Impact of Blockchain on Social Networking Sites

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Abstract- Social media is evolving, and so is the technology that enables it. What was once primarily used to connect with people has morphed into a platform for sharing opinions, marketing businesses, launching campaigns, and offering new and creative career opportunities. Blockchain social media, with its decentralized and distributed networks, offers a plausible solution to such issues. Among other things, they enable users to assert greater control over their data. Moreover, in the absence of any centralized authority, users on these networks benefit from greater privacy. In turn, this upholds the freedom of speech and expression, relieving users of the miseries of being prosecuted for their thoughts on social media. Most decentralized social media platforms also enable their users to earn cryptocurrencies upon posting and interacting. However, despite the many benefits, such uncensored platforms are rife with opportunities for criminal activities, which undermine the purpose of ensuring freedom. That said, regulations may be necessary to ensure that decentralized blockchain social media's ideals are actualized to provide benefits and not harm.

In all, this domain's prospects are diverse and with proper handling, these may transform the way we interact on the internet. This research paper will explore the advantages and disadvantages of blockchain technology in general. It will also explore the pros and cons of blockchain with relation to social media and in particular social networking sites.

I. INTRODUCTION

A blockchain is a distributed database or ledger that is shared among the nodes of a computer network. As a database, a blockchain stores information electronically in digital format. Blockchains are best known for their crucial role in cryptocurrency systems, such as Bitcoin, for maintaining a secure and decentralised record of transactions.

In simplest terms, a blockchain is a chain consisting of blocks of information. Blockchain technology enables the secure sharing of digital assets over a peer-to- peer network, where the files are stored within the nodes present on a network.

A simple analogy for how blockchain technology operates can be compared to how a Google Docs document works. When you create a Google Doc and share it with a group of people, the document is simply distributed instead of copied or transferred. This creates a decentralised distribution chain that gives everyone access to the base document at the same time. No one is locked out awaiting changes from another party, while all modifications to the document are being recorded in real-time, making changes completely transparent. A significant gap to note however is that unlike Google Docs, original content and data on the blockchain cannot be modified once written, adding to its level of security.

The distribution of data across several nodes is what makes blockchain distributed or decentralised ledger technology. Being a P2P technology, it eliminates third-party involvement. The data is secure, distributed along with several nodes, and immutable. These features make blockchain a suitable choice for many areas that influence human lives, especially social media, as we will discuss.

Blockchain is one technology that is definitely worth keeping an eye on. The pace at which it is evolving and the scale at which it is transforming conventional processes makes it a force to be reckoned with.

- General objective of study

The purpose of this paper is to explore the impact of blockchain

- Specific objective of study

The purpose of this paper is to explore the impact of blockchain-based social media platforms on social networking sites

Research questions

- To evaluate the future of blockchain
- What is the Impact of blockchain on social networking sites
- What are the future opportunities of growth in relation to blockchain usage in social media

- Significance of study

Blockchain technology has significant potential to transform various industries and processes by providing several key benefits. Here are some of the significant advantages of blockchain technology:

Decentralisation: One of the most significant benefits of blockchain technology is its ability to enable decentralised networks. Unlike traditional centralised networks, where data is stored in a single location and controlled by a single entity, blockchain networks are decentralised and distributed, making them more resilient and less vulnerable to single points of failure or attack.

Security: Blockchain technology provides high levels of security through cryptographic algorithms, making it almost impossible to alter or tamper with data once it has been recorded in the blockchain. This makes it an ideal solution for storing sensitive data, such as financial records or personal information.

Transparency: The decentralised nature of blockchain technology provides a high degree of transparency, making it easy to trace the flow of information or assets across the network. This transparency can enhance accountability and improve trust among network participants.

Efficiency: Blockchain technology can automate and streamline various processes, reducing the need for intermediaries and improving efficiency. This can lead to cost savings and faster transaction processing times.

Immutable records: The records stored on a blockchain are tamper-proof and cannot be deleted or modified, making it an ideal solution for industries where data integrity is critical, such as supply chain management, voting systems, and medical records.

Overall, the significance of blockchain technology lies in its ability to provide secure, decentralised, and transparent networks that can transform various industries and processes. By leveraging the benefits of blockchain technology, we can create more efficient, secure, and trustworthy systems that enhance innovation, trust, and collaboration.

- Limitations of the study

Technologically advanced and can not be used by the general public in ease

Only secondary research can be used since it is very technical and thus primary research can not be used The negative impacts of blockchain have to be overcome in order for the growth of blockchain

- Presence of innumerable bots

Bots are a common source of trouble in both centralised and decentralised social media networks. In a blockchain social network, bots can alter the reward system. They can be used to maliciously extract rewards and value from the platform.

- Environmental consequences of mining

Running hashing (coding) algorithms on the blockchain requires high computing power. This process is called mining. Mining requires specialised hardware that becomes obsolete in around 18 months. Apart from e-waste, mining also requires extensive power consumption. Therefore, the long-term use of blockchain social networks could prove ecologically harmful.

However, developers are busy working towards more energy-efficient alternatives. Examples include Cardano and Polkadot blockchain platforms. These are highly scalable and far more efficient compared to the mainstream networks like Bitcoin and Ethereum.

- Low scalability

Blockchain social media falls short when it comes to scalability. At any given moment the infrastructure might be unable to keep hold of billions of profiles. Users

would quickly doubt the reliability of the platform, leading to mass dissatisfaction.

In addition, the decision to invest in blockchain social media is a significant one for any organisation. If the scalability is low, no organisation will dare to invest, and the platform will have to bear the losses. However, it's expected that this problem will be solved by next-generation blockchains.

- Complexities of adopting new technology

Users of blockchain social media need thorough knowledge and practical training to understand and use the technology. In contrast, the traditional centralised social media networks have now gained widespread adoption and present a user-friendly interface.

The complexity of blockchain technology might pose a serious barrier to the adoption of blockchain social media networks. Nonetheless, companies can turn to blockchain professionals who have been honing their skills for years and are ready to simplify blockchain for new adopters.

