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FUNDAID: A Smart-Contract Based Decentralized Autonomous Organization for Philanthropy

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Abstract: ***Crowd funding has come to a popular form of collaborative backing, in which small donations or investments, made by groups of people, support the development of new systems in exchange for free products or different types of recognition. Social network spots, in this paper, we present Fundaid, a block chain-grounded decentralized platform that combines social relations with crowdfunding mechanisms, allowing any user to raise finances while getting popular in the social network. Being erected over the ethereal block chain, Fundaid is structured as a Decentralized Autonomous Organization (DAO) that fosters crowdfunding without the intervention of any central authority, and recognizes the active part of benefactors, enabling them to support artists or systems, while making gains.***
Keywords: Block chain, contracts, DAO, fault tolerant system, governance.

I. INTRODUCTION

Social media platforms are widely honored as an important medium for conveying and spreading the information around the world. By their nature, it's trivial to reach out to a broad followership and at the same time engage druggies by adding their connectedness and fostering their direct participation in the communication process. From this perspective, the union between social commerce and crowdfunding represents an important symbiosis. The Social impact on the public attained by social relations can be used as a way to raise finances. Numerous exemplifications live of unknown people or companies that get funded by other people, grounded on their social relations, thanks to services similar to Twitch, Patreon, IndieGoGo, and Kickstarter. These “generators” of contents are supported by funders, who are entertained (or convinced) by their creations and motivated to share the donation, seek prices and apply the connections with people in their social network. Also, social networks similar as Steemit substantiation the value of the social users conditioning. In this like- frugality, user likes and participating adds further value to any kind of memes, data, and social biographies. On the other hand, block chain technologies have changed radically the vision that we've of the Internet. More specifically, the block chain has drastically evolved the way that we used to consider finance, and trust in communication and indeed renewed the conception of the digital republic. Numerous of the generalities in the vision of a hyperactive-connect and trusted world were formerly arising as common ideas, but the block chain has offered the tools for their fast consummation, without taking the presence of a third party. therefore, this technology allowed the fast growth of decentralized currencies, tone-executing digital contracts(i.e. smart contracts) and intelligent means that can be controlled over the Internet(i.e. smart property), corroborated also by the social impact it has had in society. The block chain also enables the development of new governance systems characterized by further popular and inclusive decision- making. Decentralized Autonomous Associations (DAOs), formerly stationed in the block chain, live and operate without The need for any mortal conciliator. In this paper, we present Fundaid, a social network point where druggies can raise finances for other druggies through a simple “like”, erected on top of the Ethereum block chain. Fundaid allows an existent that has commodity to propose to be crowdfunded fluently through the use of smart contracts. Then, “Commodity” implies that every kind of design or tone- offer can be promoted by a stoner, through the use of the Fundaid point. Fundaid is a DAO that employs smart contracts to control and manage finances.

II. METHODOLOGY

Fundaid has been erected as smart contracts grounded armature, together with a social network operation, that's also the Web interface demanded to produce a dialog between users and these contracts. The platform structure should be considered analogous to a social network point but that explosively relies on a set of smart contracts. The Voting contract can be seen as the DAO perpetration. The voting system regulates the jets of the crowdfunding and of the affiliated conditioning of the devisee. More specifically, this is the contract used to Bounce and reach an agreement on the value/ price of an artefact. Only the crowdfunding devisee is allowed to propose an artefact through Artefacts Manager, but any other member can suggest and bounce a price. A member is an account that holds any quantum of NFT (for that specific device) at the moment of the offer.

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Each member's vote is important, grounded on the stake that belongs to him. The relations between users and smart Contracts, during the voting process. Buck isn't a standard ERC20 commemorative, since it cannot be traded between accounts but it's only accepted for vestiges payments. This implies that formerly an NFT has been converted to a Buck this operation isn't reversible. This commemorative is necessary to let the NFT be conceived as a power, rather than a currency rigorously associated with the vestiges purchase. The duality of the two commemoratives allows the abecedarian rule that enacts the cycle. The relations among users and smart Contracts, during the NFT conversion and artefact accession, are illustrated in given Figure.

