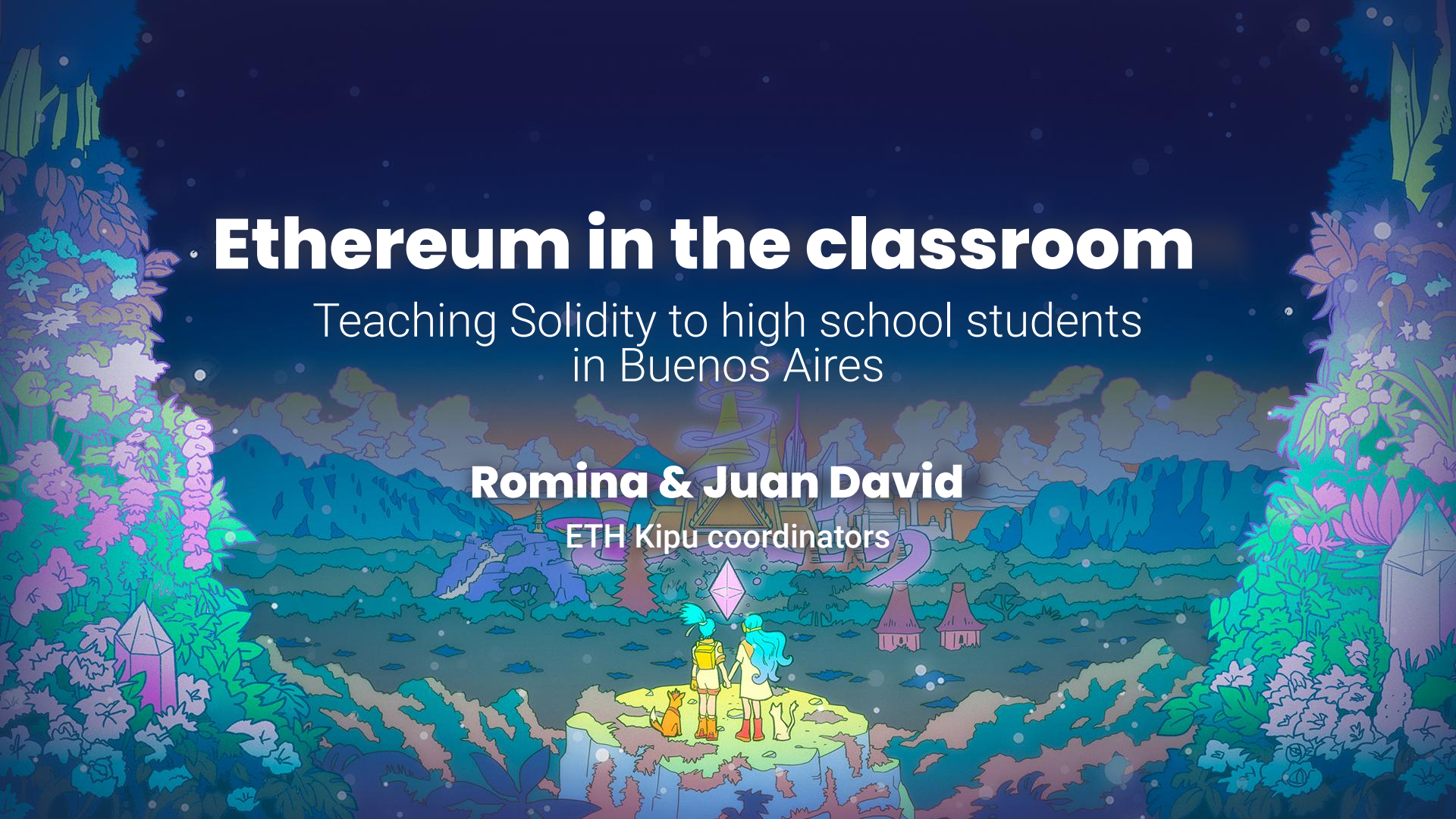


# Ethereum in the classroom

Teaching Solidity to high school students  
in Buenos Aires

**Romina & Juan David**

ETH Kipu coordinators





# What is ETH Kipu?

ETH Kipu is a nonprofit foundation supported by the Ethereum Foundation through the Ecosystem Support Program.

Kipu was founded at the end of 2022 by a group of individuals from different countries of Latin America.

**Our mission is to strengthen the Ethereum ecosystem through education and cooperation.**



## Work areas

While our teams collaborate in an integrated way, we organize our initiatives into four main work areas:



### Education

We educate the Latin American community about the Ethereum ecosystem using sustainable formats accessible to everyone.