Undoubtedly, new technology brings new hurdles. Blockchain social media promises to solve most of the issues related to the traditional centralised social media networks. But if it is misused, its own set of shortcomings becomes apparent. For instance, by taking advantage of the freedom offered, users may post inaccurate or offensive information which will remain on the blockchain network forever.

- Scope of the study

Social networks: the current landscape

Of the 4.66 billion active internet users worldwide, close to 4.2 billion users leverage social media, according to data from January 2021. Social media is undeniably the pivot of the internet, having a tremendous impact on our daily lives.

According to the Social Media Global Market Report 2021, the social media market is expected to grow from $102.62 billion in 2021 to $308.96 billion in 2025, exhibiting a 32% growth.

Factors that have been fuelling the growth of the social media market include:

- Increased internet and smartphone penetration
- Availability of structured user analytics for business marketing
- Increasing adoption of eCommerce and online shopping
- More engaging content on social media platforms
- Investments in AI, big data, and real-time analytics technology
- Easy access to cloud computing solutions for individuals through SaaS

Research suggests that North America is becoming the new hotspot in the social media analytics market. This is attributed to its consistent investment in technologies like big data and real-time analytics.

To date, Facebook, Youtube, Instagram, Twitter, and LinkedIn have dominated the social media market. The revenue model of these applications is either advertising (targeted promotions) or subscriptions. Additionally, some applications like Facebook and Instagram allow in-app shopping or eCommerce.

To provide users with "personalised feeds" and the right set of targeted ads, these platforms continually track users' activities, as well as collect data to analyse it. The social media networks that store all users' information in a single central server are known as "centralised social networks."

- What is blockchain social media?

Blockchain technology, based on a distributed ledger system, is decentralised to its very core. In blockchain social media, all user activities get irreversibly stored in a decentralised blockchain network, encrypted from end to end. This network of servers comprises the devices of every single social media user on the blockchain. Therefore, the greater the number of users, the higher the data-holding capacity of the network.

All blockchain social media networks fall under the decentralised social media category. Unlike centralised social media, where companies store data in a central server, a decentralised social network uses a distributed ledger system to store the data.

No proprietary or central authority holds any data in this system. Data gets homogeneously stored across each node of the network. Therefore, users benefit from freedom of speech as well as better privacy and control over their information.

Several decentralised social networks can form a fediverse – a collection of interconnected servers used for social networking and online activities such as web publishing or blogging. Federated networks allow users to engage across platforms. Examples of decentralised networks include Mastodon and Steemit.

- How does blockchain transform social media?

Broadly speaking, blockchain addresses two essential shortcomings of the centralised social media network – transparency and data security. Blockchain's peer-to-peer architecture helps users maintain higher accountability for their activities over the internet. Users cannot access information stored in the decentralized space without proper authorization. This means identity theft or data breaches are almost impossible over a blockchain social media system.

Moreover, decentralized networks can also address fake content, spambots, and fraudulent ad impressions. This is why blockchain challenges the traditional social media networks to restructure their data policy, content sharing algorithms, user authentication systems, and payment methods. Some common examples of blockchain social media include Steemit, Diaspora, SocialX, All.me, Earn, and Minds.

So, since blockchain has an impact on the global economy, how does it affect social media advertising?

- More Transparency with Blockchain Technology in Social Media Marketing

The intricacy of digital marketing has increased. Social media marketers have been debating how to best validate their data. This is largely due to the increased complexity of social media marketing. For many years, social media marketers have relied on third-party solutions to validate data. The ability to confirm one's own data is one of the consequences of blockchain on social networking. Essentially, this is what social media marketers refer to as first-party verification.

- Blockchain in Social Media Allows for Direct-to-Consumer Digital Marketing

It is not feasible to replicate or change information using blockchain technology. The decentralized system ensures that the data is secure. One surprise for digital marketers is that it eliminates the need for middlemen. The elimination of the necessity for middlemen represents a dramatic transformation of the social media marketing sector. Have you recently used Google Search or logged into Facebook? When you do one of these two things, your data is collected and made available to advertising. These two platforms make money through the advertisements that appear on their platforms. Blockchain technology, on the other hand, prioritizes search data privacy.

- Blockchain enables the creation of consumer profiles directly from customers, resulting in better targeting.

Professionals involved in consumer behavior monitoring will be able to obtain all of the information they require in one location.

With data decentralization, there will be multiple sources of customer information. As previously said, there is a higher level of precision. Second, targeting is more effective since we have all of the necessary information in one place.

Blockchain technology is having an impact on industries other than banking. The global economy is still feeling the effects, with numerous industries being affected. There have been complaints of a lack of transparency in the advertising sector.

Traditional marketing has utilized bots and users to click on adverts to enhance statistics. As a result of the inaccuracy, the advertising fail to earn the expected revenue. Blockchain will put a stop to this.

Furthermore, blockchain-based social media marketing will provide direct consumer marketing. This means that firms' campaigns will directly target potential customers. They will have a larger ROI in the end because they target high-potential clients.

- Benefits for social media business owners

By simply endorsing blockchain and cryptocurrencies and publicly announcing their support of the uprising technology, companies can increase revenues. The hype surrounding decentralized solutions, DeFi, and NFTs strongly impacts the investors' and the users' perception.

Social media owners usually gain profits from showing advertisements to their users. They collect information about them to create targeted ads and may also sell this information to third-party service providers. The information is often collected from disparate sources, while blockchain technology can allow to build client profiles and incentivize users to share their information. This means accurate data for targeted advertising.

The major driving force for increased revenues in blockchain social media are tokenized economies. Aside from holding monetary value and allowing users to pay for services, tokens can create much more monetization channels.

Blockchain social networks powered by cryptocurrency tokens create a system where users are rewarded for their contributions. It maximizes engagement and increases the value of the token itself, empowering the platform's economy and putting more money in the pockets of business owners. New revenue streams can be created from embedding the token with additional functionality and perks like providing access to exclusive content.

