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FinTech University – FinTech and Gaming

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- **There are many similarities and synergies between FinTech and the gaming industry**
 - Highly regulated industries
 - Focused on promoting user experience
- **Nature of gaming as a historically illegal activity sets it apart**
 - Politics around expanded gaming legislation has been an obstacle to technological advances
- **FinTech: Changing the Game**
 - Gaming industry now embracing FinTech, propelled by:
 - COVID-19 pandemic and the need for online and touchless capabilities
 - Repeal of Professional and Amateur Sports Protection Act (PASPA)

- **What is FinTech?**
 - FinTech is a dynamic segment of the financial services industry where technology focused startups, well established technology firms, and traditional financial services firms develop new technologies to improve the industry
 - Examples include peer-to-peer payment technology, peer-to-peer lending, clearing and settlements solutions built on Blockchain technology, platforms for trading digital assets, and other customer focused solutions
 - FinTech has also crossed over into a number of industries including gambling and online video gaming
 - The application of existing state and federal laws to FinTech in the gambling and gaming industries is unclear

- **Gaming is a highly regulated industry**
 - Generally, anti-gambling laws prohibit placing a bet, stake or wager on an event whose outcome is determined predominantly by chance in the hope of receiving something of value, and anti-lottery laws generally prohibit private lotteries consisting of a prize (anything of value), chance, and mandatory consideration which can be monetary or non-monetary

- **Gaming companies need to be aware of the federal legal framework**
 - Examples of key federal laws:
 - Travel Act - Prohibits and criminalizes interstate travel or use of any facility, e.g., telephone lines, in interstate commerce to participate in illegal gambling
 - Unlawful Internet Gambling Enforcement Act of 2006 - Prohibits gambling businesses from knowingly accepting payments to settle unlawful internet gambling debts
 - Wire Act - Prohibits gambling businesses from knowingly using wire communication facilities for the transmission of bets or wagers

- **State-specific laws and regulations build upon federal framework increasing the complexity of operation within the gaming industry**

- **Hawaii:** Hawaii has one of the strictest anti-gambling laws in the country. Hawaii law not only prohibits “gambling,” but also makes the act of “promoting gambling” a crime.
- **Washington:** Under Washington law, “professional gambling” is a criminal offense. Washington’s broad definition of “professional gambling” is very similar to Hawaii’s definition of “advance gambling activity.” Specifically, Washington law provides that a person is engaged in “professional gambling” when that person “knowingly engages in conduct which materially aids any form of gambling activity.”
- **Montana:** Montana has a general prohibition on internet gambling. Montana defines the term “illegal gambling enterprise” as “a gambling enterprise that violates or is not specifically authorized by a statute or a rule of the department. The term includes: ... (e) internet gambling.” Similar to Hawaii and Washington, Montana not only makes operating an illegal gambling enterprise a misdemeanor, but also criminalizes “purposely or knowingly advertis[ing] for or solicit[ing] another person to participate in an illegal gambling enterprise.”

- **Online gaming: Gateway to FinTech**
 - Necessitates the use of FinTech in connection with payment processing
 - High volume of transactions lends itself to FinTech solutions
 - Opened the door to further innovation for mobile payments, enhancing the customer experience, and giving customers more options

- **Mobile Payments**
 - Development and use of e-wallet capabilities that offer an “omnichannel approach”
 - Permit customers to transfer funds, wager across the platforms, and engage in sports betting and internet gaming where legal
 - Incorporates customer loyalty programs to personalize the user experience based on the data collected
 - Borrowing from retail apps, e.g., Starbucks

- **Regulatory Considerations**
 - This remains a highly regulated area
 - Regulators need continued education on FinTech, including mobile payment mechanisms, to enable the creation of laws and regulations that permit the development and implementation of FinTech solutions
 - Use of FinTech in regulated gaming still in early stages: less than 10 states have adopted cashless gaming and digital payment options

