



Transformation of Islamic Communication: Optimizing Blockchain Technology for Digital Da'wah Content

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Abstract. This research aims to understand the potential and implementation of blockchain technology in the transformation of Islamic communication, particularly in the dissemination of digital da'wah content. This research uses a qualitative method with a descriptive approach. The data collection process was carried out using documentation study tools, observation, and interviews to delve into in-depth information related to the dissemination of digital da'wah content. The research results show that the application of blockchain provides significant benefits for preachers and content creators, such as copyright protection through smart contracts, enhancing the credibility of da'wah content, and expanding audience reach. Blockchain technology, which supports encryption and decentralization systems, secures data from unauthorized access, thereby increasing user trust. This study contributes to the optimization of technology use, specifically blockchain technology, in digital da'wah content. The implications of this research highlight the importance of using technology to support and facilitate the dissemination of da'wah in the digital era.

Keywords: Transformation, Islamic communication, blockchain, da'wah content, digital

Abstrak. Penelitian ini bertujuan untuk memahami potensi dan implementasi teknologi blockchain dalam transformasi komunikasi Islam, terutama dalam penyebaran konten da'wah digital. Penelitian ini menggunakan metode kualitatif dengan pendekatan deskriptif. Proses pengumpulan data dilakukan menggunakan alat studi dokumentasi, observasi, dan wawancara untuk menggali informasi mendalam terkait penyebaran konten dakwah secara digital. Hasil penelitian menunjukkan bahwa penerapan blockchain memberikan manfaat signifikan bagi pendakwah dan pembuat konten, seperti perlindungan hak cipta melalui kontrak pintar, meningkatkan kredibilitas konten dakwah, dan memperluas jangkauan audiens. Teknologi blockchain yang mendukung sistem enkripsi dan desentralisasi membuat data aman dari akses tidak sah, sehingga meningkatkan kepercayaan pengguna. Studi ini berkontribusi pada optimalisasi penggunaan teknologi terfokus teknologi blockchain pada konten dakwah digital. Implikasi dari penelitian ini menyoroti pentingnya penggunaan teknologi untuk mendukung dan mudahnya diseminasi dalam dakwah di era digital.

Kata kunci: Transformasi, komunikasi Islam, blockchain, konten dakwah, digital

INTRODUCTION

The development of digital technology has brought significant changes in various aspects of human life, including in the dissemination of Islamic preaching content. Islamic preaching communication, which has previously relied on conventional methods such as direct lectures, print media, and traditional audio-visuals, is now undergoing a significant transformation through the use of digital technology. The emergence of various social media platforms, websites, and internet-based applications has made it easier for people to access preaching content. Islamic communication as a means of conveying religious teachings now utilizes various digital platforms to reach a wider audience quickly and efficiently.

However, behind this convenience, various challenges arise, especially related to the protection of copyright for digital Islamic preaching content that is increasingly misused, such as unauthorized copying, which means copying someone else's work without permission or giving appropriate credit, plagiarism by claiming someone else's work as one's own, whether it be ideas, writings, or creative works, and the dissemination of inaccurate or unreliable information that leads to hoaxes (Sutrisno et al., 2024). This raises concerns for preachers, content creators, and owners of original works in maintaining their intellectual property rights. In addition, preachers and religious (Islamic) content creators are increasingly concerned about the spread of duplicate content containing radicalism, deviations in the context of preaching information and other negative actions that can harm society in general (Hakim, 2019; Muvid, 2023; Rabbani & Najicha, 2023; Rani, 2023).

In the context of communication media, especially Islamic communication, this challenge becomes very critical. Because Islamic communication is an effort to convey general and religious information that contains the principles of honesty, credibility, transparency and justice (Sutrisno et al., 2024). The principles of Islamic communication that emphasize honesty, transparency, and justice are the main guide in building effective and moral communication in accordance with the teachings of the Qur'an and Hadith (Sutrisno et al., 2024). Honesty or *shidq* occupies an important position because it is one of the characteristics of a believer. Islam forbids all forms of lying, manipulation and slander because they can damage trust and trigger conflict (Najmuddin & Tajibu, 2023). By being honest, one can build credibility and trust in communication.

In addition, Islam also teaches transparency, namely openness in conveying correct information and not hiding important facts (Najmuddin & Tajibu, 2023). Transparency is a form of trust that must be maintained, meaning conveying information completely and clearly, and avoiding attitudes that can give rise to suspicion or misunderstanding (Nguyen, 2022).

