



indico

Blockchain redefining Social Service

WHITEPAPER

Contents

1.	Introduction and Background	.....	1
2.	Application of Blockchain	.....	2
3.	Indicoins	.....	2
	a) Indicoins Tokens (INDI)		
	b) Indicoins mission		
4.	Vision	.....	3
	a) Problem		
	b) Solution (Weakness, Our concept)		
	c) Concept		
5.	Platform Model	.....	4
	a) Technology (Architecture)		
	b) Implementation		
	c) Specifications of Coin		
	d) Smart Contract		
	e) UI		
	f) Rewards		
6.	Constitution and Consensus model	.....	12
	a) Distribution Protocol		
	b) Domain of action		
7.	Token Mechanism	.....	15
	a) Use cases		
	b) Proposals		
	c) Social Proof		
	d) Upvoters and Downvoters		
8.	Stake Holders	.....	18

Contents

09.	Proposed Work & Challenges	.....	19
10.	Roadmap	.....	19
11.	Legal Consideration	.....	20
	a) Terms and conditions		
12.	Conclusion	.....	21
	References	.....	22

1 Introduction and Background

A decentralized autonomous cryptocurrency and a social service platform for a community of people who really want to contribute to the society.

Indicoïn is an open-source community-based governance model for social innovations all across the world, with each member contributing towards the betterment of humanity and the planet as a whole.

The autonomous platform of Indicoïn provides a stage where a number of social plannings and works can be done and shared by the community, on the basis of governance and consensus model using the funds locked in smart contracts. This, in turn, disrupts the centralized, and corrupt hierarchical structure within the existing order of community services, that results in the formation of long chains of organizations that are good for nothing but destroying the money and the efforts of the people who care.

Decentralization in this field is going to revolutionize the way in which people contribute towards the betterment of the society. Decentralization makes sure that no single person, entity or organization is able to misuse the funds provided for social welfare and betterment. In other words, it makes sure the funds are going where they belong to, meaning complete independence in the distribution of funds free from the shackles of the traditional way of distributing funds using human interaction.

Our platform uses smart contracts to distribute the collected funds from different funding agencies across the globe, to trusts and NGOs/SHGs, and any individual who is actually working out there in the society.

Funds will be donated according to the proof of work, which any independent social worker or any organization will provide on our platform. The Actual proof of work can range from anything including but not limited to live videos, images, RTI, E-way bills for which our **DApp** will provide full anonymity. This is the first ever social platform where people can not only share, but also watch and surf through any kind of content, from any part of the world, anytime (live or old), and also ensuring their contribution towards changing and helping the real world, communities and the ecosystem in some or other way.

After the actual proof of work which we call **"Social Proof"** has been provided, the community would vote and validate on the same. Once the provided content gets validated, the funds earlier collected shall be distributed according to the consensus model, and according to the algorithm designed using our smart contract address which we call **"Social Vault"**.

The User, social workers', Social Proof (content) gets approved by the community through a decentralized, unbiased and transparent voting process. On achieving a successful portion of votes the user would be able to forge Indicoïns from the blockchain, benefiting the members and all those who voted in their favor.

2 Applications of Blockchain

Starting with the basic core ideology, the blockchain technology is challenging the status quo in a radical way. By using Mathematics and Cryptography, blockchain provides an open decentralised ledger of any transaction involving value, money, goods, property or even votes creating a record whose authenticity can be verified by the entire community.

The Blockchain is a revolutionary technology and global decentralised source of trust that minimizes corruption and financial frauds as every transaction will be recorded on a public and distribution ledger and maximizes efficiency, transparency & security in supply chains, electronic transactions, IoT and more.

The innovation of the blockchain is changing entire markets while causing ripples with central banks and other financial institutions. But the true impact of Block chains is actually far more reaching to what it is currently at, with the creation of Bitcoin – it has actually helped in the birth of new markets for over 800 crypto currencies and assets that are available for online trading. And while the bitcoins market is worth nearly **\$40 billion** itself, the rest of these cryptocurrencies are actually worth even more in combination.

Blockchain cryptography is all about digital transfer of ownership in a completely transparent, autonomous and unbiased way.

3 Indicoïn

a) Indicoïn Tokens (INDI)

Indicoïn will issue 1 billion Indicoïn tokens (INDIs), within 10 days after the wrap up of the crowdfunding campaign successfully ends. 100% of the Indicoïn tokens (INDIs) represents 100% ownership of the Indicoïn platform, comprising of all assets and liabilities, as well as each and every right and obligation, including but not limited to intellectual property rights, branding, and trademarks.

INDI will be an **Ethereum-based** token of 'value'. Tokens are a digital asset, that exist on top of any underlying property and/or rights, enduring value by itself.