- Blockchain social media :Pros

Blockchain social media offers a cogent solution, dealing with the full spectrum of worries related to centralized social media. Now we'll look at the key benefits of adopting blockchain in social media networks:

- Protection from user commodification

Owing to the absence of a third-party central authority or company, it becomes impossible to collect and use personal information without consent. End-to-end encryption through private and public keys for transactions ensures that data is accessible only to the parties involved. All data gets stored in separate blocks as unique immutable hash (code), which rules out any possibility of a data breach, identity theft, and user commodification.

- Freedom from censorship

At present, the tech giants control the flow of content on social media, dampening freedom of speech and expression among the users. Decentralized social networks offer a censor-free platform, reinstating this precious freedom. Users can freely share their opinions with a chosen audience without fear of any blocking, detention, or personal risk.

- Enhanced control and security

Blockchain and open source social networks allow users to access and control the algorithms behind features and functionality. Specific information can be sourced by modifying the algorithm or self-hosting on any platform. The same methods will allow users to reach a targeted audience.

Users can control feeds without letting a third party decide for them. Also, all their data gets stored in a decentralized network of servers. No one can access such data without authentication. This ensures the highest standards of safety for the sensitive information of every user.

- Boost to social commerce

Blockchain social media can swiftly begin to nurture a fruitful environment for social commerce. Rewarding the content creators becomes easy with the native cryptocurrency. Also, websites can reward creators in the form of cashback. This move can boost the earnings of small-scale proprietors in the years to come.

- Opportunity for crowdfunding

With improved and targeted controls, users can undertake crowdfunding campaigns using tokens. Blockchain social networks also allow peer-to-peer

fund transactions. Users will have confidence in using these platforms for payments and transfers, given the high level of security offered.

Blockchain-powered crowdfunding is known to be very successful, with multiple ICOs, STOs, and token distribution through liquidity mining generating millions of dollars. Investors often receive special privileges for contributing their funds like an ability to take part in governance or gain proceeds from every transaction made by users.

- New opportunities behind blockchain social media

The blockchain social network has opened up endless opportunities. Currently, most of the decentralized social networking applications are just analogs of social media sites that already exist. However, decentralized platforms such as Ethereum now encourage ideas for unique and targeted social networking applications.

Blockchain social media promotes a reward-based business model where creators earn the native currency for uploading engaging content. For example, Indorse is a Linkedin-like decentralized application that rewards users for their professional abilities after verifying their skills. These applications employ an internal rewards system, using tokens to incentivize participants to actively post content on the application and endorse other users' content.

Applications raise money by selling tokens on the crypto exchange through security token offerings and liquidity farming. Some applications also sell ad spaces to advertisers who purchase these tokens.

- The Top Blockchain Social Networks

These blockchain-powered decentralized applications are laying the foundations for the future evolution of the new and improved social media landscape. Interestingly, Twitter has started working towards the launch of its own decentralized web ecosystem called Bluesky.

Decentralized blockchain-backed social media networks are offering welcome relief from many data-related anxieties of traditional social networks. Users gain full control of their content and are rewarded monetarily in order to encourage engagement and participation. Ultimately, this leads to more engaging content, highly personalized feeds, and targeted advertisements which make the social platform more valuable and lucrative. Blockchain-powered social media offers a diverse variety of monetization tools and allows to create more revenue-generating channels. Users make contributions, promote and monetize their content through tokens, and receive rewards for their contributions. This drives the social network's tokenized economy, making more money for business owners. In addition, crowdfunding campaigns open up the doors for high-end investors and also provide an easy income.

Having discussed the need for decentralized social media platforms instead of centralized platforms, we will explore some of the popular social media networks powered by blockchain.

- Diaspora

With millions of users, Diaspora is another popular blockchain social media platform. It is an "online social world where you are in control." It allows users to join, host and interact in pods of their choice.

Moreover, users in the Diaspora 'community,' as they call it, can follow hashtags, just like traditional social media platforms.

Concerning its functionality and structure, Diaspora is based on three pillars.

- Decentralization – The 'pods' of the network are the distributed servers independently owned and run. It ensures that the system is truly decentralized, and none of the data is stored on a central server.
- Freedom – For participating in the Diaspora community, users do not need to reveal their true identity. Disclosing personal information such as contact number is also a choice of the user. Apart from being free-to-use, the software allows absolute freedom to its users to interact as they choose.
- **Privacy –** 'Aspect,' a unique Diaspora feature, enables users to fully control their data and share

it upon their sole discretion. Moreover, while signing up for the community, users don't sign off their data rights, either to Diaspora or to any other third party.

- Minds

This zero-censorship network is one of those few revolutionary digital platforms where the user owns absolutely all of their data.

Moreover, the platform is fully open-source, offering users heightened flexibility and enabling them to leverage the platform entirely in sync with their specific needs. The platform provides all of the now-popular features of applications such as Facebook, YouTube, Twitter, and more.

Being an advocate of freedom of speech and expression, the platform enjoys a rapidly growing popularity. Consequently, its user base has already accumulated over 2 million.

- All. me

It is a one-of-its-kind Blockchain social media platform, in the sense that it offers a full scape social network functionality, coupled with a revenue system.

A multi-layered application, All.me is based on four major components:

- meNetwork – All. me's core social media platform allows users to interact over a distributed network. In terms of content, this social media is like Instagram or Pinterest, where users usually post images.
- meMarket – It is a distributed marketplace that allows users to sell products on their profile or buy items from their newsfeed, in exchange for the ME token.
- mePay – An integral part of the All.me network is the in-built payment protocol, allowing users to transfer funds for commerce and other purposes.
- meToken – It is the network's native cryptocurrency, which the users have to use for transactions on the platform.
- Steemit social media with reward system

Steemit is an incentive-based, peer-to-peer social media network. The network monetizes and rewards content publishers with cryptos. They follow a points-based system, with points earned for:

- Publishing, voting and curating content
- Purchasing STEEM tokens for Bitcoin or Ethereum in crypto exchanges
- Powering up the crypto social network

This crypto social media network deploys a user-verification process before letting users register themselves.

