DNGO.IO

The World's First Blockchain based, decentralized NGO. A Roof Organization for Civil Society Initiatives.

Abstract

This paper is written to explain the basic properties and brand new features of Dngo.io which is a decentralized application on Steem Blockchain. The purpose of Dngo.io project is to increase civil society participation by leveraging Steem Blockchain's inbuilt incentivization mechanism towards content production, and to provide an open space for deliberative democracy through the means of Steem Blockhcain's community building mechanism. In the second part of this article, DNGO Books, Dngo.io's first project aiming to bring the world's first blockchain based, multilingual and publicly accessible audiobook archive will be explained in detail.

Introduction

Civil society participation is one of the main indicators of measuring and evaluating the level of democracy in any society in today's world. Civil society participation is fundamental because of two main reasons. First, through the means of civil participation and social dialogue between different groups, the number of individuals participating into the decision making processes increase automatically. Thereby the decision making itself becomes less univocal and more democratic. Second, from the economic perspective, without attaching any negative or positive value on it, the civil society participation is a necessity in the fields where the states fall short of providing resources to individuals. Unfortunately, there are various structural problems with civil society participation in the globe. Discussing all the problems associated with it, is indeed, beyond the scope of this article. However there are few worth mentioning here before we engage our discussion that why, as Dngo.io team, we believe Steem Blockchain is well capable of helping us to solve those issues.

Diagnosis

As it's well known by the civil society and NGO experiences throughout the globe, the collectivization of any form of civil society action is not so easily achievable due to some structural economic, political, cultural and, sociological reasons. When combined, they all produce a multilayered matrix which frames the civil society participation in general and impacts the quality of its outcomes. One of the most materialized appearance of this matrix is that, due to the insufficient funds, or lack of political willingness to spend existing resources in this direction, there is limited economic incentivization towards the civil society participation. Excluding some Euro-Atlantic countries, people who are willing to dedicate themselves into civil society actions mostly face the problem of insufficient economic resources. Even Though the Euro-Atlantic countries have more economic resources than their counterparts and some of them might be willing to allocate substantial parts of their budgets (as in the case of European

Union) to support civil society efforts, there is the problem of centralized allocation of resources which makes democraticness of redistribution questionable.

In order to make a collectivized civil society action, the following three criteria should be met simultaneously.

- Sustainable economic resources
- Rich human resources
- Technical expertise

Without the simultaneous presence of above mentioned three items, any kind of initiative aims to bring high levels of civil society participation to the realm, would face different forms of hardships during the process. Steem blockchain has proven its efficacy

Blockchain technologies and NGO work.

Philosophical Background: From Panopticism to Synopticism

Panopticon is a form of an architectural design created by Jeremy Bentham in late 18th century to easily regulate the behaviour of the people in public spaces, mainly in the prisons. Panopticon's main feature is that it allowed increased surveillance capacity to central authority by relying on basic rules of optics. The panoptic design could be explained briefly as circular building which locates a purposefully darkened watch post in the center of surrounding lightened cells. As the rules of optics do not allow so, the inside of the darkened watch post would be totally invisible from the perspective of a person standing in the lightened cell. As for the surveillance capacity of a person stands in the watch post, the opposite is true. There, every cell would be hundred percent visible from the perspective of the person sitting in the watch post. Since with the panoptic design the inmates wouldn't have any chance to tell if they are being watched or not, Bentham's main intention was making people to internalize the surveillance of central authority over them, so that they behave in desired manner by themselves. Bentham's design had been applied to various public buildings around the world to serve above mentioned purposes.

Long after the introduction of Panoptic design and numerous applications of it, French political philosopher and historian Michel Foucault revisited Bentham's work to explain modus operandi of power relations in modern societies. Foucault, unlike much of his contemporaries, tended to see the power relations as not only a matter between the rulers and the ruled; but a fundamental, inevitable and inescapable aspect of human relations. For him, the relation between central authority and individuals is just a crystallized expression of power relations within a predetermined context. What made Bentham's design so special for him was that

Bentham's panopticon is the ultimate expression of the logic behind the modernity. In his 1975 book, *Discipline and Punishment*, he named this phenomena as panopticism. According to that, panopticism is operation system of modern power relations in which, through the excessive surveillance on them, individuals internalize the power of centralized authority with the constant feeling of surveillance. It should be underlined that, unlike many people tend to think, panopticon was designed to encourage people to behave responsibly, rather than being as a plot to people to suppress them. It should also be noted that panopticism is not the attribute of a central authority in itself, but rather, it is immanent frame of modernity which expresses itself in any hierarchical formation and spreads its logic to every initiative including startups and centralized NGOs.