Advantages:

- Security and Predictability (as opposed to, for example, having to run an independent blockchain network);
- Use of robust and well-supported clients (Indicoïn based tokens can be managed with official Indicoïn clients);
- High liquidity (interchangeable with other Indicoïn based tokens or Indicoïn);
- Easier listing on exchanges with infrastructures already in place;

Indicoïn smart contracts validate a very clear, transparent and secure way of profit-sharing among the token bearers.

INDI has the potential to transcend certain limitations of the current processes by modernizing, streamlining and simplifying the traditional siloed design of the social sector and tech industry infrastructure with a shared fabric of common information. The advantages brought by INDI can be broadly classified into cost savings, efficiency, and transparency.

b) Indicoïn Mission

At Indicoïn our aim is to empower a market of billions of people from countries such as India, who currently don't have access to some form of digitized currency across the nations. We believe Indicoïn can help reverse these trends and help bring people out of poverty by giving them kinds of banking tools that can provide liquidity for entrepreneurial ventures via becoming independent platform, online work and autonomous processing as well as create new opportunities in the digital economy with harmony locally and nationally and hopefully globally in the future.

4 Vision

We, at Indicoïn, strongly believe that despite the long list of shortcomings that the human race faces, we are also very compassionate. If provided an opportunity, or a platform, we would stand together to be counted for a fellow human being who is in distress. Not all of us need to pack our bags and travel across oceans to help someone in need; we can also help and voice our opinion from our homes. All that matters is that our concern and care must turn into an action, or a movement towards betterment. Hence with this thought in our mind, we aspire to work towards providing a broad platform for people from all walks of life. We hope to create an online platform where all of us stand together, to contribute towards various causes that concern all of us. Today, one can make his concerned voices heard with the help of technology and social connectivity.

It is a community driven model, an approach that gives control of development decisions and the resources to the communities. This community driven approach will promote enhanced livelihoods, improved community dynamics, cost effective social plannings, and empowerment of all the social sectors.

Now we want to take our work and our impact to the next level by:

- Organizing events to connect change makers worldwide;
- Promoting change makers and their projects;
- Enlightening on social entrepreneurship and to provide understanding that helps social entrepreneurs and activists to start from their own home through e-learning and in person workshops;
- Facilitating financing for impact startups by providing social entrepreneurs with crowd funded scholarships and impact investments on a micro level.

a) Problem

The existing social order affects the decisions by misleading them as they progress due to the centralized decisive bodies.

Delay of work information, poor attention and support to all the sections, significant discrepancies in economy and information resources between centre and other places, and introduction of unnecessary benefactors are few of the problems that exist in the existing order that has affected the growth and progress of the societies.

Transferring the authorization and control from one centralized body to local communities is one efficient solution to all such prevailing complications.

Decentralization can potentially bring benefits, but there are tradeoffs. On one hand, there are potential gains from local knowledge and greater responsiveness to local preferences. On the other hand, there are potential losses from lack of coordination, local capture, or higher inequality in the quality and coverage of services across jurisdictions.

b) Solution (Weakness, Our concept)

We have combined a three-tiered stabilized digital currency framework. They are an online blockchain trading exchange, a community-based governance model and real world value generating blockchain dAPP to form the world's first sustainable platform for social service.

c) Concept

Indicoin works around a simple concept, that is, any individual who contributes towards the betterment of the society in any way gets an Indicoin token as a reward if the proposal raised by him/her is approved in the voting process. Now to validate the proposed idea, there is a need of valid proof. If any individual is able to come up with a valid proof of his/her work, he/she gets the reward. This system will definitely encourage more people to join the community as apart from an inner satisfaction of doing something good, there is a monetary reward as well.

Our platform and blockchain technology ensures that each and every transaction remains transparent, and all the decisions related to the platform and its proposals are taken only after the validating process of public voting in which the members of the platform will participate, thus eliminating any probability of possible scams.

5 Platform Model

a) Technology (Architecture)

What is IPFS?

IPFS is a peer-to-peer distributed file system that seeks to connect all computing devices with the same system of files. In some ways, IPFS is similar to the World Wide Web, but IPFS could be seen as a single BitTorrent swarm, exchanging objects within one Git repository. In other words, IPFS provides a high-throughput, content-addressed block storage model, with content-addressed hyperlinks.

IPFS combines a distributed hash table, an incentivized block exchange, and a self-certifying namespace. IPFS has no single point of failure, and nodes do not need to trust each other, except for every node they are connected to. Distributed Content Delivery saves bandwidth and prevents DDoS attacks, which HTTP struggles with.

Indicoins Platform and IPFS implementation:

In order to deal with the uncertainty of the blockchain domain, we are using IPFS as our storage client. Though we have provided a server which serves both at different ports over here for the Beta version DApp, our plan is not to use our own servers due to various disadvantages.

Any User has the option to enter his own ethereum node address and ipfs node address. After Sign up, User can get an Indicoins address for himself. Basically, the user needs to remember (or write down or save) the 12 characters provided by the app. This will be used for further signing in. Now the user has to send ether to the address he/she gets, to get the **ERC 20** tokens to get registered.

