DESIGN OF DIGITAL RIGHTS MANAGEMENT MECHANISM BASED ON BLOCK CHAIN TECHNOLOGY

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Abstract- **There are many unresolved issues in network media's traditional digital rights leadership. For example, it is difficult to guarantee the quality of media works in the traditional management system, to protect copyrights, to find the effective profit model, etc. To solve these problems, we propose in this paper a network media's digital rights management scheme based on blockchain. Block Blockchain is a technology that uses cryptographic algorithms, hash chains and consensus mechanisms to enforce internet information consensus, irreversibility and traceability. The suggested system can use these blockchain functionalities to enforce efficient management of manufacturing, copyright management, transaction management, and behavior management of consumers for network media. In addition, our suggested system can provide significant predictive assistance for the network media platform to create a viable atmosphere.**

Keywords- *Network media, copyright, smart contract, block chain*

I INTRODUCTION

Following the three traditional media such as newspapers, radio and television, the Internet is called the "fourth media." According to data released by the Chinese Internet Network Information Center (CNNIC), in June 2016, Chinese netizens reached 710 million; Internet penetration was 51.7%; and Chinese mobile users reached 656 million; There are different devices used to link to the Internet. Currently, China's media network industry is meeting a enormous chance with the emergence of the mobile Internet era and the popularity of social video apps, and the momentum for growth is irresistible. The rapid development of network information is a feature of the Internet era. It may take just a couple of minutes or less to distribute mass data from a news case to the press. For example, the reports reached 44,000 about the Tianjin Bandai New Area explosion accident, the We Chat reached 60,000, and the discussion reached 4.6 million in less than two days. Such a scale will readily attract the world's attention. The first messages in the Int were published although these videos are not professional reports, they play significant roles for individuals making precise catastrophe judgments. The age is a fast-paced society, and individuals are more inclined towards the model of brief, adaptable and quickly media transmission. Microfilm, network songs, photographic works and network novels are young people's favourite network media and they spread and pass these media.

II LITERATURE SURVEY

Sr no	Paper Name	Author	Advantage	Description
1	A blockchain for media: Survey	Sunghyun Cho Electrical and	securing content	With the drastic development of the internet, a lot of media sharing services have been provided. The media distribution has several problems. Because the copy of media easily is created, and the media also is modified, plagiarism and unauthorized distribution become readily possible.
2	A Survey of Blockchain: Techniques, Applications, and Challenges	Weichao Gao, William G. Hatcher, and Wei Yu	decentralize services, security, and verifiability,	Blockchain is a distributed and immutable ledger of transactions, in which each transaction is inexorably linked to the prior one. As the primary purpose of the blockchain, operation in untrusted decentralized environments can be secured by both the record of transactions, and decentralized consensus on the validity of the transaction record
3	Blockchain:The new era of Technology	Riya Sapra	immutability and robustness	Blockchain has become a buzzword in IT sector. The technology behind blockchain has become so powerful that applications are being built on top of them which will automatically make them decentralized, block based and resistant to censorship.

| 4 | Design scheme of copyright management system

based on digital watermarking and blockchain | MENG Zhaoxiong | securely store watermark

information | multimedia and digital works in the form of image, audio, video

and other digital formats have been published on the Internet,

and their copyright protection and information integrity

assurance have gradually become an urgent issue that needs to

be resolved. |

III EXISTING SYSTEM

In Existing system the copyright owner does not have any secure computerizes system. To maintain his own copyright security. So his hard work and money can be loss if someone can stolen his copyrights. So Copyright owner has huge loos of money. In market lot of compition in between products but every brand need to maintain his copyrights rights.

IV PROPOSED SYSTEM

Above analyses of the technological advantages of blockchain show that blockchain is suitable for the management of network media. And in this section we use blockchain to design a digital rights management scheme for network media, and this scheme will cover production management, copyright management, transaction management and user's behavior management. As shown in Figure , the scheme adopts the private blockchain technology. The private blockchain interacts with the network media platform to receive transaction data from application layer. In order to reach a consensus for these data, few trusted nodes in the private blockchain communicate with each other, and record these data on the blockchain after a consensus reached. In addition, because all of transaction data are stored in each trusted nodes, the scheme will build a robust distributed system.

4.1 Advantages of Proposed System
1) Improve Security
2) Copyright rights digital protection
3) Transparency in transaction

V CONCLUSION

Blockchain is a technology that synthesizes cryptographic algorithms, hash chains, and consensus mechanism and can be used to deliver internet information services such as consensus, traceability of irreversibility. We suggested a digital rights management system for network media based on these services in this article. We used consensus mechanism in the system to finish real-time copyright confirmation, used blockchain-based smart contracts to enforce real-time transactions, and used digital signature and hash chains to ensure transaction accuracy. Furthermore, based on these services we can also implement the innovation of profits model and supervision model, which will greatly promote the development of network media. We predicted that our proposed digital rights management scheme for network media would open a new era for network media business

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