

Innovative application and optimized governance of blockchain in the media industry

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Abstract. Blockchain technology was originally used in the financial industry, and was applied to Bitcoin as the underlying technology and infrastructure. At present, the value of application has expanded from the financial industry to other industries such as transportation, medical care, and media. Then the article focuses on the possibility of transfer of new value and social collaboration of blockchain, the application and practice in the field of cultural media, and the problems faced by the development of "blockchain + cultural media", together with discussing the innovative application of blockchain in the media industry.

Keywords: Blockchain; media industry; innovative application; optimized governance.

1. Opening up new possibilities for the value transfer and social collaboration

To explore the value and potential of a technology at the application layer, it is first necessary to clarify the underlying logic and value points of the technology-driven innovation. Generally speaking, the essence of blockchain can be understood as distributed ledger technology, which is a decentralized electronic accounting system. Then each page records transactions, and the pages are bound in chronological order to form a complete ledger - the blockchain. In addition, the "blocks" are connected by cryptographic algorithms to form a "chain" according to the time series. Once the information is uploaded to the chain, it cannot be easily tampered with. In the blockchain system, the contract is replaced by a transaction program. Also when the date and conditions agreed in the smart contract are reached, the network will automatically execute the contract.

What's more, in the system, the contract is replaced by a transaction program. Once the date and conditions agreed in the smart contract are reached, the network will automatically execute the contract. Based on encryption technology and smart contracts, a new paradigm of "token economy" has gradually emerged. And there is no authoritative and knew statement about the token economy. It is more of a practice-driven business economy that relies on new technologies.

The English Token of the pass refers to "token, signaling" in the network of traditional communication. And with the rise of blockchain technology, the pass has begun to be widely used, and anyone can issue tokens representing any rights and values on Ethereum. Not only the native digital assets in the blockchain world can be put on the chain, but the existence of value in the physical world can also be put on the chain and circulated in the Internet of Value. On the one hand, the token plays the role of a value carrier, and on the other hand, it acts as an incentive carrier to promote the achievement of large-scale group collaboration.

In addition, what the token essentially solves is that a community decides through code what kind of behavior should be motivated in real time, what behavior should be punished, and how to ensure that incentives and punishments are fair. In the ideal token economy ecology, following explicit sus-based smart contract rules, each subject can issue tokens based on their own credit and participate in the point-to-point, de-intermediary value creation and exchange in the value Internet constructed by blockchain. Then, a new social mobilization and coordination mechanism will break the mainstream form of corporate enterprises as the main unit of social production, and factor resources will be newly integrated on a larger scale and at a higher level.

2. The application and practice of blockchain in the field of cultural media

With Internet communication becoming the most important content distribution channel in society, almost all text, music and video content are put on the Internet after being digitized. Also with the help of "blockchain + big data", many problems can be resolved, and the ecology can be optimized by creating a set of benign interest incentives and punishment mechanisms, thereby establishing a good, stable and reliable for operation of digital assets of new media. Combined with the development of blockchain technology and the analysis of the actual situation, the application in the field of cultural media can start from the following points.

2.1 Impacts on source certification and content auditing

The core content of the blockchain is the distributed one, which can achieve the advantage of tracking and understanding the ledger at any time in the system as well as grasping the source of news, and can be confirmed in the media system. Since multiple pieces of information can be recorded in the blockchain system, once an article in the system is forwarded, the information about who forwarded it and where it is forwarded can be fully grasped. And the rumour-monger can be spotted immediately and the necessary rewards can be obtained. Also the content cannot be tampered with, which means that after a problem is found in the blockchain, it cannot be modified in time. If the change occurs in time, it can be recorded, and the modified one can be recorded, which could effectively avoid the influence of subjective opinions in the review process.

2.2 Impacts on copyright protection and asset management

Piracy and plagiarism are the main defects affecting digital communication, and under the application of blockchain technology, copyright protection can be strengthened. And it is specifically through digital signatures and hash algorithms to achieve digital copyright-related content. What's more, the comprehensive tracking and management of digital content can be used for the copyright transfer and recording in terms of right confirmation, right use and protection. And it can trace and inspect the entire life cycle of digital content circulation, which can be combined into a decentralized, credible, and traceable system, digital rights management. After the application of blockchain technology, it could evaluate and analyze all intangible assets formed by media or individuals, such as news works and photographic works. Under the development of the network economy, user browsing data, interactive comments and other related operations can be evaluated and confirmed, and then the blockchain technology is used to protect the legitimate income of copyright owners from being damaged.