Now the user is provided with a map on the screen, which has markers denoting the various Social Proof uploaded by the users of the community. From the right bottom, the user can upload their own Social Proof (document). But as the project is being developed on ethereum blockchain, there should be some monetary value involved and utilized for this. So, we have the options to upvote, downvote, and share. Users can exchange Indicoins by upvoting, downvoting, also and earn Indicoins for a Social Proof of a work upload. *(We are working to incorporate many new features for DApp keeping the time constraints in mind.)*

What makes this unique?

- It is platform-INDEPENDENT. You can run it anywhere.
- The user does not need any browser to explore the contents posted on DApp.
- The user does not need MetaMask or Mist for this, i.e. you can run it on your web browsers like **Chrome, Mozilla, Edge, Brave**.
- The DApp provides an option whether to use a geth server running on the user machine (as we are testing the limitations of providing our own server). We are testing this because the installation of geth server and IPFS server is one of the hardest task, the primary reason why people don't want to use this effective technology. (Though the audit and security measures of the server will be the concern.)

Architecture

- IPFS was used in order to avoid storing the social proofs on the blockchain. We created a test contract in which every user's address is mapped to a prime integer which is again mapped to a struct node (documents) indicating his/her proof of work.
- This numbering is required to fetch each Social Proof one by one.

- Each struct “Social Proof” contains in it, the information regarding the content, for example topic, latitude, longitude, the number of upvotes and downvotes, timestamp and its IPFS hash.
- A **database _Indico**, which is a map of user’s address to the number of coins he has. This could have been merged, but we opted as we would be using multiple smart contracts for this database.
- A **_numberOfDocuments** variable stores the number of Social Proof each user has.(It increases the automation and decreases the computation).
- A **isRegisteredAddress** node keeps track of registered user’s. This saves computation.
- These contracts will lead to another contract for smart distribution of the funds collected from various Doners which will be approved by the community and Indico will reach to the **-isRegisteredAddress**
- Anyone can contribute any amount of Indico to the mapped Social Proof, from his personal Indico wallet or can send it to the Social Vault Contract for distribution. (Independence)

b) Implementation

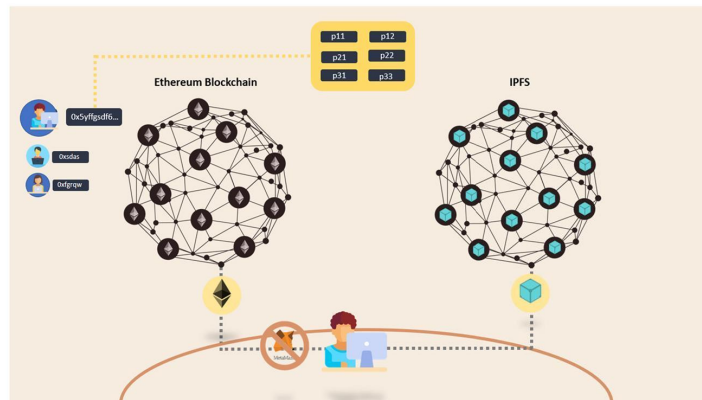
“This DApp is platform INDEPENDENT!”

Integration of Features for Shared Photos And Documents

We developed a test contract and DApp(named Indico) which can be used to share photos, videos and any kind of documents, and the objectives are:

- The documents would be geotagged. That means the publisher of any content also mentions the location where the content has been taken and the topic of that content (like papers, market, climate etc.). There can be a fixed set of topics for which we have chosen United Nations SDG’S. During the data upload, Indico will ask for the topic, and the user needs to provide it so that the members can browse through all the proposals categorized by location or by the topic independently.
- The front-end of the DApp is a map, on which every user can see the Documents that have been uploaded to Indico. You can go to a specific location and should be able to see all the documents that are tagged with that location.
- Apart from the location based Document tagging feature, users can also browse the documents based on topics. Once a user clicks on a Social Proof, the DApp also show the location information tagged with that proof.
- Not even the publisher (the user who has uploaded the Social Proof) can delete the uploaded documents(leads to a platform of true facts and figures which are approved by the community and can’t be forged or misused).
- You can share your social proof(document) across any platform.

Here is the sample demonstration of the working of the DApp and Smart contract:



You can always contribute and develop our contract here

Integration of features for live videos streaming

Community-driven live Video Content-Live Video Proof contributed by general users through a proposal. Indicoins enables the users to stream any personal experience or illegal activities happening around them. These contents can range from professionally created Live Social Proof with arrangements to urgently recorded or live uploads (social proof).

The elementary difference between Indicoins and any other platform ever created for giving a launch pad, is its ease in keeping under observation, the negative elements of our society and acting as a platform to raise voices for the suppressed and ignored masses, who are in instant need of the support from our society by sharing live social video proofs, and other social happenings.

