We the Nodes: Can Constitutions Unite Blockchain Communities?

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In this article, we examine the purpose of a constitution and examine EOS and Decred, two blockchain projects with their own constitutions.

This article proceeds in five parts:

- In part one, we examine the what and why of constitutions.
- In part two, we discuss fictive kinship and how it may give rise to blockchain constitutions.
- In part three, we examine the EOS community's attempt at creating a constitution.
- In part four, we examine the Decred community's attempt at creating a constitution.
- Lastly, we provide a short conclusion with some recommendations.

I. Constitution[alism]

Before we dive into blockchain communities that have their own constitutions (hereinafter "blockchain constitution"), let's start with a definition of "constitution" to guide us.

A constitution, as defined by Merriam Webster's Online Dictionary in 1(a), is:

the basic principles and laws of a nation, state, or social group that determine the powers and duties of the government and guarantee certain rights to the people in it

We settled on this definition for its ease of use and understanding.

Why does anyone need a constitution?

A constitution is an extremely useful written or unwritten approach to governance because the constitution describes to all stakeholders in the community the following:

- the community's principles and values;
- decision-making procedures;
- collection, budgeting, distribution and accounting ("financing") of community funds;
- the powers, duties and restrictions of government departments;
- the rights reserved to community members;
- dispute resolution among community members;
- how community members can elect their representatives;
- how elections will be held;
- the fundamental laws of the community; and
- the extent and manner of the government's exercise of sovereign power.

Through a constitution, the governing and the governed have transparency over how each is expected to behave within the constitutional system.

Of course, a constitution is not limited to either the forms or substance outlined above.

Why would a blockchain community want a constitution?

There are many theoretical benefits that flow to a blockchain community from the creation of a constitution. The main stated benefits include clear, concise and transparent set of rules and procedures for conducting community affairs.

Constitutions can provide additional concrete benefits:

1. Clearer guidelines for off-chain decision-making (this applies to on-chain decision making as well, but generally the underlying blockchain protocol governs decision-making on the protocol level);
2. Election/promotion/removal of community members charged with governing or overseeing organizations (e.g., non-profit foundation to maintain software or investment group to grow the ecosystem);
3. They can delineate responsibility for community finances, and unifying the principles and values of the community (*See, e.g., how the many different views of what Bitcoin should be has led to any number of forks to the Bitcoin blockchain*).

This is also of the reasons why Decentralized Credits (Decred) has a constitution, as to avoid the issues that have befallen the Bitcoin community.

Having a constitution also helps provide a sense of stability and predictability for the community, and to prevent newcomers who lust for power from entering the community and imposing their will on others.

II. Fictive Kinship
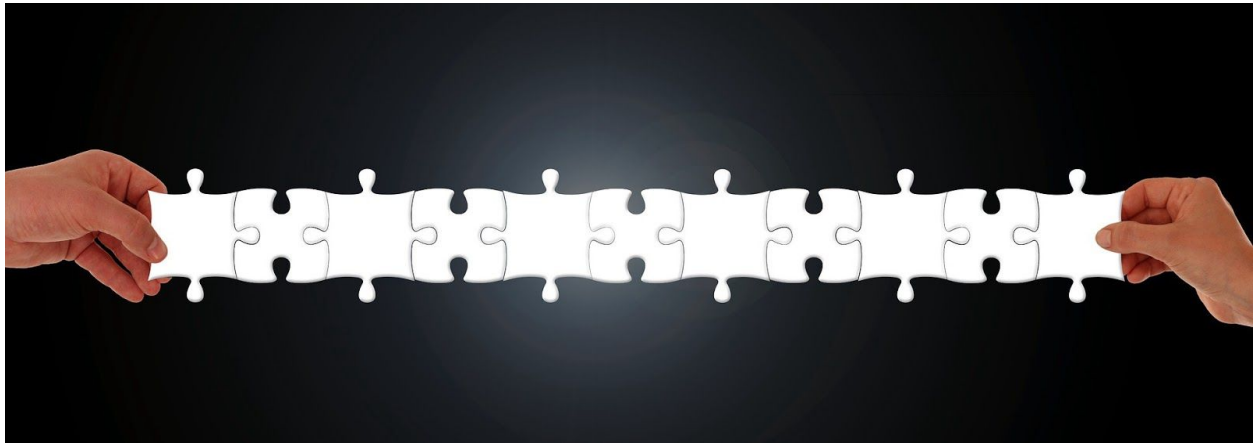
Fictive kinship, as defined in Collins Dictionary, is:

a term used by anthropologists and ethnographers to describe forms of kinship or social ties that are based on neither consanguineal (blood ties) nor affinal ("by marriage") ties, in contrast to true kinship ties.

