StakeMoney – A protocol for the next generation of cryptocurrencies

Second layer tokens for pari-mutuel prediction markets & massively multiplayer strategy games

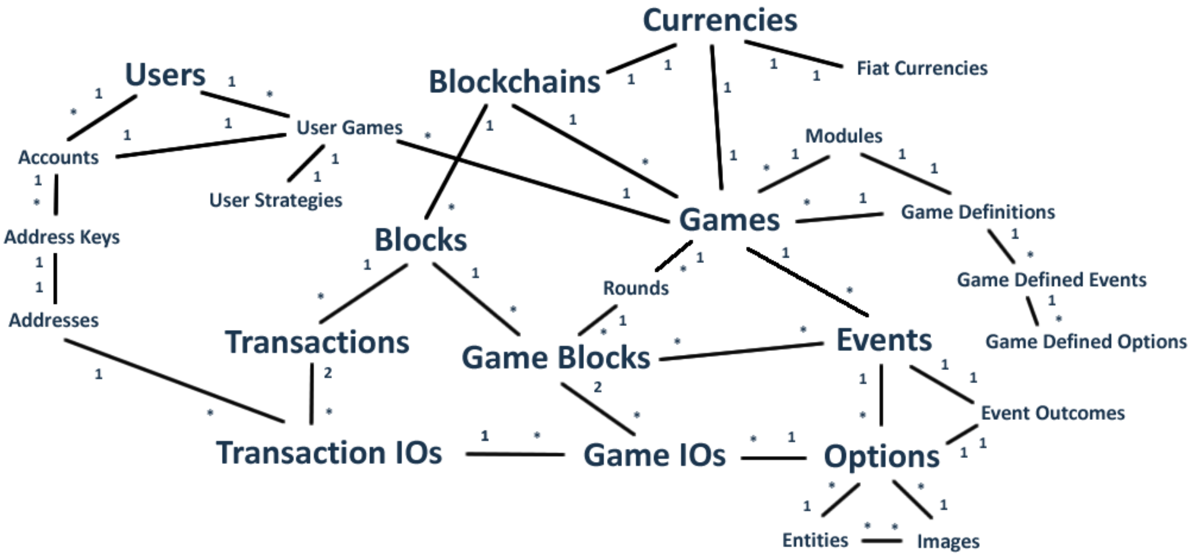
http://stakemoney.com

Abstract

Prediction markets (PMs) are used to quantify information about the perceived likelihood of real world events. By allowing individuals to bet on real world outcomes, PMs encourage insiders to share their knowledge in exchange for financial rewards. By democratizing access to information, prediction markets have the potential to disrupt industries where entrenched interests maintain a competitive advantage based on superior information. According to Wikipedia, prediction markets were described in theory as early as 1945 and were first implemented in 1988. Despite this time frame, PMs are not widely used or even known about by the public, except in a few highly regulated industries such as sports betting and financial options contracts. Since the rise of distributed ledger technologies such as Bitcoin, attempts have been made to create censorship resistant, fully decentralized prediction markets. Unfortunately none of these projects has led to widespread use of PMs and in fact, perfect fully decentralized prediction markets remain theoretically impossible. StakeMoney aims to unlock the potential of prediction markets by creating decentralized PMs which are fun, useful and user friendly. StakeMoney accomplishes this by coupling creative gamification elements with a unique paradigm for integrating real world outcomes into the blockchain.

In addition to prediction market applications, the StakeMoney protocol enables a new genre of decentralized, massively multiplayer strategy games. Because blockchain systems are identity-less, StakeMoney games do not rely on the concept of players with distinct identities. StakeMoney games can be played manually by humans, but transactions can also be submitted through APIs. Some StakeMoney games have rules which encourage players to submit a large number of transactions. These games encourage the use of automated & artificial intelligence strategies which can be written by players in the programming language of their choice. In some games, players may benefit by sharing access to these strategies, or by creating "voting pools" where players can stake collectively to defeat competing groups.

Figure 1. Overview of StakeMoney schema



Introduction

In some jurisdictions, the regulatory status of prediction markets is unclear. The failure of some prediction markets such as InTrade has been attributed to regulatory barriers. On the other hand, government bodies such as the US Department of Defense have funded research into prediction markets and recent PMs such as PredictIt and Predictious have not been shut down despite allowing US customers. Furthermore, US president Donald Trump has expressed support for the legalization of sports betting in the United States, indicating that US policy may be shifting in favor of prediction markets.

