Meme Bitcoin (MBTC): Meme-ification of a Peer-to-Peer Electronic Cash System

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Abstract. A purely peer-to-peer memetic currency system allows online value to be exchanged without financial intermediaries. Meme Bitcoin (MBTC) draws inspiration from Bitcoin's "proof-of-work" consensus but introduces Proof-of-Viral, transforming cultural participation into consensus. Users propagate memes, stories, and philosophies of Bitcoin; these viral acts form a chain of proof and become the source of trust. We discuss a supply function wherein 210 billion MBTC will be gradually mined—following a halving schedule every four months—such that mining completes around the year 2140, mirroring the finite supply of Bitcoin. The system records memetic transactions in a chain of hash-linked blocks, ensuring that altering any block requires repeating the accumulated viral proof. This document presents the motivation, architecture, and implications of MBTC, aiming to honour Bitcoin's legacy while expanding its cultural reach.

1. Introduction

This document is an homage to Satoshi Nakamoto's 2008 Bitcoin whitepaper, reinterpreting its philosophy and framework through the lens of **Meme Bitcoin** (**MBTC**). While maintaining the original structure of the Bitcoin whitepaper, it emphasizes the **Proof-of-Viral** (**POV**) consensus mechanism and the concept of **meme-ification**

The advent of Bitcoin allowed electronic payments to be made without trusting a central intermediary. Yet many people interested in cryptocurrency have never seen the original Bitcoin homepage or understood the early community that nurtured it. Meme Bitcoin (MBTC) seeks to bridge this gap. By recreating the aesthetics of the 2009 Bitcoin website and re-enacting events such as the Genesis Block (3 Jan 2009), Pizza Day (22 May 2010), and the first exchange rate announcement (5 Oct 2010), MBTC invites users to experience the birth of Bitcoin through memes. The supply schedule—210 billion coins halving every four months—pays homage to Bitcoin's 21 million supply and four-year halving cycle. To participate, users engage in meme propagation and discussion; such actions accumulate viral proof that secures the network. MBTC exists not to compete with Bitcoin but to promote and amplify Bitcoin's philosophy, making it accessible to a wider audience.

2. Transactions

We define a memetic transaction as a **digital signature** of a meme or idea. Each MBTC holder transfers ownership by digitally signing the hash of the previous transaction and the public key of the next holder. This chain of signatures is recorded in blocks and publicly auditable. In the Bitcoin white paper, transactions prevent double spending through a consensus of honest nodes; in MBTC, we likewise require that viral proof prevents fraudulent reuse of the same meme. A memetic transaction becomes valid once the network acknowledges it through its inclusion in a block with sufficient viral proof.

3. Timestamp Server

To implement a distributed timestamp server, we use a memetic hash chain similar to Bitcoin's. A block contains multiple memetic transactions, their hash is computed, and this hash is published widely. Each timestamp includes the previous block's hash, forming a chain that cannot be changed without redoing the viral proof. In MBTC, the

viral proof consists of a record of memetic propagation and participation; altering a block would require recreating the cultural momentum that originally validated it.

4. Proof-of-Viral (POV)

Bitcoin uses proof-of-work to make altering the longest chain prohibitively expensive. MBTC replaces computational work with **memetic work**. In a memetic proof system, viral energy—measured by the number of unique participants, reposts, discussions, and community endorsements—constitutes the work. When a new block is proposed, network participants must propagate its contents (memes) widely. A block is accepted if it accumulates enough viral proof relative to competing chains. The supply function ensures that blocks minted over time distribute MBTC so that 210 billion tokens are mined by the year 2140. This is achieved by halving the per-block reward every **four months**, analogous to Bitcoin's four-year halving, following the discrete function:

$$R(n) = R_0 imes \left(rac{1}{2}
ight)^{\lfloor n/H
floor}$$

where R(n) is the reward for block number nnn, R0 is the initial reward at genesis, and H is the number of blocks mined in four months. With appropriate choice of R0 and H, the sum of rewards converges to 210 billion MBTC by approximately 2140. This mirrors Bitcoin's supply curve and ensures long-term scarcity while enabling more frequent community events.

