Crowd Funding Using BlockchainTechnology

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ABSTRACT - Crowd funding is an online money-raising strategy that began as a way for the public to donate small amounts of money to help creative people finance their projects. Through crowdfunding, individuals are able to invest in entrepreneurial start-ups through an intermediary, such as a broker-dealer. The problem with the current sites is they don't provide the Donor Guarantee Policy and they don't have control over the money they donated. This paper is to propose crowdfunding using blockchaintechnology. Through this, we can provide a safe, secure and transparent way for crowdfunding. This work of this paper is to provide interactive forms forcampaign creation, donation and request approval through which both campaign creators and donors can easily create and fund the campaigns.

I. INTRODUCTION

In The blockchain is an incorruptible digital ledger that records every transaction. It is a distributed system thus all the records are. Stored in every node in the decentralized network. Ethereum allows running applications in the blockchain called SmartContracts. All the Smart contracts are run on the Ethereum Virtual Machine. Crowdfunding provides an easy way to find cash for innovative Project ideas. The problem with the current crowdfunding companies charging high fees and sometimes there were scams Happened. Implementing a crowdfunding strategy in blockchain will help to avoid these types of problems. By incorporating Peer. To Peer smart contract for crowdfunding remove the traditional transaction fees and platforms fees normally associated with other Crowdfunding platforms, such as Kickstarter.

The objective of our project is to create a reliable application so that every new idea. In the process of raising funds, of course it is not easy, because it requires trust between many parties, both the funders, intermediaries or organizations as a place to store temporary funds to the recipient of funds. That trust is the main capital for fundraising organizations to attract funders to donate their funds to recipients of funds.

In Ethereum, tens of thousands of miners follow the Proof-of-Work (PoW) consensus protocol [29] to compete for solving puzzles and each winner receives a monetary reward for packaging the recent transactions (i.e., transferring fund, executing functions or creating smart contracts) into a new block appended to the end of the blockchain. Fees charged from transactions within a new block in the blockchain are paid to the competition winner who packages the block. People trust that no one can tamper with the blockchain as the probability of a single miner to win in several consecutive competitionsto be able to change the network consensus about the blockchain state is negligible. As part of the competition reward, transaction fees help incentivize miners to invest more computation resources into the competitions, which in turn increases the difficulty of competitions and improves the overall safety of the blockchain.

II. OBJECTIVES

In the field of technology, increasing day by day new information get developed. During few year we heard about blockchain technology.In resent year this technology is in boom. In Blockchain is an emerging technology framework for creating and storing transaction in distributed ledgers with a high degree of security and reliability. In this paper, we present a blockchain-based platform to create and store contracts in between students and their higher education sponsors facilitated by intermediary brokers denoted as fundraisers. The sponsorship might be in any form, such as scholarship, donation, or loan. The fund will be arranged and managed by a group of competitive fundraisers who will hold the distributed ledgers and act as the miners in the blockchain network They introduced Crowd funding is an online cash raising technique that started as a path for the people to contribute limited quantity of money to enable innovative individuals to fund the venture. Using crowdfunding, people can put resources into pioneering businesses through a middle medium or platform. The issue with the current crowd funding technique is that, third party medium don't give the assurance of the money

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III. LITERATURE SURVEY

This paper contributes to the emerging literature on financial technology by presenting the case of crowdfunding in financial inclusion. The rationale behind this inquiry is to demonstrate the relevance of crowdfunding to financial inclusion, and how might blockchain technology fuel the development of crowdfunding. This paper also constitutes one of the first attempts to analyse crowdfunding in.Thus we believed that this result could apply in periodontology dentistry field in the near future. To regulators and market participants to understand how the existing regulatory framework applies to blockchain-based crowdfunding. Due to specific characteristics of blockchain-based crowdfunding, regulatory frameworks may require potential reinterpretation of requirements to allow an effective application of regulations. To fill this knowledge gaps, we havereviewed a set of relevant literature on success factors for conventional and blockchain based crowdfunding. The result of this literature review sheds light on the directions for future research and development. The contribution of our work is a better understanding of the distinctions and similarities of blockchain-based crowdfunding compared to traditional crowdfunding. Work aims at creating an economical, multimodal, personal oral crowdfunding dapp to help new dwveloper in industry or newe startup to over come there problem of funds.Our purpose is to make digital world more advance for every single person using Blockchain technology. Due to our dapp new startup or new project will join, from that our community get bigger and bigger , and we can helpeach other.

