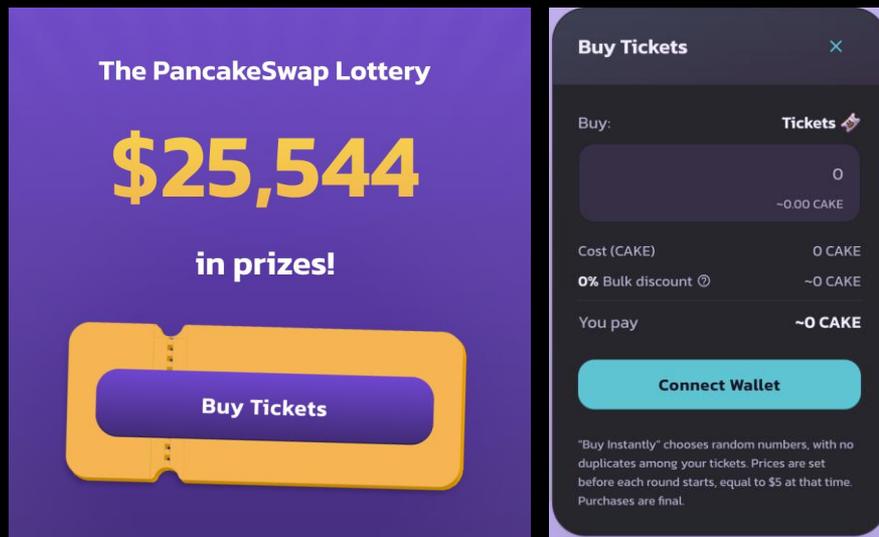


4. Mini games

Mini games

Marketing, Strategy

- _ Lottery game
- _ Tokens needed in mini-games can help directly and indirectly acquire DeFi liquidity, and they're also sufficient to attract users.
- _ in the past, it was not easy to launch products combining financial and gaming systems, but with the decentralization of finance, various utilities can be presented.



PancakeSwap: <https://pancakeswap.finance/lottery>

5. MapleStory

MapleStory

Web2 domain games

_ A blockchain gaming ecosystem based on Nexon's popular IP, MapleStory. This ecosystem integrates multiple games, NFTs, and services, aiming to connect them into one cohesive platform, allowing players to participate in the MapleStory world in various ways and generate profits.



Nexon MapleStory Universe: <https://maplestoryuniverse.io/>

Reasons for traditional Web2 gaming companies venturing into Web3

- _ Elements like NFTs can help to initially understand the general market atmosphere, which is advantageous for startups.
- _ It becomes easier to form alliances with other games or platforms. (Scalability)
- _ By triggering a variety of on-chain transactions, it can generate fee revenue, aiming to create even more substantial profits than conventional closed Web2 games.

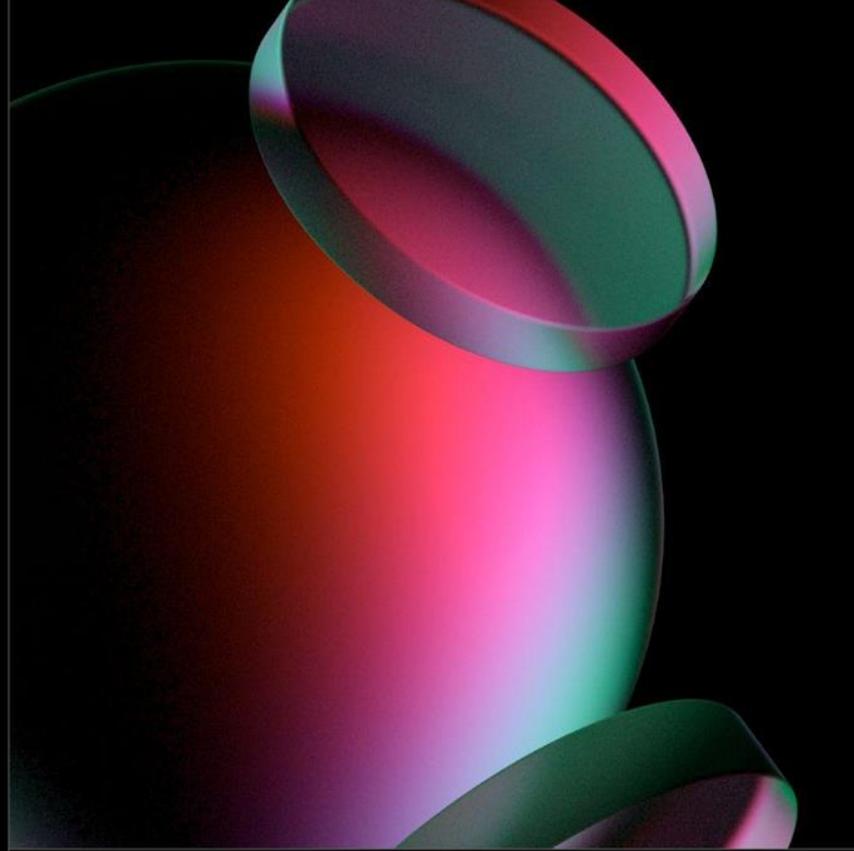
5. MapleStory

But,
There are
also concern
and careful
consideratio
n

- _ Compared to the established Web2 market, Web3 is still in its early stages and is relatively immature.
- _ There are concerns that elements like NFTs could potentially harm intellectual property.
- _ By attempting to integrate blockchain technology partially, we aim to venture into the Web3 business in a more stable way.

Future of Web3 Games

Play-and-Own





Solana Foundation

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