



dmcn

BRIDGING COMMUNITIES

AI and metaverse projects

WHITEPAPER

Version 1.2

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1. ARTIFICIAL INTELLIGENCE

1.1 Evolution of Artificial Intelligence

The concept of artificial intelligence (AI) has been around for centuries, but the history of AI as a field of study really began in the mid-20th century. Below is a brief overview of the key milestones in the evolution of AI to give the readers and potential contributors to the DAO an idea of the development of AI thus far.

1.1.1 Early development (1940s-1950s)

The origins of AI can be traced back to the 1940s and 1950s, when researchers began to explore the possibility of creating machines that could simulate human intelligence. One of the earliest pioneers in the field was British mathematician and logician Alan Turing, who proposed a test to determine whether a machine could exhibit human-like intelligence.

1.1.2 Symbolic AI (1950s-1960s)

In the 1950s and 1960s, researchers focused on developing symbolic AI, which used logic and symbolic reasoning to model human thought processes. One of the most influential symbolic AI programs at the time was the Logic Theorist, developed by Allen Newell and Herbert Simon.

1.1.3 Machine learning (1960s-1970s)

In the 1960s and 1970s, researchers began to explore the use of machine learning techniques, which allowed machines to learn from data without being explicitly programmed. One of the key developments during this period was the creation of the perceptron, a type of neural network that could learn to recognize patterns in data.

1.1.4 Expert systems (1980s)

In the 1980s, researchers developed expert systems, which used knowledge-based reasoning to solve complex problems in specialized domains. Expert systems were used in a wide range of applications, from medical diagnosis to financial forecasting.

1.1.5 Neural networks (1990s-2000s)

In the 1990s and 2000s, researchers made significant advances in the development of neural networks, which are modeled on the structure and function of the human brain. Neural networks were used in a variety of applications, including speech recognition, image classification, and natural language processing.

1.1.6 Deep learning (2010s-present)

In the 2010s, deep learning emerged as a powerful technique for training neural networks with multiple layers. Deep learning has been used to achieve breakthroughs in a wide range of applications, including computer vision, natural language processing, and game playing.

1.2 Artificial Intelligence Market Trend

The AI market has been growing rapidly in recent years, driven by the increasing demand for AI-based solutions across various industries. According to a report by Grand View Research, the global AI market size was valued at USD 62.35 billion in 2020 and is expected to reach USD 733.7 billion by 2027, growing at a CAGR of 42.2% from 2020 to 2027.

Some of the key factors driving the growth of the AI market include:

- • Increasing adoption of AI in various industries such as healthcare, finance, and retail.
- • Rising demand for intelligent virtual assistants and chatbots.
- Growing investments in AI startups and research and development activities by major companies.
- • Advancements in big data analytics and cloud computing technologies.
- • Rising demand for automation and predictive maintenance solutions.
- The COVID-19 pandemic has also accelerated the adoption of AI-based solutions in various industries, such as healthcare, to enable remote patient monitoring and drug discovery.

Today, AI is an increasingly important part of our lives, with applications in fields such as healthcare, finance, transportation, and entertainment. As technology continues to evolve, we can expect to see even more exciting developments in the field of AI in the years to come.

2. BLOCKCHAIN TECHNOLOGY

2.1 Evolution of Blockchain Technology

Compared to artificial intelligence, blockchain technology is still fairly new, having started out with the IBM chains in the obscure corners of IBM's laboratories and later only entering the public consciousness with the launch of Bitcoin and the white paper by Satoshi Nakamoto. Blockchain technology has undergone a significant evolution since its inception. From a underdog in the pariah regions of technology to a component of the mainstream finance and technology, the blockchain industry has seen its fair share of ups and downs. To give the uninitiated some context, here are some key milestones in its development:

2.1.1 Bitcoin

The most prominent blockchain, Bitcoin, was created in 2009 by the anonymous individual or group known as Satoshi Nakamoto. While some chains were created earlier, they failed to gain traction and did not enter the public consciousness. Hence, the real birth of blockchain, for most practical purposes, should be dated to 2009.

2.1.2 Expansion of Blockchain

In 2013, Ethereum was created, introducing a new blockchain system that allowed developers to build decentralized applications (dApps) on top of it. This led to the development of other blockchain networks such as Litecoin, Ripple, and Bitcoin Cash.