### Kipu Stakers

We support local communities in managing their own nodes. At the same time, we educate about the importance of decentralization and collaboration.



### Kipu Impact

We build relationships with Ethereum-aligned actors in Latin America, identify needs and opportunities, and advocate for a sustainable ecosystem.



### ETH Latam

An event co-created by the Latin American community, it's the gathering where we come together to share knowledge, updates, and experiences about Ethereum.





## A new target: young attendees

Think about the people you see at Devcon, Devconnect, ETH Denver... we're all adults.

During our last ETH Latam event in Honduras, we noticed a significant change: a lot of young attendees.

This was a **unique experience** that made us rethink our approach of our events and courses.





## An event about Ethereum for high school students

Last August we approached the **Ministry of Education in Buenos Aires** with a proposal to hold an event for 200 high school students during the Ethereum Argentina community's conference and hackathon week.

We held introductory talks tailored for young people, ages 15 to 18, from both public and private schools—and it was a success! This became the starting point for launching a pilot program to teach Ethereum in high schools.



# ETH Kipu – Ministry of Education

## 500 Solidity students

Providing upskilling opportunities for adults in Buenos Aires who are interested in advancing their knowledge of new technologies.

## Training the trainers

Preparing potential Solidity instructors to expand blockchain education.

## Ethereum in high schools

Offering professional practice programs that introduce Solidity to high school students.

We were in the spotlight  
and would love to spread  
this globally!



**BREAKING:**

Ethereum and Solidity are now formally integrated into high school education programs in Buenos Aires

High schools students will learn to write [#Ethereum](#) smart contracts

*Vamos Argentina!* 🇦🇷



*Buenos Aires, August 19th, 2024*

**Argentina Leads the Way: Ethereum Education Now Part of High School Curriculum**

In a groundbreaking move for technological education, Argentina is set to integrate Ethereum and blockchain technology into high school curricula across Buenos Aires city. This initiative, organized by ETH Kipu Foundation in collaboration with the Ministry of Education of the City of Buenos Aires and supported by the Ethereum Foundation, represents a major leap forward in preparing the next generation for the tech economy.

**Introducing Blockchain in Classrooms:**

As part of this initiative, high schools in Buenos Aires will soon offer professional internships in blockchain projects, giving students hands-on experience in one of the most rapidly growing sectors globally—the first course starts on August 27th.

Additionally, an online Solidity course, aimed at training 500 students aged 18 and over, will be launched. This course will equip young adults with the skills needed to develop decentralized applications (dApps), further integrating blockchain into the local economy.

To ensure the success of this initiative, a hybrid training program will be introduced to prepare 30 educators to teach Ethereum and blockchain-related subjects. This program will help build a sustainable educational framework that can be expanded to other regions.

3:14 AM · Aug 24, 2024 · **815.3K** Views

## Launching a pilot program with the Buenos Aires Ministry of Education

### Introducing Ethereum in classrooms

- We began teaching Ethereum to 24 students from 7 schools in Buenos Aires in August.
- They are learning Solidity as part of their mandatory **Professional Practice Programs**: educational activities that technical high schools must organize to enable students to apply their learning and gain experiences similar to those they will encounter in their future careers.
- **This is the first professional practice program with blockchain as its main focus.**



# Organization of the Ethereum Developer Pack contents

Each module has been designed to offer a comprehensive and hands-on learning experience, aligned with the needs of the Ethereum ecosystem.

## Module 1

### Introduction to Smart Contracts

We reviewed the basic concepts of blockchain and Ethereum. We created our first smart contract.



## Module 2

### Solidity Fundamentals

We learn about the main language for programming smart contracts: Solidity.



## Module 3

### Standards, libraries and patterns

In-depth study of standards such as ERC20, ERC721. Main libraries and good design practices.



## Module 4

### Web3 development toolkit

We connect the frontend to the blockchain, using leading market tools for Web3 development.



## Module 5

### Security, testing and audit

We learn methodologies for testing, as well as the main vulnerabilities in smart contracts.

