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Storyline: Collaborative NFT Writing

Project Proposal

Overview

Storyline is a blockchain based writing platform, where users come together to collectively write a story for the world to see. When a user visits our site, they can read the full Storyline so far, from start to finish, on the homepage. In addition, users will have the option to add new content to the Storyline, at a small Ether writing fee. If their writing gets published to the blockchain, then the platform will display their addition at the very end of the story, appended to the rest of it.

In addition, when a user submits a piece of content to add to Storyline, the platform will automatically mint that piece of content as an NFT, and transfer ownership of it to the writer's wallet. This not only allows the writer to truly own their writing and contributions, but also potentially trade and sell them as well. Thus, users will also be able to purchase sections of the Storyline that they particularly enjoy.

How is this different from a plain old website, or a google doc?

1. Google docs, websites, comment threads, etc, are all hosted by some governing service, which has full control over all content. Since this is blockchain-powered, **no governing service could add, delete, or modify content** previously written.
2. Users do not own the content they publish on normal websites or blogs, but they would own them here. There is **provable ownership** through the automatically minted NFT.
3. The distributed nature of blockchain networks ensure that it is extremely unlikely the Storyline gets destroyed in some freak accident. Decentralization of the data drastically **decreases the risk of data loss**.

Scope

For this project, our goal is to learn the implementational intricacies of smart contracts and how they power the ethereum ecosystem. **Solidity** is our focus technology for this project, so the main priority will be to construct and test the smart contracts that would enable *Storyline* to work. We plan to fully implement and test our smart contracts to a point where we can demonstrate that Storyline would function as designed if deployed to the mainnet.

If we manage to meet this smart contract milestone with time to spare, then we will continue on to building the web frontend for Storyline using popular web technologies such as React and Ether.js. Then, we will deploy our smart contracts to an ethereum testnet and try out our new dapp through our browser!

Components

The first component involves blockchains to represent individual storylines that can be extended by different users. The monetary model involves an ether fee associated with publishing to the blockchain containing the story line. This is to meet the gas prices associated with executing writes to the ETH blockchain, as well as cover minting costs. Adding a block to the Storyline blockchain represents adding your contribution to the story itself.

The second component is a simple front-end to interact with the created blockchains for stories (to add to stories, to view stories, etc.). This can be achieved by using JavaScript-based web frameworks that can be used to generate front-end UI as well as connect to the Ethereum network in order to make the experience and process visible.

Impact / Novelty

This project builds on NFT marketplace ideas such as Mintable and CryptoPunks. However, the NFT's in this case are paragraphs that compose an entertaining storyline.

This revolutionizes the field of online writing. On platforms like social media, millions are invested in storylines and threads created sequentially by users online. However, those systems are not perfect. First, they are centralized, which means the governing platform, and sometimes even the author of the parent post, has full control of the thread's lifespan and mutability. Next, users are limited to showing support for high-quality or entertaining portions through likes and shares which only exist within the platform.

Our project will decentralize the storyline, cementing each author's impact. Then, since each paragraph in the story is its own minted NFT, our project allows each authored portion to be traded and tied to a monetary value. Let's say an author writes a beautiful paragraph. As demand to own this NFT increases, so will its market price. Additionally, each new paragraph needs to be minted and will be owned by the author, providing motivation to produce high quality and entertaining pieces that add value to the overall story.

The platform will be a space not only for readers to be entertained, but also for authors to express their creativity and be rewarded for it.

Deadlines

Note: We are purposely overestimating the amount of time it will take to meet these deadlines in order to have some contingency with regards to time.

10/13/2021: Research and Learning Complete

- Figuring out all of the tools needed
    - Solidity: Understanding smart contracts and how to program them
    - Ethereum Front-end frameworks in JS for dapps
    - NFTs: Learn about ERC-721
    - Deployment of dapp prototypes

10/27/2021: Finish Storyline Smart Contract Functionality

- Develop a working prototype of smart contracts
    - Functionality to write to ETH blockchain
- Stores text (for stories)

11/10/2021: Finish Storyline Minting Functionality

- Allow users to write paragraphs and mint them
    - Testing with sample texts

11/24/2021: Finish Front-end for Storyline dapp

- Basic JavaScript frontend
- Display text of blockchain

12/03/2021: Deploy Storyline dapp

- Test complete functionality on testnet.