Report

Cryptocurrency is one way to apply blockchain technology in the real world. As every records and properties are monitored by every user on the blockchain and everyone has a copy of the blockchain, it has the nature of security, decentralization, immutability, and census. It is a perfect fit for cryptocurrency. There are many types of cryptocurrencies, and each of them uses different blockchains, protocols, consensus algorithms, and cryptographic algorithms, and they are designed for different use cases: Ethereum for decentralized contracts, and Aave, a decentralized finance project, for lending money. Whenever a user creates a block, he will be rewarded with the corresponding number of coins, which forms the market of cryptocurrency trading.

Bitcoins. In contrast, Ethereum (ETH) extends the blockchain application beyond mere financial transactions. Launched in 2015, Ethereum introduces the concept of 'smart contracts' - self-executing contracts with the terms of the agreement directly written into code. This innovation allows Ethereum to facilitate decentralized applications (DApps) for a variety of uses beyond currency, such as gaming, finance, and decentralized autonomous organizations (DAOs). While ETH also uses a blockchain ledger for recording transactions, its native currency, Ether, is used not only as a digital currency but also to execute and interact with applications on the Ethereum platform. Ethereum initially used a Proof of Work consensus mechanism, like Bitcoin, but is in the process of transitioning to Proof of Stake (PoS) with Ethereum 2.0, aimed at improving scalability and energy efficiency. Unlike Bitcoin, Ethereum does not have a fixed supply cap, allowing for a potentially indefinite creation of Ether, though recent protocol updates have started to reduce the growth rate of its supply.

The process of cryptocurrency trading is now handy. There are many cryptocurrency trading and wallet apps designed for users to better monitor and use their assets. The market app and wallet apps I explored in the past two days are respectively Crypto.com and MetaMask. Crypto.com is mainly used for checking the current cryptocurrency market and trading. I have bought some ETH on it. The purchasing process is quite smooth and doesn’t require much effort. I just need to navigate to the account section. There are three icons: buy, sell, and transfer, which are well laid out in an eye-catching place. I can buy any type of cryptocurrency with a few clicks and pay with Google Pay. Then the cryptocurrency is added to my account. There is already a wallet built into the Crypto.com app, but we can also transfer our cryptocurrency to other wallet apps. I explored MetaMask as my first cryptocurrency wallet app. After a few steps of signing up and setting up, I can transfer my coins from Crypto.com to MetaMask by copying the wallet address into Crypto.com and the app will handle the transfer request for me. Then I can transfer my ETH from the market app into the wallet app with a single click. The whole process is easy to understand and learn. The only thing annoying is that whenever I go to another page of the phone or other apps and return to the Crypto.com app, it always asks me to type in my password. It is annoying during the signing up or the transfer process as I need to switch between pages frequently. Otherwise, the overall experience is convenient and excellent.

DeFi, representing decentralized finance, is a revolutionary development in the blockchain and cryptocurrency realm, as outlined in your notes. It leverages financial applications built on blockchain technology, offering an alternative to traditional financial systems by eliminating the need for third-party intermediaries in financial transactions. DeFi enables

direct interactions between payers and payees across a range of financial use cases, including loans, derivatives, and decentralized exchanges. Many DeFi projects are developed on Ethereum, capitalizing on its platform's ability to create and deploy decentralized applications (DApps). Aave, for instance, is a leading DeFi lending platform with substantial liquidity across multiple blockchain networks, offering peer-to-peer lending through smart contracts and innovative features like flash loans. Uniswap, another significant DeFi project, has revolutionized decentralized exchanges by enabling autonomous and permissionless cryptocurrency trading, demonstrating the growing impact and popularity of DeFi in reshaping financial interactions.

In conclusion, the world of blockchain and cryptocurrencies is not just a technological marvel but a paradigm shift in financial transactions and digital interactions. Cryptocurrencies like Bitcoin and Ethereum have paved the way for a decentralized financial system, challenging traditional financial models. DeFi projects like Aave and Uniswap further exemplify this shift, offering innovative solutions for lending, trading, and financial services without centralized control. The ease of trading cryptocurrencies through apps like Crypto.com and the functionality of wallets like MetaMask demonstrate the growing accessibility and user-friendliness of this technology. As we continue to explore and innovate in this space, the potential for blockchain to revolutionize various sectors of the economy and society remains vast and largely untapped.