

BLOCKCHAIN **EXPLAINED**

Checklist

A History of Money, Cryptocurrency and Blockchain

- ✎ Blockchain was first discussed in 1991
- ✎ Blockchain was implemented in 2008
 - ✎ Designed by Satoshi Nakamoto
 - ✎ Decentralized ledger to record Bitcoin transactions
 - ✎ Not limited to running cryptocurrencies
 - ✎ Bitcoin genesis block was January 3, 2009
- ✎ Blockchains are a continuously-growing list of records
 - ✎ Linked using advanced cryptography
 - ✎ Blocks in the chain contain specific information
 - ✎ Each block links back to the previous block
 - ✎ Each block is timestamped

Blockchain Basics

- ✎ You engage in the business of blockchain technology everyday
 - ✎ Purchases made online use blockchain technology
- ✎ Blockchains are made up of two main components
 - ✎ Decentralized network
 - ✎ Facilitates and verifies transactions
 - ✎ Indisputable ledger
 - ✎ Transactions are processed and recorded in secure location
 - ✎ Makes it almost impossible to steal information
- ✎ Numerous contributors involved in blockchain
 - ✎ Can control the information that is entered into the ledger
 - ✎ It is difficult to alter the ledger in any way
- ✎ Blockchain can be used in smart contracts
 - ✎ Can automatically verify and execute agreements
 - ✎ The function independently in a secure environment
- ✎ Addresses security concerns
 - ✎ Created to ensure our information isn't hacked
- ✎ Types of blockchain
 - ✎ There are three major types of blockchain
 - ✎ Public
 - ✎ Anyone can participate

- ✎ Private
 - ✎ Select membership
- ✎ Consortium
 - ✎ Allows for more than one contributor to be in charge

✎ Breakdown of blockchain technology

- ✎ It's irreversible
- ✎ It's encrypted
- ✎ It's decentralized
- ✎ Eliminates the middleman

The Business of Blockchain

✎ Different industries can use blockchain technology

- ✎ Crowdlending
- ✎ Bookkeeping
- ✎ Healthcare
- ✎ Supply chain management
- ✎ Financial
- ✎ Tech

✎ Blockchain adds value to your business

- ✎ Can build a blockchain for business
- ✎ Can help those who don't have access to banks
- ✎ Lowers the time for transactions to be completed
- ✎ Legal contracts
- ✎ Helps with monetization

✎ Growing money

- ✎ Keep money safe and secure while gaining value
- ✎ Will compete against cred card companies processing of transactions

✎ The Cloud and Blockchain

- ✎ The cloud runs on blockchain technology

✎ Blockchain and gaming

- ✎ Use blockchain to keep up with gaming technology

✎ Supply Chain Management and Blockchain

- ✎ Provides a way to trace goods while being cost effective
 - ✎ Simplifies the production and transfer process
 - ✎ Simplifies the verification and payment methods used
- ✎ Quality Assurance and Blockchain
- ✎ Can pin down the origin of errors and mistakes in business

Proof of Work vs. Proof of Stake

- ✎ Proof of work
- ✎ Miners receive bitcoins to compensate them for verifying transactions
 - ✎ To offset time and energy costs
 - ✎ Must complete complex mathematical problems
 - ✎ Uses high-powered computers for verification process
- ✎ Proof of Stake
- ✎ Same process as proof of work but requires buy-in from miners
 - ✎ Miners invest their own money in the process
 - ✎ A validator who is confirmed reliable commits to the accuracy of the block in the chain.
- ✎ Benefits of Proof of Stake
- ✎ Drop the amount of money spent on electricity each day
 - ✎ Makes verifying transactions more unrestricted
 - ✎ Ensures validators stay honest
 - ✎ Forces them to be vested in the transaction
- ✎ Proof of Stake Challenges
- ✎ It isn't guaranteed to work
 - ✎ Original blockchain could be damaged
 - ✎ If smart contract is miswritten
 - ✎ Transactions aren't processed as planned

Benefits of Blockchain Technology

- ✎ Eliminates the need for third parties during transactions
- ✎ Better control over data
- ✎ Better data quality and integrity
- ✎ More durable and reliable
- ✎ Better integrity of data processing and transfers

- ✎ Higher transparency and auditability
- ✎ Faster transactions
- ✎ Lower transaction costs

Risks and Challenges of Blockchain Technology

- ✎ Little regulations regarding what's allowed
 - ✎ Hackers have stolen millions because of loopholes
- ✎ Major hurdles of blockchain
 - ✎ What are the right tax structures for blockchain markets
 - ✎ How to trace and aggregate funds
 - ✎ Where spending information will come from
- ✎ Risks of blockchain technology
 - ✎ Challenges with transaction speed
 - ✎ Challenges with the verification process
 - ✎ Challenges with data limits

Deciding if Blockchain is Right for You

- ✎ You know who will be looking at your data
- ✎ Limits and precautions on writeable data
- ✎ Unable to alter data
- ✎ Easy data restoration
- ✎ Easy to share data
- ✎ Limits on storage
- ✎ Easy verification process

Blockchain Implementation Mistakes to Avoid

- ✎ Having unrealistic expectations
- ✎ Underestimating the time commitment
- ✎ Being impatient
- ✎ Not limiting access to the blockchain