Then the principle of justice , namely being objective, impartial, and conveying information correctly even to oneself or loved ones. Fairness in communication requires conveying facts without additions or subtractions and not allowing hatred or love to influence judgment. Overall, the principles of honesty, transparency, and justice in Islamic communication create interactions based on trust, openness, and harmony (Vivekananda & Meenakshi, 2024). These three principles not only form effective communication, but also encourage the creation of a society that adheres to the values of truth and justice according to Islamic teachings.

Blockchain technology emerges as one of the latest technological innovations that offers potential solutions to these problems (Zheng & Lu, 2021). Blockchain, known as a decentralized and distributed technology, can be used to store, verify, and distribute information transparently and securely (Hadina, 2024). The concept of an immutable ledger or a ledger that cannot be changed provides assurance that the information stored has high validity and authenticity (Anwar et al., 2022). This is relevant for the distribution of digital Islamic preaching content which often faces issues of hoaxes, content manipulation, and unverified information (Uyuni et al., n.d.).

This literature review discusses various studies on copyright infringement in the context of the 4.0 Industrial Revolution. Nurhayati et al.'s study on copyright infringement in Indonesia highlights the shift from regular crimes to complaints-based criminal acts (Nurhayati et al., 2019) . Ramli et al.'s research on copyrighted content commercialization on OTT media in Indonesia highlights the challenges faced by OTT providers in accountability for copyrighted content (Ramli et al., 2021) . Jacques's study on platforms and copyright in creative industries highlights the complex role of copyright in promoting inclusivity, but also highlights the lack of inclusivity due to extensive copyright protection, excessive restrictions, and aggressive law enforcement (Jacques, 2024) . Dwivedi et al.'s research on digital and social media marketing research highlights changes in consumer behavior and the way companies conduct their business online (Dwivedi et al., 2021) . Zhang's study on TikTok's infra structuralization explores how the platform's transformation and power relations have impacted its legitimacy in content management and power relationship between the government and the platform (Zhang, 2021) .

The literature review discusses studies on copyright infringement in the context of the Fourth Industrial Revolution, with a focus on Indonesia, highlighting the shift from ordinary crimes to complaint-based criminal actions, the challenges faced by OTT providers, and the complex role of copyright in promoting inclusivity as well as exploring platform transformation and power dynamics. Through this study, the researchers will explore and demonstrate the effectiveness of technology application to minimize challenges in the specific digital platform transformation in delivering da'wah content digitally by utilizing the unique characteristics of blockchain such as decentralization, transparency, and high security. This study aims to address the challenges faced in protecting the accuracy and credibility of content by preachers and content creators.

Then to answer this research, the researcher used a descriptive qualitative approach with the aim of understanding the potential and implementation of blockchain technology in the transformation of Islamic communication, especially in the dissemination of digital da'wah content (Tayseer, 2022). This approach was chosen because it can dig up in-depth information regarding perceptions, challenges, and opportunities in utilizing blockchain technology for digital da'wah. This research is descriptive-qualitative in nature which aims to provide a comprehensive picture of the optimization of blockchain technology in digital da'wah communication. The data collected will be analyzed to describe the phenomena that occur systematically (Deister et al., 2021). The design of this research combines primary and secondary data collection methods to comprehensively understand the subject.

Data analysis is carried out inductively, starting from observations of the collected data then followed by pattern formation, theme identification, and generalization or theory creation. This process allows this research to reveal new insights and in-depth understanding of how blockchain technology can affect digital copyright management. This analysis will identify the strengths, weaknesses, opportunities, and threats of blockchain implementation in the current copyright management system, as well as estimate the future implications of the use of this technology in the creative industry.

RESULTS AND DISCUSSION

Blockchain Technology

Blockchain technology, which was initially known through the application of cryptocurrencies like Bitcoin, has immense potential in the context of Islamic communication, particularly in delivering digital da'wah content (Utomo, 2022). Blockchain offers key advantages such as decentralization, security, and transparency, which enable the dissemination of religious information in a safer and more accountable manner (Habib et al., 2022). In Islamic communication, the authenticity and truthfulness of information are very important, and blockchain can play a significant role in ensuring that the da'wah content disseminated is authentic, unmodified, and comes from reliable sources. By using blockchain, every piece of da'wah content can be transparently verified, reducing the risk of spreading false or misleading information.

