

INNOVATION

The Next Social Revolution: Unlocking the Value of Decentralized Networks

by Anchit Jain



Image Credit | afridwi1999

Centralized vs Decentralized Social Networks

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Introduction

Decentralized social networks (DSNs) have emerged as a powerful alternative to traditional platforms like Facebook, Twitter, and Instagram. Traditional social media networks are often criticized for centralizing control over user data, imposing strict content moderation policies, and monetizing user information through advertising. Decentralized social networks counter this by leveraging blockchain technology, allowing users to own their data and move freely between platforms without losing their social graph.

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Decentralized Vs Centralized Social Networks

Below table summarizes key differences between Decentralized and Centralized Social Networks ([Shilina, 2023](#)).

| Centralized Social Networks vs Decentralized Social Networks | | |
|--|--|--|
| Aspect | Centralized Social Networks | Decentralized Social Networks |
| Architecture | Centralized architecture | Peer-to-peer (P2P) or decentralized architecture |
| Data storage | Stored on centralized servers | Distributed across multiple servers |
| Data control | Platform provider retains control and ownership over user data and content | Users have more control over their data and content |
| Privacy | Privacy may vary, dependent on platform policies | Prioritizes user privacy and data protection |
| Censorship resistance | More susceptible to censorship and content control | More resistant to censorship |
| User experience | Well-established user interfaces and feature-rich experiences | Developing stages, may have limitations in features |
| Network effects | Large user base, extensive network effects | Still developing, may have limited user base |
| Revenue model | Advertising, sponsored content, premium subscriptions | Crowdfunding, donations, token economy, premium features |

Decentralized social networks (DSNs) provide solutions to issues seen in traditional centralized social media platforms.

- 1. Data Ownership and Privacy:** Users in DSNs own their data, controlling access and use without reliance on centralized platforms. Cryptographic tools like zero-knowledge proofs can enhance privacy by verifying identities or actions without revealing personal details.
- 2. Censorship Resistance:** DSNs offer freedom from censorship, allowing users to express themselves without fear of de-platforming. Governance through voting ensures that content moderation reflects community preferences instead of centralized control.
- 3. Monetization for Creators:** DSNs enable creators to connect directly with audiences, bypassing intermediaries like YouTube or Instagram. They can earn through cryptocurrency payments, non-fungible tokens (NFTs), or direct sponsorships, eliminating platform fees.
- 4. Interoperability and Portability:** DSNs allow users to maintain a single identity across platforms, providing flexibility and seamless migration of content, ensuring users aren't locked into one ecosystem.
- 5. Community-Driven Platforms:** DSNs often function as decentralized autonomous organizations (DAOs), where users vote on platform rules and policies, ensuring community-led governance. Self-moderation leads to moderation practices aligned with community values.

6. **Increased Security and Resilience:** Decentralization reduces risks of data breaches or cyberattacks by eliminating a central point of failure. Blockchain technology ensures secure, immutable records of interactions, safeguarding against tampering.
7. **Global Participation:** DSNs enable global access, particularly for users in restrictive regions. With cryptocurrency integration, users can conduct peer-to-peer transactions without needing traditional banking, fostering broader participation.