2.1.4 Scalability Solutions

As blockchain technology gained popularity, it faced challenges related to scalability, including slow transaction speeds and high fees. To address these issues, solutions such as sharding, sidechains, and second-layer protocols like the Lightning Network were developed.

2.1.5 Enterprise adoption

In recent years, many businesses and organizations have started exploring the use of blockchain technology for various applications such as supply chain management, voting systems, and identity verification. This has led to the development of enterprise-grade blockchain platforms such as Hyperledger Fabric and Corda.

2.1.6 Interoperability

As more blockchain networks emerged, the need for interoperability between different networks became apparent. Projects such as Polkadot, Cosmos, and Chainlink are working to bridge the gap between different blockchains.

2.1.7 NFTs

Non-fungible tokens (NFTs) have recently gained popularity, especially in the art world. NFTs are unique digital assets that are stored on a blockchain, making them one-of-a-kind and immutable.

Overall, the evolution of blockchain technology has been rapid and significant, with new developments and applications emerging regularly as the technology continues to mature and become more widely adopted.

3. THE METAVERSE

3.1 Evolution of the Metaverse

The metaverse is a virtual world that is a fully immersive, interactive, and shared space. It has evolved over time, and its history can be traced back to early video games and online communities. Here are some of the key milestones in the evolution of the metaverse:

3.1.1 Text-Based MUDs (Multi-User Dungeons) - In the late 1970s and early 1980s, text-based MUDs were created, which allowed multiple players to interact in a shared virtual space.

3.1.2 Graphical MMOs (Massively Multiplayer Online Games) - In the 1990s, graphical MMOs like Ultima Online and EverQuest were developed, which added visuals to the text-based MUDs.

3.1.3 Social Virtual Worlds - In the mid-2000s, social virtual worlds like Second Life were developed, which allowed users to create and customize their avatars and interact with other users in a shared virtual space.

3.1.4 Augmented Reality and Virtual Reality - In recent years, augmented reality and virtual reality technologies have been developed, which offer more immersive and realistic virtual experiences.

6.1.5 Blockchain-Based Metaverse - Currently, there is a new wave of development happening where a blockchain-based metaverse is being created. This metaverse will be decentralized, allowing users to own their assets and have more control over their virtual experiences.

3.2 The Metaverse Trend

The metaverse has been gaining momentum in recent years, as advances in technology have made it possible to create more complex and immersive virtual environments. The global metaverse market size was estimated at USD 65.51 billion in 2022. It is expected to expand at a compound annual growth rate (CAGR) of 41.6% from 2023 to 2030. According to industry experts, the metaverse is expected to infiltrate a multitude of industries in numerous ways in the coming years, with the potential market opportunity or the total addressable market estimated at more than USD 1 trillion in yearly revenues.

Increased investment and acquisitions: Major tech companies like Meta, Google, and Microsoft were investing heavily in the development of the metaverse, with Facebook announcing plans to create a metaverse product team and acquire VR headset maker Oculus.

Several notable developments in the metaverse market include:

- • NFTs and virtual assets: Non-fungible tokens (NFTs) were becoming increasingly popular in the gaming and virtual world space, with some NFTs selling for millions of dollars. This highlighted the potential for virtual assets to become a major market in the metaverse.
 - • Gaming and socialization: The metaverse was seen as a new frontier for gaming and socialization, with the potential to create immersive, persistent worlds where people could interact with each other in new ways. Companies such as Roblox, Sandbox, Second Life and Decentraland have gained attention as metaverse gaming and social platforms.
 - Businesses: The metaverse can be used as a platform for virtual conferences, meetings, and exhibitions. Businesses can use the metaverse to showcase products and services, conduct market research, and collaborate with other businesses.
 - • Education: Students can learn in a fully immersive environment in the metaverse. For example, a virtual classroom can be created where students can attend lectures, interact with other students and teachers, and participate in educational activities.
- 6
- Healthcare: Another potential application for the metaverse in healthcare is for medical education and training. Medical students and healthcare professionals could practice procedures and scenarios in a simulated environment, allowing for more realistic and immersive training experiences. There is also potential for the metaverse to be used for medical research and data analysis. Researchers could use the metaverse to visualize complex data sets and models, potentially leading to new insights and discoveries.

