Ethereum User Activity: Beyond DAU

Understanding engagement, retention, and value using on-chain data

By Sasha Meerovich

How Do New vs Returning Users Behave on Ethereum Over Time?
Understanding engagement, retention, and value beyond DAU

<u>On-chain activity analysis using Ethereum transaction data</u>

The Analysis specifies on:

- DAU is widely used but often misleading

- Not all active users contribute equally

- This analysis combines activity, composition, and value metrics

Key Concepts

User: A unique wallet address

Activity: On-chain transactions recorded on Ethereum

DAU: Unique wallets performing at least one transaction per day

New users: Wallets interacting on-chain for the first time

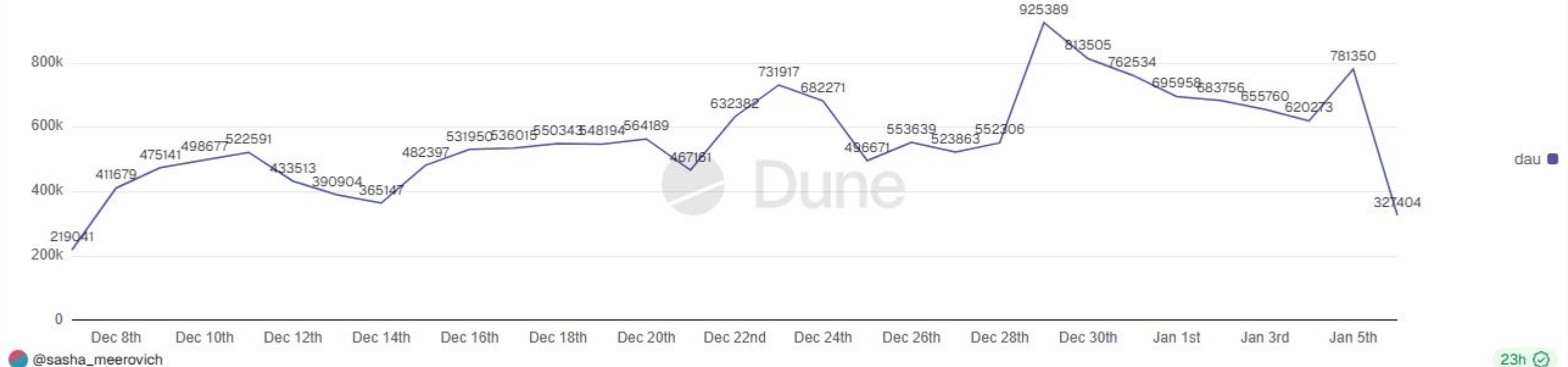**Returning users**: Wallets that were active in the past and returned

This analysis focuses on:

- Daily Active Users (DAU)

- New vs Returning Users

- Median value per active wallet

- The impact of whale activity on averages

Daily Active Users (DAU)

DAU

Daily Active Users

dau

@sasha_meerovich

23h ✓

Daily Active Users (DAU)

Key bullets

DAU measures *how many* users are active

It does **not** explain:

- How much activity users perform

- Whether users are new or retained

- Whether activity is economically meaningful

New vs Returning Users (Who drives DAU)

