DECENTRALIZED GOVERNANCE:
THE FUTURE OF GLOBAL COOPERATION?

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1. INTRODUCTION

Each stage of industrial revolution brings the world closer to a global village. As the fourth industrial revolution rages on, borderlines are already blurry. More than ever before, nation-states wish to ultimately hold on to their sovereignty.

Stopping wars, protecting endangered species from extinction, eradicating poverty, ending hunger are some of the issues global cooperation is addressing. However, COVID-19 exposed the fact that true global cooperation is lacking. Rather than working together, many nation-states have set the stage for stiff competition in vaccine creation. Such duplication of efforts is usually done at each other's expense.

"At a time when global leaders are looking to maximize the benefit of stimulus responses to their own citizens and businesses, they would do well to cooperate with one another." — Børge Brende, President, World Economic Forum.

2. SCOPE AND OBJECTIVES

Let's start off with the definitions of the key concepts that this paper is based on: governance, blockchain and global cooperation.

Governance has its root in the Greek word *"kubernaein"* which means *"to steer"*. Governance is the act of steering a group of persons, entities or nations. Governance in practice is "decision making and implementation of the decision" (Tamayao, 2014). Governance is broad and can be applied in different contexts from corporate to local to international, but the focus in this paper is global. Decentralized governance is used in this paper to conceptualize governance using blockchain technology. Decentralized governance as a concept without reference to blockchain technology is acknowledged.

Blockchain is a digital ledger replicated on several computers (called nodes) that uses a consensus algorithm to bundle valid transactions into blocks that are linked using cryptography so as to prevent tampering (Obafemi, 2019).

Global cooperation is the coming together of countries in the world to tackle global issues affecting one and all. A more recent example of global cooperation is how countries decided to minimize the spread of COVID-19 by implementing border shutdowns and lockdowns of public spaces. This meant that people were forced to stay home, reducing contact with possible carriers. There is also ongoing cooperation (or competition?) on finding the cure or vaccine for COVID-19.

Governance is an intricate part of human coexistence, which is precisely the reason for the existence of multilateral organizations like the United Nations, World Bank, International Criminal Court, not forgetting civil societies[1]. Using the words blockchain and governance in the same sentence is likely to result in countless probable understandings about the concept. However, for the purpose of this paper, things will be streamlined into three possible scenarios to be discussed in the next section.

3. FINDINGS
Technological innovations generally have one goal: do things better than how it was done before it came along. Better here could mean getting things done faster, easier and cheaper. The world also wishes to collaborate in a way that is faster, easier and cheaper. Diverse technologies have been explored in an increasingly digitally-connected world, which has been made virtually mandatory in the wake of COVID-19. For this paper, focus will be on how blockchain technology and governance interplays in global cooperation.

3.1 Blockchain and Governance Scenarios
Campbell-Verduyn (2018) streamlines three possible scenarios for the combinations of blockchain and governance:
1. Governance *of* Blockchain,
2. Governance *by* Blockchain,
3. Governance *with* Blockchain

This won't turn into an English Language lecture.

Each of these scenarios portend different activities and implications which will be briefly explained in a global cooperation context. Governance *of* blockchain as it relates to global cooperation is when countries collaborate to regulate blockchain-based or blockchain-related activities and businesses. A key example of this is countries collaborating to take down a dark web using crypto to facilitate illegal transactions ranging from assassinations to money laundering and prostitution. Governance *by* blockchain as it relates to global cooperation is when countries conduct digital-native collaborations using the blockchain. A key example of this would be using smart contracts and digital currency to coordinate a fundraising and onchain

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[1] Which includes private organizations like Non Governmental Organizations (NGOs) and recognized Associations or Unions.

voting for allocation of funds for pandemic relief. Governance *with* blockchain as it relates to global cooperation is when countries leverage blockchain's features to achieve a common goal. A key example of this is enforcing AML[2] compliance or recovering stolen and laundered public money with the help of the traceability feature of blockchain.

The concept of blockchain was inspired to level the playing field. This is a vital point for emerging markets and developing countries who most times do not have their interests considered in global cooperative efforts. The future of global cooperation can pivot from a zero-sum game to true decentralization.

3.2 Decentralized Governance Actors
Governance is an action word, in the context of global cooperation, who are those doing the "steering"? They can be categorized into formal and informal actors. Formal actors will include nation states governments, NGOs, civil societies and multinational agencies. Informal actors will include sovereign individuals, "organized crime syndicates and powerful families".

3.3 Decentralized Governance Indicators
The World Bank, through the Worldwide Governance Indicators (WGI) project aggregates governance indicators for countries based on six dimensions:[3] Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. Using these as a guide, the following are decentralized governance indicators:
1. Voice and Permission by the decentralized actors
2. Transparency. Can one see what is going on?
3. Accountability. Can actors be questioned?
4. Rule of Code (Or Law?)
5. Consensus Algorithm
6. Effectiveness and Efficiency
7. Regulations

3.4 Why Decentralized Governance?
Are there benefits to decentralized governance for global cooperation? Some of them include:
1. Accountability of stakeholders and actors to global citizens. Some scholars (Raina S.H et al, 2019) have argued that those who participate in blockchain governance (actors in global cooperation) owe the end users (global citizens) a fiduciary duty.
2. More voice to smaller stakeholders.
3. Reduce burden on the few previously calling the shots.

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[2] Anti Money Laundering
[3] The six dimensions are listed here. https://info.worldbank.org/governance/wgi/

4. Transparency of activities, making it possible for anyone, anywhere, anytime to find answers to what, who and when.
5. Foster Trust among actors involved in global cooperation.

3.5 Challenges with Decentralized Governance

While decentralized governance is ideal, achieving global cooperation through governance *with* and *by* blockchain raises fresh problems.

1. Widening of the digital divide between the haves and haves not.
2. Power shift to more technically capable.
3. Steep learning curve to onboard actors.
4. Interoperability amongst the varied types of blockchains.

4. DISCUSSION

It appears defeating to give a conclusion to a research involving dynamic concepts such as blockchain, global cooperation and governance. This paper has raised new questions that need to be explored. For instance, will global cooperation based on governance *by* and *with* blockchain require a global digital currency? What consensus algorithm will be adopted? As earlier hinted, technological advancements come about with the aim of making things easier, faster and cheaper. As such, tomorrow's discussion might not be about blockchain and governance. However, the fundamental principles of global cooperation based on mass inclusion and participation will remain constant if the world will continue to thrive.

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