- Indorse social network for business

Indorse is a Linkedin-like Ethereum-based social media network that rewards users who endorse and prove their skills on the platform. It uses a decentralized verification process to corroborate the skills. IND tokens form the incentive for activities on the network.

Indorse also adheres to protocols like InterPlanetary File System (IPFS), BigchainDB, and more. Advertisers purchase space for their ads using IND Tokens (bought through an exchange). Indorse shares a proportion of these IND tokens with the members who create content.

- Sola social network for creators

Unlike other decentralized social networks, Sola uses a combination of blockchain and artificial intelligence to make users' content go viral. The revenue model of Sola includes ads, user payments, and partnerships, which they share with the users. It uses the SOL crypto token.

This social network has iOS and Android mobile applications, alongside its web application. They have also released an API, which developers can use to build their applications around Sola.

- Vevue video sharing platform

Vevue is a blockchain-powered social platform that rewards users for their authentic creativity. They use VUE tokens to reward users who participate and who curate engaging content. Vevue differentiates itself from the traditional social media applications that are

overflowing with repetitive or fake content. It uses the transparency and accessibility of blockchain technology to define the future of social media where every user gets paid for creating new and authentic videos.

II. REVIEW OF LITERATURE

Authors: YuanzhuZhana,YuXiong, XinjieXing Title of study: A conceptual model and case study of blockchain-enabled social media platform Develops a crypto economy model for blockchain-enabled social media (BSM).

Illustrates the successful business strategy and operations of BSM firms.

Uses case evidence to support firms developing structures and harvesting values. Highlights the implications of BSM based on agency theory.

Authors: Xinke Li, Piang-or Loahavilai, Nathee Naktnasukanjin

Title of study: A social media platform using blockchain technology: Topic analysis and sentiment analysis of steemit user-generated content

The "blockchain + media" model is showing great vitality. In this paper, we study the detection of the most common topics in Steemit. Compared to the currently popular centralized online social media, the blockchain-based decentralized online social media platform presents a different business model, and thus different or platform-specific topics emerge. We extract knowledge from content posted on Steemit, using NLP term frequency and topic modeling techniques combined with sentiment analysis theory, with the aim of studying the topic preferences and sentiment preferences of user-generated content. Our research will provide a more comprehensive understanding of identified themes and detect strategies adopted by users to add value to user-created content; provide guidance for business model improvements; and enrich existing interdisciplinary research.

Authors: T. Poongodi, Suja Radha, D. Sumathi, P. Suresh, Balamurugan Balamurugan

Title of study: Blockchain in social networking Since the last decade, the social media platform has served as an entry point for establishing connections, content sharing and social interactions for many users. Exploiting customer's information is very prevalent nowadays by gaining insight into user's habits, preferences, connections, behaviors, content and location. Logging into a social media website paves the way to becoming a target of marketing campaigns for advertising. Primarily, most social media sites available today are centralized and provide opportunities for exploiting the user's content well. Privacy and data security are of great concern in social media platforms. Blockchain, with distributed ledger and decentralized concept, secures users' content by encrypting it. The social media platforms such as Whatsapp, iMessage, Signal, Wire, Threema, etc., follow end-to-end encryption for security. A problem occurs when metadata is exchanged along with messages, thereby providing an opportunity for third parties to steal the user's personal details. Blockchain-based social media provide more benefits than just security and privacy: Cryptocurrencies are used for secure communication by paying and buying content in peer-to-peer marketing. Blockchain assists in gaining control over the user's own content. A decentralized approach to blockchain technology in social networking ensures privacy and enables e-commerce, crowdfunding transactions as well as smart apps and contracts. Nowadays, the digital social network media platforms, such as Facebook, LinkedIn, Instagram, Twitter, Reddit, etc., provide free access. Obviously, development and server infrastructures are vital to social networking platforms and their profit focuses on advertising and analytics in the social network business era. The fundamental problems facing social networking includes fake news (Facebook), excessive trolling (Twitter), censorship and demonetization (YouTube).

Authors: Mahamat Ali Hisseine, Deji Chen, Xiao Jang

Title of study:The Application of Blockchain in Social Media: A Systematic Literature Review Social media has transformed the mode of communication globally by providing an extensive system for

exchanging ideas, initiating business contracts, and proposing new professional ideas. However, there are many limitations to the use of social media, such as misinformation, lack of effective content moderation, digital piracy, data breaches, identity fraud, and fake news. In order to address these limitations, several studies have introduced the application of Blockchain technology in social media. Blockchains can provides transparency, traceability, tamper-proofing, confidentiality, security, information control, and supervision. This paper is a systematic literature review of papers covering the application of Blockchain technology in social media. To the best of our knowledge, this is the first systematic literature review that elucidates the combination of Blockchain and social media. Using several electronic databases, 42 related papers were reviewed. Our findings show that previous studies on the applications of Blockchain in social media are focused mainly on blocking fake news and enhancing data privacy. Research in this domain began in 2017. This review additionally discusses several challenges in applying Blockchain technologies in social media contexts, and proposes alternative ideas for future implementation and research.

History and Background of the study Blockchain technology has undergone a significant evolution since its inception in 2008 with the release of the Bitcoin whitepaper by Satoshi Nakamoto. Here is a brief overview of the different stages of blockchain evolution:

First Generation Blockchain: Bitcoin - The first generation of blockchain technology was primarily focused on the creation of digital currencies such as Bitcoin. These early blockchain networks were designed to provide a decentralized and secure way to transfer value without relying on central authorities.

Second Generation Blockchain: Ethereum - The second generation of blockchain technology emerged with the development of Ethereum in 2015. Ethereum introduced the concept of smart contracts, which are self-executing contracts with the terms of the agreement between buyer and seller being directly written into lines of code. This allowed for the creation of decentralized applications (dApps) that could run on the blockchain.

