BlockChain powered CryptoCurrency reward system to promote sustainable development

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Assignment -5

Analysis of the suggested solution in terms of technical, economical, social, environmental, political and demographic feasibility

1. Problem Definition

The aim of this project is to employ Blockchain technology to implement a reward based cryptocurrency network, which allows and motivates citizens to achieve sustainable development goals by contributing to their community. This contribution is measured through a proposed community interaction platform

2. Analysis of the suggested solution in terms

● Technical

Our model is basically a blockchain-powered reward system that rewards incentives in the form of Cryptocurrency to buy eco-friendly products. We have created the blockchain using Node JS for a number of reasons:

1. We can easily build front end applications
2. We can create Command Line Interface applications.
3. Furthermore, we can also leverage mobile and desktop applications.
4. We can build safe and secure back-end applications.
5. We can also build any combinations of the above applications.

Web3.js and ethereum.js help us connect our frontend of the application to connect with the Ethereum network and smart contracts. NEO is also used

which is a very fast blockchain that can handle even a few thousands of transactions per second. We also made use of firebase in the backend of our application. So these tools cover the backend.

Coming to the frontend, we are making use of React, which is one of the best open-source front-end JavaScript libraries for building user interfaces or UI components. We have created our website for buying eco-friendly products using the rewarded cryptocurrency using the React.js library.

- **Economical**

  This is a low-cost solution that can gather community members together to solve an issue or a problem that is bothering the people living in the community. This is not a commercialized solution. This is purely a community-based solution that is free of cost for anybody to use. People who contribute to solving the issue are also rewarded in cryptocurrencies using a reward system where the person can be benefited economically where he can buy environmentally friendly products.
  As our solution brings the common public together to solve a problem, the involvement of private enterprises is also reduced which diminishes the cost factor and even though private enterprises are needed compulsorily to solve an issue, the cost factor is split among the community together which reduces the amount each member pays drastically. By this, our solution becomes economically feasible to all the members who are using our service.

- **Social**

Our blockchain application has been designed to give a boost to socially good projects. The quick and inexpensive transfer of cryptocurrency, the transparency associated with it and the increase in trustworthiness due to decentralization are all characteristic features of blockchain.

One example of a blockchain that promotes a socially beneficial project is Poseidon. Poseidon helps to track one's carbon footprint by funding projects by buying their 'carbon credits'. The calculation is that for each metric ton of C02 emission averted, one 'carbon credit' is credited. This acts as an incentive for the projects and has the potential to close emission gaps.

We have used the same idea with our cryptocurrency based platform. We believe that providing incentives, in one way or the other, has the ability to solve issues within communities that are facing problems. Our

blockchain helps by providing people the motive to make an impact in the society and help with socially good projects.

● Environmental

Blockchain based applications can contribute to environmental management in the following areas:

1. Record Keeping - This helps in recording and managing environmental data securely. In an ideal example, if a person has solved an issue relating to the environment, a token can be transferred to record the event and the impact of solving the problem.
2. Transparency - This is a key feature when it comes to accountability in the public sector, and it helps build trust among the people using the application linked to the blockchain.
3. Tokenized Ecosystem - A tokenized ecosystem can help record sustainable behaviour at an individual level, as without it, it would be difficult to track to incentivize without a mechanism that tracks and evaluates behavioural activities. It encourages and rewards sustainable behaviour in the ecosystem.
4. Cost Reduction in Energy Consumption - Blockchain-based applications, such as ours, can be used to improve operational efficiencies. A decentralized system can reduce payments as it removes the need for verification required by institutions such as banks. It could also speed up transactions while lowering the chances of fraud or data mismanagement.

● Political and demographic feasibility

Our suggested solution not only talks about the general feasibility but also about the demographic feasibility as we have our application oriented towards the general population and a particular group of population. For example: Someone within our blockchain community application might have a very simple doubt in English grammar. At the same time, someone might have a doubt in what is the use of Docker or React.js, and they might belong to the techie group of population.
Now, talking about the Political feasibility, We have end-to-end encryption with Google Authentication (OAuth 2.0) which is the best in the market as of now popularly known for its 5 layer security protocols, A bonus feature that is automatically scaling the application because we are using cloud based Baas as well.

References

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