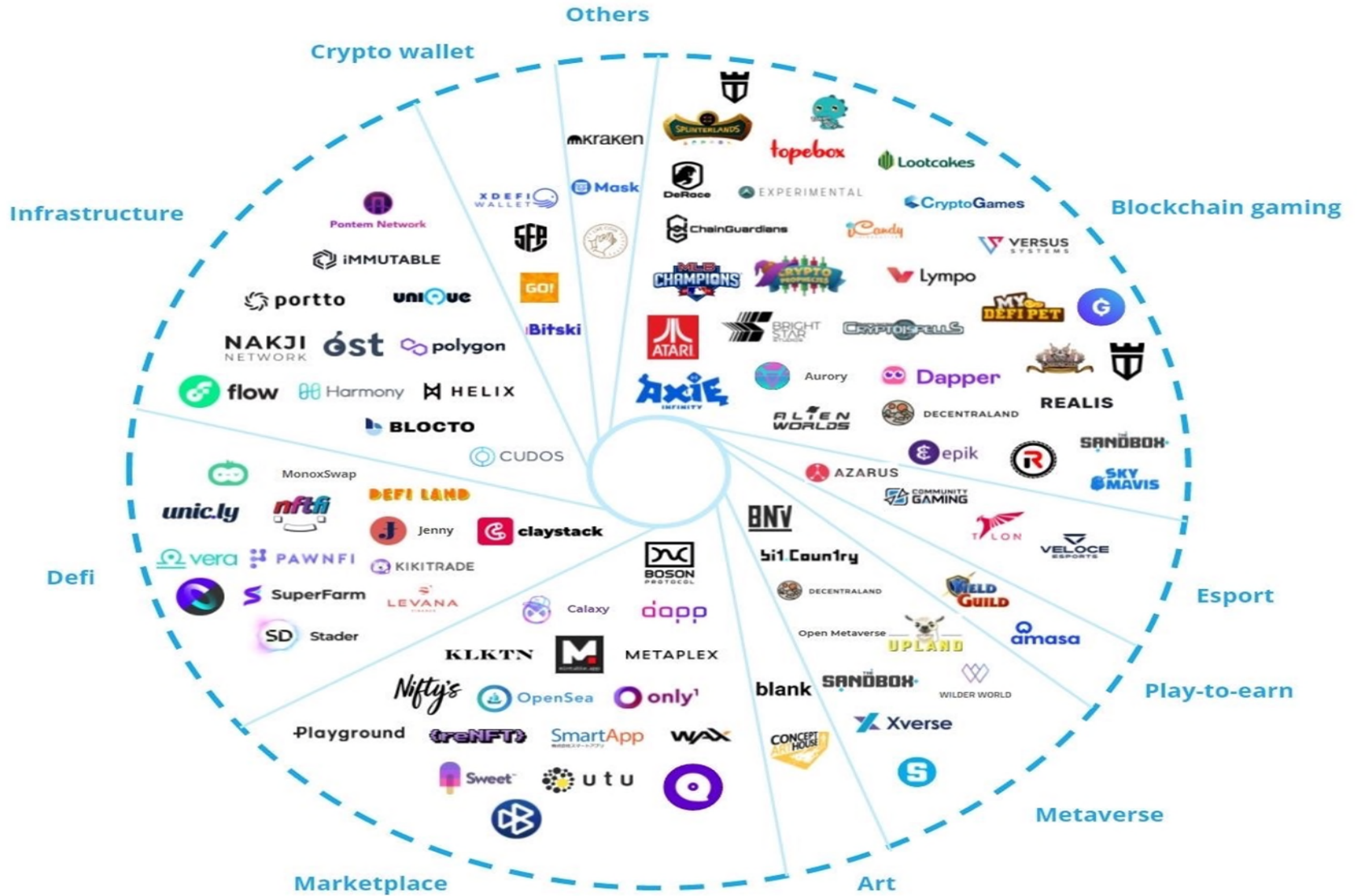
The First Cashless Casino



- Resorts World Las Vegas opened in June 2021
- First casino to fully embrace FinTech
- Utilizes single app to make retail purchases while gaming
 - Launched cashless gaming with its mobile app feature called Play+
 - Allows guests to use the Resorts World app to pay at gaming tables or to scan a QR code at slot machines
- RFID chips at table games track all bets players made

- **Tribal gaming operators, like their commercial counterparts, are pursuing opportunities in online gaming**
- **Regulation through Indian Gaming Regulatory Act**
 - Tribal-state compacts have been expanding legal gaming to include online gaming and sports betting
 - “Hub and spoke model” litigation
- **Tribal-commercial partnerships on the rise**
 - States may be more inclined to legalize expanded gaming for tribal nations only
 - We are seeing commercial operators partnering with tribal operators increasingly in the area of mobile sports betting

- Online gaming platforms need to be aware of when in-game tokens or other virtual currency may run afoul of anti-gambling laws
 - Compliance red flags:
 - Virtual currency that constitutes “something of value” and is used in a game of chance
 - Transferrable in-game currencies, i.e., those that can be exchanged with other players or on the secondary market for real money or property
- 2018 Ninth Circuit decision: in-game currency constituted illegal gambling under state law
 - Departed from prior precedent in other states (analysis is state-specific)
 - Decision allowed plaintiffs to proceed with their case, but ultimately led to a \$155M class-action settlement with online gaming company defendant
 - Key issue: whether the “chips” players were required to use to play the game were a thing of value under state law



- The idea of a blockchain was introduced in 2008 as a basis for the virtual currency Bitcoin, which is an example of an unrestricted blockchain
- Blockchain technology is a distributed list of all transactions across a peer-to-peer network
- The blockchain is “authoritative” because every user agrees on the record
- In some blockchain initiatives there are no central, regulated institutions playing any role in the process
- Advocates of blockchain technology believe it could substantially improve the trading, clearance and settlement of securities
- Blockchain users can propose new transactions and, depending on the blockchain chosen, they can either contribute to validation collectively or have a subset of users responsible for this task
- A transaction is validated when a specified proportion of the network’s validators have reached a consensus as to its legitimacy
- Changes to the shared database are then reflected in its digitally signed versions, which users can store locally (either in their entirety or with only a subset of transactions/accounts visible)

- Users can then extract the updated information they need for conducting their respective businesses from these locally stored databases
- Blockchains allow their users to store and access information relating to a given set of assets and their holders in a shared database of either transactions or account balances
- In financial markets, the substantial de-materialization of securities and cash has progressively shifted the settlement of a trade from the physical delivery and paper-based recording, to a system of book transfers in digital databases
- Blockchains allow their users to reach consensus on a particular version of the distributed ledger, in particular on the sequential order of transactions
- This means there cannot be any doubt as to the users' respective holdings
- Central validation is replaced in a blockchain by a set of cryptographic solutions and economic incentives that combine to prevent illicit updates and reconcile discrepancies
- The ledger produced can thus be considered authoritative, although its management is shared among users with conflicting incentives

- We have spoken about “validation” as fundamental attribute of blockchain technology, but what does it mean in practice?
- Generally, when we discuss validation, we are talking about something called a consensus algorithm
- Essentially, a consensus algorithm refers to a type of formulaic methodology that a particular blockchain protocol requires participants to do in order to validate transactions
- Popular types of consensus algorithms:
 - Proof of work
 - Proof of stake
 - Proof of coverage

- There are different wallet types that vary according to the technology employed, where and how the value is stored, and who controls the value
- Wallets where user funds are controlled by third parties are called “hosted wallets,” whereas wallets where users control the funds are called “unhosted wallets”
- In November 2015, the ERC-20 standard was proposed for the first time
- This standard gave developers an “out of the box” solution for creating fungible tokens on the Ethereum network that could easily be traded for other tokens under the same standard
- By adhering to this standard, tokens were easily supported by wallets such as Metamask and MyEther-Wallet and quickly became adopted as a go-to solution for token issuers on Ethereum
- Determining the regulatory treatment of a digital wallet depends on four criteria: (i) who owns the value; (ii) where the value is stored; (iii) whether the owner interacts directly with the payment system where the digital asset runs; and (iv) whether the person acting as intermediary has total independent control over the value