4. WAYS AI AND BLOCKCHAIN TECHNOLOGY CAN BE COMBINED FOR FUTURE OF MANKIND

Artificial intelligence (AI) and blockchain technology can be combined in several ways to provide benefits to mankind. Below are a few examples:

4.1 Secure Data Sharing

Blockchain technology can be used to securely share data between different entities. AI algorithms can then analyze this data to draw insights and make predictions. For instance, this can be used in healthcare to share patient data securely between hospitals and research institutions to develop better treatments.

4.2 Decentralized Autonomous Organizations (DAOs)

DAOs are organizations run by smart contracts on a blockchain. AI can improve DAO governance in various ways. The most obvious being the use of AI to automate some decision-making processes in DAOs, making them more efficient and autonomous.

4.3 Supply Chain Management

Blockchain can be used to track and trace products through the supply chain, ensuring that they are authentic and of high quality. AI algorithms can then be used to analyze this data and provide insights on the supply chain's efficiency.

4.4 Fraud Detection

AI algorithms can be used to detect fraudulent transactions on a blockchain. For example, in the financial sector, AI can analyze transaction data to identify suspicious patterns and prevent fraud.

In summary, the combination of AI and blockchain can provide numerous benefits to mankind, such as secure data sharing, decentralized autonomous organizations, efficient supply chain management, and fraud detection. With the progress of time and technology, more uses and benefits can probably spring from the combination of AI and blockchain.

5. USES AND BENEFITS COMBINING AI WITH THE METAVERSE

AI and metaverse apps have the potential to revolutionize the way we interact with technology and the world around us. Here are some examples of how AI and metaverse apps are being used:

- 5.1 Personalized experiences: AI algorithms can analyze user data to create personalized experiences within the metaverse. This could include tailored recommendations for virtual events, games, and other activities.
- 5.2 Virtual assistants: Metaverse apps could incorporate virtual assistants powered by AI, allowing users to interact with the digital world using voice commands or natural language.
- 5.3 Real-time translation: AI-powered translation services can enable people who speak different languages to communicate seamlessly within the metaverse.
- 5.4 Content creation: AI algorithms can assist in the creation of virtual worlds, characters, and objects, reducing the amount of manual labor required to produce high-quality content.
- 5.5 Predictive analytics: Metaverse app developers can use AI algorithms to analyze user behavior and preferences to better understand what users want and how they interact with the digital world.
- 5.6 Simulation and training: Metaverse apps can be used to simulate real-world scenarios for training and education purposes, such as simulating disaster response scenarios or providing virtual training for medical procedures.

Overall, AI and metaverse apps have the potential to create more engaging and immersive experiences for users, while also increasing efficiency and reducing costs for developers. As the technology continues to evolve, it will be interesting to see how it is applied in new and innovative ways.

6. HOW AI CAN IMPROVE DAO GOVERNANCE

Of the points mentioned in section 4, point 4.2 is of the greatest interest to us. While the exact nature of the use of AI for DAO governance for AI Meta Club has yet to be decided, the various use cases for improving DAO governance bring exciting possibilities. In fact, as the AI behind the DAO learns over time, it is likely to come up with unique and exciting new use cases of its own never before imagined.

6.1 AI Bots and Assistants

AI tools can be used to speed up a whole range of DAO activities such as writing proposals, summarizing governance decisions, conducting transactions, and recruiting new members. Some DAOs are already making use of AI in such cases. The proliferation of such practices is still limited though, with DAO governance being a completely manual process in most DAOs.

6.2 Resume Screening and Role Assignment

The DAO's proprietary AI can also be used to screen and verify resumes, decide the assignment of roles, promotions etc. With the advent of new technology such as the soul-bound token, such a use

case can be achieved through on-chain reputation or credential storage. In this case, the AI can be counted on to be impartial and unemotional, thus resulting literally in the jobs going to the most qualified. On the other hand, the AI cannot be counted on to navigate the politics among members within a DAO and to maintain relations, which might come to affect cohesion within the community.