However, panopticism is not the only possible way of safeguarding the right conduct of masses in public spaces. One other concept is Synopticon. The term coined by Norwegian Sociologist Thomas Mathiesen to describe a form of total power relations where the majority surveill the minority who are in power. Even though it sounds a really democratic way of escaping the panoptic trap, Mathiesen's idea of Synopticon remained in theoretical abstraction level rather than being practical daily life reality.

Features of Steem Blockchain

With the advent of blockchain technologies we can argue that panopticism is no longer a threat for people who are using those truly decentralized blockchains. Excluding few of them, most of the blockchains do apply the various consensus algorithms which in turn provide an open space for decentralization of the setting in which any form of transactions take place. Up to this point, Steem blockchain is the only blockchain out there which allows approximately hundred thousand active users to mine cryptocurrencies based on the subjective value of their effort. Steem blockchain refers to this protocol as Proof-of-Brain which means leveraging the wisdom of the crowd to assign value to any effort being made on Steem blockchain. (Referans)

In steem blockchain there is no central authority to judge the validity of a contribution. Additionally, Steem blockchain allows a standard web user to trace the interactions with few mouse clicks. This makes steem blockchain as closer as it gets to a synoptic design. Unlike the conventional websites or web applications where all the transaction data stored privately and users have no say in further usages of their data, Steem blockchain allows its users to detect every interaction. Under this model, there is literally no room for obscurity for anyone.

Last but not least, Steem blockchain has steemit.com built on top of it which attracts web users with it's system design by allowing them to be stakeholders on the platform in return to their contributions.

To sum it briefly, Steem blockchain;

- With its inbuilt incentivization towards content production, could be used for solving the problem of insufficient economic resources for any NGO work.
- With its decentralized nature, could allow any NGO to achieve 100% detectability by everyone. More practically, this refers to a publicly accessible ledger of all transactions of given NGO
- With its effective community building mechanism, could allow any NGO to allow everyone to participate into decision making processes
- With its immutability feature, could be utilized as mechanism to prevent censorship.
- As being a largely adopted blockchain, could provide human resources for any NGO
- By having steemit.com on top of it - the world's first and most efficient blockchain implementation for social media purposes, could bring visibility to NGOs and to their campaigns.

DNGO.IO

Dngo.io aims to bring the world's first blockchain based NGO by benefiting the above listed opportunities provided by Steem blockchain. Most of the already existing decentralized applications on Steem blockchain are, with no judgement, implementations of conventional web services to Steem blockchain. The only exception to this pattern is Utopian.io. Utopian project sets itself the aim of increasing the number of contributions to the open source project by providing financial incentives to contributors. This makes Utopian one of the most used decentralized applications on steem blockchain. Until now, the collaboration between Steem and Utopian has successfully and effectively skyrocketed the amount of contributions to the open source projects. Besides the increase in the numbers of contributions, two main positive externalities appeared. First, the collaboration between Steemit.com and Utopian.io manifestedly fueled the visibility of open source projects and positively impacted the social awareness towards open source in general. Second, as it's expected due to the financial incentivization, so many people got attracted and decided to become part of Steem ecosystem. Before Steemit.com & Utopian.io, it was unimaginable to achieve these goals, especially in such short period like less than 6 months.

As Dngo.io team, we are inspired by the outcomes of this fruitful collaboration. As being witnesses of this silent revolution, we are committed and dedicated to build a truly decentralized NGO to carry out the civil society actions more efficiently and more democratically.

