The governance challenges

A long road ahead with many challenges and no clear guidelines to follow.

Intro

For years, blockchain technology and the crypto ecosystem have been evolving on the basis of trial and error and the efforts of different projects to continue to innovate and grow without clear rules.

And governance is no exception.   
  
Over time, the pros and cons of the different types of governance assumed by the projects have become more visible and the crypto ecosystem requires a review and pooling of ideas to strengthen decision-making and the representativeness of the token holders.

In fact, the governance of the crypto ecosystem faces numerous challenges, some of which include:

1. Decentralization vs. Centralization: Many blockchains and projects aim for decentralization. Decentralization in governance is difficult. How to balance decentralization with effective decision-making mechanisms is a challenge. It should be noted that decentralization is not a final objective but rather one of the vertices of the blockchain trilemma. It aims to generate a distribution of control, be resistant to censorship, and increase trust in the network. However, increased decentralization can hinder efficient decision-making.

2. Governance Models: There's no one-size-fits-all governance model for blockchain and structures (DAO´s, sub-DAO, OpenGov, Foundations, etc). Different projects or blockchains use different mechanisms such as on-chain governance, off-chain governance, or hybrid models.   
  
Some characteristics of each model:  
  
A.- On-chain governance:   
1.- On-chain decisions (smart contracts, democracy module, codes in protocol etc).  
2.- Decisions and voting are publics (by community, token holders, etc) and on-chain (verifiable)  
3.- Automation in execution. No human interference.  
4.- Inmutable. Irreversible in the blockchain.  
5.- Open to all token holders.  
6.- More secure. Against manipulation or attacks.  
7.- More efficient.  
8.- Slow, No flexibility, more expensive.  
9.- trustless.   
  
B.- Off-chain governance:  
1.- Flexibility and speed in decision making and implementation. Increased responsiveness to unforeseen events.

2.- Greater capacity for adaptation.  
3.- Costs reduced. No gas fee. No transactions. No execution on-chain.  
4.- Increased Scalability: scalable solutions can be implemented without impacting blockchain performance.

5.- Lower Blockchain Load: load on the network is reduced. Avoid congestion.

6.- More risk of centralization. Decisions could be made by a small group of interest, committee, board. etc.

7.- Less transparency. Could be private decisions.

8.- Trust in the decision board.

Each has its own advantages and drawbacks.

3. Token Holder Engagement: Ensuring active participation from token holders in governance decisions can be difficult. Many holders may be passive (time, interest, amount etc), leaving decisions to a small group of active participants or delegators.

4. Sybil Attacks: Malicious act where a single entity creates multiple fake identities/accounts to influence in a decision making process or governance system, and affect the integrity of decision-making processes.

5. Security Concerns: Implementing governance mechanisms on decentralized platforms introduces security risks. Vulnerabilities in smart contracts or governance protocols can lead to exploits or manipulation.

6. Governance Plutocracy: There's a risk that powerful stakeholders ¨whales¨ or interest groups could be in charge of governance processes, making decisions in their favor rather than in the interest of the community (representative dilemma, power concentration etc).

7. Lack of Regulation: The governance is being developed in a difficult area with no clear rules or laws in many jurisdictions. The lack of certainty about how regulators may view governance processes affects decisions made within projects.

8. Governance Efficiency: Related with models, it is mandatory to ensure efficient decision-making processes.. Slow or inefficient governance mechanisms will negatively affect the projects, innovation and evolution of blockchain networks (scalability).

How does Polkadot address the challenges outlined:

1. Decentralization: Balancing decentralization is challenging.  
  
In Gov1 Polkadot had a centralized Council for decision-making, an approval-voted, elected executive ¨government¨ to manage parameters, admin, and spending proposals. In Open gov, decisions are made through a democracy module.

In Gov1 Polkadot had a Technical Committee, a technocratic committee to manage upgrade timelines. In Open gov, the Technical Fellowship is a self-governing body of experts and developers of Polkadot and Kusama networks protocols. It operates on-chain through the Polkadot Collectives system chain and off-chain through the Polkadot Fellows repository.decisions are made through a democracy module.

In Gov1 delegation of voting power was possible. Open gov allows flexible delegation for different tracks called Multirole Delegation.

In other projects: coin-voting without delegation.

2. On-chain governance model provides transparency to decisions after public discussions on Polkassembly.

3. Addressing the representative dilemma and token holder engagement is crucial.

The low participation of token holders in governance leads to decision concentration. Additionally, the existence of groups appointing representatives in different governance structures (blockchains/protocols/projects) enables decisions based on group interests.

Delegation by topics/tracks is a step forward.

Allowing token holders in nomination pools to delegate the vote would increase participation.

Decentralized voices is an interesting proposal that could address the token holders engagement challenge and governance plutocracy challenge.

4. Sybil attacks. A common challenge for all blockchains/projects, lack a real resolution.   
Methods like KYC, credentials, Proof of Personhood, BrightID, Gitcoin passport, Proof of Humanity or account verification are not yet homogeneous or definitive. Collaborative work on a reputation system for different blockchains is needed.

5. Security concerns. A large list of security attacks to blockchains, protocols, etc and vulnerabilities that affect the ecosystem.

6. Governance plutocracy and power concentration: Have ¨skin in the game¨ justifies the plutocracy and power concentration. According to that, decisions benefit those with more interest in the blockchain or game.   
In Polkadot's case, this is exacerbated by the OpenGov system, creating bounties and fellowships from the Polkadot treasury, concentrating decisions in few hands with increasing power and resources. Options like quadratic voting, reducing voting power for large token holders, and conviction power should be considered.

7. Lack of Regulation: Governance decisions are postponed or changed due to regulatory uncertainty. Some tokens distribution, alliances or rewards decisions could be changed after recommendations due to lack of regulation.

8. Governance Efficiency: Governance mechanisms should be efficient and timely. The more horizontal decision-making is, the slower the process.

There is an issue of representation and power concentration where alignment between the interests of large holders and active decision-makers is lacking. Large token holders may prioritize their own interests or manipulate token holders due to asymmetric information. Powerful groups appointing representatives in different blockchain governance structures further concentrate power. Accountability should be established for representatives to answer for their actions. Ideas are imposed by those with power claiming to represent the voiceless.

Conclusion

Different governance structures should align the interests of the community and inactive token holders with fellowships, bounties, etc., promoting transparency, accountability, and implementing mechanisms for effective supervision and enforcement.

The system should establish mechanisms that allow for on-chain identity and on-chain reputation. Public information to be traceable to its corresponding sender will help to establish greater transparency in governance, in decision making, in the challenges of sybil attack and in plutocracy or power concentration.

The blockchain ecosystem is growing and maturing year after year.

All this progress must be accompanied by the development of governance tools that will allow it to continue to grow and become more inclusive, while at the same time allowing it to respond to current challenges mentioned in this paper.

Perhaps an interesting way to address the challenges and which is one of the verticals underpinning governance could be the culture of open source, which brings transparency, collaboration and community participation.

But we can talk about this vertical in a future presentation.