

Skullcoin: Treasure Island

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Abstract.

Skullcoin introduces a unique Find-to-Earn concept, creating a GameFi with a sustainable economy, focusing on skill-based treasure hunting powered by meritocratic tokenomics. This Web3 game innovates Encrypted NFTs (eNFTs) with two layers of information: public and private, to embed secret clues for players to discover, emphasizing strategy and collaboration. The Proof-of-Game mechanism rewards players for their problem-solving skills, ensuring an equitable distribution of skullcoins without premine. On-chain mechanics based on Verifiable Random Function (VRF) ensure fairness in randomness. Designed to be resistant to AI, Skullcoin maintains a fair competition environment, promoting human creativity and interaction. Beyond entertainment, it serves as an educational platform on blockchain and digital currencies, fostering a community of learners and adventurers, and leading to the mass adoption of cryptocurrencies. Through engaging gameplay and a focus on merit, Skullcoin aims to blend gaming with educational insights into blockchain technology. In Skullcoin's universe, where NFTs gain new life and purpose through narrative-driven quests, digital tokens showcase intrinsic value. In Find-to-Earn, the coordinates that players need to find are akin to the target hash in Bitcoin but only for human minds.



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I. Introduction

1. Evolution of Value

The concept of value has been debated for centuries by philosophers and economists alike. Physiocracy, an economic theory developed in the 18th century, proposed that the wealth of nations comes from the soil that absorbs the energy of the sun. On the other hand, Adam Smith's labor theory of value suggests that the value of any good is determined by the amount of effort involved in manufacturing it. The subjective theory of value proposes that the value of any good is determined by the individuals or entities who are buying or selling it, rather than by its utility value or labor needed for production. Gold was once established as a universal payment equivalent and a measure of the cost of goods and services, but its link to paper banknotes was eventually lost, leading to endless money printing. In 2008, during the global crisis, when people around the world lost confidence in banks, Bitcoin was invented. Gold is just Bitcoin that cannot be sent over the Internet. Satoshi Nakamoto created an economic system in which subjective value is determined by humanity and objective value is produced by machines powered by renewable energy.



2. The Information Age

Numbers can set a measure of the prices of the exchange of goods and services, but the exchange of information and interaction with it carries no less value. Smart contracts make it possible to integrate into the blockchain code a transaction protocol designed to automatically execute, control or document legally significant events and actions in accordance with the terms of a contract or agreement. The goals of smart contracts are to reduce the need for trusted intermediaries, reduce arbitration and enforcement costs, and fraud losses. This technology is used in healthcare, lending, logistics, electoral processes, rent, the Internet of things and art.

3. Newfound Future Treasures

Art is a subjective expression of humanity challenging to quantify or value. Smart contracts have made it possible to create and transfer digital works of art called non-fungible tokens (NFTs) on the blockchain. This technology adds value by providing ease of use, blockchain security, and universal availability. Artists can sell their NFT collections to collectors who use cryptocurrency for purchase. However, the growing NFT market has led to unfair competition for possession of these works of art. Cryptocurrency market participants can purchase NFTs at the initial offering through the mint process, where they receive one or more random NFTs from the artist's shared collection. Participation in drawings to get into the whitelist is burdened with countless multi-accounts. Such accounts are created in order to increase the probability of participating in the drawing of access to the purchase of NFTs of this collection and exclude the honesty of this undertakings. The purpose of these players is to resell NFTs to the buyer who did not get on mint. Such inequality creates a problem in the market, but the big question is the value of the NFTs themselves after a certain period of time.

4. The Art of Deception

The value of NFT collections is based only on the excitement and its support in the information field, and the newsbreaks themselves cannot be endless without real use case. NFT collections do not have any wide use at present, the use of avatars is the ultimate innovation in this area, collections are only works of art, but when these works of art become too much, they lose their value. Therefore, two directions for the development of collections after their release were invented to maintain value.

II. Market problems

1. Copying

One approach to maintain value is to create a new NFT collection with bonuses for the holders of the original collection, but there is no utility behind NFTs, and it all comes down to copying entities. A good example is “Stacking dolls”: a set of wooden dolls of decreasing size placed one inside another. The wooden figure separates at the middle, top from bottom, to reveal a smaller figure of the same sort inside, which has, in turn, another figure inside of it, and so on. Each subsequent NFT collection that comes out of the original tend to have less and less value and understanding the nature of things, such an idea loses its meaning in the long run. Thus, interest in the original NFT collection will fade over time.

2. Printing

Staking refers to locking up NFTs on a platform or protocol in exchange for staking rewards and other benefits, such as the release of new tokens, which are issued by the creators of a project. As a result, the price of the collection increases due to the fact that the supply of NFTs artificially reduced from a market, which causes problem later on. Usually newly issued tokens have no use, as circulating supply of these tokens increases, the value goes down, therefore creating an inflated supply on the market, similarly to how money printing works. Avoiding token inflation ideology is what a lot of cryptocurrencies stand behind.