Indicoins is not just a decentralized, social service platform. It is also a portal for users to share and watch contents (proposals), raised in an environment where users from all across the world can share their real life experiences with others, with full anonymity. This could mean a viewer living in any part of the world can access all the legal and illegal confidential and controversial documents, posted on this decentralized portal, which is reviewed by the communities that has nothing to deal with future threats because of the anonymity. A platform for whistleblowers too, from the comfort of their home. That streamer could be visiting a significant site or landmark that is local/commonplace to them, but unique and novel to viewers thousands of miles away. Community-driven content could be as simple as travels and regular day-to-day living, or as complicated as INDEPENDENT journalism, wherein users could share real-time local perspectives of a poor in need, to politically charged leaks to create an immersive news expose without any fear and just for a sustainable, peaceful future and present. These are just a few more examples of the possibilities with community-driven content on the Indicoins platform.

This model has proven successful for various live streaming platforms for gaming, chatting and entertainment industry but was never used for social service. We at Indicoins feel that this method will be equally integral in building an active user base for the work proofs which cannot be forged because of the community-based audit.

Initially, we plan to work with all independent Comm-Tech (Community technology) enthusiasts around the world who have already adopted blockchain systems. They will be the first general users to publish content on Indicoins, generating an immediate selection of community reviewed content (social proof). This proof will include IPFS hash and smart contract address which will be eventually called live streams – essentially. Besides the 17 domains of action and the anonymous social proofs uploads, building this selection of content will be a primary focus in the early stages of the Indicoins beta.

This is a core element of the person-to-person Indicoins network environment because it enables users to generate income for his social accountability with the world. Additionally, both viewers and content contributors will be rewarded for the community contribution.

c) Specifications of Coins

Formation

Initially community members can raise proposal even without spending Indicoins but in future as the network grows, each proposal would be raised in respective Indicoins for maintaining the liquidity of social vault. Every payment for creating proposal is distributed by the system according to the following proportion: **60%** of the added revenue goes to the social vault fund; remaining **40%** goes to promotion (**15-20%**), management fee (**10-15%**) and referral and bounty rewards (**5-10%**).

Token Use Cases

The Indicoins token is the key medium of exchange within the Indicoins ecosystem and is used for the following purposes:

- To vote members for usage, contribution to, and promotion of the platform;
- To reward partners who have provided traffic and visibility to Indicoins Platform;
- To vote on community matters;

- To fund development projects undertaken by the community;
- To effectively buy and sell INDI tokens at the exchanges.

d) Smart Contract

Obviously, it is impossible to meet different requirements in various scenarios with only one INDI contract, so a lot of contracts will be created with different initial parameters, but the basic rules remains the same.

Ad smart Contract

In case the Social Vault reaches a critical level which indicates that the funds in social vault have reached below the critical point. The platform will automatically activate the Advertisers Smart Contract. This Proposal will not be community governed and its sole purpose is commercialization in order to maintain the liquidity. The community will choose whether to interact with ads or not.

Under this smart contract commercial organizations will pay fees which will be solely used to refill the Social Vault and in return, they will be offered to run ad campaigns on our platform.

The Ad Smart Contract will ensure that the Indicoins platform is self-sustainable in case of a sudden market crash, and the value of Indicoins Token remains stable despite various ups and downs in the crypto economy.

Work-enforcement smart contracts

This smart contract will be a set of pre-determined protocols defined by the participants and implemented on Indicoins. Once implemented, these contracts will allow the participants to access the funds donated by the other users in response to the progress of their works.

Under this smart contract, users providing validated ideas will sign a contract. With other users interested in their ideas with the intention of direct investments or charity, this contract will ensure the projected enforcement of the proposals by sanctioning the investment on the basis of partial completion. This means that funds will be provided in form of partial investments in return of the work progress.

Using this smart contract, not only the professional investors and philanthropists, but also the general population with no early experience, yet remarkable interest in new revolutionising innovations can take part.

The Social Vault smart contract

To meet the future needs and cope with unanticipated disasters, there is a need to have a backup, a backup which can support the needy in case of a tragedy or a disaster. The total supply of Indicoins locked in the smart contract is for the future needs in the field of social work or proposals which are raised anytime on the Indicoins platform.

Social Vault will be refilled by various charities and donations from all users across the world. The social vault itself is monitored by the members of the platform and the funds are released only after proper validation and auditing of the proposal raised by the social worker.