Contextuality: Eliminating the Essentialism and Political Exclusions

The intention behind the human interaction is highly debated. There are various theories attempt to explain the phenomena. But the famous camps are altruism camp and self interest camp. According to altruism camp, people behave in good manner because they are social beings and carry a solidaristic essence by nature. On the contrary, self-interest camp argues that human beings, by nature seek individual well being and when they realize their altruistic

behaviour maximize their comfort too, they perform in that direction. Both essentialist assumptions have their political implications. Most of the time, essentialist philosophical groundings entail political exclusion by teleological interpretations. No matter how influential the philosophical essentialism still is, there is a way out from this trap. Starting on from late 1960's a group of philosophers began to attack and deconstruct the idea of nature and thereby the notion of essence. What those post-structuralist philosophers such as Michel Foucault, Jean Baudrillard, Gilles Deleuze, Felix Guattari and, Jacques Derrida shared in common was the belief that human interaction is not preconditioned and motivated by any hidden universal attribute of human beings, namely the essence. On the contrary, human beings are made up of interplay between various forces which arise and mitigate within the context. Putting the emphasis on contextuality rather than on any form of essentialism, brings more opportunities to create an inclusive and welcoming setting for everyone. To rephrase the whole philosophical debate in more easily accessible words, as the Dngo.io team, we do not expect any contributor to have purely altruistic motivations to join us in this journey. We do not demand for high levels of knowledge about the field from the contributors. Even though political engagements are precious, we do not take political awareness of any contributor as a criterion to evaluate the value of their contributions. As dngo.io, besides creating fruitful outcomes for the people in need, our intention is to provide the context in which the social awareness might arise.

Community Building

As it's mentioned above, effective community building is one of the most important features of Steem blockchain. Imagine a community which has no hardships on covering its expenses. Wouldn't this imply that this community has its own political autonomy just because it's self sufficient in dealing with its economic expenses? Steem blockchain's incentivization towards content production makes this hypothetic community a real world entity. There are various communities on Steem blockchain and they have their autonomy within their own affairs. Dngo.io has the goal of building its own community which is truly autonomous within its own affairs. We, tend to see people who are contributing our projects as a member of our community. Being part of our community will enable people to have a say on organization, functioning and, future plans of Dngo.io. We tend to see our members as not only contributors to our projects, but as companions, possible friends and colleagues.

Transparency Principle: Everything We Do is Visible to You

As Dngo team, we would like to fully benefit the utilities of our blockchain. Steem blockchain's user friendly interface allow people to have instant informations about the transactions being made in the environment. The very idea of transparency is fundamental for almost all NGOs around the world. The problem with real world applications of transparency lies in two domains. First, the technological infrastructure that the NGOs use do not allow everyone to access all the data. Second, even the NGOs are mostly centralized entities. As we already argued before in panopticism section, this, in most cases, is not the fault of NGOs.

As Steem users already acquainted with this idea, on Steem blockchain there is ultimate transparency and detectability for all accounts. There is no single interaction or no individual user that can bypass this rule. Dngo.io is more than willing to be part of truly transparent environment. Our belief is that transparency can only bring more democracy rather than costing any efficiency problems as its mostly used an excuse for centered system designs.

Open Democracy Principle: Community Decides on When and For Whom to Make Charities

Dngo.io has it's Dngo Community Fund. Each month, Dngo allocates a decent share of it's upvotes to Dngo Community Fund account. Through this way, Dngo can achieve liquid assets (SBD) in short notice. Each member of Dngo community has right to offer Dngo team to use the achieved SBDs for civil society purposes.

Accountability Principle: Accounting Before the Public.

Dngo.io team, including the founders, supervisors and moderators, are public servants. Their duty on the website is to increase the user experience, moderate the community discussions and guarding the system from the potential user attempts to abuse the system. The teams wages should be as high as the contributor rewards so that the opportunity cost for being public servant on this project could be neutralized. As our transparency principle implies, public servant wages will be published directly so that everyone can see it. As in line with our open democracy principle, wages of public servants is always debatable by the community. Under this model, we offer our community a publicly accessible ledger of our wages.

Close Connections with Real World NGOs

If have a closer look at web presence of real world NGOs, we see a trend that their online communities are depending on their real world presence. What fuels the efficiency of online communities are the real word actions of those NGOs. Dngo.io as has the goal of inverting this pattern. In our system design, our real real world actions like charities and donations are being sourced from our presence on Steem blockchain. The blockchain based community of dngo is the source of all possible actions. It's obvious that this quasi experimental setting has lots of things to improve. For this purpose, the Dngo.io team is eager to bring close connections with real world NGOs and if hosting their teams and communities on Steem blockchain if possible. This would make our community benefit from the past experiences of valuable organizations. For the short term we see our main type of contribution to civil society actions around the world as sharing the outputs of our projects and helping the NGOs to integrate themselves to Steem blockchain.