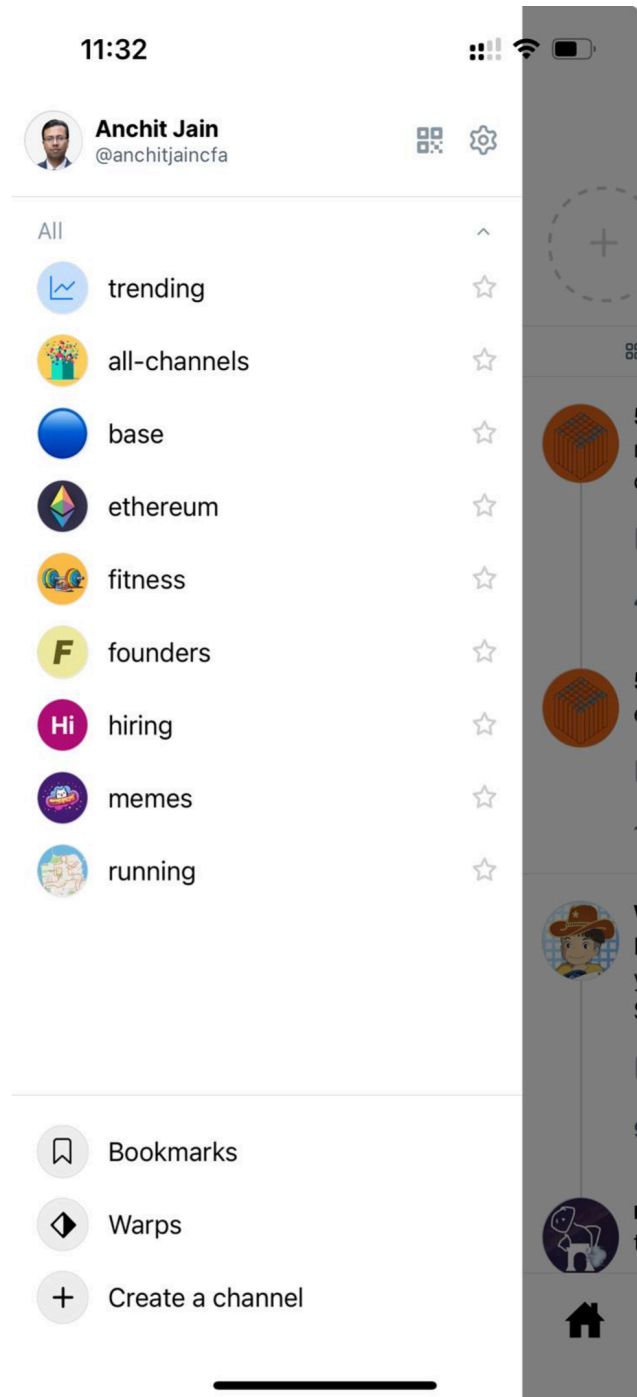
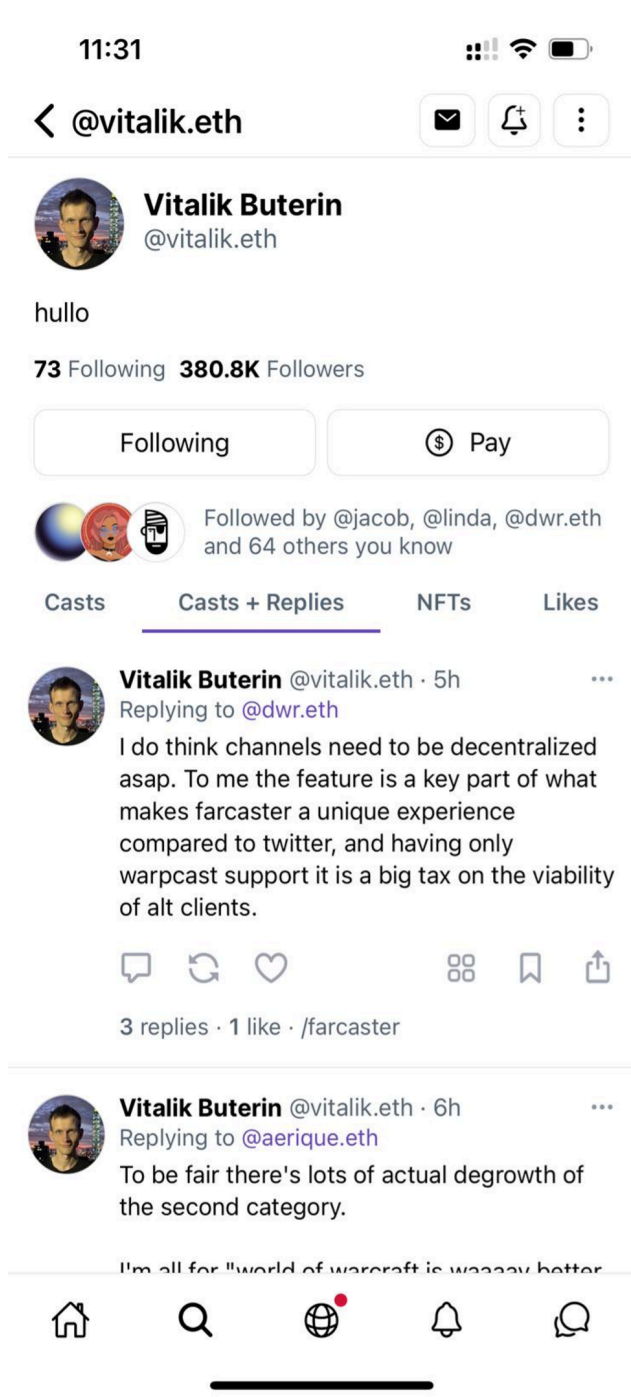
These advantages explain the growing interest in decentralized social networks, particularly in the Web3 community.

