Ethereum: A Digital Currency for Smart Contracts

By Fiftysix

What is Ethereum?

Ethereum ($ETH) is a cryptocurrency that extends the capabilities of blockchain networks like Bitcoin. It was launched in 2015 by Vitalik Buterin and a team of developers to create a global, open-source platform for decentralized applications. As of 2022, Ethereum is home to over 4.6 million smart contracts, usable by anyone on the planet.

Why are smart contracts important?

Smart contracts are self-executing contracts with the terms of the agreement directly published as code. These pieces of code automatically enforce and execute the terms of the agreement, offering a level of security and reliability that traditional contracts cannot.

Smart contracts can range from legal agreements, to financial tools, to video games. They introduce a new digital economy, emphasizing decentralization applications and eliminating trust in traditional intermediaries.

Decentralized Finance:

Ethereum smart contracts introduce a new concept called Decentralized Finance (also known as DeFi). DeFi revolutionizes traditional banking, allowing for peer-to-peer financial services on blockchain networks without financial intermediaries.

Finance on Ethereum:

Imagine lending without a bank (Aave), trading stocks without a brokerage (Uniswap), or buying insurance directly without an insurance company (Nexus Mutual). These projects are self-governed by DAOs (Decentralized Autonomous Organizations).

The Future of the Internet

Ethereum is a platform that allows anyone to write code online without other companies running the software. Just like websites are built using the internet, smart contracts on Ethereum are built using its network. This is why smart contracts are also known as dApps (decentralized applications) and once live, cannot be shut down.

Unlike other blockchains, Ethereum grows by having other networks borrow its security. This gives rise to faster, cheaper, and more commercial “Layer Two” solutions such as Arbitrum and Optimism. Users can use any Ethereum Layer Two network for transaction, but must pay fees in Ethereum.

Why does $ETH fluctuate in price?

Ethereum's price is influenced by technological adoption, investor sentiment, and market speculation. Similar to Bitcoin, Ethereum is a “deflationary currency”, meaning the amount of $ETH in circulation will only decrease over time.

Upgrades to Ethereum that increase scalability, security, and functionality, can positively impact the price. Conversely, regulatory changes, network congestion, and security issues can decrease price.

Positive regulatory developments, such as a potential Ethereum ETF, could increase asset liquidity, boosting market sentiment and price. Tokenized assets on Ethereum such as NFTs (presented as artwork, collectibles, or gaming cosmetics) could massively increase accessibility and interest in Ethereum smart contracts.

Conclusion

Ethereum fundamentally changed the way we perceive cryptocurrency, presenting a decentralized network for building smart contracts. The currency underpinning the network ($ETH) plays a critical role in executing operations within the ecosystem. As the network continues to evolve, it will offer a unique blend of opportunities for users, developers, and investors alike.

The Evolution of Ethereum:

At launch, Ethereum functioned similarly to Bitcoin, using large amounts of computational power to reach network consensus. Recently, Ethereum has upgraded to a more sustainable, environmentally friendly *Proof of Stake* consensus mechanism.

NFTs and Ethereum:

NFTs (Non-Fungible Tokens) on Ethereum have transformed art and collectibles by providing blockchain based ownership and authenticity for digital assets. This unlocks many use cases, including:

- ➔ enabling artists and creators to monetize their work
- ➔ introducing digital real estate sales and ownership
- ➔ tokenizing digital items in gaming and virtual worlds
- ➔ facilitating secure, transparent ticketing for events