Now, does fictive kinship exist within blockchain communities? We would like to make the suggestion that it does.

Members of a blockchain community are generally not brought together by consanguineal or affinal ties. Rather, members of a blockchain community are brought together by a common blockchain protocol, a procedure for amendments thereto, and a set of principles and values.

For example, the Bitcoin community is tied together by the Bitcoin Core software which connects nodes to the Bitcoin network to interface with the Bitcoin blockchain (the

common blockchain protocol), the Bitcoin Improvement Proposal procedure to suggest amendments to the Bitcoin blockchain (amendment procedure), and the set of principles and values professed by Satoshi Nakamoto (decentralized, public, distributed, censorship-resistant, open source).

III. EOS Constitution

To begin, we shall provide the first version of the EOS constitution, as of June 7, 2018. The second version of the EOS constitution is still undergoing deliberation [2] [3].

EOS Constitution V.1 may be found here [1].

Overall, we found the EOS constitution to be lacking in regards to serving the purposes of a constitution. And because of that, we decided to only discuss certain portions of the constitution, and our major gripes with it.

Many Articles allude to a third party's substantive legal framework, but fails to ever mention which legal framework is referenced. There are many issues with EOS's constitution, but the most important is the confusion of the relationship between constitution and contracts and the parties they govern.

Specifically, a contract describes the relationship between two or more contracting parties (generally, only third party beneficiaries can enforce contract terms) while a constitution describes the relationship between the government and the people (which applies to the whole community). In other words, a contract (which is generally made for specific parties) should not be used in place of a constitution (which provides the fundamental law for the whole community).

This could have arisen from considering the constitution from a social contract theory viewpoint, wherein individuals consent, implicitly or explicitly, to surrender some of their freedoms to an authoritative body, in exchange for social order and preservation of their remaining freedoms [4].

As stated above, a constitution is the basic principles and laws of a nation, state, or social group that determine the powers and duties of the government and guarantee certain rights to the people in it.

A contract, as defined by Black's Law Dictionary 2nd edition, is a "legally binding agreement involving two or more parties that sets forth an exchange of promises of what each party will or will not do…" [5]

Basically, if you want to truly make a constitution, keep in mind what is or is not a constitution.

We believe this confusion was a major contributor to the EOS blockchain halt incident in 2018 [6][7][8][9][10][11][12].

The incident arose when the 21 elected EOS Block Producers decided to freeze seven EOS accounts (i.e., public keys) suspected of theft without authorization from the EOS Core Arbitration Forum (ECAF) [6][7][8][9][10][11][12].

This action violated the EOS constitution because the block producers cannot execute such action without ECAF's authorization [6][7][8][9][10][11][12]. Furthermore, ECAF declined to order freezing the seven accounts because the EOS constitution was not finalized at the time (refer to Article IX and XX), thus ECAF had no authority to make such an order [1][6][7][8][9][10][11][12].

Despite ECAF's denial, the block producers took matters into their own hands and enacted EOS911 initiative, an initiative designed by EOS 42 block producer, to take safety measures to recover stolen funds [6][7][8][9][10][11][12].

This incident raised many concerns about centralization of the EOS network, and rightfully so, because the Block Producers in the EOS Constitution are simply an executory body, who can only act upon the explicit authorization of arbitrator bodies, such as ECAF [6][7][8][9][10][11][12].

Eventually, this led Daniel Larimer, EOS founder, to propose replacing the EOS constitution with a completely new constitution to avoid such incidents [6][7][8][9][10][11][12].

You may find the proposed EOS constitution 2.0 here: https://block.one/news/block-ones-proposal-for-eos-constitution-v2-0/

IV. Decred Constitution

The Decred Constitution may be found here [13].

The Decred Constitution is a better representation of how a blockchain community can approach drafting a constitution.

We examined the Decred Constitution section-by-section to highlight its impressive attempt at creating a blockchain constitution.

Returning to our definition of a constitution, as defined by Merriam Webster's Online Dictionary in 1(a), is:

the basic principles and laws of a nation, state, or social group that determine the powers and duties of the government and guarantee certain rights to the people in it

Section 1 of the Decred Constitution, entitled Principles, clearly states the 6 principles of the Decred community, with a short explanation of each principle (thus, leaving the principles to less ambiguity).

This is definitely a must given how many different sets of principles and values apply in blockchain projects, and clarifies for newcomers and outsiders the views of the community.