Farcaster: A Case Study

Farcaster, founded in 2020, is a leading “sufficiently decentralized” social protocol built on a hybrid model of an on-chain registry and an off-chain social graph ([Farcaster Docs, 2024](#)).

1. **On-chain Registry:** Farcaster uses Optimism, a Layer 2 Blockchain on the Ethereum network, to manage user identities, ensuring unique, trustless, and permissionless relationships that can't be censored. Smart contracts maintain a decentralized ledger of usernames and relationships.
2. **Off-chain Social Graph:** Content like posts, likes, and connections are stored off-chain to reduce blockchain costs and latency. This data remains accessible via a public API for developers.

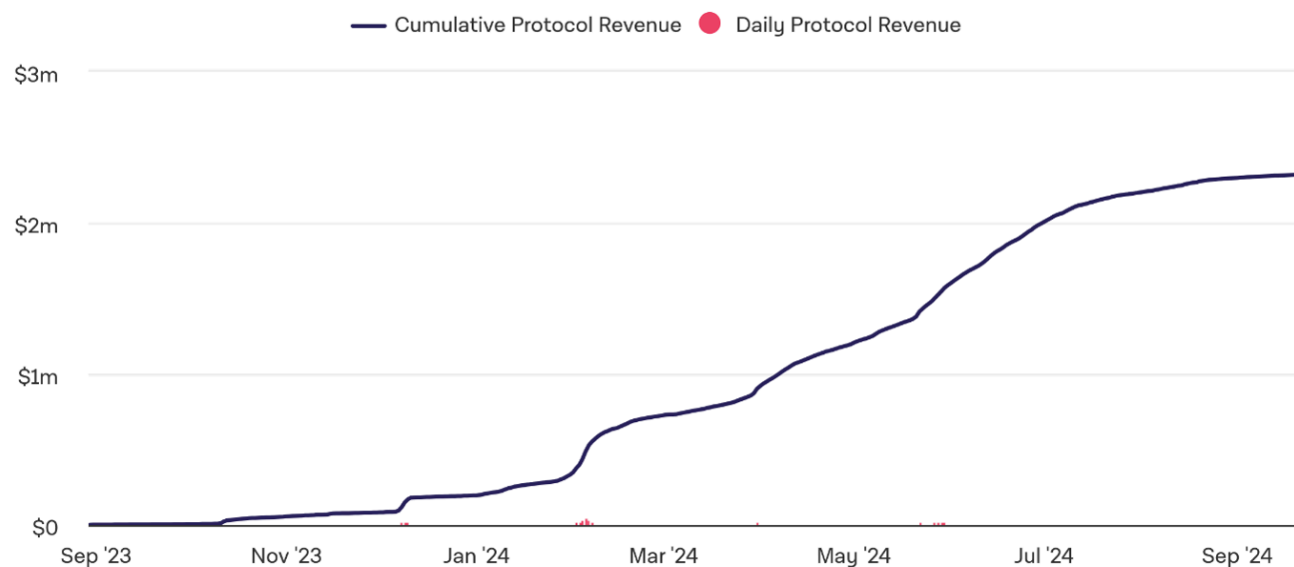
This architecture balances decentralization and scalability, keeping identities on-chain while content stays off-chain for efficiency.



