Davos VIP Blockchain Workshop

Blockchain technologies for transparency, accountability and algorithmical governance

Tuesday, January 17, 2017 from 10:00 to 11:30 @ Hub Culture

AGENDA

Introduction:
Discussion Prompt

In this workshop, we will explore the spectrum of ways in which we can leverage blockchain technologies to address the growing deficit of accountability and trust in both public and private institutions. This can be done in two ways:

(1) utilizing blockchain technologies as a means to improve existing governance structures within an institution, by improving the transparency, auditability, and accountability of its operations (*ex-post governance mechanism*);

(2) relying on blockchain technology as the operational layer for human interactions within an institutional framework (*ex-ante governance mechanism*).

Time permitting, we will explore (3) the issues surrounding the governance of blockchains, including legal liability, legal enforcement, and emerging norms and ethics in the decentralized space.

1. **Blockchain–Assisted Governance** (*ex-post*)

Utilizing blockchain technologies as a means to improve existing governance structures within an institution, by improving the transparency, auditability, and accountability of its operations.

- **Integrating blockchain technologies in traditional governance:**
  - What are the various use cases of blockchain technology in corporate and institutional governance that can increase the transparency / trust / accountability of existing organizations?

- **Using blockchains to improve the governance of existing institutions:**
  - Improving the transparency of governance structures
  - Improving the verifiability / auditability of performed actions
  - Increasing the efficiency / rigidity of procedural rules

2. **Blockchain–based Governance** (*ex-ante*)

Leveraging new opportunities that blockchain technologies provide for the establishment of a new operational layer for human interaction that can support, complement and perhaps replace current, less trustworthy governance structures.

- Blockchain technology as a **lower–level operational layer**
  - Establish the rules and procedures that everyone must follow
    - Blockchain technology as the underlying framework on which the decision-making process is done.
  - But —without AI— technology is unable to make decision
    ⇒ we maintain the **need for an upper–level governance layer**
    - Who has the right to make decisions?
    - What is the weight of each participant in the system?
    - What are the power dynamics that can be found in the system?
    - *Cf. Bitcoin: hashing power, TheDAO: plutocracy*
  - Prob of market-driven governance models is **risk of centralization**
    - what kind of governance systems can we implement on top of a blockchain–based system, in order to preserve the decentralized character of it? How to avoid the emergence of oligopolies?

3. <u>Governance of Blockchains</u>

There is also a growing need to identify ways to govern or regulate blockchain-based applications, in order to ensure their compliance with existing regulatory frameworks. The decentralized space continues to grow rapidly, and we should facilitate the growth of a culture of healthy social and ethical norms that foster individual and collective responsibility.

- *"We are taking legal theory, cryptography, and cypherpunk ideology, and we're smashing 'em together"*
    - Taking existing legal concepts and transposing them, or re-interpreting them into technology.
    - How do they change the legal concepts that they were inspired from?

- Legal liability for miners, rogue smart contracts, software developers, and blockchains tainted with illicit contracts
    - Smart Contracts are not legal entities so they cannot be held liable
        - *"Math has no agency"*
    - What are smart contracts if not legally responsible entities? Who is legally responsible for an illicit smart contract?
    - Reachable persons: software developers, miners (operators), payor of "rent" for the contract
    - Responsible persons: payor (yes), miners/developers (yes or no)
    - Feasible enforcement tools:
        - investigatory tool for illicit actors, miners' prevention of payment to rogue smart contract, "garbage" collection tools that purge "garbage" data
- Ethics:
    - What kind of values can we bake into a blockchain-based system?
    - How to ensure that these technologies empower people, as opposed to replicating or exacerbating the current inequalities and power dynamics?
    - *"Taking individual responsibility facilitates collective responsibility"*

Restitution