3. Game Finance

Only people potentially can give value to new tokens, due to their interaction. One of the most common types of interactions is gaming activity. Web3 gaming represents one of the biggest opportunities for the mass adoption of cryptocurrencies around the world. The integration of games and finances, protected by cryptography with the ability to economically interact between players through cryptocurrency and NFTs, gave birth to a new direction - Game Finance (GameFi). The main task of Web3 games, where value becomes a key element, is the creation of a game with sustainable economy, which turned out to be a serious challenge for game designers. This has led to the development of two main approaches in response to this challenge. Importantly, for a game to truly be considered part of GameFi, it must offer players the opportunity to “play for value”. This means that beyond the entertainment, GameFi games offer a platform for earning real economic rewards, making gameplay not only engaging but also financially beneficial. This approach positions GameFi at the intersection of gaming and finance, creating a unique ecosystem where strategic gameplay directly translates into economic gain. As a result, two directions were developed, representing attempts to respond to this challenge.

4. Play-to-Earn

Generally, the creators of the game will be the sole issuer of the crypto token, therefore it becomes the in-game currency. This concept was called Play-to-Earn, its main advantage was easy attraction of new players, due to the fact that they receive tokens for just playing. In terms of game theory, this is a non-zero-sum game where each player can win independently of the other player. Game tokens may initially have value in these games due to novelty and hype, but they tend to drop in value significantly as the number of tokens increases. As more players join and more tokens are distributed, the value of these tokens inevitably begins to diminish. This is due to the absence of an underlying asset or service backing the token's value. This cycle creates an unstable economy where the tokens' value is bound to decrease over time, contradicting the fundamental principles of scarcity and value in economics. Much like natural ecosystems where the balance and circulation of resources sustain life, economic systems require exchange and labor investment to maintain value and stability. Providing value without corresponding input or labor contradicts the fundamental laws of economic equilibrium, just as extracting resources from nature without considering their renewal leads to imbalance and depletion. Play-to-Earn model, with its promise of free tokens, initially generated significant interest, positioning itself as a gateway to the mass adoption of cryptocurrencies. However, the unsustainable economy of these Web3 games led to token devaluation and player disappointment, this experience built an unforeseen wall, hindering the potential widespread acceptance of cryptocurrencies and casting a shadow on the innovative potential of blockchain in gaming.

5. Move-to-Earn

The sports idea of Move-to-Earn develops the habit of walking or running, which is good for physical health. Mathematically, the idea lies in the reinvestment of received tokens by gaming activities (walking, running using GPS) so that the project lasts as long as possible. The psychology of this decision for players is based on excitement and the possibility of potentially getting even more issued tokens in the future. For many, that future never comes. In the beginning, demand is greater than supply in the market and the price of the token rises. This is a Ponzi scheme, when new players with their demand have to pay for the supply on the market, which is created by experienced players, because by playing they receive fabulous amounts of tokens from an endless supply. As a result, the breakdown of this economic system is the peak, where early players stop reinvesting new tokens received, having reached the highest limit in their receipt, and only begin to create an offer on the market by selling large volumes, and newly arrived players will not be able to buy such volumes, thus the value of the token begins to fall. The main problem for players that cost of entry outweighs the returns in long term. The conclusion is that a non-zero-sum game with its own cryptocurrency cannot exist for a long time in any form, in whatever form it is presented.



III. Game Theory

1. Non-zero-sum game

Non-zero-sum games create a scenario where one participant's success does not imply the failure of another. In such games, especially in Massively Multiplayer Online (MMO) games, players can interact and collaborate, creating complex economic and social structures. However, transferring these virtual values to the real-world economy requires the investment of tangible assets, often leading to the destabilization and devaluation of virtual assets. Approaches like Play2Earn and Move2Earn attempted to address this issue but encountered significant obstacles: token devaluation due to their endless issuance and dependency on the continuous influx of new players, resembling financial pyramids and Ponzi schemes. The lack of healthy competition and a real economic foundation in these GameFi models highlights the need to create games with a more sustainable and balanced economic approach.

2. Zero-sum game

Zero-sum games create scenarios where one participant's gain is possible only at the expense of another's loss. This concept, prevalent in various life aspects from economics to sports, is foundational for many classic games like poker and chess. From an economic standpoint, zero-sum games highlight the importance of competition as a market's driving force. Competition encourages participants to enhance their skills, innovation, and efficiency, thereby fostering growth and development. This principle isn't confined to economic models; it permeates the entire evolution history, where survival of the fittest and competition act as catalysts for adaptation and progress. In the realm of GameFi and digital currencies, the notion of zero-sum games gains particular significance. In such games, value is created and sustained through competition and achievements, making every victory and token the result of real efforts and contributions. To explore the creation of such a game, we need to discuss the main existing zero-sum games and the challenges they have faced in the modern world of evolving technologies.

3. Chess

Chess is a classic two-player strategy game played on an 8x8 board, aiming to checkmate the opponent's king. While it continues to inspire countless players and remains one of the world's most popular board games, the advent of powerful AI-driven chess engines has presented a challenge. Human players find it increasingly difficult to compete against these advanced systems, which can dampen the enjoyment and competitive spirit of the game. To address this, the chess community is exploring ways to integrate AI as a tool for learning and self-improvement, rather than merely as an opponent. Despite the challenges posed by AI, chess will always hold a cherished place in the hearts of its enthusiasts, though its competitive allure may wane as AI continues to evolve.