In recent years, projects aimed at creating unstoppable decentralized prediction markets based on distributed ledger technology (DLT) have attracted a great deal of public interest and funding. Examples include Bitcoin Hivemind, Gnosis, Augur, Wagerr and Stox. So far, none of these projects have been successful in creating functional and user friendly prediction markets. Fully decentralized prediction markets are difficult to implement due to the unsolved challenge of perfectly integrating information about real world events into the blockchain without trusting any party. Gnosis and Augur attempt to resolve this problem through crowd reporting and complex incentive schemes which reward individuals for adhering to the group consensus. This approach is valid but relies on their respective tokens being at least somewhat widely distributed among different parties to avoid collusion by a majority. Even more difficult than resolving events without centralization is the challenge of allowing anyone to create prediction markets while ensuring that all markets have well defined, deterministic and easily verifiable outcomes.

StakeMoney is a protocol which enables anyone to issue digital assets (tokens) on top of Bitcoin, Litecoin and most other UTXO based blockchains. StakeMoney tokens have a wide variety of possible applications such as strategy games, sports betting, daily fantasy sports, prediction markets, and representation of company ownership & handling of organizational decision making. In StakeMoney, the behavior of tokens is handled in “games” which are each specified by a “game definition”. To find more information about a token, anyone can simply install the underlying blockchain, install StakeMoney, and then import the game definition. Once loading is complete, users can access the StakeMoney UI to look up token history or to compose transactions. Alternatively, users can call the StakeMoney API or run queries on the associated relational database to perform these functions.

StakeMoney approach to Oracles

Unlike deterministic blockchain protocols such as Bitcoin and Ethereum where any difference in state causes a fork which must be resolved, StakeMoney adopts a quantum paradigm where different versions of reality are allowed to exist simultaneously. Each node operator is free to resolve events in any way that he or she chooses. Even when StakeMoney nodes are not in consensus on a particular token, they can still transact with each other using that token, but they may have slightly different perceptions of the amount of tokens that were transacted. Inconsistent interpretation of transactions may be inconvenient for users but is not prohibited by the paradigm.

While inconsistency among nodes is allowed, it is not desirable and is avoided in practice. Conflicting nodes can easily identify their points of disagreement simply by comparing their respective game definitions. The StakeMoney UI allows node operators to retroactively change the outcome of events, allowing them to synchronize their different versions of reality. Changing history in this way is computationally expensive and time consuming because the entire game must be reloaded starting from the block where the change was made.

Disagreements between honest nodes are unlikely if all events in the game are well defined and easily verifiable. Including only easily verifiable events in a game is critical. Games must be designed with this in mind or else the tokens may become unpopular due to the high degree of divergence between nodes.

Whenever a new user sets up a node, he/she has incentive to join the majority consensus to make transacting with other users easier and to avoid time-consuming game reloads from resolving disputes about event outcomes when attempting to transact with conflicting nodes. Rather than manually entering the outcome of each event, node operators are encouraged to use APIs and other data sources to automatically set event outcomes.

Any individual or group attempting to promote an event outcome which doesn’t match reality faces an uphill battle in convincing peer nodes to adopt the falsehood. Event outcomes can be changed by any node at any time in the future. This lack of finality means that there is no fixed date by which the falsehood can locked in. Event outcomes are therefore determined implicitly by groupthink. If new information comes to light which overturns consensus on the outcome of a past event, nodes are expected to retroactively change the event outcome and reload the game, affecting user balances.

Gamified proof of stake: Inflation is good

One barrier to the adoption of prediction markets is that they are a zero sum game unless externally subsidized. StakeMoney addresses this problem by using inflation to incentivize participation in prediction markets.

StakeMoney takes a counter-intuitive approach to inflation. Conventional wisdom suggests that high inflation is a net negative for currency holders since money-printing devalues the currency, effectively robbing savers of the value of their money. On the other hand, among national governments, a low but steady rate of inflation is generally favored as a wise policy for boosting the economy by encouraging spending and investment, while also contributing to the bottom line of the national treasury (and therefore the taxpayers). In the case of world reserve currencies such as the US dollar, much of the currency is held by foreign entities, and therefore it can be argued that the losses in value suffered by US citizens due to inflation may be more than compensated for by the reduction in national debt paid for by printing money. The negative perception of inflation is especially strong in the cryptocurrency world, where currencies like Bitcoin are perceived as a superior stores-of-value in comparison to their fiat counterparts, based on their non-inflationary (or deflationary) emission schedules.