6.3 Increase Productivity

AI assistants and bots can also help increase productivity by helping DAO contributors to pen their proposals and arguments. In a way, AI assistants like Chat GPT are already doing that by helping humans come up with whole passages with arguments upon receiving brief instructions. Verification and amendments are still required in most cases though.

Nonetheless, DAO contributors, both core and non-core, can train the proprietary AI model to perform mundane tasks, such as community and forum moderation, in order to free up time for creative and higher-level tasks that only humans can perform, thus creating value for both the DAO contributor himself and other members of the DAO. Initial patience is required though, since substantial training would be required for the AI model to perform at a satisfactory level.

The AI can also be trained to interpret and summarize lengthy posts which are common in the DAO governance process. Extensive background and technical knowledge might also be required in some cases. Most new members usually lack the knowledge and the motivation to acquire such knowledge, thus leading either to apathy or irrational voting. In the most extreme case, when the AI is sufficiently trained, human DAO members can also choose to delegate their votes to the AI instead of to other humans, after setting parameters and preferences. When a sufficient proportion of votes are thus delegated, governance can be speeded up with votes sometimes instantaneously decided instead of requiring days and weeks.

7. AN AI- AND DAO-GUIDED FUTURE

Artificial intelligence (AI) and decentralized autonomous organizations (DAOs) have the potential to shape the future in a number of ways when combined. While AI Meta Club would probably be unable to fulfill all these possibilities (at least initially), it should signal the beginning of a movement to advance the future of mankind through the combination of decentralized governance and AI.

7.1 One possible scenario is that AI and DAOs could be combined to create more efficient and effective decentralized systems. For example, a DAO could use AI algorithms to automatically allocate resources and make decisions based on data and feedback from users. This could lead to more fair and transparent decision-making, as well as better outcomes for participants in the DAO.

7.2 AI and DAOs could also help to address some of the challenges facing society today, such as climate change, poverty, and inequality. By using AI to analyze large datasets and identify patterns, DAOs could develop more effective strategies for addressing these issues. For example, a DAO focused on climate change could use AI to identify the most effective interventions for reducing carbon emissions.

7.3 Another possibility is that AI and DAOs could help to democratize access to resources. By using DAOs and smart contracts, it is possible to create decentralized financial systems that are accessible to anyone with an internet connection. AI could be used to manage and optimize these systems, ensuring that resources are allocated efficiently and fairly.

Overall, the combination of AI and DAOs could help to create more efficient, effective, and equitable decentralized systems. However, it is important to ensure that these systems are designed and implemented in a way that prioritizes ethical considerations, such as transparency, privacy, and security.

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8. WHAT IS AI META CLUB

8.1 An introduction

AI Meta Club is a platform that brings together like-minded individuals passionate about exploring the potential of AI and metaverse technologies. It provides a hub for community members to come together, connect, interact, learn and earn rewards for sharing their knowledge on AI technology, trends, and opportunities.

As a decentralized autonomous organization (DAO), on the Ethereum Layer 2 Arbitrum, AI Meta Club uses artificial intelligence to guide and power governance. With artificial intelligence helping to keep human emotions and group think in check, it is hoped that better governance decisions be made for the greater good of the DAO, the blockchain community and mankind as a whole. A proprietary AI model will be used for the governance of the DAO. While the initial governance process is likely to be messy, the level of governance is likely to improve over time, and eventually exceed governance purely by humans, as the AI learns and improves over time.

8.2 Features of AI Meta Club

- Education: Explore AI and metaverse technologies and its applications, stay up-to-date on the latest trends, developments and opportunities through webinars, AMAs, workshops etc.
- Rewards: AI Meta Club rewards users for their contributions to the community, incentivizing participation and creating a vibrant ecosystem.

- • Security: The platform is built on blockchain technology, providing a secure and decentralized environment for users to connect and transact.
- • Immersive events: Community members can participate in global events and projects launches that showcase the potential of AI and metaverse technologies.
- • Marketplace: AI Meta Club collaborates with global industry players where members can access to high-value AI and metaverse projects, airdrops and token offerings.
- • Resources: Connects members with global industry professionals and offers opportunities for project collaborations, business developments and career advancements.