4. Go

Go, often viewed as the pinnacle of strategic board games due to its profound depth and complexity, is played on a vast 19x19 grid where players aim to claim territory using black and white stones. The game's beauty and intellectual challenge have been somewhat overshadowed by the rise of AI, notably marked by AlphaGo's series victory over world champion Lee Sedol. However, in one of the matches, Lee Sedol triumphed with a move that the AI had considered highly improbable. In an interview, Lee Sedol mentioned that this move was the only one he saw as viable, showcasing the limitless potential of human creative thinking. Despite this human victory, the overall dominance of AI in the series illustrates the undeniable prowess of artificial intelligence in mastering complex strategies.

5. Poker

Poker, unlike deterministic games such as Chess and Go, is a game of imperfect information involving chance. This complexity makes finding a Game Theory Optimal (GTO) strategy significantly more challenging for machines. Nonetheless, AI has made considerable progress, as demonstrated by programs like Libratus and Pluribus, which outperformed some of the world's best players, raising questions about the future of poker as a game where human insight plays a pivotal role. Poker is directly linked to value, with players' acumen and risk-taking pivotal in winning money. Besides AI, which players can also exploit, online poker faces an unresolved issue with its element of randomness, typically generated by a centralized Random Number Generator (RNG), potentially compromised by third parties. Blockchain technology introduces Verifiable Random Functions (VRF), enabling decentralized randomness computation. However, no current poker platforms utilize this, making it a critical component in GameFi for ensuring transparency and fairness in games.

IV. Decentralization

1. Freedom

"The only one who can be demand from the Count of Monte Cristo is Count of Monte Cristo." – Alexandre Dumas

In the middle of the 19th century, Alexis de Tocqueville first used the word decentralization, which referred to the French Revolution. Alexis de Tocqueville, being a lawyer, wrote: "Decentralization has, not only an administrative value but also a civic dimension since it increases the opportunities for citizens to take interest in public affairs; it makes them get accustomed to using freedom." Governments are becoming more dependent on software. Therefore, cryptography provides the opportunity to develop the idea of freedom in the digital world.

2. The Network State

In his book, Balaji Srinivasan described the vision of the world of the future, using examples of the development of states. Previously, the territory was the main criterion for the development of the state, the more land a person had, the stronger he would be. In today's world full of freedom and the ability to work remotely, the territorial advantage has lost its strength. Even strong armies will not be able to break into a hardware wallet protected by cryptography, because the distribution of value has become decentralized. Tokenization of decentralized blockchains and applications have become an indicator of the value of humanity, however it remains to be tested by time.

3. Value of Computing

"Energy is the currency of the future. Bitcoin makes energy transportable." - Paolo Ardoino

The original value of Bitcoin lies in its Proof-of-Work consensus, which operates on the basis of computing power that consumes electrical energy as the main source. To produce electrical energy, mankind had to work hard. Over time complexity of computing increases, due to Bitcoin consuming more electricity, therefore the cost of production goes up. With this technology, the converted energy can be utilized anywhere and at any time, so Bitcoin has a real value in relation to nature. Initially, no one had Bitcoin, although network participants received it only by confirming transactions, no one had a clear advantage over the Proof-of-Work consensus.



4. Competition

Bitcoin mining and transfers between network users were originally a kind of game and participation in it was an interest in a new idea. Satoshi Nakamoto's idea was for people to mine Bitcoin on the CPU. But subsequently technological progress has improved computing equipment, but the creator put in the Bitcoin code an increase in its computational complexity. If the mining and reward of each block of Bitcoin are considered according to Game Theory, this could be considered a zero-sum game, because for every mining participant winning a block, there are multiple ones who lose, having invested resources in mining. Mining is a competitive environment without the need to trust a centralized entity.