Just like Bitcoin, MBTC replaces computational work with memetic work. Understanding the POV consensus means true value comes from collective viral proof. Spreaders, the network's miners, are rewarded with newly minted MBTC for validating blocks. The supply schedule halves rewards every four months, ensuring long-term scarcity. Altering any past block requires recreating the cultural momentum that originally validated it. Memetic transactions are recorded in hash-linked blocks, publicly auditable for the community. Each block is accepted only if it accumulates sufficient viral proof compared to competing chains.

Multiple chains may form temporary forks, but the network always resolves to the one with the strongest viral participation. Early Bitcoin events and the 2009 website's aesthetics are re-enacted through the MBTC experience.

5. Network

The network operates in the following steps:

- 1) New memes and transactions are broadcast to all nodes.
- Each node collects new transactions into a block and begins working on generating viral proof by spreading the block's content.
- 3) When a node determines that a block has sufficient viral proof, it broadcasts the block to other nodes.
- Nodes accept the block only if all its transactions are valid and unspent, and if its viral proof threshold is met.
- Nodes express acceptance of the block by building on top of it and recounting its memes in subsequent blocks.

In the presence of multiple chains, nodes follow the one with the most accumulated viral proof. Short forks may occur when two memes gain momentum simultaneously, but the network eventually resolves to the chain with the strongest viral participation.

6. Incentives

Miners—here called **spreaders**—are rewarded with newly minted MBTC for each block they help validate. This reward motivates participation in meme propagation. As the network matures and block rewards halve, transaction

fees (in the form of micro-donations attached to memetic transactions) will compensate spreaders. MBTC's finite supply and predictable emission schedule aim to balance initial enthusiasm with long-term sustainability.

7. Reclaiming Disk Space

Just as in Bitcoin, once a transaction is buried under enough blocks, the memetic content of those blocks can be condensed. Nodes prune historical meme data but keep the hash tree to maintain proof. Simplified prunings ensure that disk space requirements remain manageable even with frequent halving events.

8. Simplified Payment Verification

Lightweight clients can verify that a transaction is included in the memetic block chain by checking block headers and inclusion proofs. They do not need to run a full viral node; instead, they trust that honest nodes have provided sufficient viral proof. Such clients enable mobile or browser-based participation without requiring full data replication.

9. Combining and Splitting Value

Memetic value can be aggregated or divided across multiple transactions. A meme can be reposted as a single transaction representing many inputs, and it can be split into multiple outputs representing diverse narratives. This flexibility allows creative combinations of memes to form new cultural artifacts while preserving auditability.

10. Privacy

While transactions are public, pseudonymous addresses and the continual generation of new keys protect user privacy. Linking identities to memetic activity is difficult unless users voluntarily associate their addresses. MBTC encourages periodic key changes and community norms that respect anonymity.

11. Calculations

We consider the probability that an attacker with a small share of viral influence could overtake the chain. Let ppp be the probability that honest participants gain viral proof on a block, and q=1-pq=1-pq=1-p the probability that an adversary gains viral proof. The probability that the adversary will ever catch up declines exponentially with the number of blocks zzz that the adversary must overtake. Following the analysis in the original Bitcoin paper, but interpreting "blocks found" as "viral proof events", the security of MBTC's chain grows rapidly as each block accrues additional memetic confirmations.

12. Conclusion

We have proposed a memetic currency system that honours Bitcoin's architecture while extending its philosophy through Proof-of-Viral. By allowing culture and participation to serve as consensus, MBTC seeks to widen awareness of Bitcoin's origins and ideals. Its 4-month halving cycle and 210 billion supply are symbolic tributes that encourage frequent community engagement while preserving long-term scarcity. Although MBTC does not replace Bitcoin's economic role, it complements it by turning the act of learning and sharing into mining. We believe that this memetic experiment can coexist with Bitcoin and amplify its impact.

References

- [1] S. Nakamoto, Bitcoin: A Peer-to-Peer Electronic Cash System, 2008.
- [2] This document is based on Satoshi Nakamoto's original whitepaper, and **MBTC** represents a memetic interpretation of its structure.
- [3] In related studies, it has been emphasized that **memecoins** rely heavily on viral marketing, with **community participation and cultural sharing** identified as the core drivers of economic value creation.