Third Generation Blockchain: Scalability and Interoperability - The third generation of blockchain technology is focused on addressing the scalability and interoperability issues faced by earlier blockchain networks. Projects such as Polkadot and Cosmos are aiming to create a blockchain infrastructure that can support the creation of interconnected blockchain networks, allowing for greater scalability, interoperability, and efficiency.

Fourth Generation Blockchain: Blockchain 3.0 - The fourth generation of blockchain technology is still in its early stages of development, but it is expected to introduce new features such as quantum resistance, privacy protection, and self-governance. Projects such as Cardano and Algorand are working on developing new blockchain protocols that can support these features.

Blockchain technology has the potential to transform the social media industry by improving transparency, privacy, and security. Here is a brief overview of the evolution of blockchain in social media:

Early adoption: Steemit - The first major blockchain-based social media platform was Steemit, launched in 2016. Steemit used blockchain technology to create a decentralized social network that rewarded users with cryptocurrency for creating and curating content.

Content creation and monetization: Minds and Voice - Since then, several other blockchain-based social media platforms have emerged, such as Minds and Voice. These platforms allow users to create and monetize content without relying on centralized social media networks. They also use blockchain technology to ensure greater privacy and security for users.

Privacy-focused social media: Sapien and Obsidian - Some blockchain-based social media platforms, such as Sapien and Obsidian, are focused on providing users with greater privacy and control over their data. They use decentralized storage and encryption to protect user data, and allow users to earn cryptocurrency by participating in the platform.

Decentralized social media infrastructure: Hilo and SocialX - A new wave of blockchain-based social media projects, such as Hilo and SocialX, are focused on creating decentralized social media infrastructure. These platforms aim to provide a decentralized alternative to centralized social media giants like Facebook and Twitter, allowing users to connect and share information without being subject to the policies and restrictions of a centralized platform.

Overall, the evolution of blockchain in social media is still in its early stages, but there is a growing interest in using blockchain technology to create decentralized, user-centric social networks that prioritize privacy, security, and transparency. As blockchain technology continues to develop and mature, we can expect to see more innovative use cases and applications emerge in the social media industry.

III. RESEARCH METHODOLOGY

Research methodology applied in your study: Primary research through questionnaire as it allows you to find out information such as facts, attitudes and opinions. They are a simple way to gather short responses to questions from people. Questionnaires are less time consuming than interviews and can easily be kept anonymous.

Secondary research due to lack of technological knowledge to conduct primary research which includes:

- Internet websites
- Newspapers and magazine articles
- Social sites
- Research journals

Qualitative research based on other research papers related to Blockchain in social media as the research is concerned with understanding human behaviour from the informant's perspective. It assumes a dynamic and negotiated reality.

Qauntitative research based on the questionnaire made. It aims to understand the attitudes and opinions of people regarding Blockchain and its future.

- Sample selection

The sample selected were mainly students as we want to understand the opinion and attitudes of young people towards blockchain and blockchain-based social media. The sample size was 100.

- Limitations

Lack of quick access to information: The research involved extensive reading of theoretical concepts and thorough knowledge of the organizations.

But the information was not easily available and thus required a lot of reading and sorting. Information had to be gathered from various sources, which consumed a lot of time.

Time constraints: Since this research was to be completed within a set deadline, it suffered from time constraints. Evidently, more time would have resulted in more effectiveness of the research.

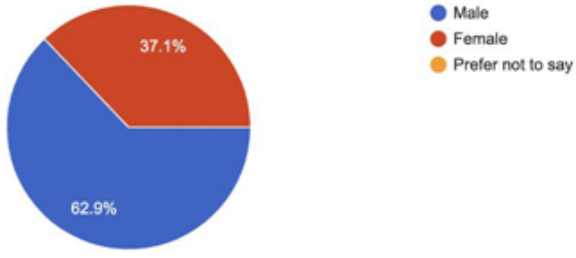
Difficult to gain an in-depth response from questionnaires and they are not as flexible as interviews.

IV. DATA ANALYSIS

A data analysis was conducted through a questionnaire to find out facts, attitudes and opinions of people about blockchain and blockchain-based social media.

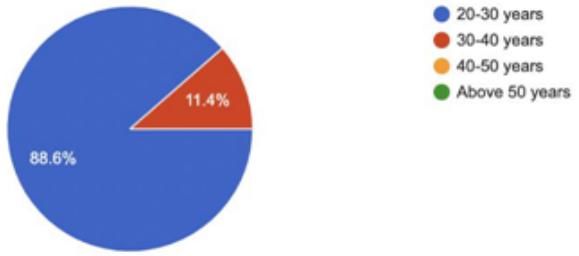
Chart 4: Demographic

Chart 4.1.1- Age of participants



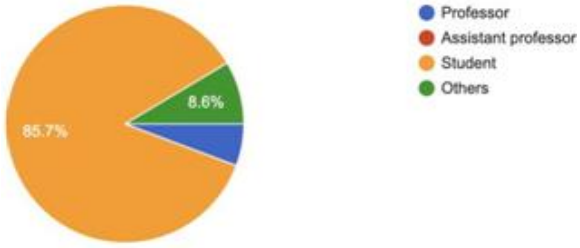
Inference: The chart shows that 88.6% of participants were between the age of 20-30 years and 11.4% were between 30-40 years old which shows that younger people have a higher knowledge about blockchain.

Chart 4.1.2 - Gender of participants



Inference: The chart shows that there were higher males than females by 25.8%

Chart 4.1.3 - Occupation of participants



Inference - The chart shows that a vast majority of participants were students by 85.7%, followed by others by 8.6% and professors by 5.7%

Chart 4.2 - Chart showing how often people use blockchain tools

Inference - The chart shows that highest number of people use it occasionally, flooded by never and partially, and the lowest number of people use it always.