5. Bitcoin L2 Smart Contracts

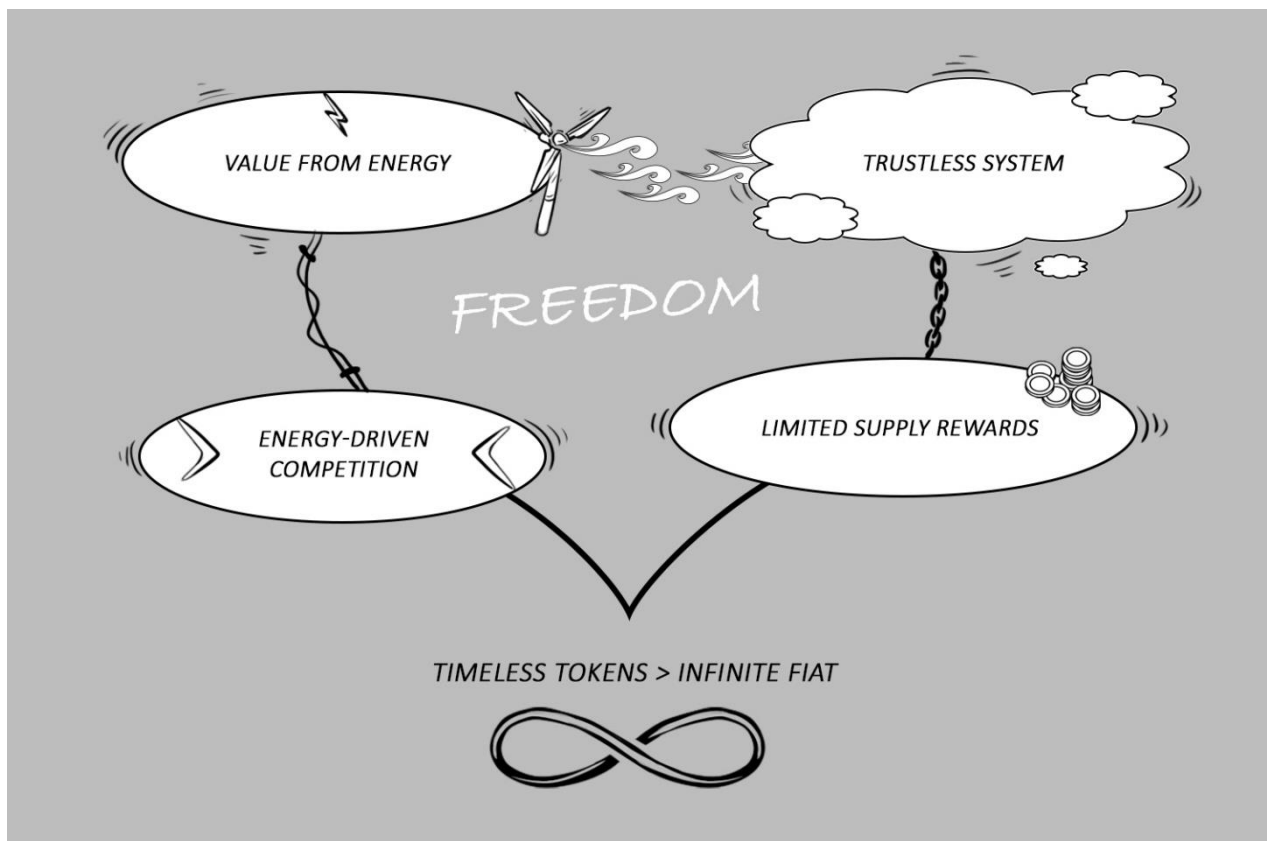
"I think it would be possible for BitDNS to be a completely separate network and separate block chain, yet share CPU power with Bitcoin". – Satoshi Nakamoto

The electricity generated by our brains, enough to light a bulb, symbolizes our central role in creation and innovation. This neural power is reflected in the digital world through innovations like Bitcoin. Satoshi Nakamoto's anonymity and disappearance enhanced the decentralized

nature of Bitcoin, leaving behind his vision of shared computing power across networks. This idea has been further developed to unleash Bitcoin's full potential. Layer 2 solutions on the Bitcoin blockchain enabling smart contract functionality and the creation of decentralized applications. Clarity, a programming language specifically designed for Stacks blockchain, offers a decidable language, the absence of a compiler, and visibility into Bitcoin's state. This development aligns with Nakamoto's vision of an independent Internet where trust in centralized entities is unnecessary. The energy used in Bitcoin mining is not just a numerical value but also powers the information embedded in smart contracts, combining the cognitive energy of human innovation with the computational power of blockchain technology.

6. Permissionless

Capitalism cannot exist without competition, but the question is how to make it fair without external supervision. That is why decentralization is the key to the money of the future. In conclusion, the picture illustrates how value is formed in a decentralized environment that will not be affected by time since energy is a valuable resource on the planet:



7. Equilibrium

Consider a theory that explains how to give the blockchain and the application built on it a timeless value based on decentralization. The word “equilibrium” in the name of the theory is chosen as a synonym for the phrase stability in time: “A decentralized blockchain created by a centralized entity will have a timeless value to humankind if it has fundamental value in the form of resources electrical energy and computing power that is used to create tokenized rewards with limited supply by users in a competitive environment based on the zero-sum game without the need to trust a centralized entity.”

8. A Beautiful Mind

“The energy of the mind is the essence of life.” – Aristotle

Neurons in our brains function in a somewhat decentralized way, interacting through electricity and chemical elements, resulting in ideas that a person turns into reality. Games such as chess and poker have endured for centuries, but AI has diminished the competitive element. Nevertheless, these games remain beloved by civilization and they will continue to exist. Technological progress allows solving games by finding the optimal strategy, and also allows to create completely new games that could not exist before. The advantage of the game over other projects in Web3 is that the game gives emotions to people, people are willing to contribute value for emotions in the first place. Games also provide a space for people to meet and connect. However, in order to build a competitive game in the Web3 era, it is crucial to develop a sustainable economic model. A common issue with current Web3 games is that they often prioritize the game token as the primary player goal, inevitably leading to inflation. For the economic model to work, people themselves must value the game they are competing for. Players need to be assured that the competition will be fair and based solely on their mental abilities, meaning the game should be unsolvable by AI. This underscores the importance of the human mind in designing game mechanics, as only human can create games where AI cannot easily find solution and it forms new language between humans. These games, based on fair competition principles, reflect the fundamental dynamics of Bitcoin mining and it should have many parallels with how Bitcoin itself works. Skullcoin is set many of these principles, marking a new chapter in game innovation.