8.3 Why DAO

A DAO, or Decentralized Autonomous Organization, is a community-driven organization that uses blockchain technology to operate transparently and autonomously based on a set of rules encoded in computer programs called smart contracts, without the need for intermediaries such as managers or directors. The rules are enforced automatically and transparently by the blockchain technology on which the DAO operates.

A DAO community can be made up of people with different backgrounds and skills who share a common interest in the goals and values of the organization. Members of a DAO community can participate in decision-making, propose and vote on changes to the organization's rules, and receive rewards for their contributions.

DAO communities can be found in various fields, including finance, art, and governance, and they are becoming increasingly popular due to their decentralized nature, which allows for more inclusive and democratic decision-making processes.

8.4 Benefits of a DAO community

Decentralization: DAOs operate without a central authority or leader, allowing for more democratic decision-making and reducing the risk of corruption or manipulation.

Transparency: All transactions and decisions made by the DAO are recorded on a blockchain, making them publicly accessible and verifiable. This fosters trust and accountability within the community.

Community Ownership: DAOs are owned and operated by the community members who hold its tokens, giving them a direct stake in the success of the organization. This can incentivize members to contribute to the community and work towards its goals.

Efficiency: DAOs can operate 24/7 without the need for human intervention, allowing for faster and more efficient decision-making processes.

Global Reach: DAOs can operate across borders and time zones, making it easier for members from around the world to collaborate and contribute to the community.

Flexibility: DAOs can be tailored to fit the specific needs of their community, whether that's managing a shared resource or coordinating a decentralized workforce.

Innovation: DAOs can serve as incubators for new ideas and projects, allowing community members to experiment and collaborate on cutting-edge technologies and initiatives.

Overall, a DAO community can provide a more transparent, democratic, and efficient way for individuals to collaborate and work towards common goals.

9. AIGC DIGITAL CHARACTER GENERATION AND PROMPT-BASED Q&A AI SYSTEM

9.1 System Overview

The system utilizes dmcn Token. dmcn token holders can also stake to mine.

The system mainly provides AIGC related services, including: a.

- a. Prompt text generation and transaction;
- b. Image generation via Text2 Image service;
- c. 3D character generation with Image2 3D Avatar service;
- d. AIGC's Prompt to the generation of questions, answers and accumulation re-learning services;
- e. Meta Avatar character information connecting to external service — openMetaAPI. Avatars enters the metaverse and players consume and earn dmcn through creating virtual worlds and gameplay.
- f. Provides IPFS (distributed storage service) for the ecosystem, earns dmcn by providing computing power and through staking.

The first five services will consume dmcn to obtain service results, while dmcn for the last service can be obtained by providing storage mining.

9.2 Service description and realization

9.2.1 Prompt text generation and transaction

- All registered users can register on the platform and provide finished AIGC content, while hiding various models and accurate prompts that generate the content.
- Users can purchase hidden content with dmcn.

9.2.2 Image generation via Text2 Image service

- Other users utilize the Prompt obtained in the previous step and third-party model to generate satisfactory 2D characters through the OpenAI Dall.2 neural network technology. dmcn is required for this service.

9.2.3 3D character generation with Image2 3D Avatar service

- Generates 3D Avatar images from 2D characters. dmcn is required for this service.

9.2.4 IPFS storage service for AIGC generated content

Write the content generated Prompt and generated content to the chain through smart contracts for storage. dmcn is required for users to store data. Users can participate in the storage project by staking and mining and receive dmcn for providing storage services.

9.2.5 Prompt-based question answer training system

- • The key to AI model training is refinement. The more targeted input and output of data pairs, the higher the accuracy of model training.
- • This module is targeted at the vertical knowledge of related industries through the combination of blockchain and AIGC. The main goal of this module is to effectively solve almost all problems encountered by users in the AIGC content creation process.
- • The system provides some known questions and answers in advance, and provides a channel for users to ask relevant questions.
- • Any user can participate in answering questions and will vote on the answer to the question within a certain time frame. User who participate in the voting will be rewarded with dmcn and the user who provided the result which is finally adopted will also get dmcn rewards. The answer process is mining POA (Proof of Answer).
- • The above-verified question and answer pairs will be used for continuous training of the AI model to continuously improve the accuracy and variation of the question answering system.