New vs Returning users per day in last 30 days

Daily active wallets split into new vs returning users on Ethereum. this query represents data in last 30 days
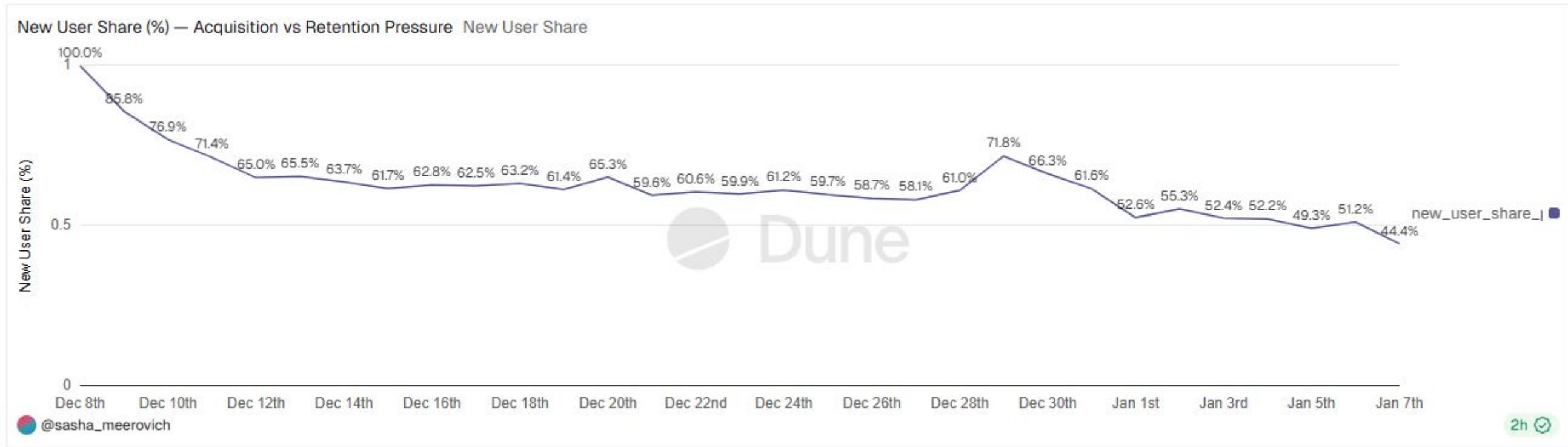
Returning users
New users

@sasha_meerovich ··· API 9d
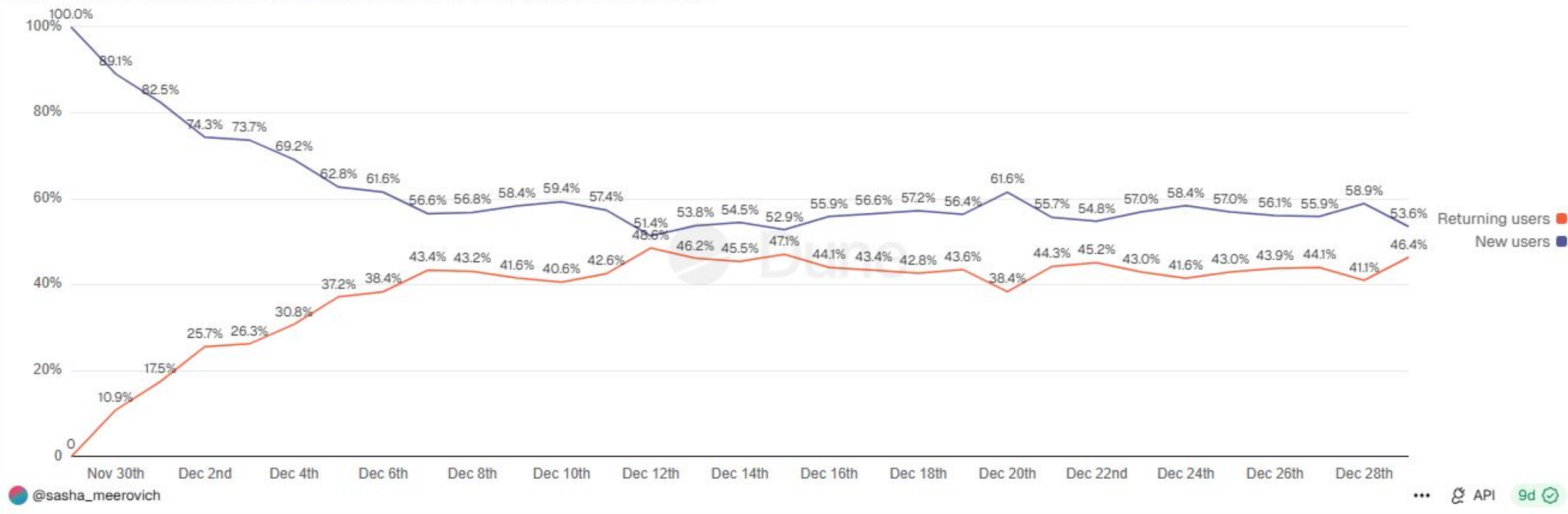
Who Are the Active Users?

