



DISRUPTIVE TECHNOLOGIES FOR DEVELOPMENT

◀ **Blockchain Technology for
Youth Engagement and Value
Exchange (Evoke)**

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Blockchain Technology for Youth Engagement and Value Exchange (Evoke)



Challenge

Incentivizing youth to develop 21st century skills to compete and thrive in the digital economy has been a challenge. Only 46% of youth in Latin American and the Caribbean in higher education graduate by the time they are 25-29. In many countries, only 13% of intended resources reach schools, raising a **need for transparency in resource allocation.**



Solution & Technology Used

Use of **blockchain technology** to disburse transparent and trackable incentives to students developing skills to solve environmental challenges.



Implementation

Develop a functioning blockchain-based learning platform, which was to be implemented on a pilot course in Colombia. First WB internal Sandbox and strengthened local tech expertise. The 12-month pilot stakeholders include University students, professors and environmental experts. A working prototype to be built on the Ethereum blockchain.



Impact

Youth empowerment: Transfer of targeted and tangible incentives will motivate students to develop relevant skills to address global development challenges.
Transparency in disbursement of resources: Donor visibility into funds allocation.
Improved efficiency in Results-Based Financing: Resource allocation efficiency will result in lower costs and better targeting.



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Pilot Results

The team **developed and implemented EVOKE, a blockchain-based learning platform.**

Evoke can incentivize learning with trackable rewards, increase donor confidence in resource allocation, and monitor student progress with ease.

- **Developed a functioning platform:** The platform is built on Moodle with remote learning features. Students can earn rewards upon completion of tasks through Ethereum smart contracts. Donors can view the funds allocation through the donor's dashboard.
- **Implemented a pilot course on sustainable cities:** During the pilot, 198 students from EAD university won over 7B tokens (Evocoins) to trade for Telefonica data plans. Students earned 2,047 badges based on the quality of the work submitted and the 21st-century skills they used in completing tasks.
- **Created the first WB internal Sandbox:** In close collaboration with LEGVP, ITS Lab and DT4D, the team took a 'Sandbox approach' to mitigate risks and uncertainties during the implementation phase.
- **Incubated local tech expertise:** Through a hackathon, the team identified 8 Colombian technical experts to work on the entire cycle of the project from the platform design, development to the implementation stage.

**Partners**

- The Ministry of National Education of Colombia and the Department of Social Protection.
- Telefonica Colombia and Telefonica Spain provided data plans as rewards.
- The Center for Environmental Studies of Vitoria-Gasteiz and the EAN University provided the course content for sustainable cities and operational support for the pilot.



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Pilot Results

Relevance in the age of Covid-19

- The team developed the platform to be **suitable for distance learning in the Covid-19 era**. Initially designed for use on mobile phones, the platform was modified to accommodate users accessing from laptops. The platform **provides remote learning features** such as virtual rooms, chats, wikis, and forums based on feedback from students and teachers.

Next Steps & Beyond DT4D

- **Integrate Evoke in Colombia's national remote learning strategy**
 - The Ministry of Higher Education is interested in applying the lessons from the pilot as it seeks more effective ways to teach 21st-century skills via distant learning.
 - Quid lab, the local implementation partner, is engaging with potential donors to launch a national Evoke campaign in the 2020-2021 academic year.
 - Evoke will be offered to high schools in the coming academic year.
- **Capture and share lessons learned from launching the WB's first sandbox on blockchain**
 - The project's experience, using blockchain to incentivize learning with transparent disbursement of resources, can potentially be applied to WBG's Result-Based Financing (RBF) projects.
 - DT4D to support knowledge sharing of the project experience