Prequel: This document outlines an ideology for those who approach the creation of communities in decentralized space. It does not offer any solutions, rather, it offers an insight on a more modern way of looking at already existing problems within the crypto space.

Cyber.comm: A decentralized approach to building communities

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Abstract. Following the development of blockchain technologies over the past decade, the rise of importance of shared values in crypto-communities, continues to grow rapidly. In this paper, we are trying to outline a possible approach, for building a decentralized community, without a tie up to a specific project or geographical space, but rather, to educational and social interaction between peers.

This paper should be viewed as purely ideological and only contains ideas. Those could be put under test and realization by projects and/or foundations.

1. Introduction

One of the biggest issues seen in the crypto space, is the complete lack of understanding of the importance of the value of the community behind projects and the technology itself. Teams continue to ignore the social and psychological aspects that open possibilities for building a strong and essential fundamentals, that are required for any developing markets to succeed.

Yet, communities are also, one of the main drivers of general market success. Within the blockchain space, those are: the education industry, the conference industry and the lack of new tactics in approaching those.

Along with project's github pages, their documentation, general research, conferences and some other, relatively small traction, we still see the lack of experience needed in order to keep developers, entrepreneurs and those who are interested in the technology, with up to date information. More so, most of the approaches used by existing solutions (i.e. courses and conferences) are making the mistake of building their content on a "broken" systematic old-school approach. What we stumble upon at the end, is a poor product or lack of interest from all possible actors within the possible community.

What is needed, is a mixture of the already working social distributed applications with decentralized technologies and their possibilities of building shared value across networks. An ecosystem where peers are incentivised to participate in education oriented events and an ecosystem that can help to lower transactional interaction costs between actors. That means, experimenting with new angles, rather than building from the old.

The purpose of this document is to attract attention to the existing problem and to offer a possible solution without borders, permissions or any other obstacles.

2. Possible architecture

A new approach to solving an old issue, would foremost require the architecture to be as fungible as possible. This means, that with all regards to the work put into this idea, anyone and anywhere, is free and welcome to make changes, build on top, or, make-up completely new ideas in approaching the problem outlined by this document.

All solution should be as open source as possible. That does not mean - lack incentive. On the contrary, the essence of distributed ledgers offers a possibility of shared values and equal ROI to actors. Hence, non code solutions, should try and follow in those footsteps, meaning - that solutions don't have to be free, but rather carry value to its participants. More importantly, carry value not just for the creator of such soltuions, but for all peers involved.

Our proposal is to take some of the basic known community building postulates, like: education, events and conferences, handing out money, distributed social interaction and to try and build a chain between those and DLT, such as: governance concepts, cryptocurrencies, smart contracts, oracle systems and so on.

3.   Education

The foremost and most important part of the solution requires a set of educational courses, both on-and-off line, in order to get widespread adoption of the technological progress, and not less importantly, research its possible use cases. Hereby, it is clear that educational courses must not only carry pure academical approach, but also a more fundamental approach, making it possible for peers to put actual use to the received information by creating locally based distributed and decentralized projects with existing or new found local businesses.

With that, an academic approach should be developed. With fields like economics, computer science and others included across programs.

As it can be difficult to grasp large chunks of information, shorter courses can be arranged. Starting with down to earth webinars and onwards towards academic courses. Local online platforms can be approached for arranging smaller courses. Local (mainly privately based) universities should be approached in order to offer offline programs. Incentive can easily be achieved by offering DLT programs to universities in order to boost interest in the premises themselves. Hence, covering expenses from a number of sides simultaneously.

Apart from state certification (if required), solutions should include an ERC-721 based token certification or other similar NFT solutions across the blockchain industry. Locally issued tokens should be distributed to the students for taking on courses and completing tasks, via a set of simple smart contracts. However, this does not mean that the courses should be completely free of charge for the organiser, as it is their incentive, to not only build a local market, but also to receive value in return to the work they put into the community. This will allow for parties to be able to build equal value across networks, find local service providers and increase their KPI.