IV. PROPOSED METHADOLOGY

The basic architecture of the crowdfunding dapp is depicted in the Figure [1] a basic crowdfunding dapp architecture diagram, concentrating on high- level components. All interactions between a campaign creator (a person arriving in the platform to raise funds) and a campaign investor (a person arriving in the platform to invest) are mediated by the smart contracts written for crowdfunding dapp deployed in blockchain platform. For example if an investor, wantsto invest certain amount of money in a particular campaign that interests him, a transaction is initiated and sent to Blockchain network with additional transaction fees.In the first stage a project manager creates new projectby mentioning the name of the project, the description of the project and the minimum contribution to that project. And the contributors then can view the all the open projects in crowd funding platform and can choose any project for which they want to contribute. To mark themselves as contributors, they have to invest minimum contribution for that project which project manager has mentioned while creating the project. And this money is added to the wallet which can be used by the project mangers

SYSTEM ARCHITECTURE

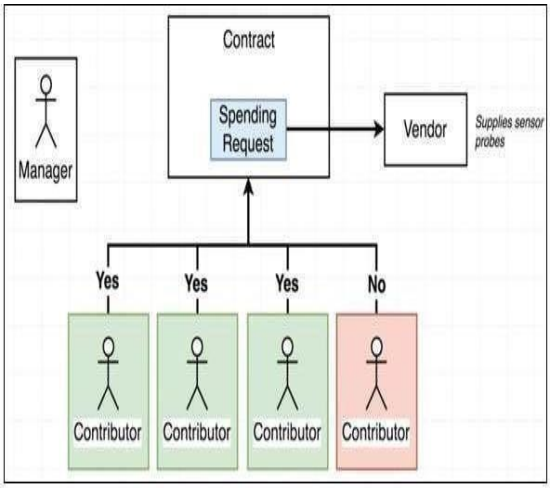

Figure. 2

Fig.1

V. PROPOSED ARCHITECTURE

The voting system is designed which ensures that the contributors who have invested in that specific project, only they can accept or reject the spending request sent by project managers. And the voting system also ensures that the contributor once voted cannot vote again for that spending request. So if more than half of the contributors for that project agree for the spending request, then the money is sent to the vendor so that user can supply the utilities askedby project manager.

It is a program which is written in solidity language to handle all the transactions automatically.As shown in Fig. 3, the project manager has to first create the project by mentioning the name, description and the minimum contribution for that project. Then user can create the spending request for spending the money contributed by the investors. For this project creators have to mention the description about where they are going to spend the money, the amount of money they are going to spend and the address of the vendor who will provide someservice. If more than half of the investors agree for the spending request, then the project manager can send the money to vendor's address. Then the vendor provide the service requested bythe project manager.

Firstly, A user, after filling recipient, value and data of a transaction, will then input nonce, gas price and gas limit and finally sign the transaction with the private key of the sender EOA to get signature vrs. After that, a complete transaction is created. To make the transaction get executed to change the state of the Ethereum blockchain, the transaction should be broadcast to the entire Ethereum network formed by tens of thousands of miner nodes. Following the Proof-of-Work (PoW) consensus protocol [29], miners in Ethereum competitively solve a blockchain puzzle and the winner packages the received transactions into a block and appends the new block to the end of

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Ethereum blockchain. From then on, it is hard to tamper with the blockchain state updated by the transaction (i.e., transferred fund, executed function or created contract). Thus, transactions and smart contracts in Ethereum are executed transparently in a decentralized manner and the results are deterministic

Furthermore, In on-chain aggregation, data is uploaded by participants themselves and it is hard to keep any participant from getting involved in a contest. In off-chain aggregation, for the purpose of cutting costs, data from all participants is uploaded together by a single uploader, hence a dishonest uploader here has the ability to intentionally exclude data belonging to certain participants from the Merkle tree. As a countermeasure strategy, when a designer (reviewer) fails to verify her data via the onchain Merkle root, the designer (reviewer) could re-upload the data onto the chain by herself as in the on-chain aggregation before the end of entry (review.e2) phase. The additional cost is shared between the participant and the uploader. In other words, we design the off-chain aggregation strategy to be backed up by the on-chain aggregation strategy and hence a dishonest uploader can hardly block any participant. Meanwhile, both the uploader and participants are incentivized to honestly follow the off-chainstrategy to avoid additional charges in the on-chainstrategy.

