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Blockchain-Powered Authentication: Reinforcing Identification for Misinformation in AI-Generated Videos

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The rapid rise of misinformation and disinformation through manipulated videos poses a significant threat to the integrity of digital content. This research explores the potential synergy between blockchain technology and AI-generated video identification to combat this issue. By integrating the immutable ledger of blockchain with advanced algorithms, this researcher aims to create a robust framework for authenticating video content and curbing the dissemination of misinformation.

This research investigates the technical feasibility, security implications, and potential impact of such a solution on contemporary digital content authentication challenges. With the advent of artificial intelligence (AI), digital content creation and manipulation have become more sophisticated, raising concerns about the authenticity and trustworthiness of media. To address these challenges, a sophisticated algorithm that combines video blockchain and advanced cryptographic functions is proposed to develop a sustainable method for video authentication.

Methodologically, a comparative review of state-of-the-art approaches was conducted, and the method implemented using the sophisticated datasets. Results demonstrate a high level of performance, surpassing other existing methods.

The proliferation of manipulated videos, deepfakes, and other forms of synthetic media has amplified concerns about misinformation and its societal impacts. Consequently, there is an increasing demand for innovative solutions to authenticate video content effectively and mitigate misinformation risks. This research provides a significant contribution to this field, offering a viable approach to enhancing the security and reliability of digital media.

Keywords
Video Blockchain; AI-Generated Video; Intelligent Surveillance; Authentication; Misinformation

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