POSITIVE EXTERNALITIES

Increased Visibility

Dgno.io aims to share the results of its projects with the world for free. Furthermore, as the open democracy principle presupposes, it dedicates its curation rewards for charities decided by the community. Practical result of these two would be increased visibility for Steem blockchain and Steemit.com. Imagine us sharing a collectively produced audiobook archive without charging anything, and imagine us using our curation rewards for charity purposes or funding civil society initiatives. Wouldn't it make Steem blockchain the most sympathetic blockchain to the people? Especially when the bad reputation of blockchains, rooted in financial speculations is being considered.

Bringing New Users to Steem Blockchain

It's an economic fact that incentives attract people, especially when they are attached with positive ideological values on them. Dngo.io's model offers both of the two. By rewarding people's participation to civil society actions, we offer people an economic incentive. Additionally, the very idea of helping people could solely attract people. Under this model, we expect that Dngo project will be impactful on bringing new people and potential users to Steem blockchain. This expectation is not solely grounded on theoretical assumptions. We also have the empirical data from the Utopian.io. By applying the same logic that the Utopian.io used, and perhaps by taking it up to the next level, we reach the conclusion that Dngo.io will have the similar or better impact on bringing new faces to Steem blockchain and therefore Steemit.com.

Increasing Solidarity Between Steemit.com Users

Steem ecosystem is composed of individuals with their own personal agendas. Every user has ultimate freedom to seek for maximizing their benefits. However to achieve a sustainable long-term growth, as it's well explained in Steem Whitepaper, there should be an equilibrium between the self votes and out going votes. The best way to achieve this task is creating a community feeling between the individuals. Kindly asking for individuals to take the long term goals of the platform into consideration when voting would be too abstract for the users due to the difference between their future plans and committedness levels. However, if we could create a social glue to which will serve as a bond between the users, then this would increase their solidarity level and thereby impacts their voting behaviour.

Introducing Our First Project: DNGO BOOKS

Dngo books is Dngo.io's first project to realize the above mentioned goals of the application. In our first project, as the Dngo team, we attempt to create an open space for a collective action to take place through which the world's first blockchain based, multilingual audiobook archive will be brought to life. Our main motivation behind this project is to provide a freely accessible audiobook archive mainly for visually impaired people. As it's discussed before, Steem

blockchain has proven its efficiency in incentivizing people since the beginning. As for first quarter of 2018, the main website on the blockchain, steemit.com, has over 1 million users. This popularity is being accompanied by growing number of decentralized applications built on Steem blockchain. As we made it clear in the first part of this article, Steem blockchain has more than what it takes to make the things possible which were unimaginable to achieve before the existence of Steem blockchain. The question arises at this point: Was the idea of creating a collectively produced, publicly accessible audiobook archive really unimaginable before the Steem blockchain?

Project Gap

The answer to the question posed few lines above is both yes and no. Before the existence of Steem blockchain there were successful and failed attempts to fill this gap. As it's known, depending on the countries, either the states or the other actors like NGOs are offering professional audiobook recording environment to the people who want to voluntarily make audiobook records. From this point of view, Dngo books is not the first project to serve this purposes. We are also well aware of the fact that, Dngo books is not the first project on the cyberspace which tries to bring people from different nationalities together. It has been achieved before and has proven its efficacy. Be it independent internet project or state-led professional service, what they share in common is that they are based primarily on volunteerism. Even though we find it marvelous when people altruistically put their effort to any kind of work to make the world a better place, there is two central problems with volunteerism for the project owners: The problems of sustainability and reliability. Any kind of project depending solely on volunteerism means that the sustainability of the provided services are at stake a priori. Project owners can't make any promises to the community regarding the future state of their services. The future existence of the services are totally depending on motivation levels of the volunteers taking part in the projects. Same logic applies to the reliability of the input made by the volunteers. Since the contribution is being made out of altruistic motivations, rejecting a piece of work or requesting further modifications on them bears the risk of demotivating those kindhearted people. It's such a tricky and hard task for project owners to maintain the quality of the work pieces and increase the quantity of them at the same time. What makes Dngo books unique is that it doesn't grounds itself on volunteerism. Instead, the mode of production here is based on rewards system. Rewards system could be considered as the middle ground between wage labour and altruistic volunteerism. Under this model, sustainability and reliability problems are mostly overcame. Practically, the incentives guarantee the sustainability of contributions. The very act of reciprocating back to the contributors with rewards could allow project owners to expect high quality contributions for the given task. From this perspective, as long as the incentives we provide are attractive enough, Dngo books has no concerns with sustainability and reliability dimensions of the contributions.This aspect makes Dngo books unique and this is what encourages our team to initiate this project.

