

---

# Artificial Intelligence Based Fund Raising Platform and Tracing using Blockchain

Rachitha M V<sup>1\*</sup>, Uma P<sup>2</sup>, Anusha B M<sup>3</sup>, Sahana L T<sup>4</sup>, Archana Das<sup>5</sup>

<sup>1,2,3,4</sup> Student, Department of Information Science and Engineering, T John Institute of Technology, Bengaluru, India.

<sup>5</sup> Assistant professor, Department of Information Science and Engineering, T John Institute of Technology, Bengaluru, India.

**Received:** 08-05-2023    **Accepted:** 29-08-2023    **Published:** 31-08-2023

## Abstract

**Background / Objectives:** Blockchain first emerged in 2008 because secretive transactions over the internet needed enormous trust between donor and NGO or organisation to mediate. Now that digital currencies have been firmly established, charities have the opportunity to engage with a new set of donors.

**Methods / Statistical Analysis:** Looking across borders, fundraising platforms that accept donations are the easiest first place to look for charities to start out. Using blockchain technology, we can track the donation funds contributed to the fundraiser cause and get reassured that the funds are reaching their required destination without any middleman intervention, saving the donors from scams.

**Findings:** The AI helps predict the cost estimation required for the total cause using datasets and approaching potential donors while maintaining data hygiene.

**Applications / Improvements:** AI is used to predict the approximate cost of any task to be accomplished.

**Key words:** Artificial Intelligence. Blockchain

## 1. Introduction

According to National Research University's Higher School of Economics research, 57 percent of people donate. The proportion of Russian charitable donations in the GDP ratio is 0.34 percent. A donor has the right to request a report on funds spent; however, only 30% of donors follow the direction of their donations. However, the majority of donations are made informally. The money is given to the poor in person (alms, through family and friends, through work or study, or through a civil society initiative), and formally, fundraising is not structured in nature, nor is it done on a continuous basis or with transparency. Donors seldom know how their funds were spent, even if they donated via a bank account, the Internet, or mobile contact (via SMS). Fundraising refers to the idea of raising funds for projects or causes with a large

---

\* Rachitha M V, Student, Department of Information Science and Engineering, T John Institute of Technology, Bengaluru, India. Email: [rachithamakam@gmail.com](mailto:rachithamakam@gmail.com)

group of people online. Individuals or small businesses can take advantage of it to get early-stage support for their ideas.

### Existing System

- Server or cloud-based storage for fund details
- One letter from the hospital is enough to raise funds.
- The amount required for the treatment is decided by the hospital.
- No verification of the fund is required.
- All the collection details are stored with the third-party service provider.
- A third-party service provider also keeps some percentage of the collection or fixed service charges.

### Disadvantages

- Transparency issues
- There is no approximate treatment price.

## 2. Problem Identification

**Frauds:** Charity fraud is the act of using deception to get money from people who believe they are making donations to charities. It also includes businesses accepting donations and not using the money for its intended purposes or soliciting funds under the pretence of need.

**Lack of Transparency and Information:** Transparency will ultimately increase public trust and confidence in the sector by making stakeholders more informed about the work of charities and making it more difficult for people to misuse donors' investments.

**Missing out on Potential Funds:** Disconnection with donors, not providing them with the right information, lack of communication, and not finding out their interest in charity lead to losing donors.

**Spamming and Data Un-hygiene:** irrelevancy, overdoing the campaigning, and inaccuracy in sending email blasts might lead to annoying the donors.

## 3. Objective

The objectives of the proposed work are:

- To develop a secured platform for fund raising.
- To validate the treatment amount using artificial intelligence.
- Blockchain keeps track of donations and transactions.

## 4. Architecture of AI Based Fund Raising Platform

Based on the combination of web and blockchain, the software architecture of the system is divided into three layers: the front-end control layer, the back-end control layer, and the data service layer. In the front-end control layer, different interfaces are displayed to different users through the data service application platform. Users send business requests to the back-end control layer through the front-end controller. In the back-end control layer, the blockchain

