ALTO CRYPTOGAME CHALLENGE

Game Description

Brainfunc is an e-learning game where players construct different parts of the brain by collecting neurons. There are 13 different types of neurons (& brain parts). A player can buy neurons [1] to construct brain parts, which can be used to fight battles. More neurons in a brain part mean more strength

In a battle, two players are paired [2] and given an activity/task. For e.g - 'Listening Music'. Both players have to select parts from their collection that they think are involved in performing that activity/task. In the above example, choosing the Temporal Lobe (involved in hearing) would be wise.

Battles can be more complex involving combination of parts. A battle win [3] leads to an increase in strength of the parts involved, making them more valuable on the market place. Higher strength parts also mean the player can fight higher stake battles [4]

Our game tests knowledge, thinking, creativity and entrepreneurship all at once, making it a super interesting e-learning dApp.

Cryptoitem Utilization

Crypto Items

(a) Neurons

These are the smallest unit of crypto items. They are available in 13 types corresponding to 13 "Component Parts". Having a neuron of specific type allows you to own a component part of that type. You can buy a neuron from the market place but the kind of neuron you get is based on luck. Adding more neurons helps increase part strength for battles.

(b) Component Parts

There are 13 Component brain parts corresponding to 13 types of neurons. They are enlisted below.

- Frontal Lobe
- Parietal Lobe
- Occipital Lobe
- Temporal Lobe
- Focculonodular Lobe
- Anterior Lobe
- Posterior Lobe
- Midbrain
- Pons
- Medulla
- Basilar Artery
- Vertebral Arteries

You can use Component Parts to fight battles. Since battle tasks might involve usage of multiple parts, the more the parts you have in your collection, the better.

Challenge Loot

Each brain part has a function (like vision, hearing ability, creative skill etc.). This makes it a prime candidate for usage as a skill card in RPG themed games, or being exchanged for special items such as those in the Challenge Loot.

For the Challenge Loot, a complete mapping from 13 brain parts to unique items, as well as the reasons for it are explained here:- https://github.com/brainfunc/web-app/blob/master/docs/alto/ChallengeLootMapping.md

For usage as skill cards, examples include - (*) Exchange Temporal Lobe part for Enemy Spotting skill, since the temporal lobe is involved in vision.

Blockchain Use

Each brain part is unique, since it has a different battle history. It can't be replicated, taken away, or destroyed. This makes is a very fun crypto collectible.

The battle history data for a user as a whole is also an incredibly powerful data source. Using this, we can provide the user unique insights about her learning progress.

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Business Model

Monetization

We plan to do this in three ways (+4th - stretch goal)

(a) Selling Neurons

The company will sell different types of Neurons on the market place. Neurons being the most basic unit of game play crypto items, will sell for a small price (For e.g 0.01 ether). You can buy a neuron, but the type you get will be based on luck.

(b) Transaction Cut

The players can sell their parts on the marketplace for a price reflective of their part strength. The more the strength of a part, the higher it will sell. The company will take a 5% cut on any transaction taking place on the market place.

(c) Olympiads for Schools

We intend to deploy a mock version of the game for children in schools with basic tasks. This will be in the form of an Olympiad where we will conduct an inter or intra school competition and reward the winners. The revenue model here would be charging the schools on a per student basis.

(d) Battle Fighting Charges [Stretch Goal]

To prevent clogging of the network to some extent and avoid the winner take all policy, we are planning on limiting the number of winning battles a player can play on the network. This means that if we set the limit

of winning battles to lets say - 10, a player can only win 10 battles in a day. If she wants to play the 11th battle, she has to pay in order to do this. Note that no such limit applies if a player is losing battles, meaning a player can play as many battles as she likes as long as her wins are less than 10.

Target Market

We broadly categorized our target market into three categories.

(a) School going children in the age range 12-18

We aim to target this market segment by introducing our game to school children as an Olympiad as described before. We aim to pitch this to schools as a creative way for students to learn biology and entrepreneurship. We believe it will be very popular amongst children owing to its entrepreneurial nature, involvement of creative thinking, interesting visuals and knowledge gain. Schools would also be interested in such a game as parents would always want their kids to excel via learning.

(b) College students majoring in Biology related fields 18+

We assume that college going students majoring in Biology related fields will be curious and interested in the game owing to its overlap with their course of study. Advanced modules of the game will involve more complex tasks making it even more interesting for such students. The game is an exciting way for a curious college students to earn by applying their knowledge and skill and also earn at the same time. It's the addictive nature of the game, and an actual gameplay that encourages skill based wins, that will make the game sell in this market.

(c) General Crypto Enthusiasts

The basic battles in the game are basic enough such that any crypto enthusiast with a passion for learning can get started in the game. They can purchase the minimal reading material made available via game website to

get started. Similar to the college audience, the addictive and skill based nature of gameplay will encourage crypto enthusiasts to play the game. We hope that it also ignites a spark for learning amongst our users.

Competitors

Owing to the nascent developer ecosystem, we have not seen a game that is directly related to a similar concept, built on the blockchain.
In case of general dApps however, cryptokitties, zombie battle grounds (being built by Loom) or other randomised collectors item games can be seen as competitors.

We do have competitors in the traditional market of game based learning for children (12-18), or some even for college majors - but we have an unfair advantage of involving cryptocurrencies which allow for very easy transactions as well as item maintenance. There is a certain appeal to owning the Ultimate Brain on the blockchain - Like a powerful Artifact, or even an Ultimate Cerebrum - Like a Gem.

Useful Links

[1] Landing Page for Game:- https://brainfunc.herokuapp.com
[2] Team Information for Game:- https://github.com/brainfunc/web-app/blob/master/docs/TeamInfo.md

Contact

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Footnotes

[1] You can buy a neuron from our market place. You can buy a generic neuron, but the type of neuron that you get will be based on luck.

[2] The pairing algorithm is based on pairing players of similar strength randomly, to keep the game interesting and knowledge based as opposed to simply capital based.

[3] A battle result is decided on (a) Choice of correct parts (b) Time taken and (c) Combined part strength of parts involved, in that order.

[4] Higher stake battles mean higher absolute strength increase in case of a win, or corresponding decrease in case of a loss.