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CIRCLE SOCIAL

a social media spot where you can vibe with like-minded peeps without censorship or privacy drama! 🤟

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OF MAJOR PROJECT

BACHELOR OF TECHNOLOGY

CSE

SUBMITTED BY

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INTRODUCTION

Welcome to Circle Social: Empowering Communities in a Decentralized World

At Circle Social, we believe in the power of communities and the freedom to express oneself without fear of censorship. Our next-generation social media platform is built on the principles of decentralization and user empowerment, striving to create a space where communities can thrive without the limitations imposed by centralized authorities.

The Lens Protocol: A Gateway to Censorship-Resistance

Central to Circle Social's mission is the Lens Protocol, a revolutionary system designed to foster a censorship-resistant environment. The Lens Protocol serves as the backbone of our platform, empowering users to engage in open and unrestricted conversations. Say goodbye to the constraints of traditional social media; Circle Social is committed to providing a truly free and open space for all.

Blockchain Technology: Decentralization at its Core

To ensure the integrity of our platform, Circle Social leverages cutting-edge blockchain technology. This decentralized approach not only enhances security but also gives users greater control over their data. With Circle Social, you own your content, and the power lies in your hands.

Seamless User Experience with Modern Web Development Frameworks

We understand the importance of a user-friendly interface, and that's why we've employed modern web development frameworks to provide a seamless experience. Circle Social combines the robustness of blockchain with intuitive design, making navigation effortless and interactions enjoyable.

Key Features of Circle Social:

1. Community Empowerment: Build and nurture communities without fear of censorship, fostering organic growth and genuine connections.
2. User Ownership: Take control of your data and content. Circle Social is designed to prioritize your privacy and digital ownership.
3. Censorship-Resistance: The Lens Protocol ensures that your voice is heard, promoting an environment free from undue restrictions.
4. Blockchain Security: Benefit from the enhanced security and transparency that blockchain technology brings to the forefront.
5. Intuitive Design: Experience a user-friendly interface that combines the power of decentralization with the ease of modern web development.

Literature Review

For our literature search, we followed the recommendations by vom Brocke et al. (2015). We adopted these guidelines as they provide distinct steps for bibliographic methods and help to build a theoretical foundation for an emerging research field (Webster and Watson 2002). The research aim is to mark a first step towards identifying the socio-technical dimensions of decentralised social media. In accordance with the research question, we proceeded sequentially, following the steps of (1) searching,
(2) analysing and synthesising, followed by (3) writing

Only few disciplines have investigated decentralised social media. For this paper, we use IS outlets as a starting point to understand to what extent IS researchers have engaged with the subject under study. The literature search, in line with the scoping review approach, focused on a comprehensive coverage, meaning that we intended to identify as many relevant articles as possible. To achieve this, we followed a keyword search across titles, keywords, and abstracts but limited the timeframe to papers published later than 2013. Removing the time constraint yielded in too many unwanted hits as “decentralisation” at the time often referred to social media in general

We decided to include bibliographic databases specified to journals and conference proceedings because n fastmoving fields such as IS, conferences are crucial in the research dissemination process. Consequently, we selected basket “M” on litbaskets.io, which covers 51 journals relevant for IS (Boell and Wang 2019). In addition, we included the Association for Information Systems eLibrary (AISeL) database and limited the search to conferences. We defined the initial keywords by scanning the existing literature using the database Scopus. The preidentified keywords resulted in the following search string: (“decentra* AND "social media" AND "social network"). As suggested by vom Brocke et al. (2015), we were open to add keywords and adjust the search string over the course of our literature search. In a first iteration, we tested the same search query but with an OR operator between “social media” and “social network”. However, the results produced too many unwanted hits (e.g., involving all sorts of social media research), which made the dataset unmanageable. Therefore, we decided to narrow down the search string. Table 1 provides an overview of the chosen approach for the literature search

Rationale

In recent years, the landscape of social media has been marred by rising concerns surrounding data privacy, content censorship, and user exploitation within centralized platforms. Recognizing the need for a transformative solution, Circle Social has emerged with a clear mission to empower users and address the challenges plaguing traditional social media platforms.

Growing Concerns in Centralized Platforms:

1. Data Privacy: Centralized platforms have faced criticism for their handling of user data. Instances of data breaches and unauthorized sharing have eroded trust, leaving users vulnerable to privacy infringements.
2. Content Censorship: Centralized platforms often enforce restrictive content policies, limiting the free expression of ideas. Users find themselves subject to arbitrary censorship, hindering the organic growth of communities.
3. User Exploitation: The business models of centralized platforms often rely on the extensive collection and monetization of user data. This creates an environment where users become commodities, with their preferences and behaviors exploited for financial gain

Objectives

- To develop a decentralized social media platform.
- To enhance user privacy and control.
- To foster community-driven content and interaction.
- User Education and Empowerment
- Continuous Innovation and Adaptation:

Methodology / Planning of Work

1. Project Initiation:
   - Define Objectives and Scope: Clearly articulate the objectives of developing Circle Social and establish the scope of the project, including key features and functionalities.
   - Team Formation: Assemble a cross-functional team comprising blockchain developers, web developers, UX/UI designers, and experts in decentralized technologies.
2. Research and Requirements Gathering:
   - Qualitative Research: Conduct interviews and surveys to understand user preferences, pain points with current social media platforms, and expectations from a decentralized alternative.
   - Quantitative Analysis: Utilize data analytics tools to gather quantitative insights into user behaviors, market trends, and preferences.
   - Blockchain Simulations: Use blockchain simulators to model and analyze the performance, scalability, and security aspects of the proposed decentralized architecture.
3. Blockchain Integration:
   - Selecting Blockchain Technology: Evaluate and choose a suitable blockchain technology based on scalability, security, and consensus mechanisms.

- Smart Contract Development: Develop smart contracts to manage decentralized data storage, user authentication, and other critical functionalities.
- Integration Testing: Rigorous testing of the blockchain integration to ensure seamless interoperability with the overall platform.

4. Web Development Frameworks:
   - Choosing Frameworks: Select modern web development frameworks such as React, Angular, or Vue.js for building the user interface.
   - Responsive Design: Implement responsive design principles to ensure a consistent and user-friendly experience across various devices.
   - User Testing: Conduct user testing throughout the development process to gather feedback and make iterative improvements.
5. Privacy and Security Implementation:
   - Encryption: Implement end-to-end encryption to safeguard user data and communications.
   - Privacy by Design: Integrate privacy-centric features into the platform architecture, ensuring that user privacy is a core consideration in every aspect of development.
   - Security Audits: Conduct regular security audits to identify and address potential vulnerabilities in both the blockchain and web development components

Facilities Required for Proposed Work

- Blockchain Development Tools
- Web Development Suite
- Testing Frameworks
- Collaboration and Communication Tools
- Security and Privacy Tools
- User Testing Platforms

Expected Outcomes

The project aims to successfully develop a functional prototype of Circle Social, showcasing the benefits of decentralization in social media.

Specifications for Synopsis

- Typed in English (British), Font: Times Roman, Size: 12 point, Heading: 14 point bold, Sub-heading: 12 point normal.
- Typed on one side only with specified margins.
- Includes title page, content, and necessary diagrams and tables with appropriate captions.