2.3 Impacts on content production

With the comprehensive application of blockchain technology, the status of media workers in the industry has also changed a lot. Also, freelance writers and self-media practitioners conduct internal self-evaluation by using smart contracts, and then obtain economic benefits such as currency rewards and content subscription rewards in the platform, which can make practitioners have higher work enthusiasm. At present, platforms such as Civil and Steemit are gradually formed under the application of smart contracts. And users are able to give certain rewards to their favorite authors or works through the platform, and homework can also obtain related benefits through appreciation and comments. In addition, the blockchain technology is gradually mature in the continuous application. The media can use the blockchain technology to form a network system, as well as forming an editorial department on a global scale, and then collect and use resources. Also the media can build a complete community. The media platform realizes the transformation from "UGC" to "PGC", improves the efficiency of news gathering and editing, reduces the costs of related work, and enables reporters to fully understand the needs of users and the public, also to grasp in-depth information.

2.4 Impacts on income of original works and copyright

Copyright protection is to protect legitimate rights and interests of the copyright owners and not damage the fundamental interests of the author. The application of blockchain technology is mainly to carry out work through the digital library, to use the non-tampering content, time stamps, monitoring systems for comprehensive monitoring, to achieve electronic evidence preservation, etc., and to effectively protect centralized copyright content. Using smart contracts to conduct self-service transactions of original content and copyrights, journalists, correspondents and self-media practitioners can obtain long-term benefits after publishing their works. For example, Kodak launched Kodak One, a photo ownership management platform based on blockchain technology, and issued its own digital currency, Kodak Dollars. Once the photos released by photographers are adopted, the traditional situation will be eliminated, and fragmented content such as text, images, and news can be effectively applied. As long as the works have value, they can be converted into currency through copyright to maximize profits.

2.5 Impacts on Expert Advisor and Advertising Effect

There is a famous argument in the advertising field, that is, half of the advertising fee is wasted, but it is not known which half is wasted. Firstly, it is impossible to determine whether the advertisement arrives accurately. Secondly, it is about whether the advertisement directly affects the audience. Under the application of blockchain technology, it is possible to deal with the problems of transparency and the marketing deviation in the current field of advertising, such as the cost of clicks and so on. Through the application of technology, in the stage of advertising design and publishing, advertising entities can publish relevant works to the intelligent advertising trading platform according to their own needs, and then they can publish relevant information and obtain benefits.

2.6 Impacts on public opinion analysis and environment

Blockchain technology can also be widely used in the network environment. Once a record is tampered with, it will be recorded and tracked in detail to eliminate the problem of cost. Under the conditions, the self-purification mechanism of rumors will also have relatively high application value. What's more, rumor publishers are more aware of the cost of spreading rumors, and the public would not believe the rumors. Finally, information dissemination could protect the original form and content as much as possible. Then the public opinion environment is cleaner and more transparent, and real information can be obtained in a low-cost way on the Internet. In addition, analysis of public opinion can also be carried out from the perspective of data aggregation and statistics, as well as summarizing and recording all stages of information release and transmission, and then have the evolution behind the information of public opinion. While the application of technology to implement accurate analysis can efficiently respond to changes in public opinion, providing a good foundation for the government control, business competition and other industries.

3. Problems facing the development of "blockchain + cultural media"

In the face of possible future innovations and the commercial interests behind them, how to supervise of the performance of platforms using blockchain technology is an important issue to be explored. Then the construction of laws and institutions lags behind the development of practice, resulting in the lack of necessary institutional norms and legal protection for related activities, which invisibly increases the risks of market entities and practitioners. At the technical level, although a variety of consensus mechanisms have been proposed, it cannot be said whether it can achieve real security and trustworthiness. And network attacks may cause network congestion, together with forcing a fork in the blockchain network. However, no unified standard has been established in this field at home and abroad, and there is still a blank in standardization. At present, blockchain technology is in a period of rapid expansion supported by technological development and social

attention, and there are many immature technical means, without enough development resources to supply and fall into the predicament of survival.

4. Conclusion

From the perspective of cost and benefit, the cost of integrating blockchain technology cannot be underestimated. Whether it can ensure the creation of economic benefits while meeting regulatory requirements and connecting with traditional concepts of news production still faces many variables. As revolutionary technology with good development prospects, we must rationally examine the various challenges and risks in the process of combining blockchain with various segments.

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