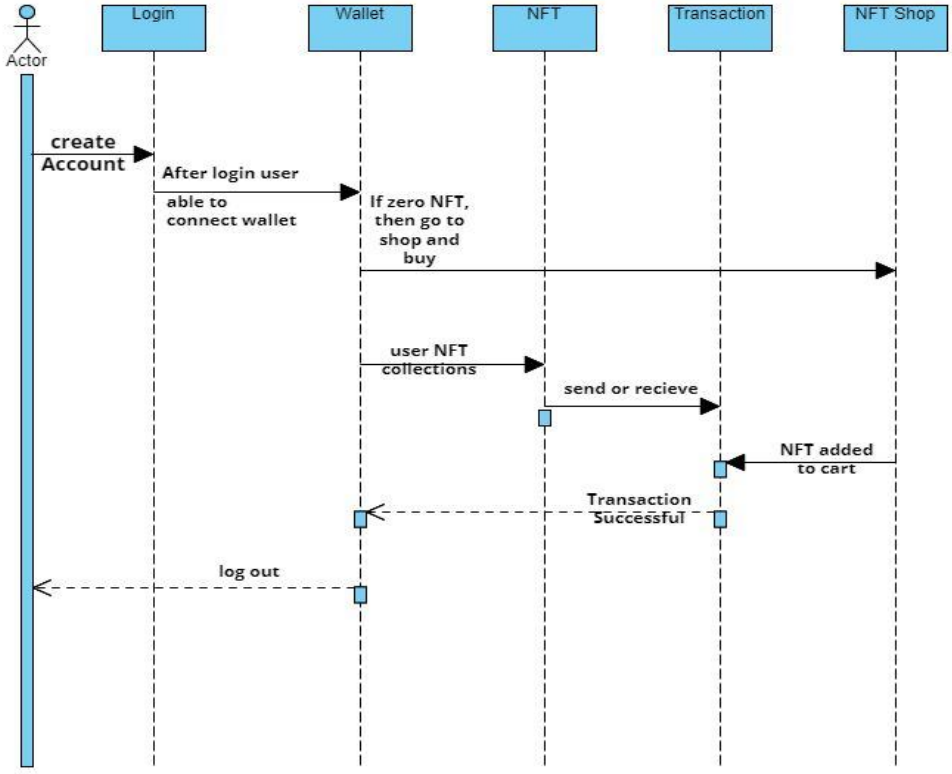


Fig.1 Sequence diagram

III. PROPOSED SYSTEM

A proposed system for blockchain could involve the development of a decentralized platform that allows for secure and transparent data sharing across a network of users. Here are some of the key components that could be included in such as,

1) *System Network:* The first component of the system would be the network itself. This would involve the creation of a distributed network of computers that are all connected to each other and are able to share data securely.
2) *Blockchain Protocol:* The next component would be the blockchain protocol itself. This would involve the development of a set of rules and procedures for how data is stored, validated, and updated on the blockchain.
3) *Smart Contracts:* Another important feature of the proposed system would be the ability to create and execute smart contracts. Smart contracts are self-executing contracts that are stored on the blockchain and can be used to automate complex business processes.
4) *Security:* Security would be a critical component of the system, and multiple layers of security protocols could be implemented to ensure the integrity and privacy of data shared on the blockchain.
5) *Decentralization:* The proposed system would be completely decentralized, with no central authority or single point of control. This would allow for greater transparency and reduce the risk of fraud or corruption.
6) *User Interface:* Finally, the proposed system would need to have an intuitive and user-friendly interface that allows users to easily access and interact with the blockchain. This could involve the development of custom applications or tools that allow users to perform specific tasks, such as creating and executing smart contracts or viewing transaction histories.