Blockchain can facilitate copyright protection for da'wah content creators. In the digital era, many religious works are disseminated without acknowledgment of their original creators (Asikin et al., 2023). Blockchain can record the ownership and contribution of every da'wah content, thereby providing assurance to content creators that their work is protected and recognized. For example, a preacher or content creator can upload their sermon videos or articles to a blockchain-based platform, which will automatically record who created the work and when it was published. This will reduce plagiarism and ensure that content creators receive the recognition they deserve for their work.

Blockchain also enables increased interactivity and community participation in the dissemination of da'wah content. Because blockchain is decentralized, no single party has full control over the content being distributed. This allows Muslim communities around the world to participate in the production and distribution process of da'wah content. Blockchain-based platforms can enable users to contribute directly, whether in the form of comments, feedback, or even the creation of da'wah content itself.

This system can also enhance the quality of discussions and dialogues among Muslims by providing space for diverse opinions and valid understandings without excessive intervention from certain parties. Blockchain technology has great potential in Islamic communication, especially in delivering da'wah content digitally in a safer, more transparent, and accountable manner (Irawan & Indonesia, 2024). With collaboration between technology developers, da'wah institutions, and the Muslim community as a whole, blockchain can be effectively integrated to address various challenges in the dissemination of Islamic teachings in the digital era.

The implementation of blockchain technology in Islamic communication to deliver da'wah content digitally

The implementation of blockchain in various industries in Indonesia aims to enhance data security, transparency, efficiency, and reduce production costs. However, it should be noted that clear regulations and standards will be an important factor in the successful adoption of blockchain in every sector. In addition, better education and understanding of this technology will support broader adoption. This study shows that blockchain technology has significant potential in maintaining the authenticity, security, and transparency of digital da'wah content. Based on the literature analysis, blockchain as a decentralized technology is capable of providing a higher level of data encryption and security by ensuring the integrity and validity of data stored in interconnected blocks (Irawan & Indonesia, 2024). The immutable nature of the blockchain ledger allows every transaction or change in digital content to be permanently recorded and difficult to alter, thereby preserving the authenticity of da'wah content (Atlam et al., 2024). With these characteristics, blockchain is an effective solution in addressing issues of manipulation, unauthorized duplication, and inaccurate content distribution (Khalid et al., 2024).

The implementation of blockchain technology in Islamic communication to deliver da'wah content digitally opens up great potential in enhancing the effectiveness, transparency, and security of disseminating religious information. Blockchain, known as the foundational technology behind digital currencies like Bitcoin, has characteristics of decentralization, security, and the ability to verify information without requiring a trusted third party. In the context of Islamic communication, this technology can be used to ensure that the da'wah content disseminated is authentic, trustworthy, and cannot be manipulated. This is very important considering the rapid development of digital content and the challenge of ensuring the authenticity of information in da'wah (Putra et al., 2024).

One of the main advantages of using blockchain in Islamic communication is transparency. Every piece of information published on a blockchain-based platform can be clearly traced, from its source to its distribution. This will reduce the risk of spreading false or misleading information, which can negatively impact the understanding of Islamic teachings by the community. By using blockchain, every piece of da'wah content that is disseminated can be easily verified for its authenticity, considering that blockchain records every transaction and change in the system permanently and immutably. Therefore, this technology provides an additional layer of security to ensure that the teachings conveyed are in accordance with Islamic principles.

Blockchain can also address issues related to copyright and recognition for da'wah content creators. As a technology that enables clear ownership records, blockchain can be used to ensure that digital da'wah works, such as articles, videos, and podcasts, are protected by copyright. Preachers or content creators can receive fair recognition for their contributions without the risk of copyright infringement or content misuse. This can also enhance the quality and quantity of da'wah content as creators feel more appreciated and their rights protected. Furthermore, blockchain can be used to enhance community participation in digital da'wah content (Pong et al., 2023). This technology supports a decentralized system that allows the community to contribute more directly, reducing the dominance of central entities that can influence or control the information disseminated. For example, the global Muslim community can use blockchain-based platforms to send, evaluate, and discuss da'wah content, making the process more inclusive and participatory. This is highly relevant in the context of the diverse Islamic world, with its various sects and differing viewpoints. Blockchain provides space for more diverse opinions without compromising the control over the quality and accuracy of information.