This aversion to inflation makes sense when the money which has been created by inflation is captured by one party. But if instead, money created by inflation is distributed fairly and transparently, inflation can be transformed into a useful tool for incentivizing behavior. By combining high inflation with fair distribution and radical transparency, StakeMoney creates a new genre of entertaining & useful cryptocurrencies in which token holders participate actively in the inflation of the currency through prediction markets or game events. In addition to the potential for increase in value from holding onto these tokens, friction and fees are reduced nearly to zero. In StakeMoney protocol games, players can grow their token balances faster than inflation simply by performing better than average in inflation-subsidized games or prediction markets.

Environmental benefits of StakeMoney's hybrid of Proof of Work & Gamified Proof of Stake

The invention of proof-of-work demonstrated that sources of authority can exist without any central point of failure, even for systems as complex as financial transactions. Even today, no alternative has rivaled proof-of-works ability to resolve conflicts and enforce consensus. Proof-of-work created the ideal incentives for the distribution of Bitcoin by creating the "Bitcoin miner" business model – a highly competitive and low profit business where miners have high expenses in their local currency but receive all of their income in BTC, effectively forcing miners to sell their BTC in order to cover their fiat expenses, rather than hoarding the coins. Despite these benefits, proof-of-work consumes an enormous amount of energy, which would not be necessary had Bitcoin at least partially separated its security mechanism from its currency distribution scheme. Although StakeMoney relies on proof of work for its security, it separates its security mechanism from its currency distribution scheme in an attempt to reduce wasted electricity by reducing mining payouts to a minimum.

StakeMoney protocol tokens are currently implemented as colored coins which run on top of proof-of-work blockchains. By piggybacking on top of existing networks such as Bitcoin, StakeMoney tokens inherit many desirable properties of money provided by these networks including physical decentralization, censorship resistance, fungibility, durability, divisibility & portability. By remaining blockchain agnostic (compatible with many different blockchains), dependence on any particular blockchain or development team is minimized. Transaction fees are paid in the currency of the underlying blockchain, so some speculative value may be diverted away from the tokens and towards the currency of the underlying blockchain. Because blockchain agnosticism allows token issuers to shop around between blockchains, this diversion of token value is minimized and token issuers are well positioned to choose blockchains with cheap on-chain transaction fees. In fact, extremely cheap transaction fees are extremely important for StakeMoney-protocol games because of the enormous number of transactions associated with StakeMoney's transaction based inflation model.

Pari-mutuel prediction markets

StakeMoney is designed around the concept of pari-mutuel prediction market events which create and distribute new tokens in accordance with the inflation scheme specified in the associated game definition.

For StakeMoney tokens with non-zero inflation, votes build up over time in proportion to the quantity of tokens owned by each player. These votes are "unrealized gains" and in order to keep up with inflation, token holders must regularly realize their unrealized earnings by submitting "bets" also known as "voting transactions." Players can place bets trustlessly by transferring their tokens to their own addresses matching certain formats. Players who realize their gains regularly by betting will on average experience a stepwise exponential increase in the net worth of their tokens. Players who do not stake will only experience a linear increase in their net worth, due to the linear increase in their unrealized gains. This dynamic incentivizes participation in the game or prediction markets events for high inflation currencies.

The rate at which votes build up is set by the inflation rate of the token. Tokens with higher inflation incentivize more frequent betting and allow players to bet more, but at the expense that inactive players lose value quickly due to inflation. Tokens with low inflation minimize loss of value for inactive players, but at the expense of allowing players to only execute a small volume of inflation-funded bets every day in proportion to the amount of tokens that they hold.

Proof of Burn Betting

Low-risk, low-reward inflation-funded bets guarantee some usage of in-game prediction market events, but these are not the only type of bets supported by the StakeMoney platform. In addition to inflation-funded bets, StakeMoney also supports general pari-mutuel bets on these same events. This is accomplished through proof-of-burn, in which voting transactions specify some quantity of tokens to be burned in the transaction. Burned tokens are deleted when the transaction is confirmed but count towards a bet for the player and are added to the payout amount of the associated event (and therefore are recreated once the payout block is mined). Optionally, games can be set up so that some percentage of the tokens are permanently burned.