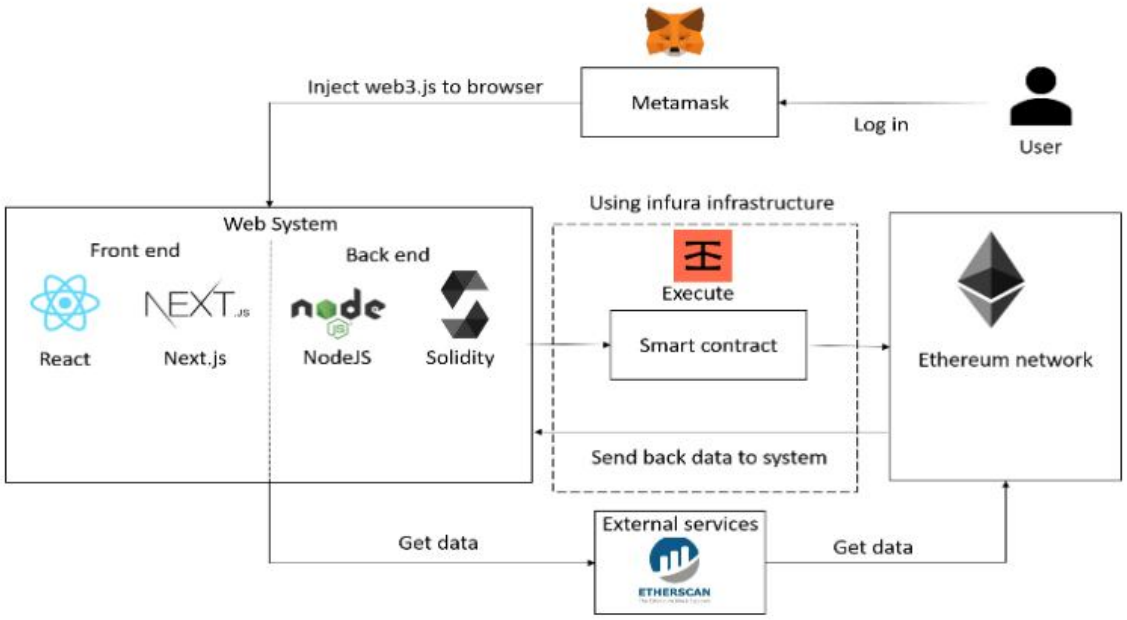


Fig.2 System architecture

IV. RESULTS AND ANALYSIS

Implementation of blockchain era in crowdfunding platform growth contributor's confidentiality whilst contributing to marketing campaign. This is because of the character of blockchain transactions that's transparent. All customers can view the facts of every transaction which may be visible with the aid of using the use of Etherscan API. Besides, the implementation of clever contracts additionally gets rid of the want of agree with of every stakeholder for the marketing campaign because the settlement is mechanically performed as soon as the situations are met. We are in midst of finalizing the implementation of the device and statistics of the effects could be to be had quickly which isn't but to be had in our hand at this moment. There could be a few attractiveness take a look at as properly which is likewise in progress. Implementation of blockchain era in crowdfunding platform growth contributor's confidentiality whilst contributing to marketing campaign. This is because of the character of blockchain transactions that's transparent. All customers can view the facts of every transaction which may be visible with the aid of using the use of Etherscan API. Besides, the implementation of clever contracts additionally gets rid of the want of agree with of every stakeholder for the marketing campaign because the settlement is mechanically performed as soon as the situations are met.