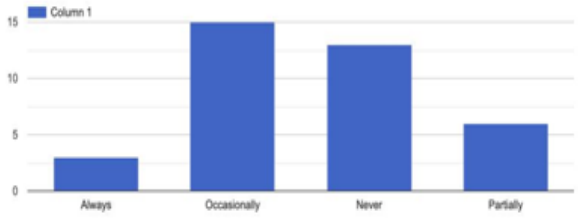


Chart 4.3 - Chart showing on a scale of 1- 5, how people would rate the importance of blockchain in their day to day activities

Inference: The chart shows that the highest number of people rate the importance of blockchain as a 4 followed by a 3, and the lowest number of people rated it at a 1 which shows that people believe blockchain is important and could be more of use in the future with more understanding of it.

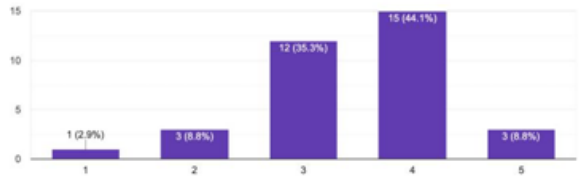
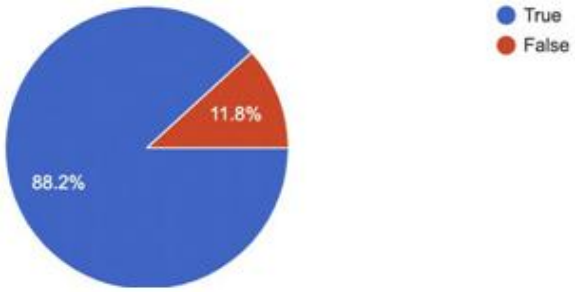
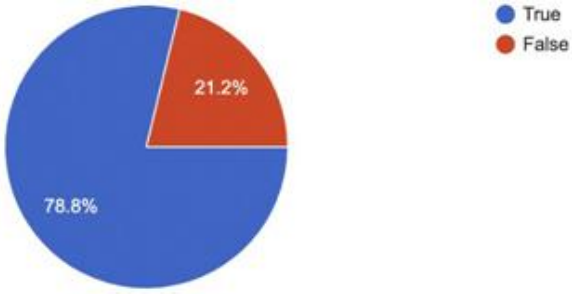


Chart 4.4 - Chart showing whether people agree that "Blockchain technology is an advanced database mechanism that allows transparent information sharing within a business network."



Inference: The chart shows that the majority of people think the statement is true with 88.2% of people agreeing to the statement which could be due peoples willingness to adopting new technology and blockchain and 11.8% disagreeing to the statement.

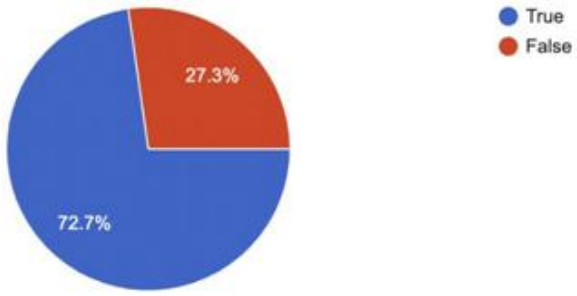
Chart 4.5 - Chart showing whether people agree that "Blockchain allows businesses to accept new form of payment, perform smart contracts, streamlines supply chain operations and more."



Inference: The chart shows that the majority of people think the statement is true with 78.8% of

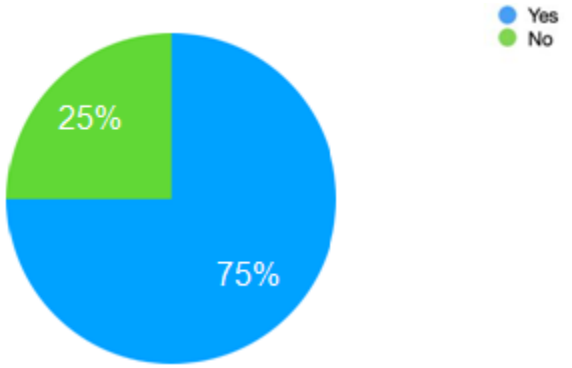
people agreeing to the statement and 21.2% disagreeing to the statement.

Chart 4.6 - Chart showing whether people agree that Educational institutions use this technology.



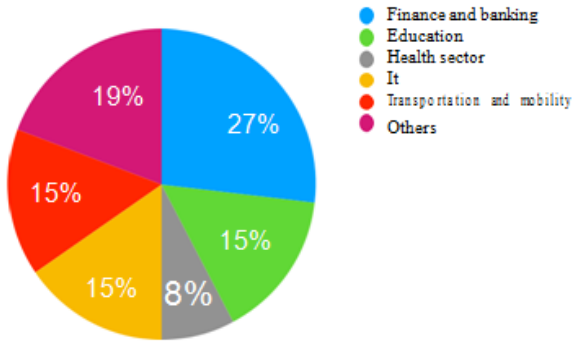
Inference: The chart shows that over 70% of people agree that educational institutions use blockchain and 27.3% disagree to the statement. Some uses of blockchain in Educational institutions are that it secures the data of their students, they are able to take ownership of their credentials, awards, certificates, and academic identity.

Chart 4.7 - Chart showing whether people think delivery companies like Zepto/Swiggy/Blinkit can make use of this kind of technology. If Yes, how?



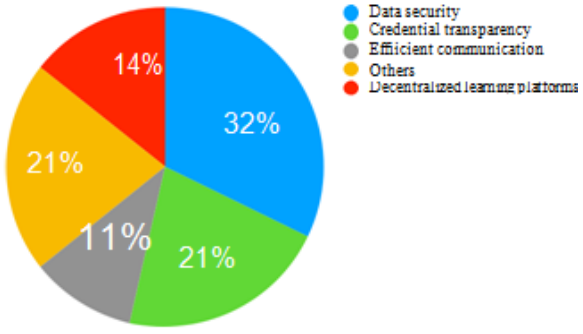
Inference - The chart shows that 75% of people think delivery companies can make use of this technology suggesting a wider scope and more potential future growth for blockchain and 25% disagree to the statement. Some of the reasons people suggested was to receive payments, integrating with a blockchain making it more secure and efficient, enabling a decentralized one to one network for customers' sake, to create a strong database that receive informations, creating a platform where the delivery agents can internally communicate, creating sites where people can search information about the business and how they function.