V. Parallels

1. Fundamental value / Game finance

Described in Satoshi Nakamoto's white paper, Bitcoin's fundamental value lies in its decentralized nature and finite supply. Bitcoin represents not just technological progress but a novel approach to economic value, rooted in cryptographic principles and network decentralization.

The core value of Skullcoin lies in establishing a stable economic model in GameFi. This model aims to foster mass adoption of Web3 technologies by attracting an increasing number of players to its unique gaming environment. Skullcoin employs decentralization concepts to create an economically balanced game, where value is generated through gameplay and player interaction.

2. Blockchain / Timeline

The essence of blockchain, particularly in the context of Bitcoin, lies in its transparent and immutable nature. This digital ledger records transactions in a series of blocks, creating a trustless and decentralized system. The strength of blockchain is its ability to instill confidence among participants without the need for a central authority.

Timeline in Skullcoin is a sequence of episodes and events unfolding within the game universe, becoming a tool for storytelling and player engagement. It weaves the past, present, and future into an interactive narrative. This chronological arrangement provides players with a sense of progression and continuity. Each episode in the Timeline is a new chapter in the game's story, offering unique challenges and opportunities, much like how each block in a blockchain is a record of transactions.

3. Mining / Burning

Bitcoin's network is secured through a Proof-of-Work (PoW) mechanism. Miners contribute computational power to validate transactions and create new blocks. In return, they earn transaction fees and new bitcoins. This process not only ensures network security but also introduces bitcoins into circulation according to a predetermined rate.

Skullcoin adopts a Proof-of-Game (PoG) mechanism, where players mint NFT Tales and subsequently burn them at the contract address. In addition to burning NFTs, PoG also involves players in the main game mechanic - a treasure hunt, where players use intellectual effort in a competitive environment with equal footing to find treasures. This forms the basis of meritocratic tokenomics in the game. These actions reward players with skullcoins, the game's limited supply token. These processes are integral to the game's economy, emphasizing active player involvement and contributing to the token's scarcity.

4. Halving / Diminution

Halving is a mechanism in Bitcoin that gradually reduces the mining reward by 50% every 210,000 blocks, approximately occurring every 4 years. Initially set at 50 bitcoins per block, there have been 3 halvings as of 2022, resulting in the current reward being 6.25 BTC per block.

Diminution is used to gradually decrease the reward for burning NFT Tales in exchange for skullcoins. The mechanism starts with a higher reward rate, which reduces methodically at specified intervals or milestones in the game. While the exact rate and intervals of reduction are variable and subject to the game design, the principle remains the same: to ensure the long-term sustainability of the game's economy and the value of Skullcoin.

5. Time to Solve / Find

Miners in Bitcoin need time to calculate the hash function and create a new block. If this process occurred instantaneously, there would be no competition in computing power. Competition creates time.

Players in Skullcoin need time to find the treasure, to do this, they gather storyline information from NFTs, which helps to narrow down the search area. They identify specific locations on the world map using services like Google or Baidu Maps and then enter these coordinates into the game. The coordinates that players need to find is like target hash in Bitcoin but only for human minds.

6. Premine / Investors

Bitcoin's launch was characterized by the absence of premine, ensuring that no initial participants had an advantage in token ownership without contributing to the mining process. This established a foundation of equality and fair opportunity for all network users. Investors in Bitcoin are essentially those who contribute resources to the mining process, supporting the network's growth and security.

Skullcoin, aligning with Bitcoin's philosophy of no premine, ensures fairness by not allocating tokens to investors. This strategy is essential for maintaining a meritocratic economy, where tokens are accessible exclusively through gameplay and the Proof-of-Game consensus. By excluding investor token allocations, Skullcoin guarantees that all players, regardless of financial backing, have equal opportunities to earn tokens.

7. Pools / Teams

In Bitcoin, miners can pool computing power and compete with other mining pools or individual miners to create blocks and receive fees. In the mining pool each entity has a higher chance of winning a block and receiving a winning fee but receives a share depending on contribution.

in Skullcoin, players have the opportunity to form teams for treasure hunting. By working together, team members can pool their skills and resources to more efficiently locate treasures within the game. Rewards obtained from successful hunts are distributed among team members based on their contributions. This team-based approach also reflects real-world dynamics of group efforts and shared success.

8. Conclusion / ∞

The parallels drawn between Bitcoin and Skullcoin are not an attempt to emulate or replicate Bitcoin's system. Instead, they aim to extract and adapt its strongest elements to develop a stable economic model for the gaming realm. By integrating these principles, Skullcoin sets a precedent in the gaming industry. It harnesses Bitcoin's proven strengths — decentralization and fair distribution — and enhances them with a meritocratic system specific to the gaming context. This unique blend of principles has given rise to the new game genre, Find-to-Earn, where players are rewarded based on their skills and achievements within the game.

VI. Find-to-Earn

1. Game Design

Creating a new game concept requires an in-depth understanding of existing game mechanics. Deterministic games like chess and Go are fully solvable by AI, whereas games like poker, with their element of chance, present a more complex challenge for achieving a Game Theory Optimal (GTO) strategy. However, poker is partially solvable due to its logical and numerical nature. A crucial aspect of designing Skullcoin was recognizing that value lies in information, accessible exclusively to blockchain wallet owners. Skullcoin introduces a game with imperfect information, rendering it unsolvable in a manner unlike poker, where computational power increasingly aligns player decisions with GTO. While Skullcoin shares similarities with poker, the distinctions are significant because in poker, decision correctness is determined by Expected Value (EV), not by the outcome of a specific hand, due to the substantial impact of variance. The introduction of information asymmetry and unpredictable elements makes the game resistant to bots and artificial intelligence.