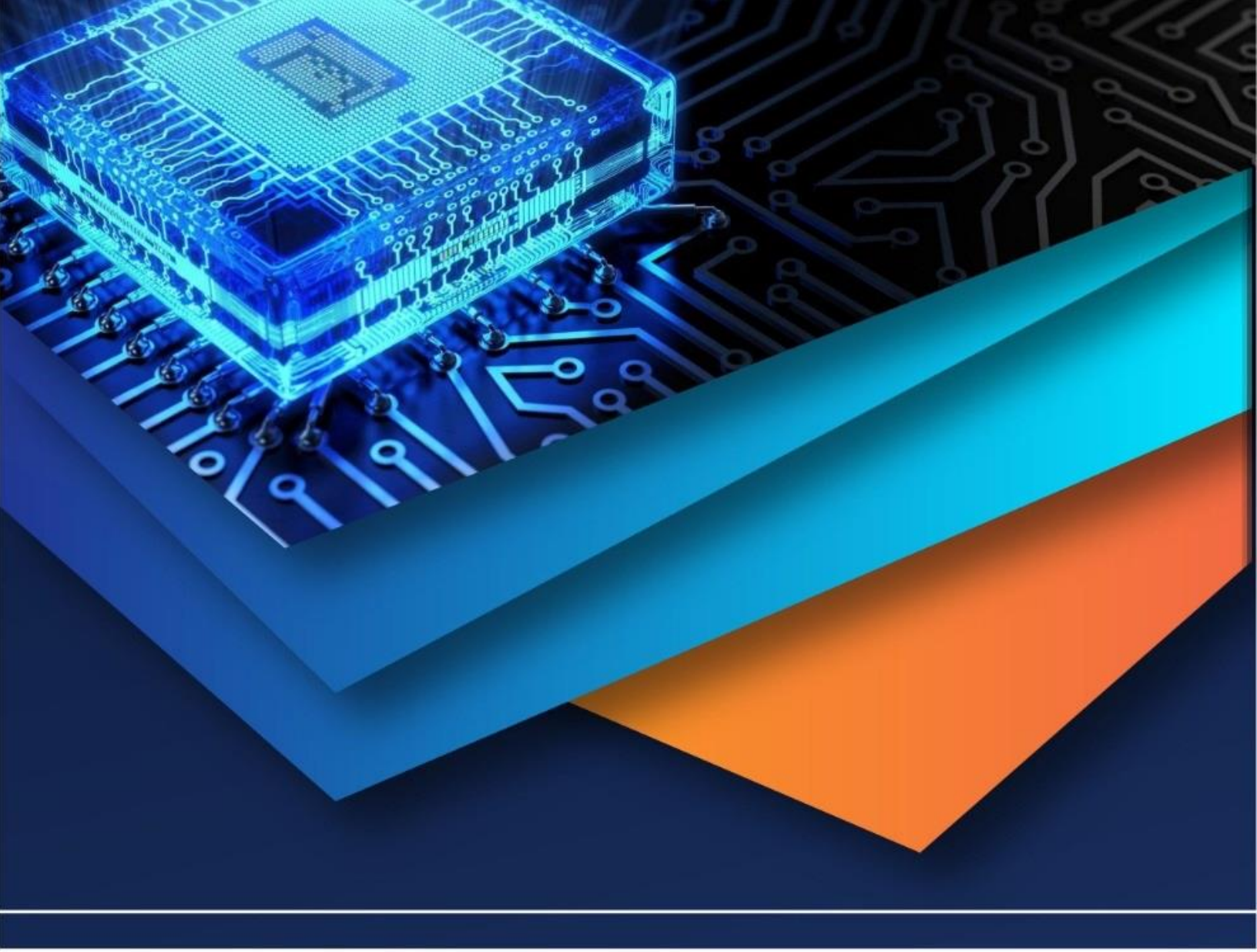
V. CONCLUSIONS

In this paper, we've studied the main characteristics and features of Fundaid, DAPP for Philanthropy conditioning. The use of the Ethereum block chain and smart contracts makes this operation fully decentralized. Fundaid assigns NFT to users that fund a given design. These commemoratives can be employed and converted to buy vestiges as well as commemoratives that give users voting capabilities. User stake commemoratives on Systems they support; in some sense, they retain a share of the devisee/ design they're supporting. The more the Value of this design/ devisee the more advanced the value of these commemoratives. Users enjoying NFT gain also advancing rights, i.e. they can contribute to the decision of the price of certain vestiges. All these aspects give the operation autonomy that makes Fundaid a DAO.

