Project stage "***in Development***"

Litepaper: ***Migrating online education to Web3***

Abstract
Online education faces challenges of centralization, monopolization, and potential threats from emerging technologies like AI. Ed-Tech giants dominate the market, hindering fair competition, revenue distribution, and data interoperability. The proposed solution is a decentralized e-Learning platform, fully open-source, fostering collaborative content creation, revenue sharing, lifelong learning certifications, and economic incentives for students and contributors. This litepaper outlines the key issues, the proposed solution and the technical implementation of the platform.

Problems in Ed-Tech are Monopoly, Centralisation and AI

- Monopoly and centralization by Ed-Tech giants preclude smaller entities from fair competition
- User learning data interoperability between different platforms is precluded
- Sales revenue benefits content distributors (75%), not content authors (25%)
- Certification doesn't provide the examiner with in-depth insight into the material learned
- Emerging AI technologies pose a threat to the current education system. Cheating on assessments and creating unreliable learning materials are common problems.

The Solution is a decentralised e-Learning platform fully open-source and coordinated via DAO which **provides**

- Revenue share among co-authors
- Lifelong learning certification
- Student knowledge detection via adaptive economic incentives

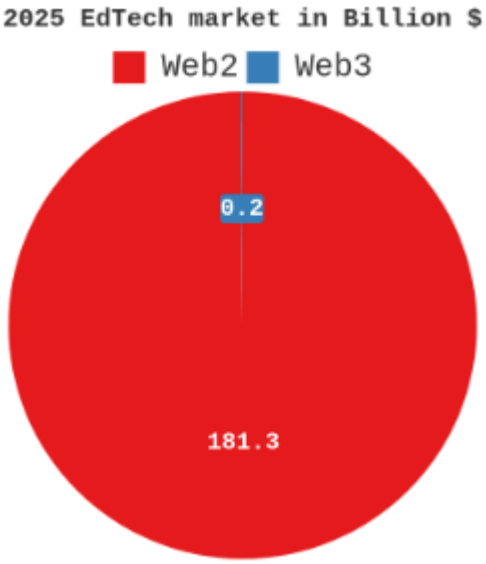
Social and Economic benefits

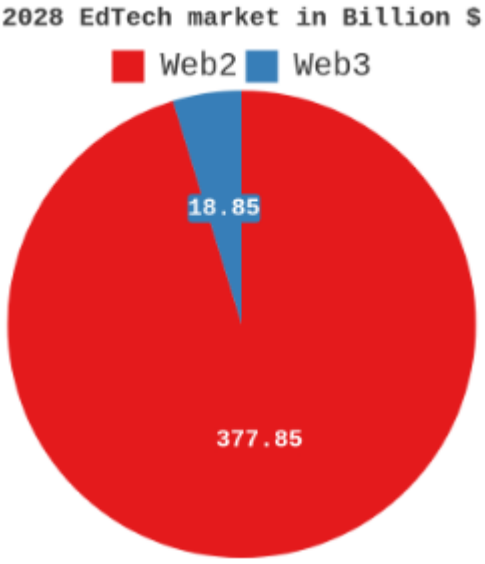
- High-quality content created cooperatively via collective intelligence
- More revenue for content authors
- Cash-back for deserving students
- An on-chain learning journey that employers can verify, rather than blindly trust costly branded certifications/institutes
- Reduced online education expenses

Market size

According to Grand View Research, the global EdTech market is projected to reach $181.3 billion by 2025 and $377.85 billion by 2028 and growing.

The Web3 Ed-Tech solutions market will grow from 0.1% to 5% by 2028.





Competitors

The Web2 industry is well saturated by big players with little or no opportunity to enter.

These are the top six Ed-Tech companies by market cap.

1. New-oriental China - $11B	2. Duolingo USA - $8B	3. Coursera USA - $3B	4. Udemy USA - $2B	5. Kahoot! Europe - $1.5B	6. Chegg USA - $1B

Partnership

One of the challenges to face is the initial lack of courses and users, which are interdependent. To overcome this, we intend to collaborate with content creation companies on a specific Web3-related topic.

Business Model

A DAO that redistributes revenue from course sales among users who have created educational material, knowledge evaluation, and provided services:

- Authors co-create the learning materials and the value in tokens is assigned
- Student buys the course using the token. When the student lands on learning material, tokens are sent to the authors based on the % of authorship
- A fee ends up in the DAO treasury
- 3rd party services, such as tutoring, anti-cheating, etc. are premium services that the student optionally purchases via tokens