Chart 4.8- Chart showing sectors that people think Blockchain can be really effective in.



Inference - The chart shows that people associate blockchain with multiple sectors which shows its versatility and adaptability. 27% of people thunk that blockchain can be effective in the finance and banking industry,1 9% for others industries such as Business, Art, Supply chain management Defence and Cybersecurity, followed by 15% of people think blockchain could be effective in the Education, IT and Transport industry, and finally 8% in health industry which could suggest that people view blockchain as secure, transparent and nearly impossible to alter.

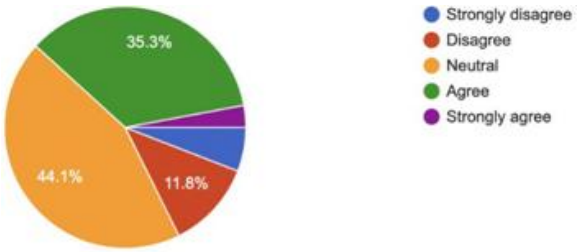
Chart 4.9 - What are the changes /evolution that Blockchain bring to our educational system.



Inference - The chart shows that 32% of people believe that blockchain brings data security to our educational system, followed by 21% for credential transparency, 14% believe blochain helps to

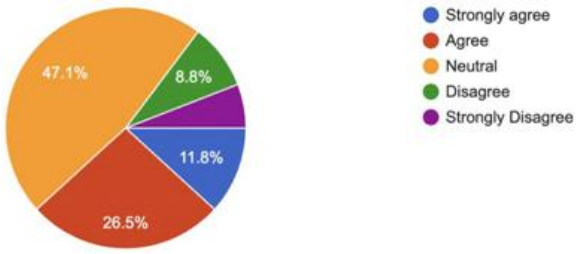
decentralise our learning platforms and 11% for others like Financing education, Course curriculum, Copyrights and digital rights protection and E - transcripts.

Chart 5.0 - Chart showing whether people think that "Blockchain helps in saving costs, improving efficiency, and bringing transparency."



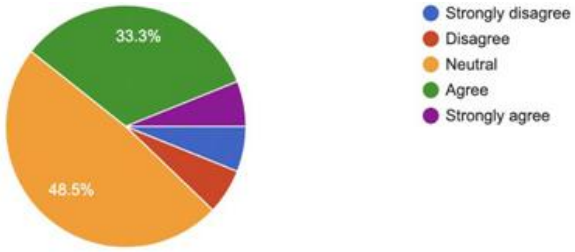
Inference: The chart shows that 44.1% of people stand neutral which could be due to limited knowledge of blockchain people have followed by 35.3% of people agreeing to the statement suggesting people are adapting to new technology and 11.8% disagreeing which could be due to preferring existing methods, followed by people strongly disagree and strongly agreeing which also suggest people limited knowledge of the topic as they can neither strongly agree or disagree.

Chart 5.1 - Chart showing what people think about "Blockchain-based social media platforms support social networking, content sharing and even blogging, but being decentralised, they enable end-to-end encryptions for every interaction."



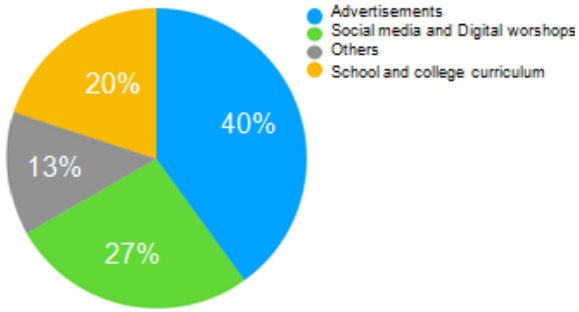
Inference - The chart shows that people again remain neutral with 47.1% suggesting limited knowledge and understanding followed by 26.5% agreeing to the statement an 11.8% strongly agreeing which means more people agree than disagree with the statement as being true, 8.8% disagreed to the statement.

Chart 5.2 - Chart showing whether people agree that "Blockchain technology's future scope majorly lies in the field of Cybersecurity."



Inference - The chart shows that almost 50% of people remain neutral which could be due to limited knowledge and understanding go blockchain, followed by 33.3% agreeing to the statement followed by almost 6% strongly disagree, disagree and strongly agree.

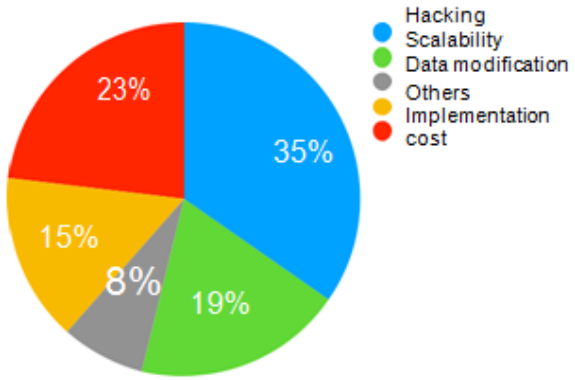
Chart 5.3 - When asked what should be done to spread awareness of Blockchain, participants responded with:



Inference - The chart shows that 40% of people suggest Advertisements to spread awareness of

Blockchain, followed by 27% suggesting Social media and Digital workshops, 20% responded with the introduction of Blockchain into the School and college curriculum, finally 13% with others suggesting entertainment and movies to engage with mass audience.