- A new type of consensus algorithm—proof of play
- Combination of digital assets in the form of crypto tokens and non-fungible tokens (NFTs)
- Certain games existing and currently in development essentially allow a user to:
 - Purchase avatars/characters represented by an NFT to compete with other users in player vs. player or player vs. environment gameplay
 - Acquire virtual real estate and develop said real estate
 - Interact with other users in a social media-like “metaverse”

- NFTs have taken the world by storm. NFTs are quickly gaining notoriety today as a popular means of buying and selling digital collectibles representing tangible and intangible assets across multiple industries, including art, sports, music, fashion and gaming
- Since November 2017, there has been approximately \$200 million spent on NFTs, with perhaps the most famous sale occurring on March 11, 2021, when artist Mike Winkelmann, also known as Beeple, used an NFT to sell his digital art “Everydays—The First 5000 Days” for \$69 million
- The sale was the third-highest price paid for a piece of art by a living artist
- Four days prior to Beeple’s sale, an NFT of a video clip of LeBron James dunking a basketball sold for \$208,000 on NBA Top Shot.
- One of the more exciting possibilities for NFTs lies in the creation of new markets and forms of investments whereby certain physical assets can be fractionalized and sold to multiple consumers, which could increase the worth and revenue of the underlying asset
- As NFTs proliferate across multiple mediums and technologists develop new ways to deploy NFTs, particularly in the financial services sector, these innovators will inevitably run headfirst into regulators tasked with the challenge of protecting investors and maintaining safe, sound and efficient markets

- NFTs are not like cryptocurrencies such as Bitcoin and Ethereum, which function as the native asset of a blockchain.
- NFTs are created as part of a platform built on an existing blockchain (like the Ethereum blockchain) and are not fungible like other cryptocurrencies, meaning NFTs cannot be traded or exchanged for one another without inherent diminution in value (i.e., one dollar is always worth one dollar and one Bitcoin is always equal to another Bitcoin)
- NFTs are individually unique and use blockchain technology to establish authenticity, ownership and transferability of a unique asset
- An NFT is created from digital objects that represent both tangible and intangible property, including, but not limited to, (i) artwork, (ii) videos, (iii) collectibles and antiques, (iv) video game avatars, and (v) music
- When an individual purchases an NFT, the purchaser can receive exclusive ownership rights to the underlying asset as well as a digital token with unique data verifying the provenance of the underlying asset
- Blockchain technology and NFTs can provide artists, athletes and celebrities a unique opportunity to leverage their fame and talent in the digital space and monetize their wares

Money Transmission and Gaming

- The term “money transmitter” includes a person that engages in the acceptance of currency, funds, or other value that substitute for currency from one person and the transmission of currency, funds, or other value that substitutes for currency to another location or person by any means.
- It is important to note that the definition of a money transmitter does not differentiate between real currencies and instruments deemed convertible virtual currencies (CVCs).
- A person accepting or transmitting anything of value that substitutes for currency (such as Bitcoin or other digital asset) will be viewed as a money transmitter.
- Any entity or person, including certain foreign-located persons that engage in money transmission in any amount is subject to the BSA rules.
- Persons operating money transmitting businesses must register as such with FinCEN. The failure to register a money transmitting business is a federal offense punishable by civil and criminal penalty.
- The jurisdiction of FinCEN is proscribed under the BSA.

- Decentralized Finance (“DeFi”) markets are a location where some users put their in-game assets to work
- Platforms like Yield Guild Games facilitate borrowing and lending of in-game assets such that players who do not have the upfront capital required to purchase items can still participate in games by forfeiting a portion of their earnings to item lenders
- With the introduction of blockchain-based assets to video games comes the possibility for entirely new developer business models and gamer earning opportunities
- Prior to 2010, the most prevalent business model for the gaming industry was pay-to-play, whereby development studios and publishers generated revenue from upfront game sales and, in some cases, subscriptions
- Collaborations with advertisers for in-game advertisements were few and far between
- Gamers had little to no opportunity for capturing value from games outside of their enjoyment of the in-game experience
- The majority of blockchain games today, at their core, borrow heavily from mechanisms seen in DeFi applications that explicitly incentivize usage of their products and services with financial rewards

	Pay to Play (1970s)	Free to Play (2010s)	Blockchain Enabled (2020s)
Developer Revenue	Upfront game purchases Monthly/annual subscription	Freemium In-game item purchases Advertising	Presale of game items or governance tokens Fees on secondary market trading activity
Gamer Monetization	In-store trade-ins	eSports tournaments Streaming (e.g., Twitch) & Endorsements	Gameplay rewards / in-game tournaments Secondary market sales of in-game items and currencies
Driving Factors	Sales primarily limited to physical store footprint Digital distribution methods limited	Massive populations with internet access creates large distribution channel Rapid user onboarding through free to play revenue models	Global, permissionless value transfer enabled by blockchain Rapid user onboarding through in-game, liquid rewards