Although blockchain technology offers many advantages, there are several challenges that need to be addressed. One of the main challenges is the need for education and digital literacy among Muslims. Many people are not yet familiar with how blockchain works and how to use it for da'wah purposes. Therefore, it is important to provide adequate training and resources so that stakeholders in digital da'wah, such as da'wah institutions, scholars, and content creators, can understand and effectively implement this technology. In addition, regulatory issues are also a concern, especially regarding the supervision and control of content disseminated through blockchain to prevent misuse by irresponsible parties. The use of blockchain in Islamic communication to deliver digital da'wah content has great potential to enhance the security, authenticity, and transparency of information (Novita Sari., Achmad Hizazi., 2021).

The phenomenon of da'wah in the digital era

The phenomenon of digital da'wah has rapidly developed along with advancements in information and communication technology. In the current digital era, the internet and social media have become the main channels for spreading Islamic teachings to Muslims around the world. Digital da'wah utilizes various platforms such as YouTube, Instagram, Facebook, Twitter, and other applications to convey religious messages in the form of writings, videos, podcasts, and more. The main advantage of digital da'wah is its wide reach and high accessibility. With just an internet connection, da'wah

messages can reach various layers of society, including those living in remote areas or those who find it difficult to access mosques or traditional da'wah institutions (Santoso & Jannah, 2023). One of the important characteristics of the digital da'wah phenomenon is the higher interactivity between the speaker and the audience (Kahfi et al., 2024). On digital platforms, Muslims can directly interact with preachers or teachers through comments, live chat, and discussions. This creates a space for more open dialogue and Q&A, allowing the community to understand Islamic teachings more deeply and directly. In addition, digital da'wah also allows for the dissemination of a wider variety of religious perspectives, whether from renowned scholars, contemporary Islamic researchers, or younger Muslim communities.

The diversity of views and interpretations of Islamic teachings that often appear on digital platforms becomes a crucial challenge. This can trigger differences of opinion and even conflicts between groups that claim the truth of certain teachings. Moreover, the dissemination of unverified information can lead to the spread of erroneous beliefs or even extremism. With the abundance of da'wah content available, Muslims need to be more selective in choosing trustworthy sources to avoid getting trapped in misleading information (Setiawati et al., 2022). In the context of digital da'wah, it is also important to pay attention to ethical issues and responsibilities in conveying religious messages.

Digital da'wah must be conducted wisely, maintaining manners and politeness, and avoiding the dissemination of content that could incite hatred or division among the community. Therefore, clear guidelines and regulations are needed in disseminating digital da'wah to ensure it does not deviate from the moderate and tolerant principles of Islam. The phenomenon of digital da'wah provides a great opportunity to spread Islamic teachings widely and inclusively. By utilizing digital technology, da'wah can reach a larger and more diverse audience. However, to ensure its effectiveness, digital da'wah must be carried out with caution, responsibility, and adequate supervision, in order to ensure that the messages conveyed remain in line with the true values of Islam.

Challenges of implementing blockchain technology in digital da'wah content

The implementation of blockchain technology in digital da'wah content presents various significant challenges. One of the main challenges is the understanding and acceptance of this technology by the public (Prachi Yadav, 2023). Many Muslims, especially those involved in digital da'wah, may not be familiar with the concept of blockchain, which seems complicated and is mostly discussed among technologists and the financial industry.

Therefore, more in-depth education is needed so that the community can understand how blockchain works and its benefits in the context of da'wah, as well as ensure that this technology aligns with Islamic principles. In addition, security and trust issues also pose significant challenges in the use of blockchain for da'wah content. Although blockchain offers high security with its decentralized nature and immutable data, trust in the parties managing the platform remains a significant issue. Without proper oversight, blockchain-based platforms can be misused to spread information that is not in accordance with Islamic teachings. Therefore, clear mechanisms for oversight and transparency are needed so that this technology can be accepted and used wisely by the community.

Another challenge that needs to be addressed is regulation and legality. In many countries, including those with large Muslim populations, regulations regarding the use of blockchain are still limited or even non-existent. This could hinder the adoption of the technology in digital da'wah content. Therefore, collaboration between technology developers, da'wah institutions, and authorities is crucial to create a supportive legal framework and ensure that the use of blockchain does not violate the regulations in each country. Scalability and operational costs also pose challenges in the implementation of blockchain in da'wah content. Blockchain, especially those using certain consensus systems like proof of work, often face issues with transaction speed and high costs as the number of users and transactions increases. This can limit the effectiveness of blockchain in the dissemination of da'wah content that requires massive and rapid information distribution. The solution to this challenge could involve the development of a more efficient blockchain or the use of layer-2 technology to increase transaction capacity at a lower cost.