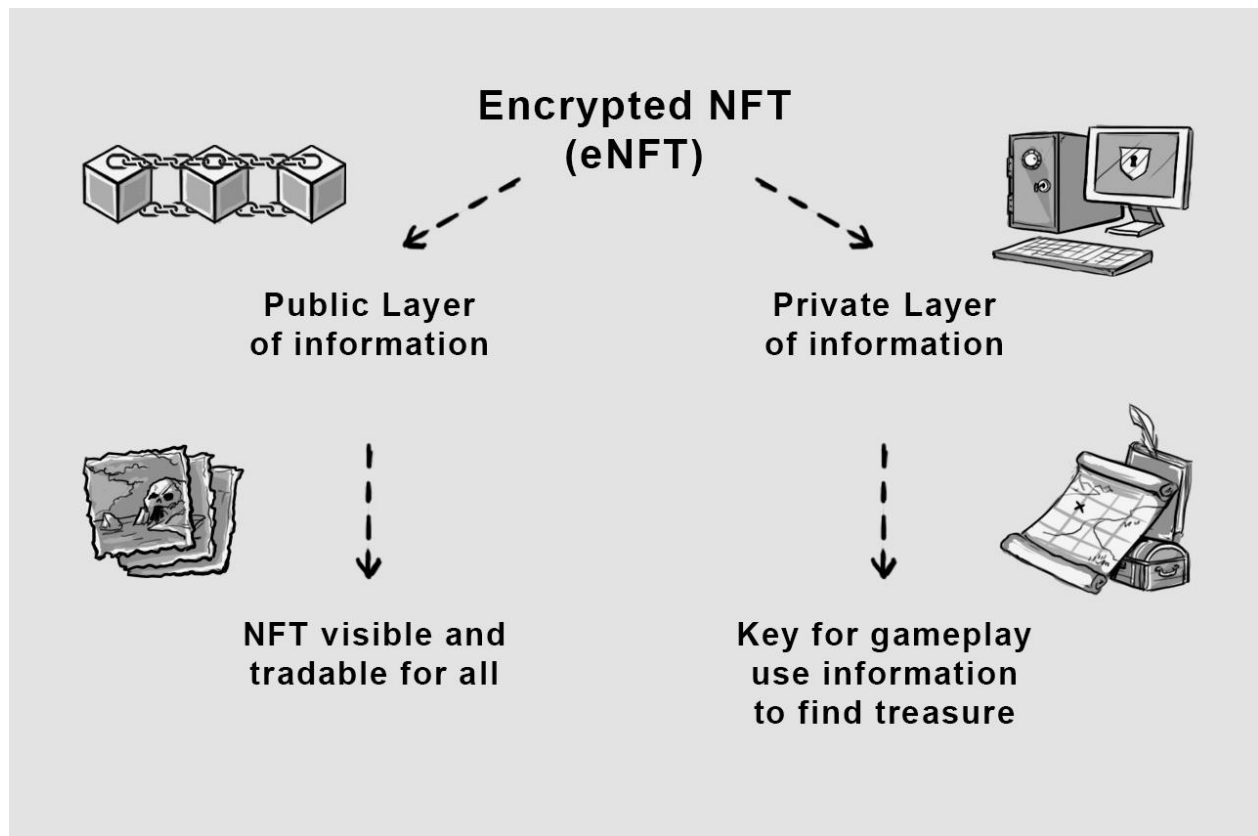
Games	Deterministic	Chance
Perfect information	Chess, Go, Checkers	Backgammon, Monopoly
Imperfect information	Battleships, Minesweeper	Poker, Bridge, Skullcoin

2. Dark Forest

The significance of games with imperfect information has become increasingly apparent in the modern era. Brilliant minds used zk-SNARKs technology allowed hiding information in research project logically named Dark Forest. In this game, a cosmic universe was created where players had to explore it without knowing each other's locations, this on-chain game was supposed to exist forever. In Dark Forest, the struggle for advantage led to the development and application of bots, shifting the focus from human strategic interaction to algorithm competition. This highlighted the dilemma between the game's accessibility for humans and the efficiency of automation. Since the game became entirely a competition of software code, rather than human intellect, it ceased to be interesting for people in terms of game activity. However, the main ideas were correctly laid out, that the game should have incomplete information, the question is just that this information should be interpretable only by humans, a machine cannot fully solve it.