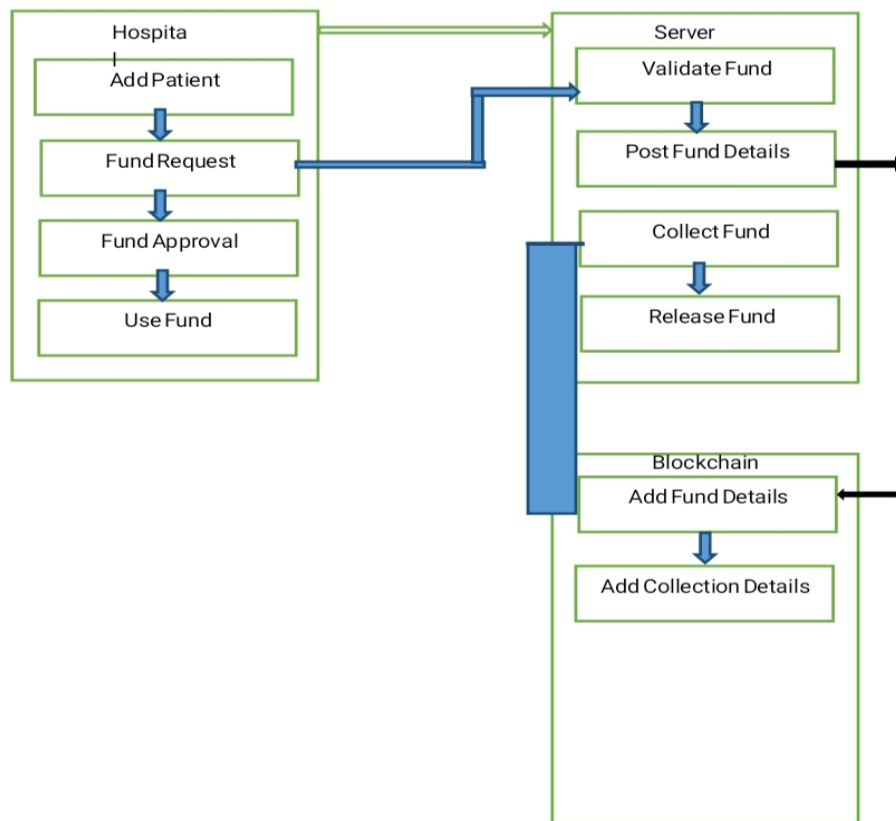


Figure 1. Architecture

business controller and the web service controller respond to user needs and call services. This specific service module can not only accept blockchain services but also be completed by web services, according to the service requirements. In the data service layer, the transaction information on the blockchain can implement the smart contract, the local database data can be recalled and managed, the fund or material transactions of donors are stored on the blockchain, and the local database provides local data queries. In fund management, the substitution of crypto currency for traditional funds can avoid transaction tampering. While the donation project is set up, the system issues tokens and completes the user's rights of token exchange, transfer, and recovery by calling the qualified smart contract on the blockchain. The transaction information is stored in the Merkle tree of the blockchain, and the hash value of the transaction data is stored on the node. Due to the irreversibility and non-conflict of the hash value algorithm, the hash value of each transaction is unique. Firstly, the hash value corresponding to each transaction in the local database is queried, and the smart contract queries the corresponding transaction records and transaction data on the blockchain platform. This two-stage query ensures the accuracy of the data and solves the problems of authenticity and transparency. In materials management, the demand for prevention materials drives manufacturers, suppliers, distributors, retailers, logistics providers, and charity management agencies, The operation of the service system will inevitably bring a large number of complicated, multi-source, heterogeneous data sources. By using a smart contract, we make the data consistent on each node. Only consistent data can be uploaded. At the same time, in order to avoid different formats of data information from different users, the data needs to be judged by communities, and voluntary service agencies to form an integrated functional network chain of disaster relief materials supply. The core of disaster relief material supply

blockchain management is the comprehensive control of goods flow, information flow, logistics, capital flow, etc. The business logic of charity donation material management is recorded on the blockchain in the form of a smart contract. As is typical with the blockchain, users access the network through an online platform or other distributed applications to obtain information on the chain. Based on the alliance chain, the system strengthens the access mechanism and authority control. According to the function and storage node, the system gives different participation rights according to different roles. The operation of the whole chain can promote multi-party participation, data transparency, and traceability.

## 5. Conclusions

We studied the combination of blockchain technology and philanthropy, and a new charity platform model based on blockchain was proposed. In this system, users complete the donation and use the funds with smart contracts. All transactions are recorded on the blockchain to realise the traceability of funds, which increases the transparency of charities. The lack of transparency in charity activities could be solved technically with this blockchain charity system, which could increase the public's trust in charity organisations. Some core components have been realised and verified by a Dapp we have developed. A complete charity system based on blockchain in the future is the next step for us.

## References

1. Mateusz Fedoryszak, Brent Frederick -Real-time Event Detection on Social Data Streams- 2019
2. Faisal Jamil-PetroBlock :A blockchain based payment mechanism for fuelling smart vehicles-2021.
3. Abeer Almaghrabi- Blockchain-based donations traceability framework-2022
4. Hadi Saleh- Platform for tracking donations of charitable foundations based on blockchain technology-2019.
5. Faisal Jamil- A novel medical blockchain model for drug supply chain integrity management in a smart hospital-2019.
6. Zeinab shahbazi- A Framework of vehicular security and demand service prediction based on data analysis integrated with Blockchain approach-2021.
7. Er. Farhana Siddiqui - Transparent and Genuine Charity Tracking System using Blockchain-2022.
8. Dinh C Nguyen-Integration of blockchain and cloud of things: Architecture, applications and challenges-2020