This is effectively a fee paid by the bettor, reducing the total number of tokens in circulation and increasing their scarcity.

Events & Options

Each event has some number of options, and exactly one of those options will eventually be determined as the winning option for that event. Each option for an event is associated to one address format and therefore whenever a betting transaction is confirmed in a block, each of its outputs may be associated to an option in one of the currently running events. Each option-associated UTXO represents a bet that its outcome will be the winner for the associated event. Events include a starting block, a final block and a payout block. Blocks between the starting block and the final block are the blocks in which betting is allowed. The payout block may be the same as the final block, or it may be later than the event's final block. Once the payout block of an event has been mined, one option is determined as the winning option, resolving that event. Tokens are created according to the bets placed and then these winnings are paid out to all winning bets in proportion to the size of the bets. StakeMoney games generally implement prediction markets, but this is not the platform's only function. In other applications the terminology "bets" and "betting" may not be used. For example, in decentralized decision making applications "betting" terminology is swapped for "votes" and "voting" and for strategy games "stakes" and "staking" are used. Internally, the StakeMoney application uses the term "votes" to measure the size of a bet.

Address Scheme

To achieve compatibility with a wide variety of blockchains, StakeMoney uses standard pay to pubkey hash (P2PKH) transactions for betting transactions. Users can find betting addresses through vanity generation, a process where addresses are randomly generated until an address is found matching the format of the desired option. A "voting identifier" of between 1 and 6 characters in length is extracted from each address. StakeMoney's address scheme then maps this voting identifier to an option_index, a positive integer which is temporarily associated to an option during the blocks of the associated event. Some addresses do not match a voting identifier and are therefore termed "non-voting addresses." Currently, the StakeMoney web application implements a single, protocol level address scheme. This scheme is based on the base58 addresses used in Bitcoin and similar cryptocurrencies. This address scheme supports 679,798,074 voting address formats. 26 of these are single character formats, 16*58 are two-character formats, 8*58^2 are three character formats et cetera and 1*58^5 are 6 character formats.

Betting / Voting Transactions

Each event runs for range of blocks as specified in the game definition. Depending on the block that a betting transaction is confirmed in, its outputs may be associated to different options. To ensure that users end up betting on what they attempted to bet on, it is therefore critical that transactions are confirmed relatively promptly on the underlying blockchain. A transaction is considered to be a "betting transaction" aka "staking transaction" or "voting transaction" within the context of a game only if tokens are spent and if the transaction, includes at least one output associated to an option.

Coinage (time value of money) as an inflation control mechanism

As mentioned above, the size of each bet is measured in votes, and the number of votes determines the corresponding payout if the bet is correct. Changes to the definition of a vote affect the token emission schedule (inflation) and therefore each game has a fixed definition for a vote:

1. Votes = Coins

This is the simplest concept for a vote. Here, event payouts are based on the total number of tokens that a player can demonstrate ownership of. This definition of a vote is problematic because if implemented simplistically, players can rack up unlimited votes by submitting transactions one after another using the same coins. This vote definition is currently deprecated.

2. Votes = Coin blocks destroyed

Here the potential votes for a UTXO are calculated as:
Votes = # of tokens in the UTXO * (Current block – Block where the UTXO was created)
This vote definition allows votes to build up over time. This avoids the problem of #1 because spending UTXOs immediately yields zero votes since no blocks have passed.

3. Votes = Coin rounds destroyed

This is essentially the same as #2, except that rounds are used rather than blocks:
Votes = # of tokens in the UTXO * (Current round – Round where the UTXO was created)

Rounds

Rounds consist of blocks in a game, and are defined at the game level by the “round_length” parameter. Rounds group game blocks into consecutive groups, with a fixed number of blocks in each round. This means that each game block is associated to exactly one round. The purpose of rounds is to reduce the rate of inflation. By defining votes as coin rounds as described above, UTXOs maintain the same number of potential votes for the entire period of a round, rather than increasing the number of potential votes each time a block is mined. This reduces inflation but also reduces congestion on the blockchain by changing the incentives of players to bet once per round rather than once per block.