Chart 5.4 - Mention any drawback of blockchain



Inference - The chart shows that 35% of people mention hacking as the most prominent drawback of blockchain, followed by 23% mentioning the high implementation cost, 19% suggesting the lack of scalability, 15% suggested other reasons such as no tracking of the source, underdeveloped parts of the world who are not computer literate thus not able to use blockchain, lack of standardisation and Immutability of data, finally 8% mentioned the lack of ease of data modification in Blockchain.

V. FINDINGS AND CONCLUSION

- Findings

The results show that the majority of people useblockchain tools occasionally, followed by never and partially, and the lowest number of people use it always. The numbers suggest the growing popularity of blockchain which is yet to enter mainstream as well as people still adapting to new technology like blockchain.

The findings also show that the majority of people rate the importance of blockchain as a 4 followed by a 3, and the lowest number of people rated it at a 1 which shows that people believe blockchain is important and could be more of use in the future with more understanding of it.

The results shows that the majority of people think Blockchain technology is an advanced database mechanism that allows transparent information sharing within a business network is true with 88.2% of people agreeing to the statement which could be due peoples willingness to adopting new technology and blockchain and 11.8% disagreeing to the statement.

The results shows that the majority of people think Blockchain allows businesses to accept new form of payment, perform smart contracts, streamlines supply chain operations and more statement is true with 78.8% of people agreeing to the statement and 21.2% disagreeing to the statement.

The findings also show that over 70% of people agree that educational institutions use blockchain and 27.3% disagree to the statement. Some uses of blockchain in Educational institutions are that it secures the data of their students, they are able to take ownership of their credentials, awards, certificates, and academic identity.

The results shows that 75% of people think delivery companies can make use of this technology suggesting a wider scope and more potential future growth for blockchain. Some of the reasons people suggested was to receive payments, integrating with a blockchain making it more secure and efficient, enabling a decentralized one to one network for customers' sake, to create a strong database that receive informations, creating a platform where the delivery agents can internally communicate, creating sites where people can search information about the business and how they function.

The findings shows that people associate blockchain with multiple sectors which shows its versatility and adaptability. 27% of people thunk that blockchain can be effective in the finance and banking industry,1 9% for others industries such as Business, Art, Supply chain management Defence and Cybersecurity, followed by 15% of people think blockchain could be effective in the Education, IT and Transport industry, and finally 8% in health industry which could suggest that people view blockchain as secure, transparent and nearly impossible to alter.

The results shows that 32% of people believe that blockchain brings data security to our educational system, followed by 21% for credential transparency, 14% believe blochain helps to decentralise our

learning platforms and 11% for others like Financing education, Course curriculum, Copyrights and digital rights protection and E - transcripts. Blockchain is also used in verification of educational credentials & peer to peer technology and helps ducational institutions keep a clear digital transcript, ledger of records and payments for each student. They also create a platform where people can secure their things and share information as well. The results shows that 44.1% of people stand neutral to the statement, "Blockchain helps in saving costs, improving efficiency, and bringing transparency" which could be due to limited knowledge of blockchain people have followed by 35.3% of people agreeing to the statement suggesting people are adapting to new technology and 11.8% disagreeing which could be due to preferring existing methods, followed by people strongly disagree and strongly agreeing which also suggest people limited knowledge of the topic as they can neither strongly agree or disagree.

The findings shows that people again remain neutral to the statement,"Blockchain-based social media platforms support social networking, content sharing and even blogging, but being decentralised, they enable end-to-end encryptions for every interaction" with 47.1% suggesting limited knowledge and understanding followed by 26.5% agreeing to the statement an 11.8% strongly agreeing which means more people agree than disagree with the statement as being true, 8.8% disagreed to the statement.

The results shows that almost 50% of people remain neutral to Blockchain technology's future scope majorly lies in the field of Cybersecurity which could be due to limited knowledge and understanding go blockchain, followed by 33.3% agreeing to the statement followed by almost 6% strongly disagree, disagree and strongly agree.

The results shows that 40% of people suggest Advertisements to spread awareness of Blockchain, followed by 27% suggesting Social media and Digital workshops, 20% responded with the introduction of Blockchain into the School and college curriculum, finally 13% with others suggesting entertainment and movies to engage with mass audience.

The results shows that 35% of people mention hacking as the most prominent drawback of blockchain, followed by 23% mentioning the high implementation cost, 19% suggesting the lack of scalability, 15% suggested other reasons such as no tracking of the source, underdeveloped parts of the world who are not computer literate thus not able to use blockchain, lack of standardisation and Immutability of data, finally 8% mentioned the lack of ease of data modification in Blockchain.

The findings of the questionnaire enable us to understand how people have limited knowledge of Blockchain in general and how people do not have any strong opinions on it due to how little they know about it. It also shows that although they do not know much about it, they are willing to adopt and learn about new technology which can potentially make their work more efficient and productive with easier communication. The results also show how people know more about blockchain as less people remained neutral than blockchain-enabled social media.

- Conclusion

On one hand, traditional social media's popularity is increasing exponentially due to the heightened marketing and entertainment experience it offers to its users. However, on the other side, there are rising concerns over the data and privacy breaches to which these platforms are often associated.

We are standing on the threshold of a blockchain-led social media revolution. However, there are many innovations to be made and many technologies to be developed before the decentralization of social media can take place at scale, and shaking the dominance of centralized social giants having love-hate relationships, and become the next big thing.

Decentralized blockchain-backed social media networks are offering welcome relief from many data-related anxieties of traditional social networks. Users gain full control of their content and are rewarded monetarily in order to encourage engagement and participation.

Ultimately, this leads to more engaging content, highly personalized feeds, and targeted advertisements which make the social platform more

valuable and lucrative. Blockchain-powered social media offers a diverse variety of monetization tools and allows to create more revenue-generating channels.

Users make contributions, promote and monetize their content through tokens, and receive rewards for their contributions. This drives the social network's tokenized economy, making more money for business owners. In addition, crowdfunding campaigns open up the doors for high-end investors.

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