FORTNITE

**CALL OF DUTY
WARZONE**



**GODS
UNCHAINED**



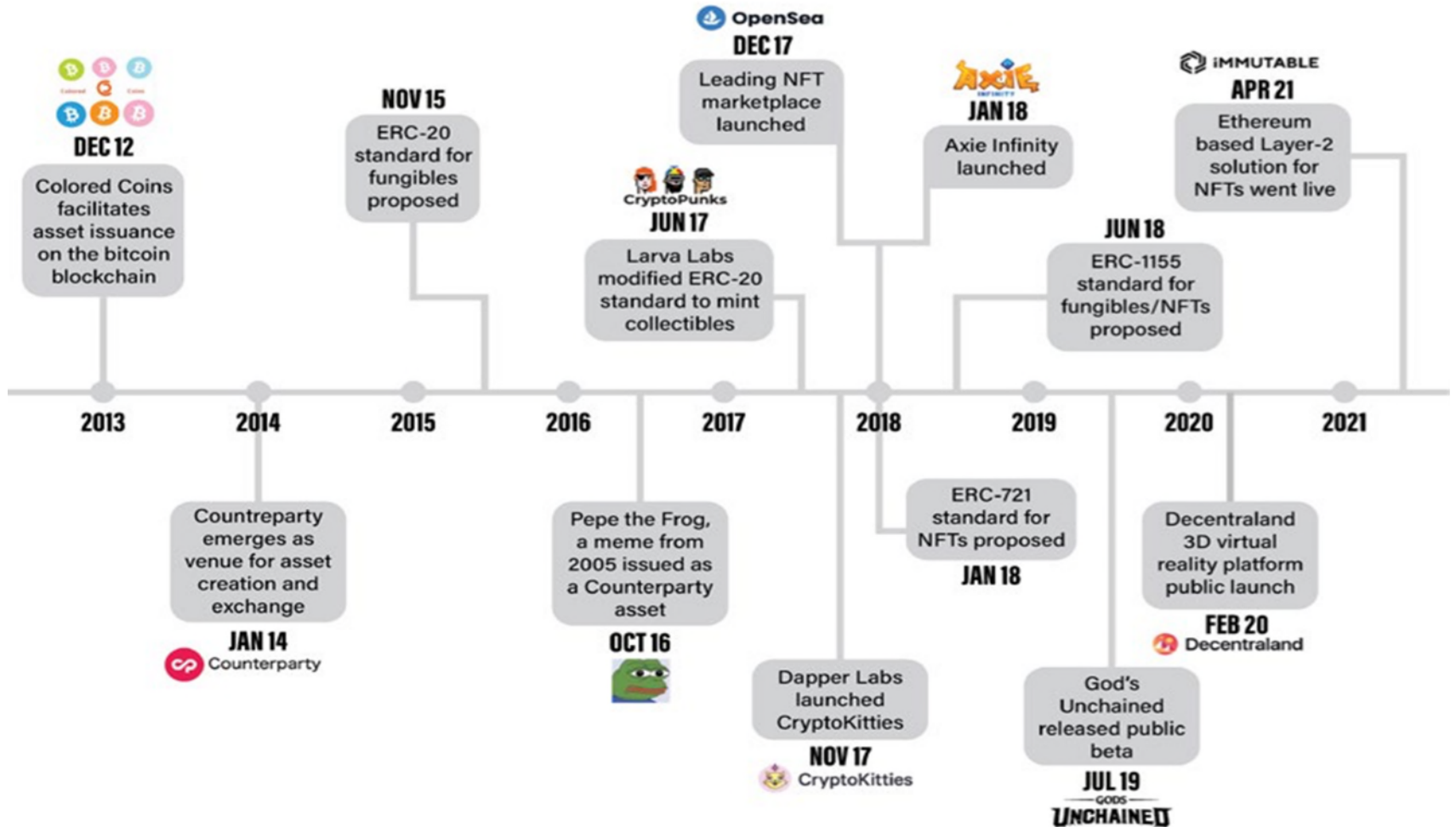
ROBLOX



STAR ATLAS



Blockchain Gaming History



Source: The Block Research

In-Game Assets



Blockchain-Based Games



Development Studios



Marketplaces



L2 Scaling Solutions / Sidechains



Infrastructure and Tooling



Layer-One Blockchains



Source: The Block Research; Represents select industry participants and is not an exhaustive list.

Role Playing Games (RPG)

ILLUVIUM



Massively Multiplayer Online (MMO)