Section 2 of the Desired Constitution, entitled Blockchain Governance, explicitly describes how amendments will be made to the blockchain ("on-chain decision-making"). The section describes the consensus algorithm for the Decred blockchain (PoW/PoS hybrid), how Proof-of-Stake (PoS) contributors ("stakeholders") can override Proof-of-Work (PoW) contributors and how stakeholders can participate in a lottery system to vote on a block and collect a subsidy. This section describes the governing bodies of on-chain decision-making, the PoS contributors and PoW contributors, and how they interact with each other in amending the blockchain.

Section 3 of the Decred Constitution, entitled Project Governance, describes how amendments will be made regarding the development of the Decred project through the *Decred Assembly* ("off-chain decision-making"). This section describes the governing bodies for off-chain decision-making, the *Decred Assembly*, the *Admission Council*, the *Creation Council*, and the *Attrition Council* ("Councils").

The *Admission Council* selects members to serve on the *Decred Assembly* (members who have been confirmed by a 60% or greater affirmative vote). Section 3 places an

explicit limitation on the composition of the Assembly members. Namely, that the assembly members must be diverse. Further, the Admission Council must select members based on **merit**, which is based on two factors: "(1) the amount of time over which one has been involved with the project, and (2) one's body of work and its impact in the context of the project."

The *Attrition Council* enacts attrition "by temporarily deactivating or actively expelling Assembly members by a 60% or greater affirmative vote by the *Attrition Council*" based on two factors: "(1) substantial non-fulfillment of duties for one or more Councils or the Assembly, and/or (2) counterproductive behaviour that goes against the framework set forth in the Constitution without constructive action toward solutions."

Lastly, "all matters formally presented to a Council shall be resolved by a vote in 365 days or less."

The dissociation of on-chain and off-chain decision-making is very important and takes into account the layers of complexity that arise in blockchain communities and digital governance in general (code is law only so far as human greed can be restrained). Additionally, these two sections easily comport with the above definition of a constitution because they explicitly describe the governing procedures for on-chain and off-chain decision-making that will impact the Decred community. Especially, Section 3 because it gives greater specificity regarding off-chain decision-making bodies powers, duties, restrictions and procedures. Also, it is very transparent on what is needed by a community member to move the Councils into action.

Section 4 of the Desired Constitution, entitled Funding, describes how Decred will be funded (i.e., management of finances) for the foreseeable future. The funding work is

left to *Decred Holdings Group*, LLC ("DHG"), a Nevis LLC. Section 4 then further describes the limitations on DHG's funding work, such as requiring DHG to adhere to the guiding principles, issue public financial statements, and submitting budget proposals. Section 4 then creates a new Council, the *Funding Council*, which is tasked with improving DHG's proposed budget. The approved budget is then sent to the on-chain contributors for a Proof-of-Authority (PoA) vote. The DHG is also tasked with requesting, accepting, and reviewing Requests for Proposals (RFPs), which are required to include certain particulars. Once a RFP is accepted, it is made public to the Decred community.

Section 4 hits on one of the most important aspects of a constitution, and governance in general: how community resources are gathered and distributed. Additionally, it ventures into how the Decred community will approved related projects to grow the Decred ecosystem of goods and services.

Overall, Decred's constitution provides a good starting point for other blockchain projects to consider how to draft their own constitutions.

However, there were a few clauses we wish were included, such as an explicit clause for constitutional amendments and interaction with other blockchain networks and communities.

Conclusion

The idea of a blockchain constitution is fascinating and an area of digital governance we expect to grow as more and more people develop fictive kinship to their particular blockchain networks.

In considering blockchain constitutions, we evaluated the EOS and Decred blockchain constitutions. The EOS Constitution, in our analysis, failed to meet the basic standards for a constitution because the EOS Constitution confuses "contractual relationships" with "constitutional relationships."

The Decred Constitution, in our analysis, is much closer to what one would hope for in a blockchain constitution. The Decred Constitution explicitly describes the principles and values of the community, on-chain and off-chain decision-making procedures, management of finances and growth of the ecosystem, all with the mind of community-governance.

In establishing a blockchain constitution, we recommend examining the following:

- Principles and Values of the community;
- Off-chain decision-making procedures;
- On-chain decision-making procedures;
- Financing (collection, budgeting, distribution and accounting);
- Growth of blockchain ecosystem ;
- Interaction with other blockchain communities and/or networks (e.g., should we add cross-chain infrastructure?);
- Amendment procedure;
- Community sentiment;
- Existence of community factions;
- Clear understanding of what is or is not a Constitution; and
- The need, or lack thereof, for an interim constitution.

Thank you for reading *We the People: Can constitutions unify blockchain communities?*

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