Technical architecture

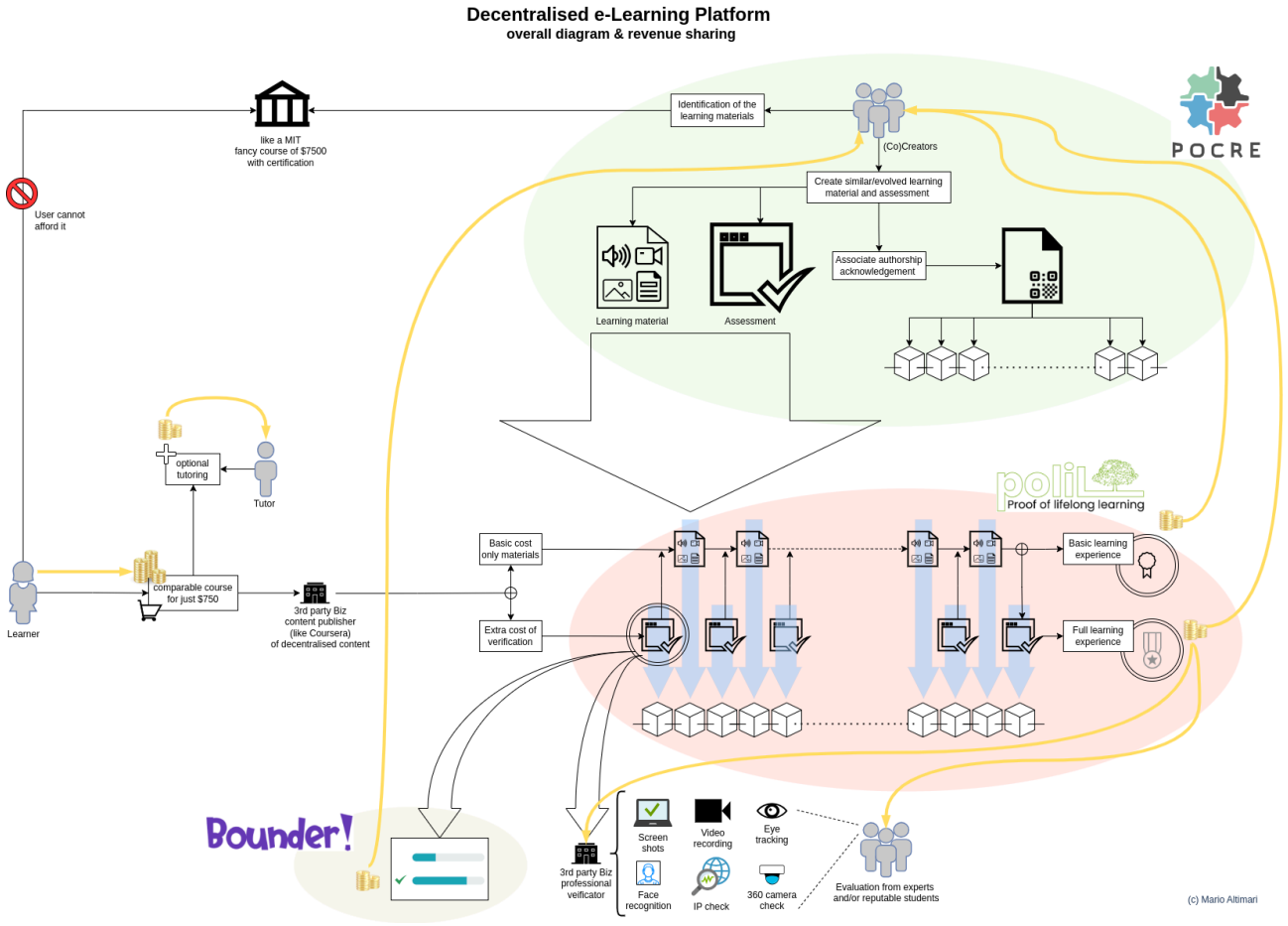
The tokenomics and the overall platform will be based on Polkadot and it is based on 3 main autonomous components:

1. PoLiL was released as MVP on Cardano testnet. It stores the user learning data proving its lifelong learning journey with no vendor lock-in. Whitepaper.
2. POCRE was released as MVP on testnet using Cardano Hydra, which is a

layer-two scalability solution. It solves the authorship acknowledgement of digital materials created by multiple authors. Whitepaper.

3. BOUNDER need to be built, to allow the detection of student knowledge via Ev-MCQ (Evidential Multiple Choice Questions) and adaptive economic incentives. It is based on the public patent US20230401973A of Mario Altimari. Bounder redistributes the winnings from the bets on the student assessments across all stakeholders. It will be developed using Polkadot Tuxedo framework.

This diagram explains how the three independent parts work together, creating a sustainable circular economy.



Roadmap

Polil module started in March 2022 and was released (as MVP) in January 2023.
POCRE module started in March 2023 and was released (as MVP) in July 2023.
BOUNDER module's plan is to be released by July 2024.
The plan is to release the platform by Feb 2025 with the 1st course during 2025.

Conclusion

The platform appeals to users with different needs:

- students who want to reduce learning costs
- content creators who want to increase revenues
- 3rd party service providers who want to expand their business

The decentralized eLearning platform not only addresses the existing challenges in the education industry but contributes also to its transition to the web3 paradigm.