BLANKOS
BLOCK PARTY



STAR ATLAS

Exploration



Strategy



Fantasy

sorare



Collectibles



CryptoKitties



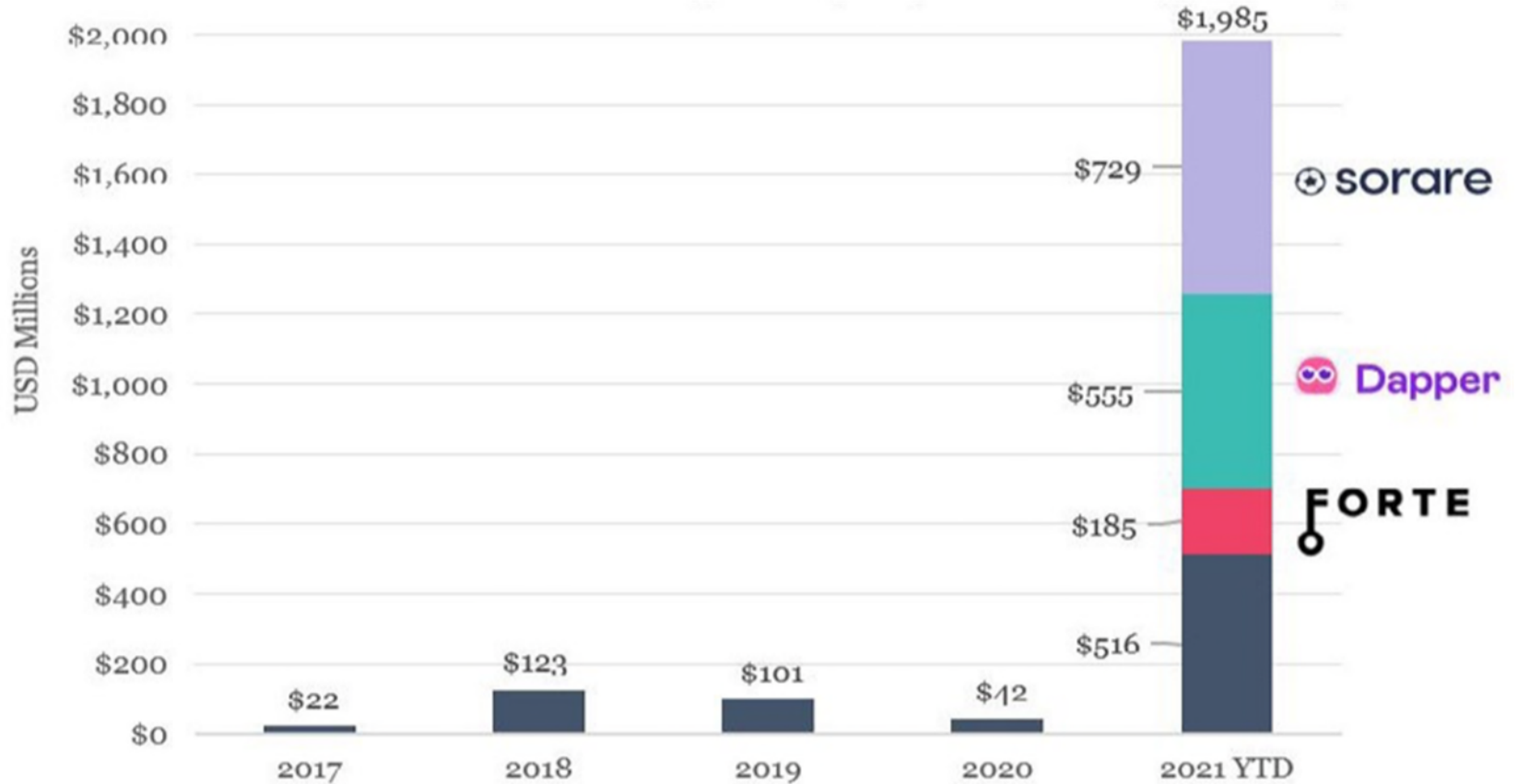
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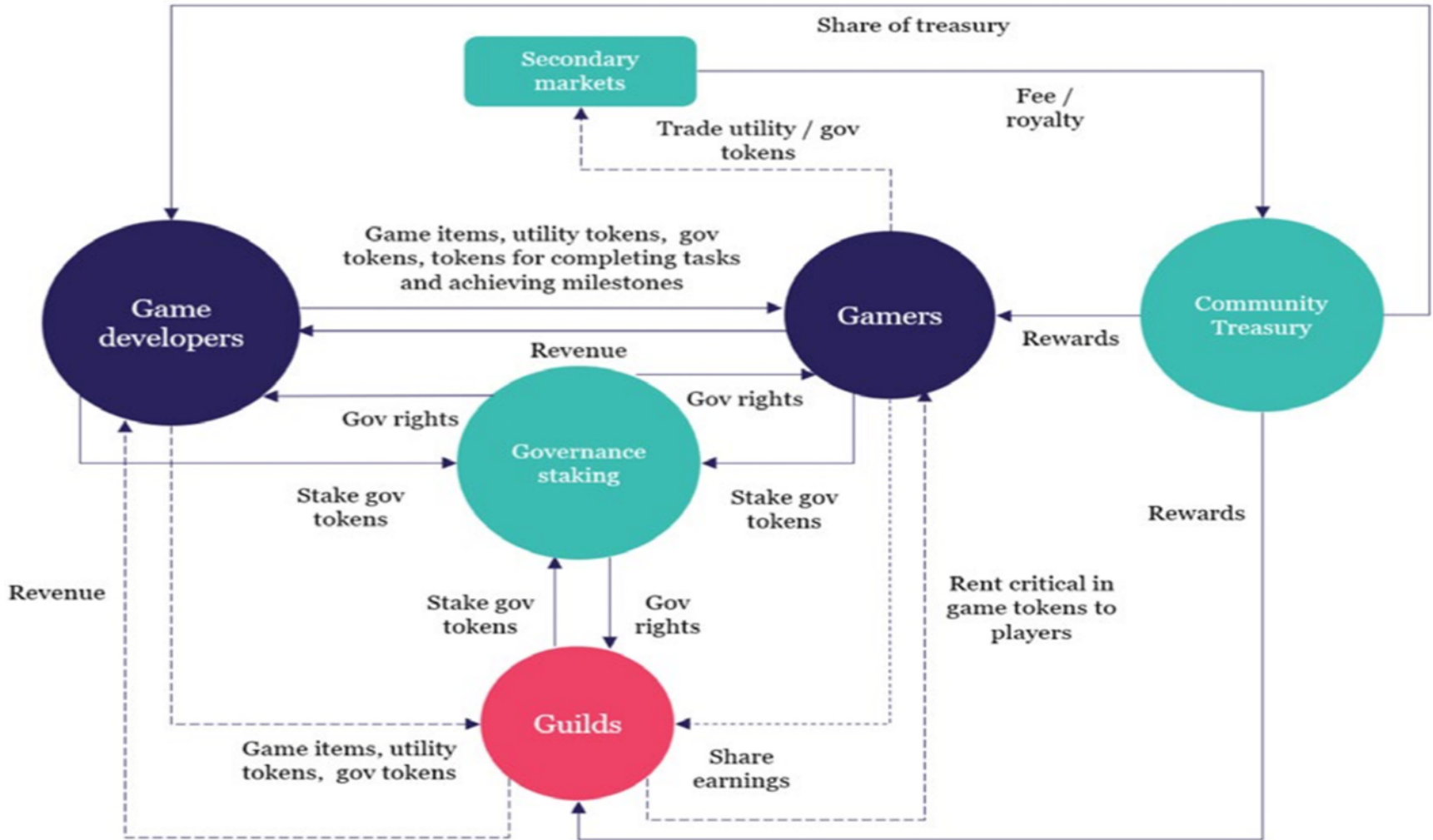
Source: The Block Research; Represents select industry participants and is not an exhaustive list.