VI. REQUIREMENT SPECIFICATIONS

1. User Interface Requirements:

To implement the crowdfunding platform, a smart contract is needed which has to be written in solidity language. Then this is compiled and deployed in the ethereum blockchain using solidity compiler. Metamask which is a chrome browser extension is used to make all the transactions. Procedure for building a crowd funding platform: Step 1: Creation of smart contract. Step 2: Compilation of the smart contract to obtain the bytecode and application binary interface(ABI). Step 3: Deployment of bytecode to the ethereum blockchain. A. Creation of smart contract It is a program which is written in solidity language to handle all the transactions automatically.As shown in Fig. 3, the project manager has to first create the project by mentioning the name, description and the minimum contribution for that project. Then user can create the spending request for spending the money contributed by the investors. For this project creators have to mention the description about where they are going to spend the money, the amount of money they are going to spend and the address of the vendor who will provide some service. If more than half of the investors agree for the spending request, then the project manager can send the money to vendor's address. Then the vendor provide the service requested by the projectmanager

VII. RESULT

As crowd funding contains a lot of transactions, there is a need to handle and document the actions legally. Therefore, a smart contract is used which is a transaction protocol which automatically execute, control and document actions of the transactions according to the agreement on behalf of project creators and investors. This paper proposes a method which includes two contracts one which stores all the projects and other one which handle the transactions for each project. In any crowdfunding platform, the main entities are project manager, contributors, vendors, smart contract, spending request and voting system. There are three stages included in the crowdfunding: accuracy of Y%, ensuring accurate alignment of virtual garments with the user's body.

Crowdsourcing has been emerging as asuccessful business model and has driven the riseof centralized crowdsourcing platforms such as Upwork, Amazon Mechanical Turk , 99designs and designContest Via these platforms, clients publish human intelligence tasks (HIT) that are challenging for computers but easy for human to complete with rewards and interested workers (or freelancers or designers) accomplish the tasks to earn rewards. As the primary revenue stream, service fees are charged from the rewards by most of these platforms The NF-Crowd protocols proposed in this paper minimize the fees for purchasing trust in crowdsourcing. On the other hand, it makes the offchain workload heavier. In other words, the NFCrowd protocols transform the mandatory charge of monetary fees into non-monetary off-chain workload, offering a new option to participants.

VIII. CONCLUSION

Finally, it is concluded that the crowdfunding using blockchain is a relatively new concept to the ICT community. Till now, the solidity code are successfully written for the campaign contract and compiled by using solidity compiler. The output of solidity compiler was bytecode and the interface isdeployed into blockchain.

After deploying the project, a decentralized web app is created with a frontend for creating a new project, contributing to a project, creating a new request, approving a request and finalizing a request. At present, the blockchain application in crowdfunding is still in the exploratory stage, where numerous lawful and specialized issues need to be settled.

With the evolution of blockchain, our proposed work have a bright future and a large scope for improvement and evolution. In the future, the proposed research work can progress further in an easier and safer way for all ideas that are achieved through the proposed crowdfunding application . the to engage consumers, drive brand loyalty, and enhance the synergy between customers and retailers, Deep Learning Virtual Try-On Systems are destined to

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shape the future of fashion ecommerce. These systems are more than just technological marvels; they are the embodiment of a modern, immersive, and personalized shopping journeythat has the potential to revolutionize the way we shop for clothing and accessories for years to come.

This paper proposes a new suite of protocols called NFCrowd that reliably resolves the scalability issues faced by decentralized crowdsourcing projects. The proposed approach reduces the lower bound of the totalcost to O(1).

FUTURE SCOPE

Recent advancements in blockchain technologies andsmart contract platforms like Ethereum are driving the rise of decentralized crowdsourcing systems . In contrast to centralized crowdsourcing platforms, decentralized crowdsourcing systems leverage the distributed miners to decentralize both data storage and computation in a tamper-resilient manner. Thus they eliminate the need for a trusted third party. However, existing designs of decentralized crowdsourcing systems can hardly handle transaction fees in a scalable manner, resulting in total costs of decentralizing crowdsourcing even higher than service fees charged by centralized crowdsourcing platforms. For instance, decentralized CrowdBC charges

0.011 ether (i.e., $1.93 by taking the average gas and ether prices in first half of year 2019) to tag 100 images while the same task only spends about $0.45 in centralized AMT. In aggregating data from 1,000 data providers costs $140. In adding each task to the task matching smart contract cost about 210,000 gas (i.e.,

$0.61), namely $610 for adding 1,000 tasks. The NF-Crowd protocols proposed in this paper reduce the cost of running decentralized projects on top of Ethereum to a small constant value regardless of the scale of the crowd, which for the first time demonstrates a significant economic advantage in decentralizing crowdsourcing. In addition, we consider NF-Crowd a generic feature that is orthogonal to other design goals of decentralized crowdsourcing systems, allowing existing protocols to also become NF-Crowd by simply identifying TYPE n ×1 and TYPE 1 × n steps and reducing their cost with our strategies We define the abortion of protocols to be the case that neither offchainVerdict() nor onchainVerdict() has been executed by the endof audit phase. We define the correction of results to be the case that the effect of all the three identified protocol violations (intentional exclusion, double vote and incorrect offchain computation) to the results has been eliminatedby the end of audit phase.

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