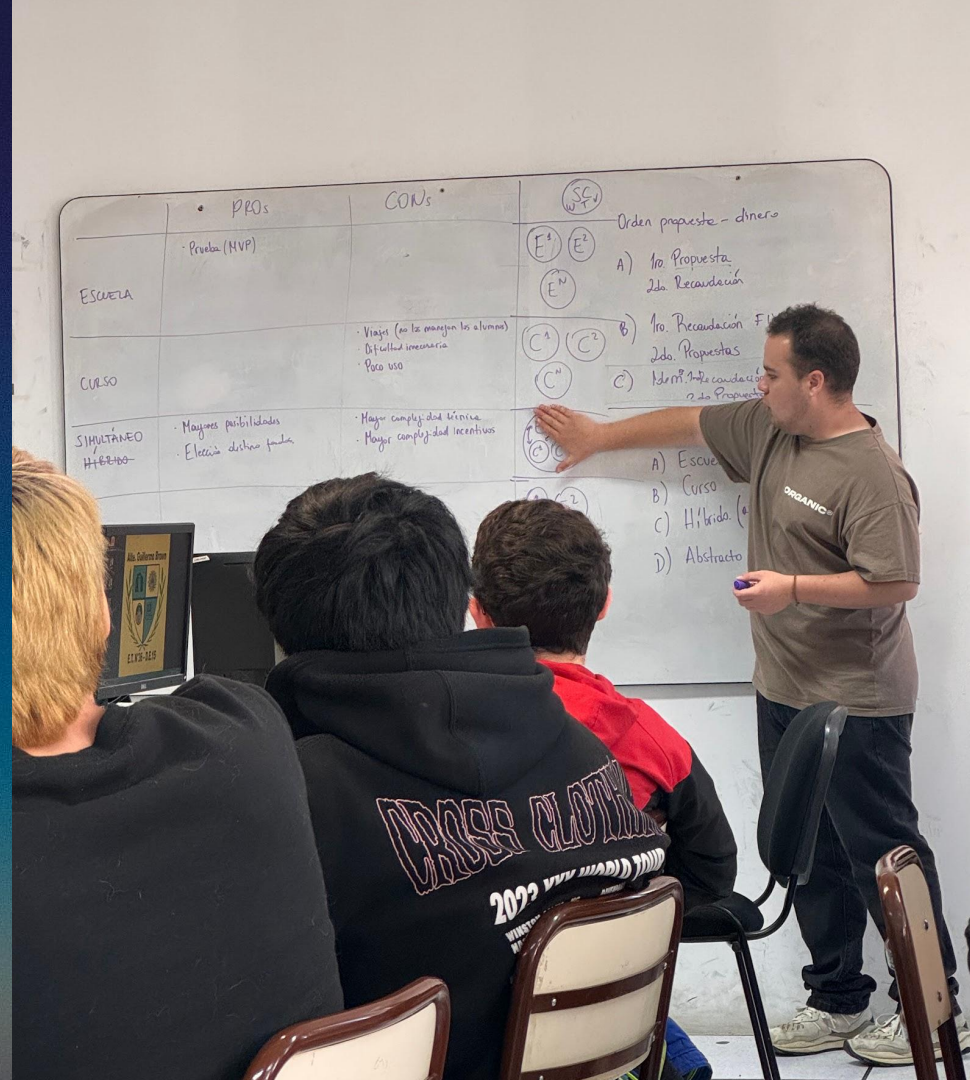


# Co-Creating for transparent decisions

Students decided to create a product to decentralize their school's "**cooperadora**" (parent-teacher association fund)

The students are developing an MVP to bring contributions on-chain, learning how to manage funds with a multisig wallet and co-creating a voting system to vote quarterly on fund allocation.

Their challenge is learn how to create a **decentralized application** for others students like them and for their families.





## Registro para el Foro

Únete a nuestra comunidad

Nombre de usuario

Correo electrónico

Contraseña

Confirmar contraseña

Dirección de billetera

Parentesco Alumno

Seleccione el parentesco ▾

Curso

Seleccione el curso ▾

División

Seleccione la división ▾

Turno

Seleccione el turno ▾

Colegio

☐ Acepto los términos y condiciones

Registrarse

Inicio Sesión

Participá

### Propuestas publicadas



#### Propuesta 1

Propuesta para mejorar el Techo del patio interior.

⊕ Today • 23 min



#### Propuesta 2

Propuesta para mejorar el baño del gimnasio y arreglarlo

⊕ Today • 23 min



#### Propuesta 3

Propuesta para comprar Mouse para el Lab de informática

⊕ Today • 23 min



Solo si colaboraste previamente

Participá

Colaborá con la cooperativa del colegio para un mejor ambiente escolar

Donación en ARS

Donación en Crypto

### Progreso de las donaciones

Total donado:  
ARS 2.000.000  
USDC 10

# Insights so far





# This is a WIP

## Give ownership to students

- We've given the students **high levels of autonomy** in deciding how to develop the code (e.g., contracts are currently separate).

