University of Applied Sciences and Arts
Northwestern Switzerland

# A Case Study on Teaching Decentralized Autonomous Organizations (DAOs) in a Business School

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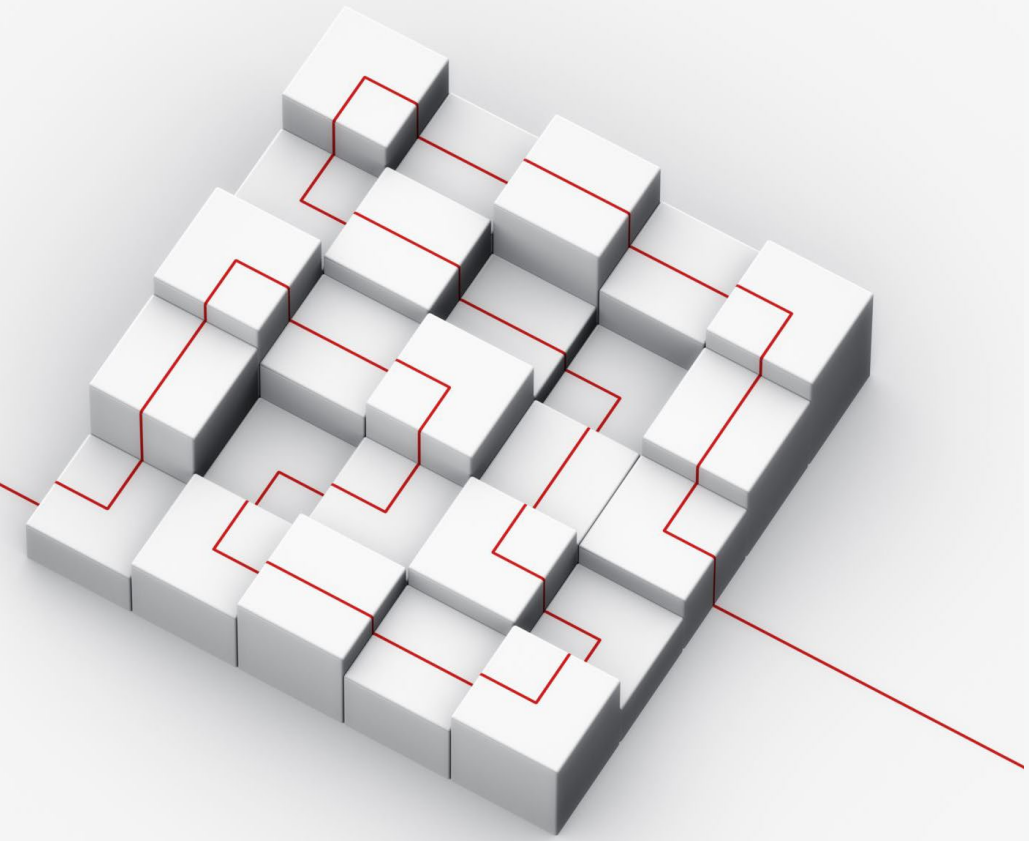


This research presents a **case study** on **teaching the topic of DAO** at a business school.

A **core element** was the organization of the course through a **newly formed DAO**, which allowed students to experience decentrali-zation and voting mechanisms firsthand

# Agenda

Introduction

Findings

Discussion

Conclusions

Recommend-ations

# Introduction

# Background on Decentralization and DAO

- Centralized systems offer
  - **advantages**, including user access control, adaptability, data management, efficiency, monitoring capabilities, permission-based usage, and confidentiality.
  - **and drawbacks**, such as user risks due to corruption, lack of oversight, data breaches, inaccessibility, system failures, and a single point of failure.
- Decentralized systems were introduced to address these flaws.
- DAOs offer benefits, including favoring contributions, reducing entry barriers, enhancing democratized decision-making, transparency, and accountability.

# Relevance of DAOs for Business Managers

- DAOs can be viewed as **organizations 2.0** relevant to be known by business students as future managers.
- Business managers can take advantage of this **disruptive technology** by embracing a system designed for modern collaboration.

