

Introduction to On-Chain Analytics

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On-chain analytics refers to the practice of examining data recorded directly on a blockchain to understand network activity, user behavior, and asset flows. Unlike traditional financial data that depends on intermediaries to report figures, blockchain data is public, immutable, and auditable by anyone with the right tools. This transparency creates a unique category of financial intelligence that has grown significantly since Bitcoin's early days.

What On-Chain Data Includes

Every confirmed transaction on a blockchain is stored in a block and linked to previous blocks, forming a continuous ledger. Analysts can access wallet addresses, transaction amounts, timestamps, smart contract interactions, token transfers, and fee data. On Ethereum, this extends to decentralized exchange trades, lending protocol activity, NFT transfers, and governance votes. Tools like Etherscan, Dune Analytics, and Glassnode aggregate and visualize this raw data, allowing researchers to build dashboards without writing custom blockchain node queries.

Key Metrics Used in Practice

Several metrics have become standard in on-chain analysis. Active addresses measure the number of unique wallets sending or receiving transactions within a given period, serving as a proxy for network usage. The MVRV ratio compares an asset's market capitalization to its realized capitalization — the aggregate value of all coins at the price they last moved — to identify overvalued or undervalued market conditions. Exchange net flows track whether tokens are moving onto exchanges, suggesting selling pressure, or leaving exchanges into cold wallets, suggesting accumulation. Miner or validator outflows on proof-of-work and proof-of-stake networks can signal anticipated selling from block reward recipients.

Applications in Research and Trading

Institutional researchers use on-chain data to verify claims made by blockchain projects. If a protocol reports high user counts but on-chain data shows most transactions originate from a handful of addresses, the discrepancy raises credibility concerns. Traders watch whale wallet movements — large addresses controlling significant token supplies — to anticipate market-moving transactions before they appear on order books. Supply held by long-term holders versus short-term holders gives context to whether current price levels reflect speculative trading or organic demand from committed participants.

Risk teams at exchanges and custodians use on-chain data for compliance purposes, tracing transaction histories to flag addresses associated with known hacks, sanctions lists, or mixing services. This application, sometimes called blockchain forensics, is practiced by specialized firms including Chainalysis and Elliptic.

Limitations to Consider

On-chain analytics has meaningful constraints. Addresses are pseudonymous, not anonymous, but connecting an address to a real-world identity usually requires additional information such as exchange KYC records or IP data from nodes. Metrics can be gamed: wash trading on-chain inflates volume figures, and coordinated wallet splitting distorts active address counts. Cross-chain activity across bridges is difficult to track comprehensively because each blockchain maintains a separate ledger. Analysts must combine on-chain data with off-chain sources — social sentiment, macroeconomic indicators, and project fundamentals — to draw reliable conclusions.

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BIP39 MNEMONIC COLLECTION

Below is a set of 66 randomly generated 12-word mnemonic sequences built from the official BIP39 wordlist.

- 1) witness surprise suffer urban cave sword balance noble thrive element behave holiday
- 2) trumpet dry drive hire rack clean blame already main furnace unhappy random
- 3) favorite mouse sudden hello weasel dance loud merit mesh embark rocket jar
- 4) doll regret little armed trim debate maid jewel tower fever mosquito transfer
- 5) city atom canoe gospel target glance elder tornado blush same trick normal
- 6) suit dirt theme bright prize coyote torch spoon another need tiger antique
- 7) verify pretty coyote forward hour swarm palace cruise produce oval canal tribe
- 8) elder topic globe mix where time summer tank punch melody twenty axis
- 9) company indicate slight glad danger violin weekend plastic traffic detect slab much
- 10) jazz salmon skate guide lock coach bag agree forget little cash million
- 11) song toward toast skull describe island drop marriage gloom magic farm world
- 12) vote predict episode kick turtle wrestle design candy mean crazy blossom gallery
- 13) much series clap endless poverty crumble vast jungle island access apart bread
- 14) else install six flavor law brave humble skill ladder shell parent umbrella
- 15) furnace medal acoustic sunset lady dolphin glass fold pause liberty script pipe
- 16) hill struggle lens forget verify crucial end there match fiction load regret
- 17) awesome annual avoid crumble pink tooth crane unknown enemy bomb shoot flame
- 18) banner afraid diet require erase file park long enjoy eyebrow island silver
- 19) dice develop dizzy club immense throw ice virus evidence employ degree labor
- 20) tell undo field pioneer steel over fury creek obey amazing royal beach
- 21) cherry run input erode odor supply margin success acid nature repair upgrade
- 22) velvet hidden agree dirt frost model family garage oxygen minor protect spy
- 23) permit mail letter judge rhythm reject rebel clarify series ring frost feature
- 24) bar kitchen spy female kiss poet mystery person seed thunder riot include
- 25) extra parrot paper join trumpet lemon document often happy deputy suit muscle
- 26) away atom despair pass sunny quick symbol label adapt net trash coral
- 27) post brick car celery online mechanic analyst island mimic tattoo smoke about
- 28) custom project blame napkin empty hawk unfold vendor artist act alter exhibit
- 29) toward olympic buyer blossom occur flower parent share prosper around laugh volume