Lessons Learned From Other Decentralized Applications

"Nanos gigantum humeris insidentes"
    -Latin saying, literally meaning discovering the truth by building on other discoveries-

"a dwarf standing on the shoulders of a giant may see farther than a giant himself."
    -Robert Burton-

As the team, we hold the belief that any initiative arrogantly refuses to learn from the previous experiences of their predecessors are destined to fail. This belief doesn't only valid for any economic investment, more than that, it's the first step of progress. This made us put decentralized applications on steem blockchain under scrutiny. Our observations thought us what to do and what to avoid.

As the dwarves standing on the shoulders of giants what we have seen so far could be listed as follows:

- Entry costs reduce the mass adoption
- Quality standards shouldn't be compromised
- Wages of the moderators should be enough to keep them motivated

Low Entry Costs

Any project creates high entry costs to users can't reach big numbers of regular contributions. To make the system welcoming, the fundamental prerequisites should be low. In Dngo books our entry costs for a person is:

- Having a public domain book to make an audiobook out of it
- Having a microphone or any sort of sound recording device which enable users to make an audiobooks
- Being in a silent place to during the records to reduce the background noise to minimum.
To make it more easy for our contributors to make audiobooks, we let them divide the records into parts nothing less than 20 minutes and nothing longer than 25 minutes of audio record. Any steemit.com user who matches those 3 criteria can join this project and got rewarded.

High Quality Standards

Some people tend to think quality standards as a cost for the user. We simply don't agree with that one. High quality of voicing a book in our project is a must thing. The basic idea behind this expectancy is about our end users. As we already mentioned it before, the final product in this project is publicly accessible and it's mainly targeting the visually impaired people. So, we expect our contributors to be more empathetic and recognize how important the quality of those audiobooks is for especially the visually impaired people. This is pretty simple. We expect our users to internalize this:

- Each time you want to contribute, please close your eyes for a second and just think about the people who is going to listen to that book.

We are well aware of the fact that high quality standards could disencourage some of our users. To a certain degree we can tolerate the background noise. That's why we hire sound engineers to work on each individual audiobook part to make them better. But if the problem lies within the user's spelling errors, it's obvious that even the most experienced and skillful sound engineer can't neutralize that error. We believe our users would understand our concern here.

Motivated Moderators

If the aim is to collectively produce high quality audiobooks, then there should be a mechanism safeguarding the system. It costs nothing to set high quality standards, but it costs a lot to bring them into practice. One can create a perfectly designed filter for evaluating the contributions. If it's an AI or a computer algorithm, there is almost zero cost for project owner. Since we don't have those two, there should be moderators serving as guardians of the system. Imagine yourself as a moderator. You review lots of contributions each day, you witness people getting rewarded via your approvals. At the end of the day you go and check your Steemit.com wallet and realize your wage is not even close to those rewards that you personally allocated. Would you be motivated in guarding this system?

Remember, in Dngo.io we set the goal of incentivizing civil society participation. If we only incentivize the contributors and ignore incentivizing our staff, then this wouldn't serve our purpose. The term civil society participation refers to everyone without making any distinction between the roles that people play during the process.

Given that the entry costs of Dngo Books project is relatively low, we assume that by spending approximately 1 hour a day, any user can make two contributions to Dngo books. Relying on this assumption, we set the daily wage of our moderators as 2.5 times of the reward we give to one piece of contribution. Regarding that any upvote bot has limited number of daily Upvotes, we tend to work with high skilled moderators who are fluent in at least two languages. According to our estimations, we expect a moderators group consists of 15 people at maximum would be enough to reach 400 reviews per day.