# Research Topics in the Field of DAOs

- Governance Mechanisms
  - Organizational structures for communication, responsibilities, and decisions.
  - Exploration of DAO mechanisms like token-based voting, reputation systems, and hybrid models..
- Economic Models and Solutions
  - Importance of reputation systems in DAOs for incentivizing cooperation and assessing trustworthiness.
  - Application challenges in industries like healthcare, emphasizing access inequalities and security concerns.
- Security, Legal, and Regulatory Considerations

# Context of the Case Study

- School of Business, University of Applied Sciences and Arts Northwestern Switzerland FHNW
- Bachelor's degree program in Business Information Technology (BIT), which can be studied full-time or part-time
- DAO course offered as elective. Credited with 3 ECTS and a duration of six weeks with weekly lectures of 4 hours.

# Findings

# Course Objectives

**Table 1.** Learning objectives of the DAO university course.

| Learning Goal | Description |
|---|---|
| Knowledge and understanding | Students acquire a sound knowledge of methods and tools for the strategic and operational areas of DAOs/ecosystems that are the foundation for enabling Web 3.0. |
| Application of knowledge and understanding | Students actively shape the course directly using Web 3.0 technology themselves for voting, sharing, rewarding, and abstracting in a direct course governance role. The teachers, the content, and the grading are part of the DAO mechanism. |
| Ability to make judgments | All participants learn principles and settings under which a DAO governance performs. They can judge which method/approach suits the initial situation and which advantages or risks are associated with DAO governance. |
| Communication | Students acquire the ability to judge and discuss the potentials and limitations of DAO and Web3.0. |