Blockchain Gaming Fundraising & Investors Overview ⁽¹⁾				
Company	Segment	Funding (\$MM) ⁽²⁾	Valuation (date) (\$MM)	Select Investors
 sorare	Dev. Studio	\$739.2	\$4,300.0 (Sep-21)	  POLYCHAIN CAPITAL
 Dapper	Dev. Studio/ Infrastructure	\$607.5	\$7,600.0 (Sep-21)	 
 FORTE	Infrastructure	\$185.0	\$1,000.0 (May-21)	 Paradigm 
 animoca BRANDS	Dev. Studio	\$180.6	\$1,000.0 (Jul-21)	 SoftBank 
 SKY MAVIS	Dev. Studio	\$161.0	\$2,800.0 (Oct-21)	 
 OpenSea	Marketplace	\$127.2	\$1,500.0 (Jul-21)	
 GENIES	Dev. Studio	\$117.0	Undisclosed	
 MYTHICAL GAMES	Infrastructure	\$110.0	Undisclosed	
 iMMUTABLE	Infrastructure	\$77.6	Undisclosed	
 ENJIN	Infrastructure	\$61.9	Undisclosed	

Source: Crunchbase; (1) Represents select companies. (2) Funding represents cumulative funding. Data through 10/05/2021.



Source: The Block Research, Crunchbase, Pitchbook; Data through 10/04/2021.



Source: The Block Research

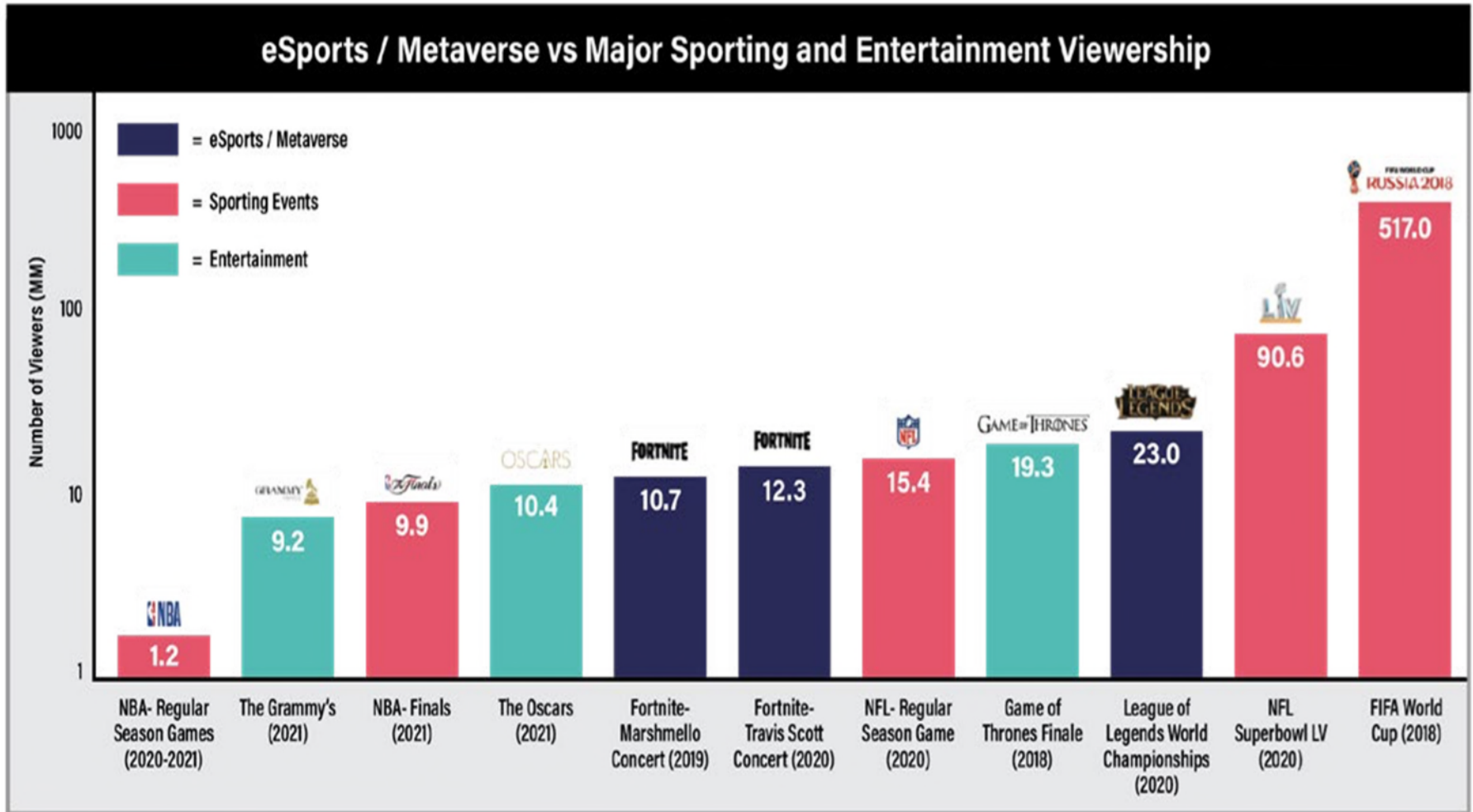
Axie Infinity

- Axie Infinity is a blockchain-based trading and battling game that is partially owned and operated by its players
- Inspired by popular games like Pokémon and Tamagotchi, Axie Infinity allows players to collect, breed, raise, battle and trade token-based creatures known as Axies
- These Axies can take various forms, and there are more than 500 different body parts available, including aquatic, beast, bird, bug, plant and reptile parts.
- Parts from each type class come in four different rarity scales: common, rare, ultra rare and legendary — and Axies can have any combination of body parts, making them highly variable and often rare and unique
- Each Axie is a [non-fungible token](#) with different attributes and strengths and can be entered into 3v3 battles, with the winning team earning more experience (exp) points that are used to level up an Axie's stats or evolve their body parts
- Axies can be bred together to produce new and unique offspring, which can be used or sold on the Axie marketplace
- The Axie Infinity ecosystem also has its own unique [governance token](#), known as Axie Infinity Shards (AXS)