Farcaster requires that users pay a nominal **annual fee** (\$5 for 5,000 posts, 2,500 reactions, and 2,500 followers). This is aimed at preventing the creation of spam accounts/bot activity. In addition, Farcaster also generates revenue through extra storage fees and future plans to offer enhanced services for higher fees.



Farcaster Revenue



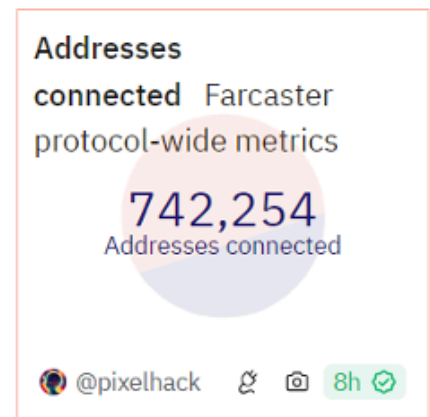
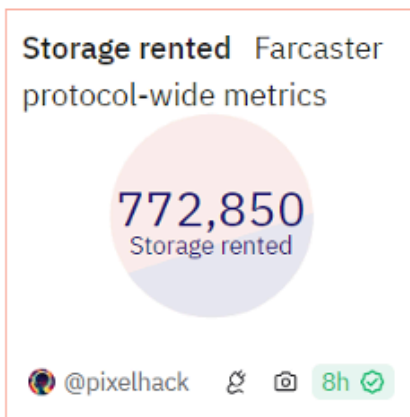
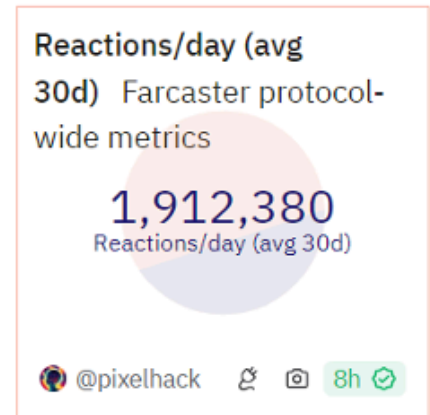
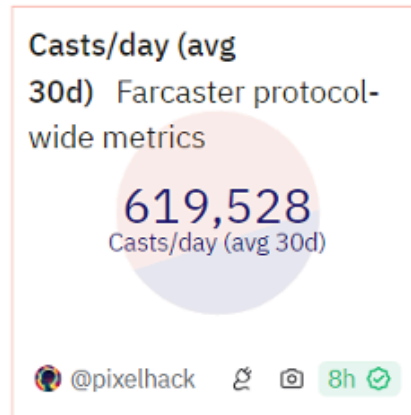
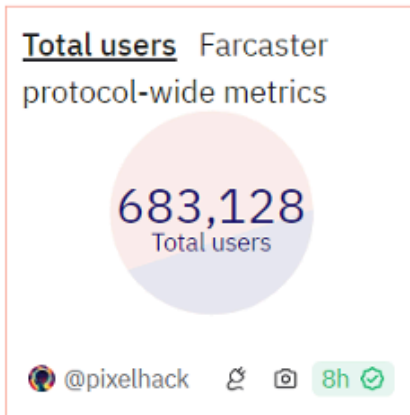
SOURCE: DUNE ANALYTICS
UPDATED: SEP 21, 2024

As of Sep 21, 2024, Farcaster generated a cumulative protocol revenue of \$2.3m ([The Block](#)).