Token Inflation Rules

The inflation of tokens is set in the game definition based on the definition of a vote but also by the “inflation” parameter of the game. The inflation parameter may be set to either:

• Exponential	Token supply grows exponentially
• Linear	Token supply grows by a fixed number per block

In linear inflation, the number of events is limited and a fixed number of tokens are assigned to each event. Events which attract a large number of votes will have a higher ratio of votes to tokens-created-by-inflation than events which attract fewer votes. Therefore players must be careful to check the existing votes contributed to an event prior to voting and should try to participate in events which have fewer votes.

In exponential inflation, the game definition sets a fixed ratio of votes to tokens-created-by-inflation. Exponential inflation is more flexible because the payout for an event is dependent entirely on the bets included in that event. For example, consider a game running on the Bitcoin blockchain with a round length of 10 blocks per round, a vote definition of 1 vote = 1 coin round, and a votes-to-tokens ratio of 200 votes to 1 token. In an event with 2000 confirmed votes, 10 tokens (2000 votes / 200 votes per token) would be created by inflation and distributed to the winning bettors. Since Bitcoin blocks take approximately 10 minutes to complete, rounds would take an average of 10 blocks = 100 minutes to complete. Therefore the maximum possible rate of inflation in this example would be 1/200 = 0.5% inflation per 100 minutes. Since there are 60*24 = 1440 minutes per day, this inflation rate compounds to 1.005^(1440/100) = 7.45% per day.

Constant token supply (no inflation) can be implemented as a special case of exponential inflation where the tokens-to-votes ratio is set to zero.

For tokens with high inflation rates, deflation events may be required at regular intervals to keep coin denominations reasonable and to prevent integer overflows. In a deflation event, the token amounts associated with all UTXOs are instantly divided by a factor such as 10, 100 or 1000 upon mining a particular block. Since integers are used to store coin amounts, remainders are truncated after dividing.

Event Winning Rules

Once the payout block for an event is mined, a winning option is determined and each StakeMoney node pays out tokens of the correct amounts to the all of the addresses associated with a winning bet. Several different event winning rules may be used depending on the desired application. Some possible event winning rules are as follows:

- Max votes under cap wins – This is a rule used for strategy games, in which a voting cap such as 25% or 60% is specified for an event. In general, the option with the most votes is declared the winner of the event. But to prevent one option from winning with an overwhelming majority of the votes, a cap is instituted and any option above the cap is disqualified. In this rule, the winner is determined entirely by on-chain events (the voting transactions of players).
- Football Match – This event winning rule was developed to demonstrate the virtual sports betting application of the StakeMoney protocol. This event winning rule simulates a virtual soccer game, with each team having the possibility to score each time a block is mined, based on pseudo-random data derived from the block hash.
- Winner determined by game definition – This is the event rule used for prediction markets. Here the outcome is set manually by individuals who operate StakeMoney nodes, or automatically by referencing APIs (but still under the authority of the node operator). For all StakeMoney nodes to remain in sync, all nodes must agree on the winner for every event.

Game Starting Block

In order to identify all movement of tokens and to check for betting transactions, the underlying blockchain must be run as a full node. This is accomplished by adding “txindex=1” to the configuration file for bitcoin-derived blockchains. StakeMoney communicates with the underlying blockchain by making RPC calls but also maintains its own copy of the blockchain in a relational database, to enable performant querying of the blockchain. Tokens can be issued with a genesis transaction which has been confirmed in any block. The block which includes the games genesis transaction is termed the “game starting block.” Since StakeMoney can access data from the underlying blockchain at any time via RPC calls, not all transactions from the underlying blockchain need to be loaded into the SQL database. To reduce loading time, each blockchain maintains a first required block based on the minimum game starting block of all games running on that blockchain. StakeMoney fully loads all transactions beginning at the first required block of each blockchain, in order to process all transactions which could affect any games running on that blockchain.

Genesis Transaction & Genesis Amount

To create a new token, a transaction on the underlying blockchain is defined as the genesis transaction for the new token. The hash of the genesis transaction and the amount of tokens created by that genesis transaction are specified in the game definition.

Escrow / Sidechains / Buy-in Policies

To allow token creators to impart value to their tokens, game definitions may specify a trusted escrow, a trustless escrow, or by default, no escrow at all. When used prior to the genesis transaction of a token, the escrow may function as a substitute for an ICO. For example, a token ICO could be launched on the Bitcoin network, with an escrow set up where a large amount of BTC would be deposited prior to launch, imparting some BTC correlated value to the new token in addition to any speculative or intrinsic value of the token. Any time after the tokens launch, a user could then send his/her tokens to a burn address, destroying the tokens but recovering BTC from the escrow in proportion to the quantity of tokens burned.