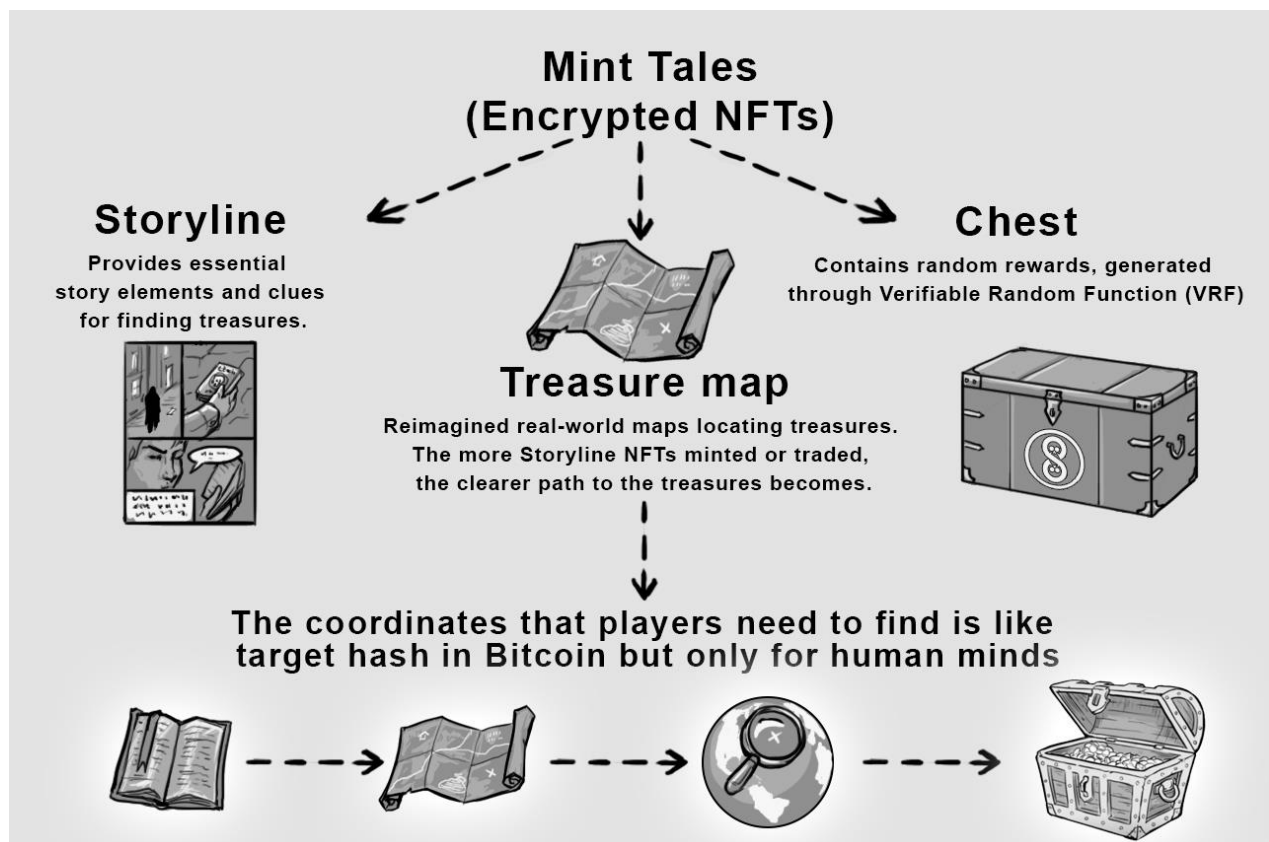
3. Encrypted NFTs

In Skullcoin, Encrypted NFTs (eNFTs) are central to the gameplay, serving as the carriers of hidden, layered information. Each eNFT contains two levels of data: a public layer accessible to all and a private layer that reveals critical game information only to its owner. The value of Encrypted NFTs (eNFTs) lies in their hidden information, which becomes particularly valuable when fully owned and accessed by the NFT holder. This design not only enriches the strategic depth of the game but also emphasizes the importance of ownership and information asymmetry in the digital age. By owning an eNFT, players possess a piece of the game's puzzle, requiring collaboration, trade, and strategic thinking to unveil the full story and locate treasures. This mechanism not only fosters a dynamic and interactive gaming environment but also mirrors the real-world applications and value of blockchain technology and NFTs. The paramount importance of hidden information in game design lies in ensuring it remains beyond the full interpretation and understanding of automated systems and AI.



4. Tales of Discovery

The inception of Skullcoin's journey begins with the minting of Tales, a pivotal moment where players are introduced to the unique mechanics of Encrypted NFTs. Each Tale, at its core, is a gateway to hidden treasures and encrypted clues that guide players through the game's universe. Initially presented as conventional NFTs with distinct artwork, the true essence of each Tale lies in its dual-layered information structure: a public layer that showcases the NFT's visual identity and a private layer that harbors the secrets essential for advancing in the game. Tales diverge into three fundamental categories: Chests, Storylines, and Treasure Maps. Chests offer a straightforward appeal, acting as a direct reward system where outcomes are determined by randomness that is guaranteed through smart contracts and Verifiable Random Function (VRF) technology. This ensures a fair and unpredictable distribution of prizes, adding an element of surprise and excitement to the game. Storylines and Treasure Maps represent the core mechanics and delve deeper into the narrative and exploratory aspects of Skullcoin. Storylines are intricately designed with detailed covers (public layer) that not only captivate visually but also conceal fragmented pieces of the overarching narrative (private layer). These pieces, when collected and pieced together by players, reveal insights and clues necessary for locating the treasures. Treasure Maps, on the other hand, are reimagined versions of real-world maps, intricately designed to pinpoint locations where treasures are buried.