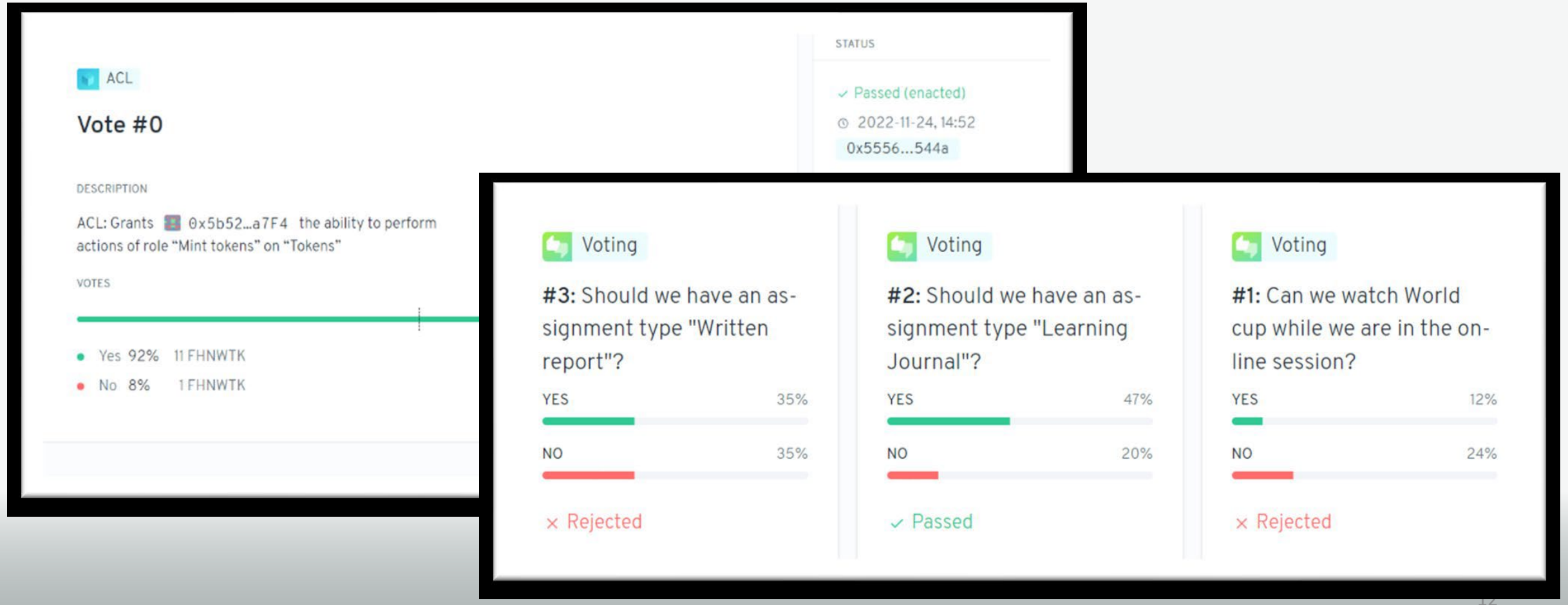
# Course Design

**Table 2.** Design of the DAO university course.

| Topics | Vote |
|---|---|
| **1. Introduction:** | |
| - Context and Conditions of the module<br>- Overview Web3.0, Blockchain, DAO<br>- Intro and first steps in a DAO platform | Test vote to accommodate with the platform |
| **2. DAO Foundations:**<br>- Emergence, History, Categories of DAOs<br>- Strengths & weaknesses of DAOs<br>- Practical elements and future key issues of DAOs | Vote on assignment conditions - assignment type (which assignment, if graded by classmate, if bonus point system) |
| **3. DAO Governance:**<br>- Decentralization vs. Centralization<br>- Decision-making<br>- Governance Issues | Vote on topic preferences for lecture number 5 |
| **4. DAO Platforms:**<br>- Selected DAO platforms and its use cases<br>- Launching and managing a DAO<br>- Examples of real-world DAOs | Vote on assignment conditions - assessment criteria |
| **5. Voted Topic**<br>a) assembly curated<br>b) elementum nft-marketplace<br>c) nature collectibles<br>in addition: DAO Governance in Swiss corporates | Vote on most valuable person MVP |
| **6. Closing:**<br>- Summary and conclusions<br>- Assignment outcomes / next steps<br>- Feedback | Vote on retrospective quality assurance |

# Course Implementation

Aragon App as tool to show students how to design & manage DAO.



# Discussion

# Main Lecturer Learning and Feedback

Living up to decentralization:
Even though one core idea of the DAO course was to experience a decentralized organization firsthand, it was challenging to implement it, given the structure of the university (pre-defined course dates and times, duration, and credits). The decisions the students in their role as DAO members could make were limited to fit the university framework.

# Main Student Learning and Feedback

- Students demonstrated profound understanding of common DAO principles evidenced by their ability to articulate and apply these principles in various course-related activities and discussions.
- Teaching DAO principles as a DAO is generally possible and welcomed by students and without prior knowledge, a good learning curve can be achieved.

# Student Engagement

While student learning and feedback painted a favorable picture, a gradual decline in voting participation could be viewed—a vital element of the DAO governance model and a knows issue in research.

# Conclusions

# Summary and Achievement

- The university course and the partnership between FHNW and external guest speakers, particularly Bittopia, proved to be a successful collaboration.
- Students can simultaneously learn from those educating and those developing and implementing the ideas being taught.

# Limitations

- Disparities in technical proficiency and access to requisite technological infrastructure hindered some individuals from fully engaging with specific aspects of the DAO.
- Token acquisition and mining within the DAO presented difficulties for specific participants.
- In adherence to legal and regulatory standards, the course refrained from incorporating real-value tokens within the DAO’s governance framework.

# Recommendations

# Recommendations

The implementation of an obligatory pre-course onboarding process. This process should familiarize students with DAO platforms such as Aragon or similar solutions.

Implementing in-session voting mechanisms to address voting lethargy and declining participation. This promotes real-time engagement during class sessions, revitalizing the decision-making processes. Actively involving students in content creation and recognizing/rewarding their contributions to foster a sense of ownership and responsibility.

Maintaining a delicate balance between freedom and structure.

# Questions and Discussion