Blockchain based scoring systems and smart contract identities should be included. ID based ERC-725 contracts or the likes can be used in order to boost interest, drive up tokenized incentive and prepare a audible database.

Free of charge centralized solutions should also be promoted to the general public, I.E. coursera, hexlet and so on.

4.   Events

Conferences and events are by far, one of the main drivers of local and international communities. The main issue right now, is the lack of experience within developers, in terms of organising events, and lack of needed knowledge in the blockchain industry amongst entrepreneurs who try to organise such events (for the developers). Most of the events are organised by either marketologists or government related institutes, unfortunately, both, do not have any understanding of either, the blockchain or the event industry. More than, those do not even consider, that the rules are changing. This is a new and a high tech industry, that calls for innovation, even in event organising.

Apart from obvious solutions such as: modern layouts, consistive teams, using distributed SM channels, planning, professional equipment (making it possible for high quality online sound and picture), modernization (VR, AR, mobile applications etc), local based venues (universities, transformed factories, museums etc) and the removal of unnecessary details (excess food, excess ICO, marketing and regulation topics etc), other solutions exist and should be applied, those are: the importance of organizing small after parties in order to build relations (not necessary on daily basis), the importance of attracting as many as possible developers to events, tickets sold with cryptocurrency, venues divided into fields of interest (for example ICO kept of stages. The "Shark's" logic applied to investment related questions and so on), modern technologies used across all possible parts (drones, VR).

Hackathons should be organised, revolving near bigger events and help with organising co-working spaces offered. All tickets must be sold with a category. I.E. investors, developers etc. Developers must have the biggest discounts possible, provide their githubs. Just like investors should in theory at least

provide some proof of what they are worth or a portfolio (without disclosing unnecessary information). Of course, follow ups on the database, must always be carried out.

A rather modern approach for creating a market should also be considered. This includes once again using local issued tokens as an incentive model. Paying peers in issued tokens for visiting events, completing questionnaires, tasks, selling goods at the conference like: t-shirts, memorabilia etc. Offering to pay for services by local providers in the issued tokens (this can and should include architecturing and coding services). By those, creating a real marketplace for services, events and event jobs with a local cryptocurrency.

The outlined solutions are not a must, but a set of working, modern tactics that should be used whenever possible.

5. Crypto Radio

One of the oldest and working technologies made by humans, sometimes even in the least favourable circumstances, is the radio. Free of charge online podcasts and a TOR based radio broadcasting should be included in order for building strong ties within a community, whether local or not.

Broadcast should cover local issues and include highly convertible content (in terms of different topics, such as: humour, local folklore etc). Different DLT should be covered from all possible aspects.

Monetization should be kept to private donations and possibly to VOIP based public consulting services, done via auditable set of smart contracts and peer chosen tariffication.

6. Network

The term is used here, not only in the sense of creating a "network" effect, but also, in the sense of creating a distributed network (outlined in the next chapter).

In order to create a network, partnerships with already run projects should be established. Those should be either educationally oriented, developer oriented or orientated towards community building. If and when possible, existing open source solutions can be used. For example, those can be projects like: Aragon (creating locally blockchain based governance models), Augur (game theory for life events), Fund Request (providing incentive for developers), Steemit and Golos (decentralized SM chanels), Mysterium (creating local VPN networks), FOAM (using distributed geohashing), Open Bazaar (distributed marketplace) etc.

A community network effect should also be achieved by using the above outlined side "features", such as: radio, DSM (distributed social media) channels, meetups and events and finally: the creation of a local cryptocurrency market, for both: material essences and services.

7. Proof of work

In order for the network to truly be decentralized, the creation of a set of smart contracts or tokens, isn't enough. With an existing possibility, a local distributed chain should be deployed. This can come in many forms, ranging from a sidechain to a mixture of local mesh networks with a DAG implementation, up to a fully scalable blockchain.

In most cases a simple proof-of-work is enough in order to achieve a stock and flow economy. This can in turn, solve consensus and incentive issues.