Farcaster does not support traditional advertisements like Facebook or Twitter. Instead, it fosters a decentralized, user-controlled space where creators directly engage their audience without ads or algorithms. Creators can connect in several unique ways:

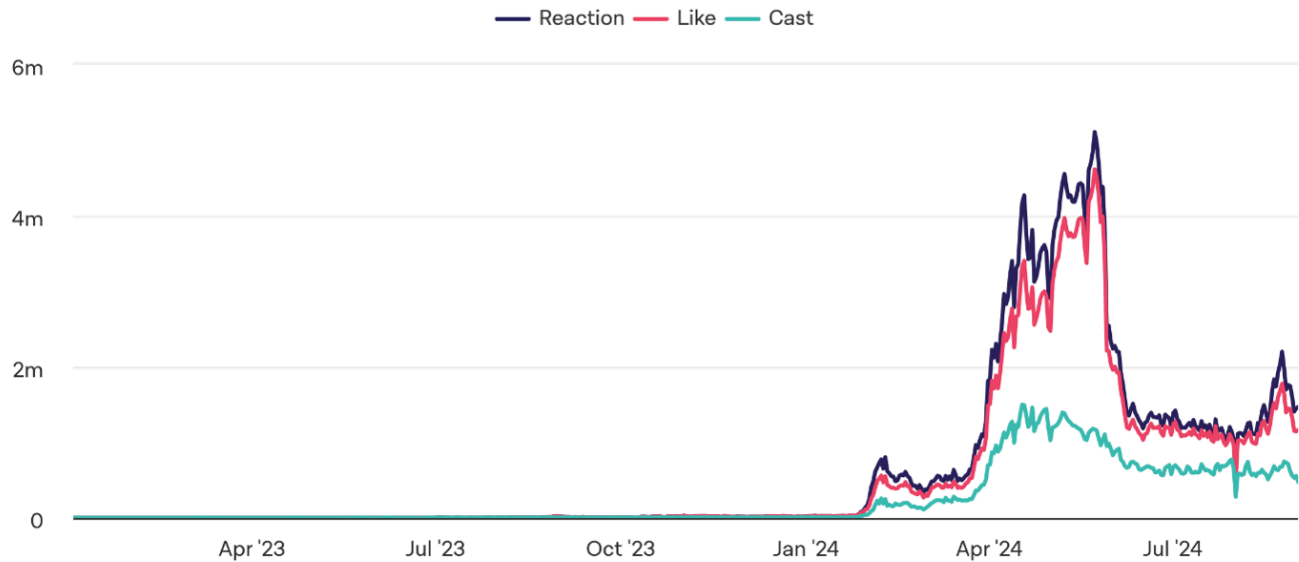
- 1. Tipping and Token-Based Rewards:** Users can tip creators with tokens or other crypto rewards, allowing direct support for valuable content.
- 2. Frames:** This feature lets creators turn static posts into interactive experiences, enabling actions like NFT minting, polls, or e-commerce transactions within posts, offering a direct way to monetize content.
- 3. Subcommunities and Channels:** Creators can build niche-focused subcommunities using “Channels,” similar to Reddit’s subreddits, allowing for deeper audience engagement.

As of Sep 21, 2024, Farcaster has approx. 680,000 users ([Dune Analytics](#)). There are approx. 600,000 casts (posts) and 1.9 million reactions each day.





Farcaster Daily Activity



SOURCE: THE BLOCK
UPDATED: SEP 2, 2024

In Feb 2024, with the introduction of the Frames feature, Farcaster had seen a **spike** in daily active users. This had since slowed, coinciding with the slight cooldown of the crypto market. But Farcaster is still seeing strong organic growth in its user base.

Challenges and Future Outlook

Despite the promise of decentralized social networks, challenges remain:

1. **Scalability:** Handling millions of users while maintaining complete decentralization is a complex technical challenge that developers are actively working on.
2. **User Experience:** The complexity of blockchain technologies and digital identities can be a barrier for mainstream users who are unfamiliar with private key management and Web3 interfaces.
3. **Adoption:** While decentralized social networks attract a tech-savvy audience, mainstream adoption remains limited due to the convenience of centralized

platforms and their entrenched user bases.

Looking forward, decentralized social networks are poised for growth as privacy concerns and platform control become bigger issues for users. While challenges such as scalability and user experience remain, the future of decentralized social networks appears promising as more applications are built and adoption increases.



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