Key bullets

- Splits DAU into new and returning wallets

- Reveals whether activity comes from:

  - Retention

  - One-time onboarding

- Same DAU can represent very different behaviors

Changes in DAU can be driven by either retention or constant onboarding, which have very different implications for network sustainability.

New User Share (Acquisition vs Retention Pressure)

New User Share (%) — Acquisition vs Retention Pressure   New User Share

100.0%
85.8%
76.9%
71.4%
65.0% 65.5% 63.7%
61.7% 62.8% 62.5% 63.2%
61.4%
65.3%
59.6% 60.6% 59.9% 61.2% 59.7% 58.7% 58.1%
61.0%
71.8%
66.3%
61.6%
52.6% 55.3% 52.4% 52.2%
49.3% 51.2%
44.4%

44.4%

new_user_share_|

Dec 8th Dec 10th Dec 12th Dec 14th Dec 16th Dec 18th Dec 20th Dec 22nd Dec 24th Dec 26th Dec 28th Dec 30th Jan 1st Jan 3rd Jan 5th Jan 7th

@sasha_meerovich

2h

# Acquisition vs Retention Pressure

Key bullets

- New User Share = New users / DAU

- High share → acquisition-driven activity

- Low share → retention-driven activity

Median ETH per Active Wallet (Value)

Median ETH moved per active wallet

Median ETH per wallet is used to reduce whale bias. columns: median (p50) – "typical" active wallet behavior p90 – the value where 90% of active wallets are at or below it, and 10% are above it. new_user_share - a ratio of new us

@sasha_meerovich
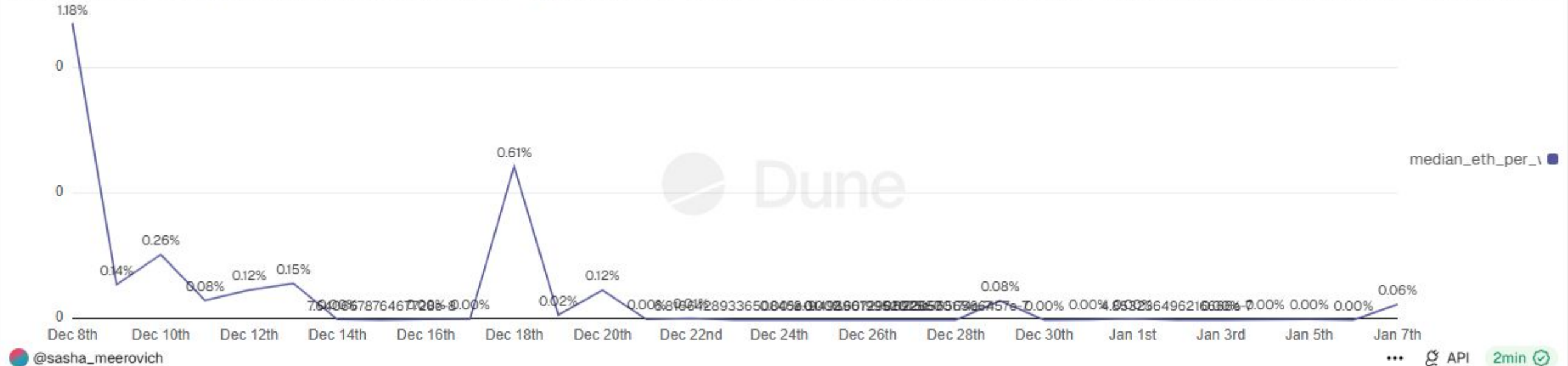
How Valuable Is Typical User Activity?

Why median ETH moved per active wallet?

- Average values are dominated by a small number of whale wallets

- Median (p50) reflects *typical* user behavior

- This helps distinguish:

  - Broad-based engagement

  - Value concentrated among few participants

Key Takeaways

DAU alone overstates user engagement

User composition explains DAU dynamics

Acquisition-driven activity differs from retention-driven activity

Median-based metrics better represent typical user value

Meaningful engagement analysis requires multiple complementary metrics

Together, these metrics provide a more realistic picture of network engagement than any single headline metric.