Environmentalism

Acting in responsible manner for the environment is key for any initiative to achieve its long term goals. It's very similar to interaction between humans and the environment. If the human beings push aggressively for short term well being without paying attention to pollution and environmental harm that they are doing, then it's safe to argue that at some point there will be no wealth at all to pay attention. Steem blockchain is our environment and as the Dngo team we try to be environmentalists. As for our future projects our environmentalists stance will remain

unchanged. Regarding our current project, Dngo books, our environmentalism practically refers to the concern with copyright material. As Dngo team, we prepare ourselves for the worst case scenario. The worst case would be that users get attracted by the rewards too much and try to maximize their benefits by posting materials which are protected under copyright laws. Depending on the interpretation of claimant, law cases would hurt all three parties, steemit.com, dngo.io and contributors. To eliminate this threat, we don't let users to upload sound files directly to Steem blockchain. Instead, first we host them on our server. When we are fully convinced that the material is public domain, we then upload them to blockchain through our corporate account. This minimizes the risk of having problems with copyright holders.

Preventing the Abuse: VoicedSigniture

The economic incentives attract people. And unfortunately some people will get too attracted so that they will attempt to reach those rewards throughout non-legitimized ways. Only Voltaire's Candide would expect it to happen otherwise. In order to prevent potential abuses we designed a mechanism called VoicedSigniture. VoicedSigniture is simple design which allows our moderators to know if the audiobook is recorded by the user or it's somebody else's work. Under this model, we oblige our users to voice our text beforehand they start voicing the book itself. Our introductory text briefly expresses that the given audiobook is produced by the steemit.com member @username, to contribute Dngo books project which is a decentralized application on Steem blockchain. By this way, if the two voices (Voiced book and voiced introductory text) are identical, our moderators could asses that the piece of work is original. Furthermore, it could potentially create positive externalities for Steemit.com and Steem blockchain by giving references to them in every audiobook.

ROADMAP

Dynamic Roadmap

Since Dngo.io has a community driven decision making protocol, the future actions, growth strategies and potential future projects of the Dngo.io should be decided together by Dngo team and the community. We call this feature as dynamic roadmap making. As we imagine it, Dngo community will consist of people from different nationalities, cultures and speaking different languages. It's both theoretically and practically impossible for any administrative group to keep the system running and achieve future growth without taking some help from the community in such multicultural settings. As Dngo team, we are more than willing to share our duties with our community members, listen to their opinions, widen our vision by learning from their experiences.

Becoming a Legal Real World NGO

As the community grows and our charities and donations become more and more efficient, at some point it would be practically beneficial for us to found a real world NGO. The basic idea behind is to initiate future partnerships with other NGOs that are cyrptoskeptic for various reasons. Becoming a legal entity also means that the strict government regulations on NGOs will be the case for us too. Practically it prevents the potential abuses.

Partnerships with Small Scale Publishers

In order to avoid copyright issues, we only incentivize people to make audiobooks of public domain books. However it's obvious that most of the public domain books are, irrespective of their literal value, not contemporary. We are planning to find a way to make partnerships with different publishers around the world to get special permissions to make audiobooks of their publications. When achieved, this would result in increased visibility for local publishers and more contemporary audiobook archive for us. Currently we have ongoing negotiations with various local publishers. Hopefully our team will reach agreements with them in close future.

User Friendly Interface for Visually Impaired People

Our team is currently working together with professionals who are working in the field of web accessibility for visually impaired people. With the guidance of our community, we would like to make our website totally usable by visually impaired people through their voices.

Free DVDs for Visually Impaired People

As a complementary tool to our user friendly interface, we would like to give people a chance to decide on the medium that they are listening to our audiobooks. For this purposes, we plan to store the audiobooks in DVD format too. Sending them to the local NGOs working with visually impaired people around the world without charge is also one of our goals.

Conclusion

Dngo.io and its first project Dngo books offer Steemit.com community and Steem ecosystem a new organizational method to increase individual rewards and total level of democracy on the platform. Dngo.io is specially designed to serve long term goals of Steemit.com and Steem blockchain while attempting to reach its own purposes. Dngo.io is not only concerned with real world problems. It also focuses on protecting Steem blockchain environment with its environmentalist stance. Community driven nature of it allows users to express their agency and become part of decision making processes.