Trusted escrow can be implemented as an individual address, a multi-signature address or even as a traditional financial product such as a bank account holding fiat currency or other financial assets. Burn transactions where players burn tokens and receive coins from the escrow are problematic when using unsophisticated centralized solutions for escrow functionality such as multi-signature bitcoin addresses. In this situation, escrow administrator(s) process burn transactions by signing a transaction (or processing a bank transfer, sending ETF shares etc) to the burner where the amount sent correlates to the value of the destroyed tokens. When consensus is overturned on a resolved event for a token using centralized escrow, the amounts of transactions are affected and therefore players who burned tokens after the affected event may benefit unfairly at the expense of token holders via unfairly high burn payouts which would lead to funds in escrow may therefore be lower than the required amount. This could be resolved by any party depositing additional value into the escrow without the issuance of new tokens. Similarly, burn payouts could be too low following the overturn of a consensus event outcome. In this case, token holders would benefit at the expense of players who had burned tokens. This could be resolved by making extra payouts to the affected players.

The term “buy-in policy” is used in StakeMoney game definitions to specify the escrow behavior. For tokens with a buy-in policy of “none”, tokens are only created through the genesis transaction. The value of tokens defined in this way should fluctuate based entirely on their demand (since there is zero inflation and no supply). However, other tokens may be defined with a buy-in policy such as having a game-wide buy-in cap or having unlimited buy-ins. For games with such a buy-in policy, users can deposit funds to the escrow address, causing new tokens to be created and sent to the address specified in the buy-in transaction. In this case, a fixed exchange rate could be maintained between tokens and the escrow currency.

Fully trustless escrow functionality has not yet been implemented and requires the development of a custom blockchain. Some progress has been made on the development of such a custom blockchain and more information on this development will be shared in a forthcoming whitepaper. Currently this experimental blockchain faces several challenges. One is that miners may exclude all transactions except their own in order to keep all payouts for themselves. Selfish mining (mining blocks but not publishing them, in an attempt to build up a longer chain) and excluding transactions to influence the outcome of a round also pose challenges.

Vote effectiveness as a mechanism for pari-mutuel in-play betting

In the gaming industry, some bookmakers allow bets to be placed on sporting events while the events are going on. This is called in-play betting. Bookmakers offer fixed odds to bettors and therefore are required to quickly update the odds during in-play events, to avoid making a loss as developments occur in the sporting events.

Pari-mutuel betting has traditionally only been used to allow betting prior to the start of events, but has not been used for in-play betting. StakeMoney enables pari-mutuel in-play betting through a mechanism called the “vote effectiveness function”.

Counting votes equally across all blocks of an event gives players an incentive to avoid voting early in the round and instead waiting until near the end of the round to vote, when it’s easy to predict the outcome of the event. The vote effectiveness function resolves this by assigning an effectiveness factor to each block of an event. This means that players who vote early in the round are credited for a higher number of “effective votes” and therefore receive a higher payout than players who vote late in the round. Individuals who bet late into an event pay a penalty which accrues to the earlier bettors, but have the benefit of being better able to predict the outcome of the event due to their informational advantage.

Currently StakeMoney supports two vote effectiveness functions:

- constant - votes are counted equally throughout each event.
- linear decrease – votes counts for 100% in the first block of events and decrease linearly until the final block. The slope of the linear decrease can be specified in the game definition.

In events which employ a linearly decreasing vote effectiveness function, players have incentive to bet early in the game when their UTXOs will count for maximal votes. Players who vote late in the round are better able to predict the winning option but at the cost of being credited with fewer coins bet for their UTXOs and therefore receiving a smaller reward for their winning bets.