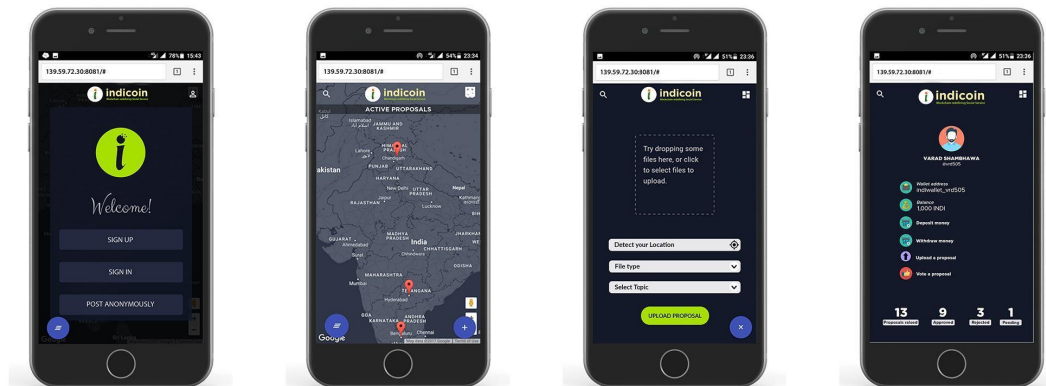
At the end, we can say that the Social Vault can be compared with a mega bank which comes to rescue whenever there is a requirement of fairly large monetary help. The funds in the social vault are maintained and refilled by the members of the platform via various charities and donations. Those who want to contribute to the social vault can do so by directly transferring their Indicoins to Vault's address via smart contracts.

Blockchain technology ensures that all the transactions of the Social Vault remain transparent and by no chance, any fraud or middlemen is benefitted through it. The transparent system of Smart contracts and Social Vault has made contribution to the society more efficient and reliable.

e) User Interface

The user interface for the alpha version of the platform is ready and looks like this.

Note that this is only the alpha stage of the platform and further developments will lead to significant changes in the visual appeal and functionality at the later stages of the DApp.



f) Rewards

Along with the development of the distribution protocol the core team is also developing an attractive reward model.

Indicoins will also provide the uploaders their unique universal ranking on the basis of the total validated social work proof that they provide. According to their ranks, they will be awarded with badges that will signify their contribution and dedication towards bringing a change and revolutionizing the societies. Promoting to the next level will mean achieving a higher level badge, and hence getting access to additional perks and benefits. But the basic notion behind introducing the badges is to set goals, motivate and inspire the general population.

Promotion to higher level will be dependent on the following activities.

Participation

Users will be promoted on the basis of their active participation in the activities such as frequently visiting the platform and signing in, providing validated work proof, reviewing the posted contents and active voting, gaining followers and following other significant figures, freelancing for other indicoi users, taking part in active discussions and live chats.

Promotions

Users will also be promoted to the higher levels by sharing the validated work proof on other social medias such as twitter, facebook, etc in order to reach the general audience, and also by Inviting Facebook friends or Twitter followers to join Indicoi. They will also be rewarded in INDI for each new user signing up using their invites.

Integrating Social Networks

Integrating the indicoi profile with other social media accounts such as youtube, twitter, facebook, instagram, google+ and facebook will help in advancing to the next higher levels.

Members can also donate INDI tokens to other members, specifically those who participate through a genuine proposal within the development goals that are listed.

The Sponsorship Platform within Indicoi Ad-Smartcontract will enable businesses and organizations to connect with potential customers via Sponsored proposals.

The higher your level is, the richer your experience will be on Indicoi. Indicoi tokens will be used to revolutionize the social innovation platforms and incentivize the users for their contributions and participations through rewards. Whether you're just getting started or are an experienced social worker, there's always something to be gained from reaching the next level and the satisfaction for the good work would always be stored in the blockchain.

Referrals & Partners

Members who choose to spread the word about Indicoi platform will receive Indicoi for their efforts. We will award Indicoi for referred member sign-ups, inbound traffic, social sharing and other promotions that drive people to Indicoi as mentioned in our marketing plan and as mentioned in the bounty program.

One of the most exciting uses of Indicoi is to build a network of partners who can leverage their own traffic to generate awareness and advocacy for the poor and nontechnical users through their own as well as our platform. For instance, an IT expert can raise proposals for a construction labour, and if that proposal has multiple votes and gets approved within the timestamp. They will then be rewarded in Indicoins for being the **technical stakeholders**.

6 Consensus Model, Constitution

Internal Governance & Proposal Funding - INDI-holders will be able to use their tokens to vote on the direction of the project and help shape the Community Constitution through a special proposal which would be raised by the core team just like any other proposal on the platform and would be provided to the community for the approval, and also organize and contribute to crowd funded campaigns for development proposals which would require initial funding and other topics of interest to the community.