9.2.6 Meta Avatar character information connecting to external service — openMetaAPI

- • The Meta Avatar character's information generated through the above steps will eventually be stored on the blockchain and IPFS storage network.
- • The relevant raw data of Meta Avatar can be connected with other third-party Metaverse applications and game applications through the openMetaAPI provided by the system. This process requires user authorization to obtain relevant data and users need to pay dmcn to transfer Meta Avatar data to third-party platforms.
- • This application scenario is mainly to use the Avatar characters generated in the dmcn service uniformly in different applications, just like a person traveling in different worlds, having the same characteristics.
- • In the later stage, a role-based multi-world data synchronization service can be developed to bring together data in multiple meta universes to dmcn for unified management.

10. UTILITY TOKEN: dmcn

10.1 Overview

The utility token would be dmcn, symbolizing future. It conveys the hopes of a better age that the initiators of the DAO wish to bring to the rest of the web3 community. The token would be used for voting and proposals. There will be 1 billion tokens in total. The token release schedule has yet to be decided.

dmcn token also represents membership in the club and facilitates transactions, incentivizes participation and rewards members for their contributions to the community. dmcn tokens can be bought, sold, or traded on cryptocurrency exchanges, and used within the club to participate in decision-making process related to the guild's development and growth and access to products, services and contents.

10.2 dmcn Token Utility

AIGC digital character generation and prompt-based Q&A AI system: Members can utilize Prompt text generation and transaction service, generate 3D characters, participate in Prompt-based Q&A AI service and import characters into various metaverses.

Ecosystem Rewards: Participate in dmcn ecosystem projects and get rewarded with dmcn tokens.

Participation Rewards: Members earn rewards for participating in community governance and decision-making. Rewards are also given for participating in various community activities such as contributing to forums, answering questions, and sharing their insights on AI and metaverse technologies.

Staking Rewards: AI Guild will offer staking rewards for users who hold dmcn tokens. These rewards will be distributed to users who stake their tokens for a specified period of time and participate in community governance activities.

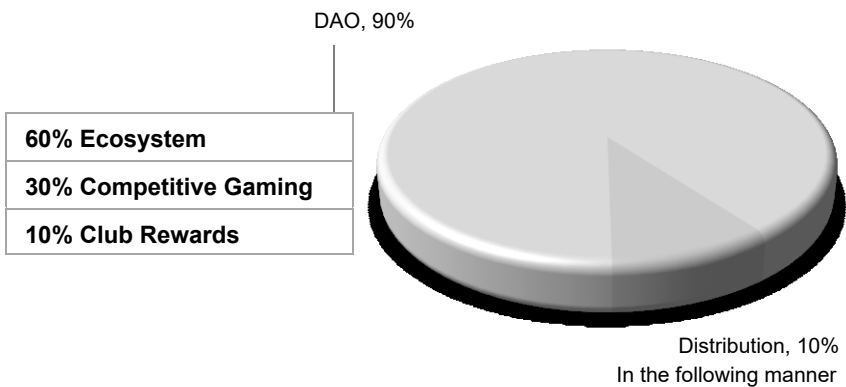
Marketplace Transactions: Members can use dmcn tokens to purchase products and services on the AI Meta Club marketplace.

Partner Rewards: The AI Meta Club will partner with industry players to offer discounts and other incentives to users who pay with dmcn tokens.

Access to Premium Content: Members can access premium content on the AI Meta Club platform by paying with dmcn tokens. This includes exclusive research reports, webinars, and training materials.

10.3 Token Supply & Distribution

The total supply of dmcn tokens is 1 billion, with no further issuance planned.



20% Foundation	Released linearly every quarter for five years (the first release will start in January 2024)
15% Technical Team	Released linearly every quarter for five years (the first release will start in January 2024)
12% Ecosystem Collaboration	Released linearly over 4 years. 3% ecosystem collaboration every year.
10% Marketing Resources	Released linearly over 5 years. 2% market resources every year.
6% Community Support	Released linearly over 3 years. 2% community support every year.
2% Airdrop	Unlocked
35% Sales	30% will be released in the first phase, the remaining 70% will be released within one year after listing, 17.5% released every quarter

10.4 Sustaining Token Value

The goal is to create a sustainable and thriving ecosystem that rewards members for contributing to the community and encourages long-term adoption and growth. It can also help to prevent market manipulation, encourage transparency and trust, and create a fair distribution of tokens.