A simple (in terms of its architecture) idea proposed, is a smart bracelet (or a pen for example), connected to a network of nodes, running on a cuckoo cycle based algorithm, that is required to make an action in order to produce proof. An action can be anything, that can be proven by consensys. For example: a visit of a local meetup and scanning the bracelet against a one time QR code (Of course, this allows for many manipulations that need to be solved in order to make this work properly. The purpose of this paper is not to provide such solution, but to show the possibility of creating such models).

The bracelet can also include such simple things as: measuring pulse, simple inbuilt AI mechanism, air pollution measurement devices and so on. This will allow for a creation of monetized data on the blockchain.

With the arisal of such networks, we allow for the creation of not only IOT models but also for a whole range of social actors ranging from validators to oracles.

8.   Incentive

The incentive for creating such communities lies in the huge optional possibility for monetization. All, are generally long term, and are based on brand creation. Plus, on a simple rule of spreading equal value across actors within that community. By creating a vast network of contacts, courses, events and even monetized data, one can always, find (new) possible ways of incentive for different actors.

It should be noted, that monetization should not come as priority. Unfortunately, it often comes, as the biggest issue of any network. The irony is, that in order, to find a solution, you first need to eliminate the need for it. This means, that upon building decentralized communities, during early stages, where monetization doesn't exist yet, one can actually find and understand future monetization, based first of all - on cooperation and problem solving, rather than on "chasing after the money".

The main difficulty and the main "finishing" line should be in creating a stock and flow economy with the possibility of "Public Finance". This means, creating an economy where a mathematical algorithm is involved (in order to eliminate human flows) in creating equal ROI for actors. At the same time, allowing for community based decisions. For example: in a network with bracelets, a special fund can be created, where X% of all funds from Y actions are collected for Z purposes. Later, all the connected members can easily use those funds by achieving consensus for starting new local projects or any other needs (up to giving away money to the needed).

9.   Privacy

Upon the creation of a decentralized community, privacy can arise as an issue. With the use of DLT such technologies as Mimblewimble or Zero proof knowledge, can be used to eliminate unnecessary data leakage. However, in cases where DLT isn't used, other distributed measures and precautions should be applied in order to keep the simple right for a human privacy in place. This can be anything, ranging from salting the data used for digital ID's (725 contracts) and not saving it on any servers, and up to, allowing for anonymous participation of peers in the network.

10.   Conclusion

A free market encourages all its participants to be independent and free of censorship. A content generating system (in our case – the community) can become truly decentralized only if a large number of network participants receive, record and, most importantly, compare each entry in the register. This means, that decentralization should be measured by the number of information recipients, not by the number of people who record such information. It is much more difficult to deceive a network with an extensive number of decentralized nodes that compare entries in the register, as opposed to a centralized register.

The advantages of such structure can be exemplified by transaction interrelations among individuals and organizations. Human interrelations are based on economic benefits with regard to each other expressed by a quantitative or qualitative equivalent. Private systems have, from ancient times, shown their incapacity for scaling and expensiveness of transaction relations. In other words, they fail to ensure proper services for resources entrusted to them. Instead of reducing transaction costs when adjusting their operations in accordance with the regime, institutions increase such costs thus "putting spikes in their own wheels" and preventing further growth. A typical solution is exemplified by the world's first DAO, i.e. bitcoin. An open source, decentralized system, solves these problems by recording transactions in an accessible public register thus demonstrating the advantages of itself.

The foretaking of this to building distributed and decentralized communities is one of the obstacles needed in order to overcome the issues of centralized interaction, nor just between peers, but between other actors too.That includes interaction between communication, production, law and economics. By applying the outlined solutions and creating decentralized communities, we are able to create a more stable, incentivised and open interaction. One should of course, keep in mind, that the purpose of this document is not to outline a ready set of rules to be used for creating decentralized or\and distributed communities, but rather to show the possible solutions for doing so.

References

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