Community Constitution - The Community Constitution is a notion that is in our thoughts for many years at a confined level. As each local community is distinctive, and its worth and values different, we presume that there can be no one-size-fits-all motion and that every community must have the right to generate its own constitution with the ground norms for participation. In this instance, the community is extremely broad, anyone on the planet can be part of the Indicoins community, and because this service is one of those fundamental, utility-like services that must be as fair, balanced, open and transparent as possible. This document will be a work in progress, and at the time of writing is only loosely defined. It is reproduced below for your information:

- Anyone can raise a proposal
- The Proposal should contain a social proof and description
- No FUDs though there is the slightest of possibility
- If the proposal is not passed twice you are suspended from the ecosystem
- The more your proposals are successfully passed you raise your level
- Services and community go hand-in-hand
- The amount of Indicoins earned depends on the basis of your level and the votes on the proposal
- Privacy of searchers shall not be violated We would appreciate your insights to refine and improve the Indicoins Community Constitution

a) Distribution Protocol

Indicoins has developed a new Proof of Contribution protocol, that will let off chain consensus. Contribution, extramural resource providers will have their resources' utilization certified instantly in the blockchain. It aspires to establish a secure, scalable, high performance and manageable framework side chain that will encourage a new form of distributed governance.

Traditional blockchain such as Bitcoin or Ethereum relies on the Proof of Work protocol, which ensures that token transactions that happens on the blockchain between participants are validated by a large number of nodes using cryptographic challenges. With Indicoins, a Contribution, i.e. some actions that happen out of the blockchain (like providing a data set, transferring a file, performing a computation, giving a human expertise) will lead to token transactions between participants.

That means that a new protocol is needed to prove the fact that contribution actually happened correctly and that the corresponding token transactions can take place in the blockchain. We name such type of consensus protocol Proof of Contribution. There are various similar protocols [Gridcoin, Filecoin, Fatcom], which permit a framework of consensus between the blockchain and off chain resources. For example, Gridcoin presented the Proof of Research protocol to benefit the participants who contributed some of their computer time to a great scientific computation [BOINC] such as biomedical research. Proof of Contribution is delineated to be a more universal framework, sanctioning to validate a larger number of action.

To participate and become a part of Indicoins, a unique number must be generated by each participant following a INDI contract which are participation rules.

The process for generating the unique number follows following algorithm-

- ***Collecting valid INDIProposal***

The participant needs to send a transaction to the contract C with m INDI pledge, in a specified time period accompanied by the INDIProposal.v is the secret votes picked by each respective user.

- ***Voting & Collecting valid v***

Indicoins uses randomization to predict the actual and real proof of work by using a formula that looks for the lowest hash value. Since the bearers are public, each user can predict, with reasonable accuracy, which proposal is genuine.

If number of upvotes > number of downvotes

The proposal would be accepted

Else not.

Contract C will check if v is valid by running the INDIProposal against v and comparing the result with previously committed data. Valid v will be saved by the smart contract which will finally generate the unique number. The impact of this voting distribution is to offer large benefits for good proposals while still rewarding community users for their valuable contribution.

- ***Distributing the refund and rewards***

Once all v's are successfully collected, contract C will calculate the unique number from the function $f(v_1, v_2, \dots, v_n)$, the result will be saved to the social vault and will also be sent to all other contracts that requested the unique number earlier.

Contract C will return the pledge to the participants and the profit is divided into equal parts and sent to all the users with valid v as an additional reward as one of the primary goals of Indicoins is to provide monetary benefits to every community user in some way or the other and hence forming a win-win situation for everyone.

There will be various parameters at every stage to earn Indicoins as reward which includes the importance of the document, voting pattern of users, whether raised under the provided timestamp etc.

In our system the community model is divided up into blocks spanning a set amount of time. Every time a user performs a social task, or hash and attains any of the following parameter- Community Involvement, Participation, Promotion or Integrating Social Network, they receive a monetary reward. The chance of this happening, is automatically adjusted by the community. Because each hash is very easy to perform and comes with a very high probability of successfully being rewarded, this incentive structure motivates people to contribute in a way that motivates others to get involved. These rewards will be tracked as credits and can be converted to Indicoins.

Indicoins being a decentralised platform, ensures greater security and transparency. To ensure Indicoins' liquidity, safety and efficiency, the contract C has the following additional rules:

- If two or more of the same INDIProposal are submitted in sequence, only the first one is accepted.
- There is a requirement for a minimum number of participants, if it fails to collect enough INDIProposal within the time period, then INDI at this block height will fail.
- If a participant submits the INDIProposal and it is accepted by contract C, he must reveal the v during the voting process
 - a) If the participant fails to reveal v then the m INDI sent as a pledge will be confiscated without providing a return.
 - b) If one or more v isn't revealed INDI at this block height will fail. Confiscated INDI will be divided equally and sent to other users who revealed v successfully.

Another approach followed by us for maintaining the liquidity is token to token conversion or token to INR conversion where the cost of the switch for community users is reduced. Our autonomous platform extends into multiple accumulations, and lower the obstacles of exchanging from one token to another by working with various wallet providers, then users can log into their ERC20 compatible wallets and perform a token conversion.

b) Domain of Action

UN- SDG

The Sustainable Development Goals have been converted into performance samples for school curriculum, activities, businesses, workshops, games, etc. They were depicted with multiple set of on-ramps, to be a routine language and measurement system for everyone.



