

Building a Trustworthy News Ecosystem using Blockchain

Vineela Rani B¹, Sathwik P², Ganesh S³, Thanuja O⁴, Vamsi T⁵

Assistant Professor, Department of Computer Science and Engineering¹

Students, Department of Computer Science and Engineering^{2,3,4,5}

Raghu Institute of Technology, Visakhapatnam, India

Abstract: *This paper introduces a highly innovative and revolutionary decentralised application that is built using cutting-edge blockchain technology. The application is designed to provide a trustworthy and transparent news sharing platform that is decentralised in nature. The main objective of our platform is to mitigate the spread of fake news that has become rampant in recent times, especially through traditional news sharing platforms. Our platform is designed to allow users to curate and share news in a highly efficient and transparent manner. We have implemented various features that allow our users to verify the authenticity of the news articles being shared on our platform. One of our most important features is the ability to trace the source of origin of the articles being shared, which promotes enhanced transparency and accuracy in news reporting. Our strategies and the workings of our application are elaborated in great detail in this paper. We demonstrate how our platform ultimately achieves verified news to be disclosed to everyone and reduces the risk of fake news being spread across the community. Our decentralised news sharing platform is a crucial step towards promoting transparency and accuracy in news reporting, and restoring faith in the media. We believe that our platform has the potential to revolutionize the way news is shared and consumed, and we are excited to present it to the world. With our platform, we hope to make a significant contribution towards promoting trust, transparency, and accuracy in news reporting, which are essential values in any democratic society.*

Keywords: Blockchain, Decentralisation, Security, Transparency, News, Legitimacy, Smart Contract, Governance, Staking

REFERENCES

- [1]. J. Holcomb, J. Gottfried, A. Mitchell, and J. Schillinger, "News use across social media platforms," Pew Research Journalism Project, 2013.
- [2]. D. M. Lazer, M. A. Baum, Y. Benkler, A. J. Berinsky, K. M. Greenhill, F. Menczer, M. J. Metzger, B. Nyhan, G. Pennycook, D. Rothschild et al., "The science of fake news," *Science*, vol. 359, no. 6380, pp. 1094–1096, 2018.
- [3]. S. Nakamoto, "Bitcoin: A peer-to-peer electronic cash system," <http://bitcoin.org/bitcoin.pdf>, 2008, [Online].
- [4]. R. Schollmeier, "A definition of peer-to-peer networking for the classification of peer-to-peer architectures and applications," in *Proceedings First International Conference on Peer-to-Peer Computing*. IEEE, 2001, pp. 101–102.
- [5]. Z. Zinonos, P. Christodoulou, A. Andreou, and S. Chatzichristofis, "Parkchain: An IoT parking service based on blockchain," in *2019 15th International Conference on Distributed Computing in Sensor Systems (DCOSS)*. IEEE, 2019, pp. 687–693.
- [6]. P. Christodoulou, K. Christodoulou, and A. S. Andreou, "A decentralized application for logistics: Using blockchain in real world applications," *Cyprus Review - Journal of Social Sciences*, vol. Vol. 30, no. 2, pp. 181–193, 2018. [Online]. Available: <http://www.cyprusreview.org/index.php/cr/article/view/577>
- [7]. K. Christodoulou, S. A. Chatzichristofis, G. C. Sirakoulis, and P. Christodoulou, "Randomblocks: A transparent, verifiable blockchain based system for random numbers." *J. Cell. Autom.*, vol. 14, no. 5-6, pp. 335–349, 2019.

- [8]. P. Christodoulou and K. Christodoulou, "A decentralized voting mechanism: Engaging ERC-20 token holders in decision-making," in 2020 Seventh International Conference on Software Defined Systems (SDS). IEEE, 2020, pp. 160–164.
- [9]. R. Beck, "Beyond bitcoin: The rise of blockchain world," Computer, vol. 51, no. 2, pp. 54–58, 2018.
- [10]. U. W. Chohan, "The double spending problem and cryptocurrencies," Available at SSRN 3090174, 2017.
- [11]. V. Buterin et al., "Ethereum white paper: a next generation smart contract & decentralized application platform," First version, vol. 53, 2014.
- [12]. C. Dannen, Introducing Ethereum and solidity. Springer, 2017, vol. 1.
- [13]. A. M. Antonopoulos and G. Wood, Mastering ethereum: building smart contracts and dapps. O'reilly Media, 2018.
- [14]. A. Qayyum, J. Qadir, M. U. Janjua, and F. Sher, "Using blockchain to rein in the new post-truth world and check the spread of fake news," IT Professional, vol. 21, no. 4, pp. 16–24, 2019.
- [15]. T. W. Jing and R. K. Murugesan, "A theoretical framework to build trust and prevent fake news in social media using blockchain," in International Conference of Reliable Information and Communication Technology. Springer, 2018, pp. 955–962.
- [16]. S. Huckle and M. White, "Fake news: A technological approach to proving the origins of content, using blockchains," Big data, vol. 5, no. 4, pp. 356–371, 2017.