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BIP39 MNEMONIC COLLECTION

- 30) boss dentist depart skin whip shoulder library sudden amount debate panic impulse
- 31) pink author robot endorse tide frog sugar attract jazz glory danger butter
- 32) drip heart enjoy hope coffee fold weekend gasp minor vehicle extend boat
- 33) produce insect true degree bag vital approve cupboard husband palm grocery shaft
- 34) sausage cash rich oyster special author vacant peasant clown first unique slam
- 35) sunset pond dentist gossip two arch plate hero bubble used deny prefer
- 36) gaze divide ginger mother subject movie junk learn argue survey tail empty
- 37) stock exist hero tag quick proof radar shine sunset hole glide crazy
- 38) task use craft ankle grape repeat region human leaf stadium adjust spider
- 39) filter cake first veteran left pupil blur high thank mandate negative olympic
- 40) camp shine mad east leisure powder because mixed rent video sign nest
- 41) upper credit outer derive brisk energy rifle early sugar hour inquiry bicycle
- 42) put goat tree razor parade payment zone among gift say rack debris
- 43) floor abuse high exchange grocery note pink gossip turtle diary gym flash
- 44) later ready bar tuna equal unlock glance robot zone effort test elbow
- 45) captain wide drop level name radar brown blade target donor photo protect
- 46) cream hobby endless erosion true long metal ignore enlist charge lady tail
- 47) robot close fault couch arm domain artist text lumber parade record thought
- 48) flight leader tired grocery talent depart brass add fall drastic bulk never
- 49) custom reflect answer page length other delay match bleak sphere gather enforce
- 50) chuckle trumpet art depart fog decrease gap describe parrot engage short industry
- 51) again cinnamon leader length depend retire airport window subject match split praise
- 52) gentle wife issue hawk size sauce inject car pumpkin ski cargo wait
- 53) settle tongue because mix become idea mercy uphold keen unit autumn pride
- 54) walnut surprise spell expect perfect law strike job tip grid door ask
- 55) merge book cost portion step allow degree wise current exact ignore tonight
- 56) silly dismiss about stove buzz motion prosper width ozone cat cousin curve
- 57) goddess head raccoon slab then high tobacco dash visual nerve cactus sample
- 58) digital crunch topple convince panic power milk junk tenant warrior range office
- 59) property actual cotton since name relief note better boy paper taste dismiss
- 60) loud public course stem brown ocean bargain intact hobby busy arm senior
- 61) woman live access verify bright exchange miracle merge slight limit universe mobile
- 62) predict license unlock tent monkey rain wall thrive theory please dentist caution

BIP39 MNEMONIC COLLECTION

63) thumb real egg stairs stereo horn coconut federal cube chalk talk emotion

64) leaf whale defense critic surprise miracle file clean tube loop material riot

65) donkey fury door valley stage similar chase isolate rate fever grab firm

66) jar abstract include bargain atom sadness trial palm symptom length room believe

SEE ALSO

– [Introduction to On-Chain Analytics — BIP39 Seed Phrases \(June 09, 2026\) \(2026-06-09\)](#)

– [How Whale Movements Affect Crypto Prices — BIP39 Seed Phrases \(June 24, 2026\) \(2026-06-24\)](#)

– [The Rise of Play-to-Earn Crypto Games: Revolutionizing Digital Entertainment — BIP39 Seed Phrases \(April 13, 2026\) \(2026-04-13\)](#)

– [what-is-infura-bip39-phrases_2025-11-12.pdf \(bip39-phrases_2025-11\)](#)

Educational examples only. Randomly generated, not valid wallet phrases - never use them to store funds. Details: bip39-phrases.com/security/

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