- These are used to participate in key governance votes and will give holders a say in how funds in the Axie Community Treasury are spent
- Each Axie possesses six out of the hundreds of different potential body parts — each of which has its own battle move
- This produces essentially endless variety among Axies, with most Axies having relatively weak statistics, while those with the strongest combination of body parts can have incredible stats
- Unlike some other blockchain-based battling and breeding games, each Axie can only be bred a total of seven times to help control the population of Axies
- Axie Infinity has its own mating hub to help players find a suitable match to breed their Axie with to stand the best chance at producing a rare or powerful offspring. It costs 0.005 ETH in addition to Small Love Potion (SLP) tokens to breed Axies
- AXS token holders will soon be able to [stake](#) their tokens to receive regular rewards
- But unlike some other stakeable assets, AXS holders will also need to vote and play to claim their rewards

- In prior sessions of FinTech University, we have spoken at length of regulatory issues in the blockchain space related to (1) U.S. securities laws and (2) U.S. money transmission laws
- Blockchain-based games are no different from trading platforms that facilitate transactions in digital assets or even the digital assets themselves when it comes to the applicability of U.S. regulation
- With blockchain-based games, we are evaluating the ecosystem using the same case law (*e.g.*, *Howey test* and *Reves test*) and the same regulatory framework (promulgated by the SEC and FinCen, as applicable)

- To the extent a game utilizes both an NFT and a cryptocurrency, it is important that we evaluate these two items both individually and collectively to understand how U.S. securities could apply
 - Is the NFT a security?
 - Is the cryptocurrency a security?
 - What happens if the NFT is not a security, but the cryptocurrency could be deemed a security?
- Game developers need to be thoughtful in how they structure their games, particularly if the intent is to have a native digital asset have both in-game and out-of-game elements



Source: The Block Research, ESPN, Nielsen, CNBC, Forbes, The Verge, BBC, Hollywood Reporter, WSJ, FIFA

Role Playing Games (RPG)

 ILLUVIUM

 CHAIN
MONSTERS

 Chain
Square Circle

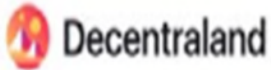
Massively Multiplayer Online (MMO)

 BLANKOS
BLOCK · PARTY

 EMBER
SWORD

 STAR ATLAS

Exploration

 Decentraland

 SOMNIUM
SPACE

 THE
SANDBOX

Strategy

 AXIE
INFINITY

 GODS
UNCHAINED

 SPLINTERLANDS

Fantasy

 sorare

 EMBER
SWORD

 9 LIVES
ARENA

Collectibles



CryptoKitties






Ravegotchi

 TOP
SHOT

Source: The Block Research; Represents select industry participants and is not an exhaustive list.

The Evolution of Secondary Markets for Video Game Assets

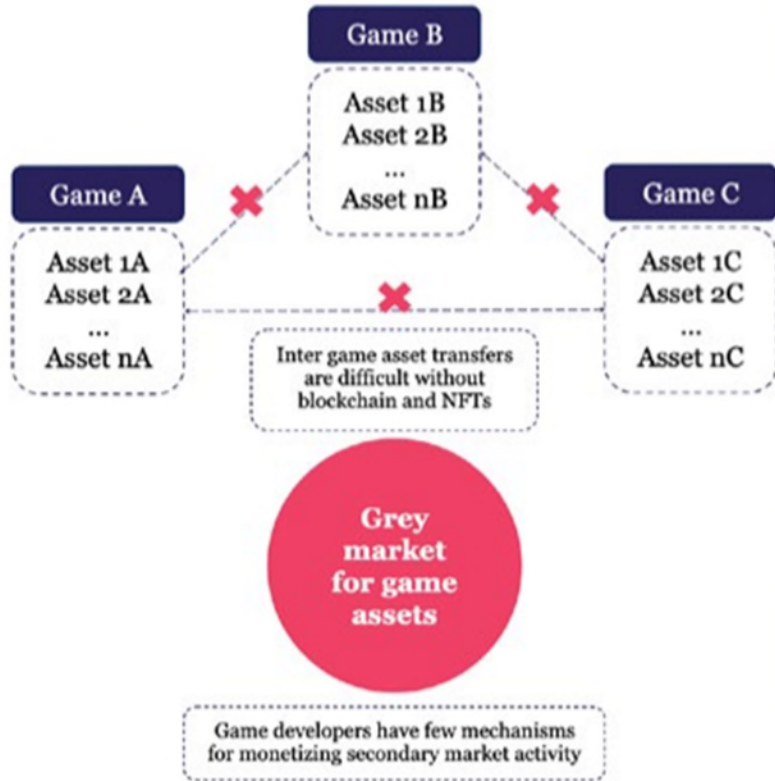
Physical Trade-ins	Online Marketplaces 1.0	Online Marketplaces 2.0
<p>Trade in physical games in-store for cash or credits towards new games</p> <p>Trade ins typically receive significant discount to primary market purchase price</p> <p>Trade in opportunities limited to physical store foot- print</p>	<p>Trade in-game items on online marketplace such as Steam Community Market</p> <p>Limits on individual user wallet balance (\$2,000) and maximum amount an item can be listed for (\$1,800) on Steam Community Market</p> <p>Sale proceeds must be spent on Steam platform and cannot be withdrawn to external</p>	<p>Trade in-game assets and NFTs on a peer-to-peer, global basis 24/7</p> <p>Generate proceeds in liquid digital bearer assets which can be withdrawn from marketplaces</p> <p>Multiple platforms supported; Game assets eligible for use out of in-game experiences.</p> <p>Fungible in-game assets listed range of centralized and decentralized exchanges</p>
		