Token Burn: To ensure the scarcity and value of the dmcn token, a portion of the tokens utilized in the ecosystem will be burned, reducing the total supply of dmcn in circulation.

Token Buyback: AI Meta Club will periodically buy back and burn dmcn tokens from the open market, using a portion of its revenue to do so. This is intended to further reduce the total supply of dmcn and increase its value.

11. WHY ARBITRUM

Arbitrum is a layer-2 scaling solution for Ethereum, designed to improve the scalability and reduce the transaction costs of the Ethereum network. Admittedly, one of the main reasons for choosing

Arbitrum is emotional and superficial: the coincidence of terms in Arbitrum's use of the optimistic rollup technique and AI Meta Club's optimistic view of the future for mankind and AI. Nonetheless, there are several great advantages that Arbitrum offers over other networks:

11.1 Faster and Cheaper Transactions

Arbitrum can process transactions faster and more cost-effectively than the Ethereum network. This is achieved through the use of Optimistic Rollup technology, which allows for higher transaction throughput and lower gas fees. By being also a layer 2 on the Ethereum network, Arbitrum can also free-ride on the security offered by Ethereum as its layer 1.

11.2 EVM-Compatibility

Arbitrum is fully compatible with the Ethereum Virtual Machine (EVM) and supports Solidity smart contracts, which means that developers can easily migrate their DApps from Ethereum and other EVM-compatible chains to Arbitrum.

11.3 Integration with Ethereum

Arbitrum is built on top of Ethereum, which means that it can easily interact with the Ethereum network. This allows for easy movement of assets and data between the two networks, as well as access to the entire Ethereum ecosystem.

11.4 Security and Decentralization

Arbitrum uses fraud-proof technology to ensure the security and decentralization of the network. The system relies on a network of validators who are responsible for verifying transactions and ensuring the validity of the blockchain. In case of a dispute, a fraud proof can be submitted to the Ethereum network to resolve the issue.

In summary, Arbitrum offers several advantages over the Ethereum network, including faster and cheaper transactions, full EVM compatibility, seamless integration with Ethereum, security and decentralization, and user-friendliness. These advantages make it an attractive option for developers and users looking to take advantage of the benefits of layer-2 scaling solutions.

12. ZK ROLLUP VS OPTIMISTIC ROLLUP

ZK Rollup and Optimistic Rollup are both layer-2 scaling solutions for blockchain networks that aim to increase transaction throughput and reduce fees. However, they use different approaches to achieve this goal. The names are not the only consideration in the choice of the underlying network. While ZK Rollup solutions offer greater speed and privacy, the Optimistic Rollup suites offer EVM compatibility and allow the use of Ethereum addresses, which should allow for greater and easier adoption, thus the choice of the latter since great ideas only permeate with great adoption.

12.1 ZK Rollup

ZK Rollup stands for Zero-Knowledge Rollup, and it uses zero-knowledge proofs to ensure the validity of transactions without actually executing them on the main blockchain. In ZK Rollup, users submit their transactions to a smart contract on the main chain, which creates a rollup of all the transactions. This rollup is then submitted to a ZK Rollup operator, who generates a proof of the validity of the transactions without revealing any details of the individual transactions. The proof is then submitted to the main chain, which verifies it and includes it in the blockchain. This allows for a significant reduction in transaction costs and increases the overall throughput of the network.

12.2 Optimistic Rollup

On the other hand, Optimistic Rollup is a layer-2 scaling solution that assumes that most transactions are valid, and only in the case of an invalid transaction does it revert back to the main chain. In Optimistic Rollup, users submit their transactions to a smart contract on the main chain, which creates a rollup of all the transactions. This rollup is then submitted to an Optimistic Rollup operator, who assumes that all transactions are valid and includes them in a block. The block is then submitted to the main chain. However, if an invalid transaction is detected, the entire block is rolled back to the main chain, and the process is restarted.