Strategy Games, APIs and Automated Strategies

Events which do not rely on real world events and are determined entirely by on-chain events are termed "strategy games." In strategy games, individuals may employ different strategies to maximize their event payouts. For example players may stake on several options of each event at random, stake for the same option in every event or write an algorithm which stakes automatically based on an in-depth analysis of past events, current probabilities & payouts and other information sources. For some strategy games, knowledge of how others plan to vote may be beneficial, encouraging collaboration among players. Players may outsource their betting decisions to an API that they write, or to an API controlled by a third party. Through such an API, players can give up control of his or her staking decisions to a third party without giving up the private keys to his/her coins. By gaining control of the staking decisions for a large amount of tokens, syndicates or "staking pools" may develop which can achieve good returns for their members by influencing event outcomes. Interactions between players, staking pools and mining pools who have some control over event outcomes create possibilities for complex collaboration & competition in strategy games which emulate real-world politics. Based on these game mechanics, many players may choose to join a staking pool rather than engaging in the time consuming process of analyzing the blockchain and communicating with others to inform their staking decisions. When players join, they can do research on the rates of return and reputation of the various pools in order to choose the best option. Competition among pools seeking to expand their influence by gaining the staking rights of many token holders is key to ensuring the fairness and integrity of the game.

Three levels of trust for decentralized applications

Decentralized applications may require trust in several different ways. These areas of trust can be categorized as follows:

Level 1: (Highest Level of Trust) Holding funds on behalf of another party

Whether this level of trust is required depends on whether the game relies on escrow functionality or not. For games relying on escrow functionality, is the escrow implemented trustlessly (custom StakeMoney blockchain) or not? (multisig or single sig BTC/LTC addresses etc). Level 1 trust may also be employed when users choose to create a user account on someone else's node rather than setting up their own node.

Level 2: (Intermediate Level) Creating & modifying game definitions

This level of trust is required in all cryptocurrencies – development teams can always benefit unfairly based on insider knowledge or by making protocol changes. This is generally only a theoretical problem because rigid politics and the transparency of open source software make it implausible to exploit this weakness. In StakeMoney, the ability to make protocol changes isn't held only by developers but also by game publishers. Game definitions generally do not need to be changed once published, but in some cases, game definitions may be changed once games are already running if a consensus for the change can be reached by node operators.

Level 3: (Lowest Level) Resolving event outcomes
In StakeMoney's paradigm for prediction markets, node operators are free to render their own version of reality by resolving events as they please. For games running on the StakeMoney custom blockchain, inconsistencies are resolved upon the completion of a game when stakeholders vote on the final game definition. How events are resolved affects player balances. Because event outcomes are based on well-defined real world events, there is no room for ambiguity. This prevents node operators from going against consensus. Because there is less ambiguity, this requires less trust than the trust required for allowing game definition / protocol changes.

Roadmap

1.	Development of the StakeMoney web app & GUI	Complete
2.	Development of the Staking API	Complete
3.	First tokens launched on the StakeMoney platform	Complete
4.	Development of an escrow system for bets denominated in BTC/LTC	Complete
5.	Development of trustless escrow via a custom blockchain	In Progress
6.	Development of the Events API	In Progress

Since the StakeMoney project was initiated in 2015, steady progress has been made towards the achievement of its objectives. StakeMoney can already be used to issue robust second layer tokens for games and decentralized prediction markets. StakeMoney has not yet raised any funding.

The future success of the StakeMoney project relies on the completion of these technical objectives:

1. Creation of a custom blockchain to facilitate trustless escrow for StakeMoney protocol currencies
2. Development of an Events API service which will supply data to StakeMoney node operators about sports events, eSports, financial outcomes and more.

As described above, objective 1 (the StakeMoney custom blockchain) will allow games based on the StakeMoney protocol to incorporate escrow functionality without trusting any party.

Objective 2 is equally challenging and important. Events APIs are data services which will be used by StakeMoney game publishers and node operators. These API services are necessary for the creation of complex games based on real world events. Simple strategy games may be launched without the need for any data services. But the most interesting and complex applications of the StakeMoney protocol rely on the incorporation of data which is external to the blockchain, requiring these data services.

Anyone can become a game publisher by create game definitions for all kinds of games and prediction markets. Events data API services can also be implemented by anyone. But in the early stages of the StakeMoney project, it is implausible to expect people outside the project to create these services. Therefore the StakeMoney development team will make it a priority to develop a StakeMoney Events API service for sports betting, virtual sports & eSports in order to demonstrate the utility of the StakeMoney platform.

Get Started

To get involved, please visit http://stakemoney.com and sign up for a web wallet account. Or get a Litecoin or Bitcoin full node running, install StakeMoney, import a game definition and start playing. If you are interested in investing in this project, please contact the founders of the StakeMoney project.