Source: The Block Research

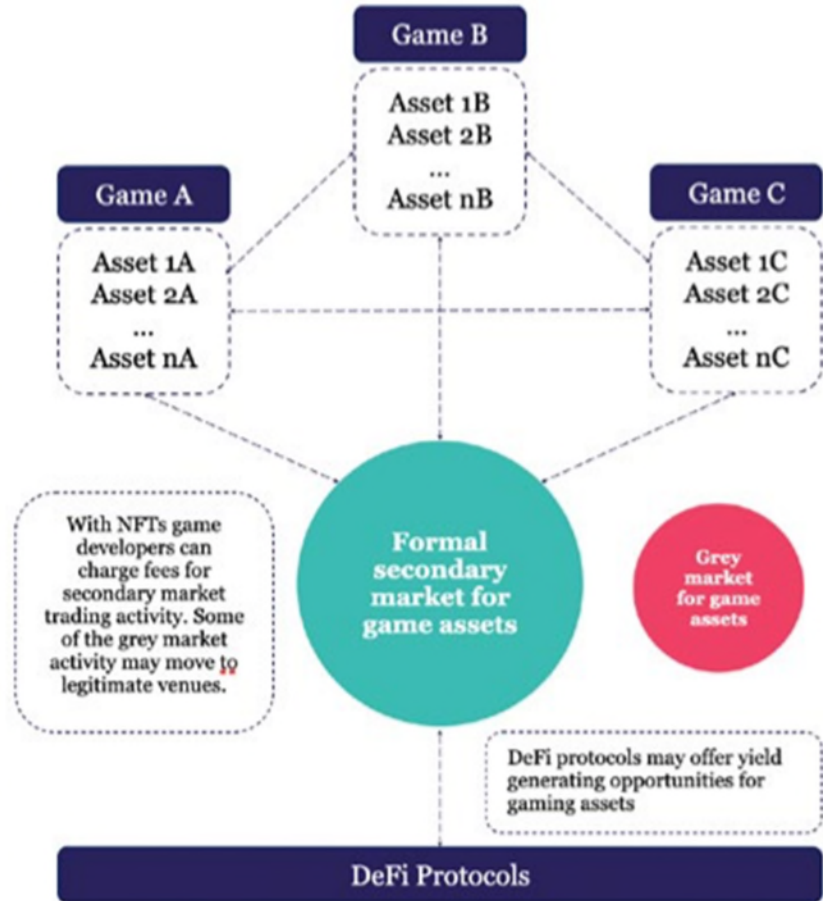
- In December 2017, OpenSea, the largest NFT marketplace, launched
- With the proliferation of NFTs that has occurred this year, OpenSea has seen traded value on its marketplace explode
- The total traded volume of NFTs on its platform exceeded \$3BN in August alone, up from \$280MM in July
- In April 2021, Immutable, the company behind the card-based warfare game Gods Unchained, launched the first Ethereum Layer-2 scaling solution tailored for NFTs, Immutable X



Inability to take assets out of game has historically resulted in grey markets for in-game items...



... but digital assets are bringing trading onto formal secondary markets



Source: The Block Research

Veloce

- Veloce is an organization operating in gaming and racing
- The gaming outfit runs multiple pro-esports teams while establishing the largest racing media network—our racing teams compete in the Extreme E series as well as the W Series
- Veloce Esports is a gaming organization focused on innovating within the racing esports space
- A pioneering the racing esports community by creating competitive teams, exciting events and exciting content
- Veloce operates several racing esports teams, both in-house, in F1 Esports, and across many other competitive leagues in any racing title
- Founded in 2018, our teams have triumphed across Forza, GT Sport, Assetto Corsa and Project Cars, achieving multiple podiums in the F1 Esports Championship

- **What is blockchain?**
 - Blockchain is a digital ledger that records all transactions across a network
- **Blockchain has the potential to streamline regulatory reporting requirements in the gaming industry**
 - If gaming companies created a token on the blockchain, the blockchain would capture all data associated with transactions using that token
 - Gaming companies would then be able to isolate and synthesize the data necessary for reporting requirements to be shared with regulators on a single immutable ledger
 - Creates an opportunity for regulators and gaming operators to work together in the reporting process

- Global movement towards incorporating FinTech and FinTech solutions into various industries, including gaming.
- Global gaming companies can improve efficiency and reduce costs by streamlining reporting requirements
- **Test Case**
 - The European Union Financial Transparency Gateway (EFTG) is a pilot project based on a Blockchain technology to bring together the information listed-companies are required to report to domestic regulators, transcending different file formats and languages
 - “This addresses the issue of cross-jurisdiction common reporting, including among subsidiaries, across EU member states
 - The adoption of international and pan-EU standards for financial reporting in formats like IFRS and XBRL enables greater alignment of regulatory, economic and commercial frameworks, with involvement from the EU Directorate-General for Financial Stability, Financial Services and Capital Markets Union (FISMA) and the European Securities and Markets Authority (ESMA).”

- **Incorporating FinTech into the gaming industry offers significant benefits for the industry**
- **Understanding the legal framework of the gaming industry is paramount to mitigating risk while innovating and incorporating FinTech solutions**
 - The existing laws and regulations do not provide the flexibility needed for the gaming industry to fully embrace FinTech
 - The cross-section between FinTech and gaming is largely a regulatory gray area
 - It is important to engage legal counsel in this area to monitor compliance risks
- **Partnerships with regulators are key to updating the gaming regulatory framework to account for FinTech and provide certainty**
 - Need to educate regulators and legislators on the benefits FinTech has to offer the gaming industry and how best to shape the regulatory landscape for the future

To learn more about our [FinTech and Regulation Practice](#), or to contact a member of our team, click [here](#) or visit our website at nelsonmullins.com.

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