5. Treasure Maps

Find-to-Earn is a new genre of game that is built around using treasure hunt maps that are redrawn from the world map to find the original location. Players do not need to physically reach this location but instead, they need to use the treasure hunt map to compare it with Google Maps or Baidu Maps to find the exact coordinates. In Find-to-Earn, skill plays a crucial role in the treasure hunt process. Players need to be mindful and attentive to the storyline, which often involves puzzles that require logical thinking and problem-solving skills. Storyline helps the player choose the right direction of movement on the map and narrow down their search area. While searching the world map is based on visual comparison, the treasure hunt maps can be redrawn beyond recognition, making it challenging to find the exact location without clues. Thus, players need to utilize their skills to analyze and interpret the hints provided in the storyline to improve their chances of success in the game. The first player who enter correct coordinates will receive a reward. Despite the advances in artificial intelligence and machine learning, bots or AI cannot effectively challenge the game of Find-to-Earn. This is due to the vast size of the world map and the fact that the treasure hunt maps can be redrawn in a way that is difficult for machines to recognize and compare with the world map.

6. Coordinates

The player's objective to claim treasures is to find and specify the correct latitude and longitude coordinates taken from digital maps. This process is akin to the search for the target hash in Bitcoin, where machines go through an incredibly large number of characters. However, unlike the computational efforts in Bitcoin mining, the task of identifying precise coordinates is uniquely human. Google Maps does not offer reverse image search capabilities for planetary imagery, and treasure maps can vary in scale and modify the original appearance of the landscape, making a random search incredibly challenging yet possible, thanks to storyline clues. Theoretically, a player might randomly guess the coordinates, but the likelihood is nearly zero, similar to the search for the target hash. Brute force attempts are infeasible in the game since the number of tries is limited by the possession of specific NFTs in the player's blockchain wallet. The essential role of human creativity in Skullcoin ensures that the game's economic value is safeguarded against AI interference. By fostering a competitive environment where only humans can excel, Skullcoin maintains its economic stability and fairness, ensuring that rewards and earnings remain within a realm of strategic gameplay accessible exclusively to human intellect.

7. Storyline

In Skullcoin, the storyline is not just a narrative; it's the starting point of an immersive journey that introduces players to a rich tapestry of tales woven from history, mystery, and blockchain technology. Our inaugural tale, centered around the "*Mystery of Water*," sets the stage for an engaging game experience, grounding players in a story that spans centuries and cultures. As players delve deeper into the game, they'll encounter storylines encapsulated within NFTs, offering puzzles that, while simpler at the outset, are designed to guide through the basics of navigation and decision-making. The clues provided will often be directional, pointing players towards compass-based locations. However, as players progress and encounter NFTs of increasing rarity, both the challenges and rewards will grow in complexity and value. This scalable difficulty ensures that the game remains accessible to newcomers while offering depth and engagement for seasoned players.

8. Social Engagement

Skullcoin transcends the boundaries of traditional gaming by fostering a vibrant community of explorers, strategists, and adventurers. Players are encouraged to form alliances, share insights, and even engage in playful deception, mirroring the complexities of real-world interactions. This social dimension adds a layer of depth to the game, as alliances can be as fleeting as they are beneficial, and trust becomes a valuable currency. By integrating these elements, Skullcoin sets a new standard for interactive storytelling and community-driven gaming. It's a world where history meets technology, and personal journeys intertwine with collective endeavors, creating a game that's as much about discovering treasures as it is about building connections and navigating the multifaceted landscape of human interaction. This immersive experience not only enhances the gameplay but also accelerates the mass adoption of blockchain technology and cryptocurrencies, bridging the gap between virtual adventures and real-world applications.

To be continued in future updates...



Creative Convergence

In an era where the boundaries between human creativity and artificial intelligence blur, a new field of exploration and development emerges. Skullcoin serves as a bridge between these two worlds, offering not only a fresh perspective on human-AI interaction but also the possibilities of their joint evolution.

This game is being developed as an experimental platform where AI is not merely a tool for achieving gaming objectives but actively participates in the process of creation, learning, and problem-solving. The goal is not only to train AI through executing predefined algorithms but also to stimulate it to seek new, creative ways of solving problems that go beyond pre-programmed behavioral models.

Skullcoin introduces a unique approach to AI training, emphasizing the development of creative potential and the ability to make independent decisions in unpredictable environments. This is achieved by creating game tasks that require intellectual analysis, adaptation, and the adoption of unconventional solutions.

Through interaction with players and their actions in the game, AI has the opportunity to study human behavior, strategies, emotions, and even creative approaches to problem-solving. This allows AI not just to adapt to the changing conditions of the game but also to develop new, unique methods of interaction with the surrounding world.

Moreover, Skullcoin aims to explore the potential of AI in creating new forms of art and creative expression. The game offers AI the chance not only to replicate known human creative processes but also to experiment with creating its own unique works.

Thus, Skullcoin is more than just a game. It is a platform for studying and developing the potential of artificial intelligence in creative processes, a meeting place for human creativity and machine intellect. The game opens new horizons for understanding how AI can contribute to the advancement of human culture and arts, making the next step towards creating a harmonious symbiosis between man and machine.