In summary, the main difference between ZK Rollup and Optimistic Rollup is that ZK Rollup uses zero-knowledge proofs to ensure the validity of transactions, while Optimistic Rollup assumes that most transactions are valid and only reverts to the main chain in the case of an invalid transaction.

With both types of rollup chains increasingly adopting elements of the other, differences among the types of chains in the future are likely to be minimal though.

13. TOKEN DISCLOSURE: NO PROFIT EXPECTATION AND NO SECURITY CHARACTERISTICS

13.1 dmcn Utility Token

The utility token would be dmcn, symbolizing future. It conveys the hopes of a better age that the initiators of the DAO wish to bring to the rest of the web3 community.

Readers and potential buyers of the token should note that the token would be strictly for utility. There are no plans to generate any revenue through operation of the project. Buyers of the utility token dmcn should not expect any form of profit from their purchase. Neither should the buyers consider it a form of investment. The mechanisms of AI Meta Club are experimental and not with any profit motive in mind. The efforts of the members involved in the building and governing the DAO are not expected to generate any form of profit for the DAO or its members. Also, there would not be any guarantee of any form of price appreciation for the utility token. Any form of listing, be it on a centralized exchange or a decentralized exchange, would be for the proliferation of the utility token and the ideals behind it. Buyers of the utility tokens should not expect to be able to re-sell their tokens at a higher price to others, in any denomination.

13.2 Howey Test

The Howey Test is a legal test used to determine whether a transaction involving an investment qualifies as a security. Under the Howey Test, an investment contract is a security if it meets the following criteria:

- 1) There is an investment of money
- 2) The investment is in a common enterprise
- 3) There is an expectation of profits from the investment
- 4) The profits come primarily from the efforts of others

It is obvious that the dmcn token and the AI Meta Club project do not fit the criteria of a security under the Howey Test. Since the token and the DAO are devoid of any profit-generating mechanism for the token holders and the DAO members, purchase of the utility token should not be construed as an investment. Neither is there any form of price guarantee or any guarantee of price appreciation for the token. With the Howey test as reference, the point bears repeating that the

purchase of token and participation in the DAO will not guarantee or provide any reasonable expectation of a profit.

14. ROADMAP

2023 Q1

- Project planning & team building
- • Feasibility studies on the integration of AI and Metaverse
- Tokenomics Design
- • Project development & resource planning

2023 Q2

- • Project launched, brand & community building.
- • dmcn ecosystem building, establishing ecosystem collaborations with global AI & Metaverse projects
- Launch AMChat - AI Q&A System
- \$dmcn listing on CEX
- Utilization of \$dmcn in first metaverse
-

2023 Q3

- • Improve and enrich the ecosystem of the first Metaverse
- • \$dmcn listing on multiple leading exchanges
- \$dmcn use cases in multiple metaverse game
-
- Enrich AI tools for better AI experience
- • Global offline club recruitment, and build dmcn consensus.
- • Establish a club education system for growth and member learning improvement.
- • Launch Text2 Image, 2D image mint into NFTs
-

2023 Q4

- • Establish a balanced consumption and generation of \$dmcn ecosystem in the Metaverse
- • Increase use case of AI tools and \$dmcn
- Realize the use of \$dmcn in AI ecosystem
-
- Launch Image2 3D model
-

2024 Q1

- Minting of 3D model into NFTs
- • Use AI tools to empower Metaverse projects.
- • Utilize AI and metaverse to enrich dmcn ecosystem, establish ecosystem links with multiple global projects.
- • Optimize and upgrade the club education system, explore and develop AI education.

2024 Q2

- • Import of 3D NFTs into the metaverse space
- • Explore the combination of 3D NFT and IPFS and ecosystem rewards
- Establish club management rules and optimize criteria for determining qualified clubs.
-

2024 Q3

- • Launch DAO organization management and explore the Club autonomy model.
- • Establish \$dmcn ecosystem cooperation evaluation criteria and expand the ecosystem.

2024 Q4

- • Complete Text2 Image to 3D model to NFT to Metaverse full-chain technical service
- • Application and circulation of \$dmcn in multiple AI and Metaverse ecosystems
- Establish the management model of dmcn's AI + DAO.
-

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