Here, at IndicoIn, the social work is categorized on the basis of the 17 SDGs. The users can also browse and Search the DApp on the basis of different SDGs, as categories.

To upload a social proof of work, the user will select the category and then share his proposal. After this, user will upload the proof, which can be anything like a live video, images, documents, or anything that provides a solid ground for the proposal to be validated.

7 Token Mechanism

a) Use Cases

Let us take an example:

User X puts a proposal. X uploads social proof of work.

Now the users on the IndicoIn platform have 3 options

- Users of the platform can participate in voting.
- Smart Contract gives an option to users to donate funds for the cause of this proposal.

- Alternatively, with the help of the Smart Contract users can also donate funds to the social vault in which funds will be kept safe for future needs or emergencies in the field of social work.

You can earn coins on Indicoïn :

- by working for others;
- By frequently visiting the platform and signing in.

Note that on Indicoïn, there are two forms of currency: voting for people contributing in social service or voting their work and being a part of democracy and stopping corruption.

b) Proposals

Proposals are the mechanism by which holders participate in decision making. There are multiple proposal types, each serving different purposes and involving distinct usages. The currently defined proposal types are as follows:

- **Fundraiser Contribution:** This is one of the vital kind of proposal. It is used to diversify into different token sales. This proposal has yes or no alternatives. Moreover, when bearers vote yes they can choose from a series of percentages for how much of Indicoïn's valuables they would like to donate.
- **Organization Change:** This is another important part of the project which provides token bearers with the power to change each and every facet of the platform. These proposals execute naturally and work by altering configuration values on the platform, such as Dividend rates, Proposal Creation costs etc.
- **Buy Proposal:** This proposal allows token holders to vote on contributing to an existing Token. This functionality will work automatically through the usage of various exchanges. Holders will have the option to vote from a range of 2-10% in increments of 2% for how much INDI they think Indicoïn should use to buy more tokens.
- **Sell Proposal:** This proposal allows token holders to vote on selling a token the platform currently holds. Holders will be able to vote from a range of 10-100% in increments of 10% for how many tokens they think Indicoïn should sell.

Note : Buy proposal and sell proposal will initiate only when Ad Smart Contract gets active.

In order to reduce spam when creating proposals, there will be a fixed INDI fee associated with creating a proposal. If a proposal passes successfully, the creator will have the fee reimbursed. We believe this not only stops spammers from creating fake proposals but also motivates token holders to make good proposals they think will pass.

c) Social Proofs

To determine the authenticity of the work and to eliminate the possibility of fake work, the proposals raised by the members must be backed by some valid social proof.

Social Proof can be anything like a live video, geotagged pictures, social documents with proper markings or anything similar.

These social proof are very important as each and every proposal will go through a validating process in which all the proofs will be audited and votes will be given accordingly.

At Indicoïn, we use smart contracts ensuring each and every member contributes towards a better world in one way or another. The simplest way of contribution is to vote for an active proposal. The user may also choose to donate funds towards a particular proposal in order to provide monetary help to that particular cause or the user may choose to donate funds directly to the Social Vault which can be used in the future by the active community of Indicoïn.

d) Up voters and down voters

Indicoïn platform is completely unbiased. Once any user raises a proposal, all the other members of the community can discuss about the provided work proof, and contribute in validating it.

After going through all the proofs of social work and contribution, each and every member has basically 2 options in the democratic voting system of the platform:

- If he/she finds out that the proposal is genuine and its social proof of work is also valid, he will vote in the favour of the social worker,
- whereas if he/she feels that the proposal is fraud or fake he/she is free to down vote for the same.

At the end, the reward will be distributed on the basis of final results and the user's nature of the vote.

- If the proposal is found to be valid and the user voted in the favour of proposal he/she will get reward
- Similarly, if the proposal is proved to be fraud or fake.. those users who down voted for the proposal will get the reward.

8 Stake Holders

Indicoin Foundation has its share in acquiring more and more users and Service Providers after the token sale. It has all the tools to spread Indicoin Platform to the world, but we have to remember that a coin has two sides, which means active community presence is needed to make the Platform alive. It is mandatory that early investors proliferate the peculiar chance the system propose. As you go through the pages you recognize our vision. You should understand as well that every early user must be an influencer and the responsibility to spread the Platform to the mainstream is also up to you. With increase in the number of users, the coin supply growth also increases. Some of the freshly generated coins will arrive in your wallet. Your everyday gain depends on how many people are satisfied by the community to use the Platform.

Content Creators

At Indicoin the actual social workers who upload proof of contribution are the actual content creators. The main content here is the proof in the favour of social activity which a user is bound to provide in order to get the proposal accepted by the community and ultimately gain the reward.

The community will constantly go through the proof of contribution in its own forum and funds will be released only after it has earned enough votes in the democratic voting process. This step exists simply to avoid scams and fake social works at any cost.