REFERENCES

[1] Ajay K Agrawal, Christian Catalini, and Avi Goldfarb. Some simple economics of crowdfunding. Working Paper 19133, National Bureau of Economic Research, June-2013
[2] Vitalik Buterin. Ethereum A coming- generation smart contract and decentralized operation platform. 2013
[3] M. Karajovic, H. M. Kim, and M. Laskowski, "Thinking outside the block: Projected phases of block chain integration in the accounting industry," Australian Accounting Rev., vol. 29,no.2,pp.319–330,2019.
[4] Gabriele D'Angelo and Stefano Ferretti. largely ferocious data dispersion in complex networks. Journal of resemblant and Distributed Computing,9928–50,2017

[5] Gabriele D'Angelo, Stefano Ferretti, and Moreno Marzolla. A block chain- grounded flight data archivist for pall responsibility. In Proc. of the 1st Factory on Cryptocurrencies and Blockchains for Distributed Systems, CryBlock ' 18, New York,NY,USA,2018.ACM.
[6] G. Fenu,L. Marchesi,M. Marchesi, andR. Tonelli. The ico miracle and its connections with ethereum smart contract terrain.runners 26–32,March2018.
[7] W. Zhang et al., "A privacy-preserving voting protocol on block chain," in Proc. IEEE 11th Int. Conf. Cloud Comput., 2018,pp.401–408
[8] Rob Gleasure and Joseph Feller. Arising technologies and the democratisation of fiscal services A metatriangulation of crowdfunding exploration. Information and Organization, 26(101–115,2016.
[9] Christoph Jentzsch. Decentralized independent association toautomategovernance.2016.
[10] Ji Won Kim. They liked and participated goods of social media virality criteria on comprehensions of communication influence and behavioral intentions. Computers in mortal geste,84153–161,2018
[11] Z. Zheng et al, "An Overview of Blockchain Technology: Architecture, Consensus, and Future Trends", IEEE International Congress on Big Data (BigData Congress), Honolulu, HI, 2017, pp. 557-564.doi: 10.1109/BigDataCongress.2017.85.
[12] Miraz et al., "Applications of Blockchain Technology beyond Cryptocurrency", Annals of Emerging Technologies in Computing (AETiC), 2018. 2. 1-6.
[13] Chen et al., "Exploring Blockchain Technology and its Potential Applications for Education. Smart Learning Environments", 5. 10.1186/s40561-017-0050-x.
[14] A. Angrish et al., "A Case Study for Blockchain in Manufacturing: "FabRec": A Prototype for Peer-to-Peer Network of Manufacturing Nodes", Procedia Manufacturing, vol. 26, pp. 1180-1192, 2018
[15] Friedlmaier et al., "Disrupting Industries With Blockchain: The Industry, Venture Capital Funding, and Regional Distribution of Blockchain Ventures", Proceedings of the 51st Annual Hawaii International Conference on System Sciences (HICSS), January 2018. Available at SSRN: https://ssrn.com/abstract=2854756 or http://dx.doi.org/10.2139/ssrn.2854756.
[16] Alharby et al., "Blockchain Based Smart Contracts: A Systematic Mapping Study", 2017, 125-140. 10.5121/csit.2017.71011.
[17] Delmolino et al., "Step by Step Towards Creating a Safe Smart Contract: Lessons and Insights from a Cryptocurrency Lab", 2016, 9604. 79-94. 10.1007/978-3-662-53357-4_6m.
[18] Gebert et al., "Application Of Blockchain Technology In Crowdfunding", 2017, New European.
[19] Ming Li et. al. (2017). CrowdBC: A Blockchain-based Decentralized Framework for Crowdsourcing. IACR Cryptology ePrint Archive.[plasma whitepaper]
[20] Tsankov, P., Dan, A.M., Cohen, D.D., Gervais, A., Buenzli, F., & Vechev, M.T. (2018). Securify: Practical Security Analysis of Smart Contracts. CoRR, abs/1806.01143.



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