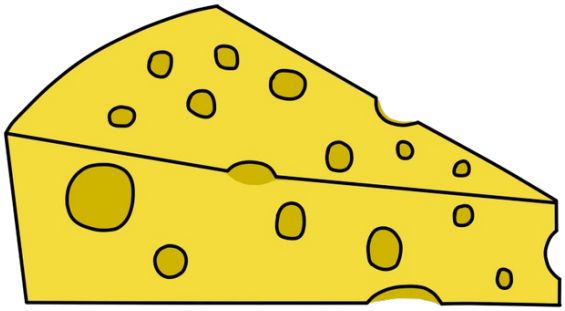
Cheeze of Insight



"I'll so offend to make offense a skill,
Redeeming the time when [Wizards]think least I will." — Shakespearean Wizard

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1 ABSTRACT

As a team built from players of Satoshi's Treasure we're uniquely aware of the role statistics can have on gameplay and player psychology. Enter *Cheese of Insight*. The *Cheeze of Insight* DApp is a web application and browser extension designed to enrich player psychology in *Cheeze Wizards* gameplay by providing methods for realistic and test battle predictions, and a module for doing deep analytics of battle history. More specifically, The Cheese of Insight will approach player psychology using a three-pronged method that invludes: an **Analytics** component, a **Smart Contracts** component, a **Battle Predictions** component, and a **Secondary Markets** component.

- **Analytics Component:**

  1) The Analytics Component—which is an **Offline Layer**—and its UI, provides players of Cheeze Wizards with a frontend for analyzing individual Wizards and tournament battle history.

- **Smart Contracts Component:**

  1) The **Contracts** component adds value to *Cheeze Wizards* platform by providing **Battle Predictions** and **Secondary Markets** with models for making hypothetical guesses about the outcomes of realistic or hypothetical Duels.
  2) How this works relies on our modified Wizards contract that can "re-mint" specific mainnet Wizards importing them into our own contract.
  3) This allows players to battle a replicated version of their Wizards in test matches against replicated versions of any Mainnet Wizard of their choosing.

- **Battle Predictions Component:**

  1) The **Battle Predictions** component is included in both **Offline** and **Online** component layers.
  2) In the **Offline Layer**, players can play their Wizards in test matches against replicated versions of Mainnet Wizards.
  3) When playing a test match, the player invoking the Duel chooses whether they wish to dictate their opponent's turn commitments themselves; or, instead by the super smart (and super dumb) AI we've created that analyzes a Wizard's match history and attempts to find patterns. Like a fine cheese, our AI matures with age.
  4) In the **Online Layer**, analytics collected from tournament battle history is used by our AI to create predictions about the outcomes of Duels which are confirmed but not yet resolved. DuringPhase III of the tournament, these live Duel predictions will help create LONG and SHORT weightings for the **Secondary Markets** component.
  5) Since the reliability of our AI's match predictions is proportional to the data available to pull from a tournament's match history, we can say our AI begins a tournament "dumb" and ends the tournament "smart".

- **Secondary Markets Component:**

1) Decentralized prediction markets and crypto-derivative platforms generate sets of tokens that represent a financial stake in the outcomes of any event. By combining the *0x Protocol* with an *Augr* prediction market, and open source code from *Veil*, once phase Phase III of the tournament has been reached, our platform will automatically launch a prediction market on *Augr* that emits LONG and SHORT predictions for the outcome of every pending Duel.
2) Once the Blue Mold has entered the tournament, and Wizards ability to compete is at stake, this **Secondary Market** allows anyone following the tournament to place either LONG or SHORT bets on the outcome of a pending Duel.
3) LONG and SHORT weightings are informed by AI predictions made by the **Battle Predictions** component, and are revealed to the user before, during and after they have placed their bet on the match outcome.
4) If a Wizard has challenged another Wizard but the Duel is not resolved during the dueling window for that day, any bets related to the invalid Duel is automatically returned to the orignal better.
5) If a Duel takes in bets, and does resolve during the dueling window, betters who guessed correctly are rewarded in ETH. Betters who guessed incorrectly will lose some, or all, of the ETH placed as their bet.
6) While LONG and SHORT outcomes are defined by Duel outcome, rewards and losses of ETH granted by the prediction market contracts, function more like changes to Wizard power levels. That means rewards and losses are determined by the sum of all 5 Turn outcomes.
7) Example, Drew bets 1 ETH on a LONG prediction and that Wizard #1614 will win a pending Duel against Wizard #1977. Once Turn commitments are revealed, it's discovered Wizard #1614 won 3 of the 5 Turns in the Duel, and Wizard #1977 has won 2 out of 5 turns. In this sceneraio Drew's account is sent back his original bet plus an increase of 3/5's of an ETH (1.6 ETH awarded). Similarly, a user who had bet 1 ETH on a SHORT prediction for Wizard #1614 to increase in power level, is sent back their original bet minus a decrease of 3/5;s of an ETH (0.4 ETH awarded).
8) As the Blue Mold begins to show its effects, this **Secondary Prediction Market** will become a place where players who know longer have Wizards in the tournament ("rind-in-the-game") can continue to follow and participate in the game.

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2 TERMINOLOGY

Layers:

The terms "Online" and "Offline Layer", presented in this text, refer to states of Duel availablity. Components which rely on the Dueling window are part of the "Online" or "Real-Time" tournament. Data and analtyics which can be generated and utilized outside of the Dueling window (example: test duels using replicated Wizards), is a part of the offline layer.

Why Have an Offline Layer?

Part of the anticipation and anxiety of competing in *Cheeze Wizards*, revolves around the limited daily window for dueling. Creating a layer for Offline will promote participation. The more strategies players have for preparing for future Duels, the more likely they are to be thinking about *Cheeze Wizards* between Duel windows.

Betting:

Augr prediction markets have two outcome shares, which are unique ERC-20 tokens representing a distinct answer to a market's question (like "LONG" or "SHORT"), and which must be transacted as complete sets. For the purposes of the **Secondary Market** component, bets can thought of as either LONG or SHORT regarding the prediction that some Wizard will prevail in their pending Duel against another Wizard.

Given the above, we can take the terms LONG and SHORT to mean as follows.

LONG BETS:

"Prevail" or expecting an increase in the underlying asset (e.g. betting a particular Wizard will prevail in their pending Duel)

SHORT BETS:

"Lose" or expecting a decrease in the underlying asset (e.g. betting that a particular Wizard will lose in their pending Duel)

Um, so that's cool, but how do you avoid creating multiple prediction markets for the same match?

Very astute question! To avoid creating a prediction market for each Wizard involved in a pending Duel, players will be betting on a single LONG and SHORT pairing that is generated based on the AI's prediction data. Technically what that means is when players are betting on a match outcome, they're actually betting with or against the AI's prediction.