Viewers

At Indicoin platform each and every user participates in social work in one way or another. A member can directly participate in social work by actively participating and contributing towards the betterment of society and providing a proof for the same. All the other members which can be considered as viewers of the platform, indirectly participate in the social activity by validating the social work of the uploader and voting for the same. Viewers can earn Indicoin token by voting in favour of genuine proposals and voting against scams or fake proposals. In this way, all the viewers are active participants at the Indicoin platform.

Content Curators

Content Curators are the users who actively reviews and shares the contents of social workers. These users will play an important role in the success of the Indico platform as well as the general adoption of our platform in the field of social work.

Viewers can earn Indico token by voting in favour of genuine proposals and voting against scams or fake proposals. In this way, all the viewers are active participants at the Indico platform.

9 Proposed Work and Challenges

The Indico developers have come up with a way to interact with both centralized and decentralized exchanges using smart contracts. One of the issues Indico faces is the volumes of tokens it will potentially hold. This can lead to various issues when trying to offload some of these tokens on exchanges, to convert them back into INDI. For this reason, a smart contract will be implemented, which will provide Indico with a way of splitting the funds that would be distributed from the social vault. The mechanism will be fed data from multiple oracles, including things like volume and price.

10 Roadmap

Quarter 2, 2017

- Concept development and Research
- Domain name registered

Quarter 3, 2017

- Token Presale
- Whitepaper and platform development
- Initial Part Team creation
- Project initiated with local NGOs support & affiliation
- Community development

Quarter 4, 2017

- Non-Profit organization registration
- Token Sale
- Distribution Plan Update
- Audit and Revision
- Community Plan Update
 - a. Indico Comm-Tech conferences and token summit
 - i. *Initially tour planned for India*
 - ii. *International summits organized by the community of specific location (integrated on platform itself)*
 - b. Community Summit
 - c. Hackathon for project development
 - d. Bug bounties

○ Quarter 1, 2018

- Distribution protocol update
- Intergration of fully independent DApp platform
- Smart Contract for Social Vault development
- Collabortaion with non profit organisations and other social partners
- Incubation and community center setups all over the world

11 Legal Consideration

a) Terms and Conditions

Please read these IndiCoin Terms of Use with care before you make use of the IndiCoin Service, which is located at www.indicoins.org.in (the Site) and also available as a mobile application (the App). We'll refer to you here as "You" and "Your." We will refer to IndiCoin Inc. as "IndiCoin," "we," "us" or "our".

These IndiCoin Terms of Use as they may be subsequently amended ("Terms of Use" or "Terms") outline the terms and conditions applicable to Your use of the IndiCoin Service and any related services, aspects, functions, software platforms and derivatives of the IndiCoin Service (collectively, the "Service").

This is a legally binding agreement between IndiCoin and You.

Use of the Service for any purpose that is unlawful or prohibited by the Terms of Use is prohibited.

By accepting these Terms You confirm that You are at least 13 years of age. IndiCoin is not intended for anyone under the age of 13.

By accepting these Terms You also confirm that You are either 18 years of age or older, or an emancipated minor, or possess legal parental or guardian consent, and are fully able and competent to enter into the terms, conditions, obligations, affirmations, representations, and warranties set forth in the Terms of Use, and to abide by and comply with the Terms of Use.

By using the Service, You acknowledge and agree that You are subject to the Terms of Use, including our Privacy Policy, which is incorporated by and made a part of the Terms of Use. If You do not accept the Terms of Use You may not use the Service.

12 Conclusion

Indicoins is an experiment designed to address challenges in cryptocurrency and social service by combining the best aspects from both. Indicoins not only presents earning opportunities to the users of the community but also helps in redefining social service. Within Indicoins, users earn rewards in the form of INDI token which are easily convertible. Due to the market price discovery and liquidity of Indicoins, the users who hold Indicoins will have more exclusive earning powers than those who do not. Indicoins offers a decentralised platform which is free to use for everyone.

Next Step

Indicoins is a non-profit cryptocurrency project whose main roles will be issuance of INDI tokens , community summits, bug bounties and distribution plan update.

Future development of INDICOIN

Distribution protocol and Smart Contract for Social Vault will be developed in Quarter 1 of 2018.

For more information please visit www.indicoins.org.in or contact Indicoins at contact@indicoins.org.in

References

- [https://en.wikipedia.org/wiki/ InterPlanetary_File_System](https://en.wikipedia.org/wiki/InterPlanetary_File_System)
- <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>
- <https://www.coindesk.com/category/technology/altcoins/>
- <https://www.coindesk.com/information/ethereum-smart-contracts-work/>
- <https://www.gov.uk/government/news/distributed-ledger-technology-beyond-block-chain>
- <https://www.ethereum.org/>
- solidity.readthedocs.io/en/develop/introduction-to-smart-contracts.html