Furthermore, the diversity in content and interpretation of religious teachings also poses a challenge in the use of blockchain. Digital da'wah content can vary greatly, with different views and interpretations of Islamic teachings. Blockchain, although it can be used to ensure authenticity and source verification, can create issues related to this diversity of views. A fair and transparent system is needed to assess and verify content so that it does not offend certain groups or sects. Finally, the challenge of slow technology adoption among users must also be addressed. Many Muslims may feel reluctant or have difficulty adapting to new technologies such as blockchain. Therefore, providing easy-to-understand tutorials and better accessibility to blockchain-based applications is crucial to accelerate the adoption of this technology in digital da'wah content. Overall, although blockchain has great potential in enhancing transparency, security, and accountability in the dissemination of da'wah content, these challenges must be addressed wisely

and carefully so that this technology can be implemented effectively and beneficially for the Muslim community. (Mohammad & Vargas, 2022).

The utilization of blockchain technology and its impact on Islamic communication for delivering digital da'wah content

The utilization of blockchain technology in Islamic communication for delivering digital da'wah content can bring significant changes in the way Islamic teachings are spread in the virtual world. Blockchain, known for its ability to store data in a decentralized and immutable manner, offers a high level of transparency and security in the distribution of information (Farhan et al., 2024). In the context of digital da'wah, blockchain can be used to ensure that every piece of da'wah content disseminated is authentic and comes from a trusted source. This will reduce the potential for the spread of false or misleading information that often occurs on social media or other digital platforms. By using blockchain, every published da'wah content can be transparently verified for its authenticity, providing assurance that the teachings received by Muslims align with the true values of Islam.

Blockchain technology can also enhance copyright protection for digital da'wah content. Many da'wah works are published in the form of articles, videos, and audio without acknowledgement of their creators. With blockchain, each work can be clearly recorded who created it and when it was published, thus preventing plagiarism and giving fair recognition to content creators. This will encourage preachers, researchers, and content creators to be more active in producing quality works, because they know that their works will receive legitimate recognition and protection. Thus, blockchain can encourage the growth of more diverse and high-quality da'wah content.

Blockchain also enables increased participation of Muslims in the dissemination of da'wah content. This technology supports decentralization, which means that no single party or institution has full control over the information being disseminated. This allows Muslim communities around the world to contribute to the creation, dissemination, and evaluation of da'wah content. Blockchain-based platforms can provide a space for every individual to share their perspectives and interpretations of Islamic teachings that they believe to be true, without excessive intervention from any particular party. This participation can enrich Muslims' understanding of religious teachings, while also opening up space for more open and inclusive discussions among Muslims from various backgrounds.

Although blockchain technology offers many benefits, its implementation in digital da'wah is not without challenges. One of them is the high level of digital literacy among Muslims. Many of them do not yet

understand how blockchain works or how to use it for da'wah purposes. Therefore, efforts are needed to educate Muslims on how to effectively utilize this technology by providing easily understandable training and tutorials. Moreover, although blockchain offers transparency, challenges related to content moderation remain, as there is no easily applicable oversight system in a decentralized ecosystem. Therefore, it is important to ensure that the da'wah content disseminated remains in line with moderate Islamic teachings and is not misused for malicious purposes. Thus, the utilization of blockchain technology in Islamic communication can have a significant positive impact on the dissemination of da'wah content digitally (Dwi Yuda & Watini, 2023). By prioritizing transparency, security, and broader participation, blockchain enables digital da'wah to be more effective and ensures its authenticity. However, to ensure optimal implementation, collaboration between da'wah institutions, technology developers, and Muslims is needed to address the existing challenges.

CONCLUSION

The study highlights the potential of blockchain technology to improve the authenticity, security, and transparency of digital dakwah content. It demonstrates its ability to address issues like copyright infringement and content manipulation. However, challenges include lack of technological literacy among religious preachers and high development costs. To maximize implementation, it recommends improving literacy, government support, and accessible platforms.

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