BUIDLing Blocks - ▄▪█ - Modular eLearning courses made by you!

What we do:

BUIDLing Blocks is an open access, modular eLearning platform built on the Ethereum blockchain where all course content is user generated. Our DApp promotes healthy childhood and adolescent development by providing transparent global access to learning development and literacy tools in the form of online courses with metadata stored on chain and assets served from IPFS.

According to the UN sustainability goals:

"*More than half of children and adolescents worldwide are not meeting minimum proficiency standards in reading and mathematics. Refocused efforts are needed to improve the quality of education. Disparities in education along the lines of gender, urban-rural location and other dimensions still run deep, and more investments in education infrastructure are required, particularly in LDCs.*"

How does BUIDLing Blocks help deal with this problem?

By providing end users with a user friendly, intuitive and interactive learning experience, BUIDLing Blocks doesn't feel like a crypto app, which is made possible by a streamlined (and MetaMask-less) on boarding procedure powered by Fortmatic. Additionally, the user interface for smart contract interactions will implement the Blocknative Assistant for optimal ease of use. Oh yeah, and did we mention, since we aren't using MetaMask, our DApp works on all devices be they mobile, tablet, or desktop! Pretty sweet right?

That's cool and all, but how does BUIDLing Blocks *really* help deal with this problem?

So glad you asked. Ack, maybe we haven't revolutionized the web 3.0 yet - but wait, there's more! A simple Google search, probably made by everyday by home school teachers across the globe, will show the web 2.0 has no shortage of learning courses and methods online. Many of the best strategies, like KUMON or Thinkster, have huge enrollment costs. Although they're global, these tools are really only available for privileged families who can afford them.

Wait, aren't there plenty of free online learning tools? Like there has to be, right? it's the Internet after all.

It's true, free learning tools do exist online! Unfortunately, the vast majority of these platforms, like mathworksheets4kids.com, operate on the "freemium" software model. This means far too often the best courses and tools won't be available if you can't afford to buy them. Additionally, even if you can afford to buy premium course material, the checkout process may rely on centralized payment structures with the majority of English based learning applications

specifically collecting payments in USD via North American payment channels. Since BUIDLing Blocks is a not for profit platform, it only requires gas payments to run. In a mainnet scenario, we would run the platform by soliciting donations, that would be distributed to user accounts as required. A single ETH or less can go a long way when you're only processing gas payments!

Components:

At its most basic, BUIDLing Blocks is comprised of 3 integral components. These are:

1. The **content** layer
2. The **interactive** layer
3. The **results** layer

The Content Layer:

The "Content Layer" is the informational resource providing students with all necessary lesson data they'll need to complete the tests assigned to them in "Interactive Layer". Think of it as the course text book!

The Interactive Layer:

The "Interactive Layer" is where the DApp will test users on the quality of their understanding of the knowledge distributed to them by the "Content Layer". Think of it like a course review exam!

The Results Layer:

The "Results Layer" is where students receive a course score based on the results of tests done in the "Interactive Layer". They'll be able to check which answers they got right and which were incorrect. Additionally, they'll be able to see how their score compares to other students who have completed the same course, and also their position relative to the average or median score of other students. From the teacher, or course creator perspective, teacher's will also be able to review results and metrics from students who have successfully completed their course. One goal of this is to help teachers get visibility on the difficulty level of the course material they are providing.

Track:
● Impact Track

Sponsor bounties:
● Fortmatic (User auth and identity management)
● Blocknative (User experience helper and state clarifier)

- Infura EthQL or The Graph (we are still playing around with this idea, and it may not work our to include this bounty, but ideally we'd have some way to query blockchain data and display visual metrics and comparison of test results from across many students)