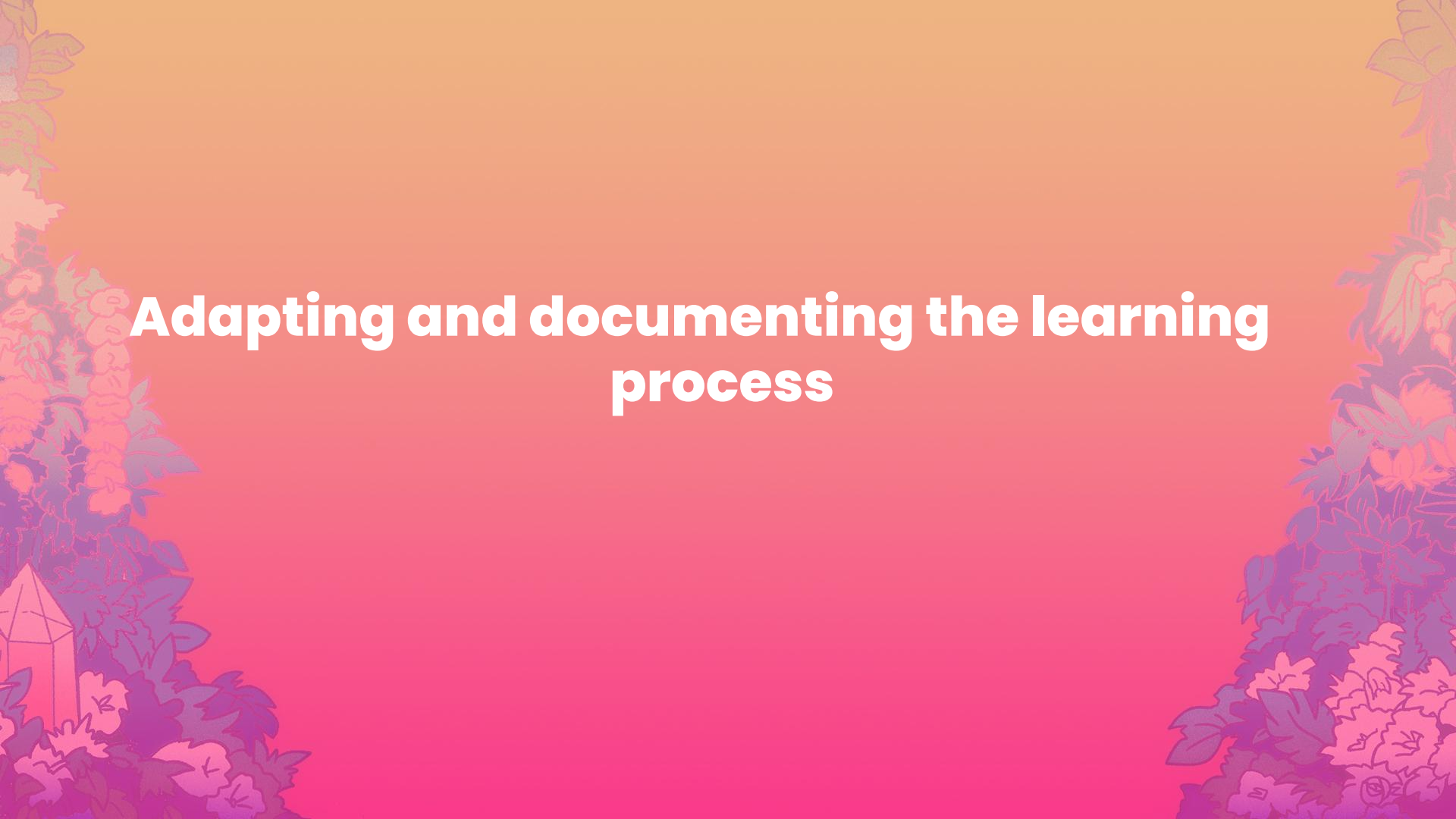
## Adaptability of the curriculum

- The timeline and content need to **remain flexible**, adjusting based on the interactions and feedback we receive from the students.

## Emulate real work experiences

- Internships don't always provide the full work experience. To address this, we've integrated: **documentation**, **Discord** comms and **sprint reviews**.

# **Adapting and documenting the learning process**





## Ongoing learning and documentation

## Exploring the best ways to teach Solidity in classrooms

We're documenting everything to standardize the teaching process, with the goal of expanding to more schools next year and potentially to other countries.



**How would you teach  
Ethereum to your 15-year-old  
nephew?**



# If you the answer, lets talk!

**ETH Kipu Foundation**

hello@ethkipu.org

@ethkipu

